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The 14th International RAIS Conference
on Social Sciences and Humanities

AUGUST 19-20, 2019

EDITOR TITUS CORLĂȚEAN

This publication presents the proceedings of the *14th International RAIS Conference on Social Sciences and Humanities* held at Princeton, The Erdman Center, 20 Library Place, Princeton, NJ 08540, USA, on August 19-20, 2019. The Conference was organized by Research Association for Interdisciplinary Studies.

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Preface

The *14th International RAIS Conference on Social Sciences and Humanities* held at Princeton, The Erdman Center, 20 Library Place, Princeton, NJ 08540, USA, on August 19-20, 2019, was organized by The Research Association for Interdisciplinary Studies (RAIS).

The RAIS Conferences encourage academics and researchers from around the world to share their experiences, achievements, research findings, and to discuss and exchange ideas on issues in the field of social sciences and humanities.

The RAIS Committee received 121 submissions. The papers were reviewed by at least two independent reviewers under a double-blind peer review process. Out of the received submissions, 45 papers were accepted for oral presentation at the conference and 37 were included in this volume. The acceptance of manuscripts was based on originality, scientific content, significance, and readability.

Conference participants, including presenters and attendees, had the opportunity to listen to the research insights and ideas presented by the scholars representing many foreign universities and research institutions from Brazil, Belgium, Canada, China, Colombia, Cyprus, Czech Republic, India, Iran, Israel, Japan, Poland, Portugal, Romania, Russia, South Africa, South Korea, Taiwan, Tanzania, Turkey, UK, UAE, and the USA.

I would like to express great appreciation to all members of the scientific and organizing committee, session chairs, presenters, and reviewers for making and putting this conference together.

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Towards Legal Empirical Macrodynamics: A Research Agenda

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ABSTRACT: Legal scholarship exists since the beginnings of science. Attempts to quantify the economic consequences of legal codifications have been made in the vibrant interdisciplinary field of law and economics. The socio-economic calculus of public policies has been addressed in new public management. Behavioral economics has entered the legal scientific discourse in the emerging field of empirical legal studies backed by ample evidence of the effect of law on socio-dynamics retrieved from manifold field and laboratory experiments. Behavioral insights is the most recent Nobel Prize crowned development to understand human decision making in the legal and public fields to help civil servants and legal executives foster the socio-economic outcomes of their work. All these variant interdisciplinary approaches aim at enlightening at legal codifications' socio-economic outcomes to improve public collectives. In all these cases, empirics derived from quantitative and qualitative research help gain inferences for legal theory building and the strengthening of public policy implementations. This article argues that the time is ripe to dare the next step in legal empirical analyses by drawing from insights retrieved from big data and algorithmic machine learning but also introduce the use of optimal control macrodynamic modelling—a methodology originating in physics that entered macroeconomics and related disciplines to quantify and optimally control economic theory and practice. Given the ongoing big data revolution and exponentially rising data transfer coupled with unprecedented computational power advancements, the means are now available—for the first time—to push for empirical legal studies embracing novel tools—such as hierarchical modelling Bayesian statistics as well as optimum control sophistications—to derive inferences on how to improve legal theory and practices in innovative ways as never before possible. On the brink of artificial intelligence (AI) entering the labor force at a large scale, legal scholarship can now adapt to the novel market opportunities with acknowledging unprecedented computational power and methodological sophistication in deriving insights from big data. Heralding a new age of legal empirical macrodynamics also serves the legal community in light of the predicted heightening demands for creativity as future valuable asset of humanoid legal practitioners and scholars in comparison to repetitive tasks likely soon being outsourced to AI and machine learning.

KEYWORDS: Artificial Intelligence (AI), Behavioral Economics, Behavioral Political Economy, Big Data, Governance, Machine Learning, New Public Management, Legal Scholarship, Optimal Control, Social Credit Score

Introduction

Empirical legal studies is a novel approach to understand law, legal procedure and legal theory through the use of empirical methods. As a heterodox legal stance, empirical legal researchers use empirical techniques that are common in economics, psychology, sociology and other related disciplines to quantify the impact of legal action. In a mixed methods approach, quantitative as well as qualitative social science methods reveal the real-world impact of law on society. Related disciplines include law and economics, legal psychology and the sociology of law, law-and-society as well as new legal realism. Behavioral economics has vividly uncovered the limitations of human decision making. The contemporary behavioral insights trend now has heralded a call for using behavioral knowledge retrieved from ample evidence of field and laboratory experiments to make societies more efficient, productive and healthy.

Empirical research methods have most recently been extended onto optimal control, a method which originated in physics. Optimal control theory is a branch of applied mathematics that aims to find a control law for dynamic systems over a period of time, so that an objective function is

optimized (Bryson 1996). As an extension of calculus of variations and its mathematical optimization, control policies shed light on the optimum states of steady and dynamic variables over time with finite and infinite time horizons (Sargent 2000). Applications for dynamic modelling using optimal control have ranged in all different fields of science and engineering, such as – for instance aeronautics, economics and fiscal and monetary policy—yet to this day there is no entrance of optimal control in legal empirical studies. Optimal control insights of legal frameworks and policy implications, however, could strengthen society by maximizing social welfare over time and within different legal settings around the globe.

Most recently the Big Data Revolution evolved. Big data is a combination of technology and data that integrates, reports and accesses all available data by filtering, reporting and correlating insights achievable with unprecedented speed and computational power. Big data has become the revolution of information technology which is transforming industries around the world. Big data analytics is the often complex process of examining large and varied data sets—or big data—to uncover information including hidden patterns, unknown correlations, market trends and customer preferences that can help policy makers make well-informed decisions. Combining technology and data that integrates, reports and accesses all available data filtering, reporting and correlating insights achievable with previous data technologies, the Big Data Revolution has led to unprecedented opportunities to understand big trends and societal movements over time. Enormous data transfers and data storage capacities at all times heights have shaped Information Technology Revolutions to derive inference over the state of the world around the globe.

Today data processing by algorithms has way surpassed any human capacity and scale. As never before there is data available, accelerating data storage capacity and computing power around the globe at low cost. Most recently, neural networks have also found a broad application across businesses and entered society. The previous years were the widespread adoption smart gadgets and services like Amazon Echo, Apple siri and Google Home, which depend solely on Algorithms of Deep Learning. This growth of advancements in ML algorithms in solving problems is heavily captivating investment managers to implement algorithms. Rapid evolutions of machine learning and algorithmic self-learning capacities of supercomputers have advanced our means to analyze convoluted datasets to an extent as never before in the history of humankind. And the amount of shared and collected data available through networked sensors, cloud and cluster computing as well as 5G entering household appliances and all our daily activities is expected to rise even more so in the years to come. Machine learning advancements allow analyzing vast datasets with unprecedented computational sophistication—such as hierarchical modelling and Bayesian statistics.

Given the ongoing big data revolution and exponentially rising data transfer coupled with unprecedented computational power advancements, the means are now available to push for empirical legal studies embracing novel tools—such as hierarchical modelling Bayesian statistics as well as optimum control sophistications—to derive inferences on how to improve legal theory and practices in innovative ways as never before possible. All these trends combined – the entrance of empirical studies in the legal field, optimal control entering various scientific discourses and Bayesian statics computational power during the Big Data era – demand for the inception of legal empirical macrodynamics, which should use the combined strengths of optimal control techniques applied in the legal field and operationalized in big data inferences.

Research Question

This article argues that the time is ripe to dare the next step in legal empirical analyses by drawing from insights retrieved from big data and algorithmic machine learning but also introduce the use of optimal control macrodynamic modelling – a methodology originating in physics that entered macroeconomics and related disciplines to quantify and optimally control economic theory and practice.

Theory

The optimal moment to address the question of how to improve legal scholarship with the insights derived from big data has arrived. Thanks to years of research by legal empirical scholars, the legal field is open to interdisciplinary extensions. As of today, the ongoing Big Data Revolution coupled with statistical advancements regarding unprecedented data storage and computational power, the time is ripe to develop a most sophisticated and detailed picture of the socio-economic impacts of legal and policy implications on our contemporary society.

This article argues that the time has come to focus attention on the search for strategies that will improve our insights on the socio-economic effect of legal action derived from big data and computational advancements. As legal errors are costly and are growing more costly, decision makers have become receptive to advancing the field by interdisciplinary approaches. Given the behavioral insights trends and the legal academic discourse has been opened by legal empirical studies for multiple related social science field, the time has come to introduce standard macroeconomic modeling techniques coupled with big data analyses. Since decades legal empiricists and behavioral insiders have amassed information on how to reduce biases to optimize control. Coupling these developments now with the ocean of information provided by big data and the precision reached in hierarchical modeling and methodological advancements, the time has come to improve strategies in legal empirical scholarship to optimize legal control.

It is not on us to dare the next step to integrate optimal control theory and the power of Bayesian statistics and hierarchical modeling to drive these advancement to the next level. In addition to calling for research on improvement strategies, future scientific endeavors should organize the existing literature pertaining to improvement strategies and highlight promising directions for future research. The time has come to integrate methodological advancements coupled with access to unprecedented big data insights to develop legal and policy improvement strategies founded on real-world evidence of socio-economic impacts of law. The standard normative models of economic theory, which generally offer a reasonable benchmark for optimal control are now to be enriched with real-world data points from around the globe and available to be analyzed over time. All these endeavors are aimed at making more reliable and detailed predictions on the socio-economic impact and effect of legal action and public policy implementations with unprecedented precision and accuracy.

Improving the efficiency and effectiveness of the impact of law is important as deviations from maximization of efforts are costly to society. Until now, hardly any optimal control theory has been applied to legal empirical studies, although now we have the means to quantify the impact of law on society. Legal frames shape the most important outcomes for individuals, families, businesses, governments and society of today and the future. Knowing more about the beneficial but also the inefficient outcomes of legal frames and policy decisions would thus benefit all individuals, collectives and institutions. After all, errors or biases as deviations from rationality and optimization lead to suboptimal conditions over time and around the globe. Given the massive costs that can result from irrational decision making or suboptimal policy control, it is critical for legal scholars and policy professionals to increase the effort on improving our knowledge with insights derived from big data, elucidated based on novel computational advancements. These suboptimality losses due to ignorance of the wealth of knowledge retrievable from big data analyzed with optimal control frames are expected to increase as the Big Data Revolution progresses and knowledge-based economies evolve. With more and more governments monitoring people and the corporate world continuing to collect more and more data on consumer behavior, a negligence to use the power of behavioral insights based on big data is expected to lead to a growing competitive disadvantage in the decades to come. Not using computational advancements to order and structure the massive amount of information collected to be analyzed under time pressure and growing competitive constraints, is thus expected to become a more and more erroneous ignorance. Those exposed to optimal control derived insights now start wondering to learn the practical implications of knowledge accumulated in big data. Such information can now create novel insights into how errors and deviations can be eliminated or at least reduced in optimal control. Through rigorous testing of what works and what not over time and in

comparison to other legal frames, we may surely develop a better understanding of the mechanisms underlying impacts of law on society. Also with a globalized society that currently transitions economically into an AI-driven economy, each biased decision or not studied legal or policy impact is likely to have implications for a broader swath of the global society. In addition, with intergenerational imbalances and predicaments arising on the horizon such as climate change, overindebtedness in the Western world and the rising need for a pension reform in aging societies, the absence of a finite time horizon optimal policy control appears simply delinquently ignorant (Puaschunder 2016a, b, c, d; 2017a, b, c; 2018 forthcoming a, b).

In order to release a society's optimal potential, it is important to discover multifaceted strategies to minimize suboptimal outcomes of law and policy implementations.

Theoretically, research should present an overview of the history of legal empirical studies from legal, economic, political and socio-psychological science perspectives with special attention to the United States, Europe and most recently China. Empirical research in law involves the study, through direct methods rather than secondary sources, of the institutions, rules, procedures, and personnel of the law, with a view to understanding how they operate and what effects they have (Baldwin & Davis 2005).

The introduction of Artificial Intelligence (AI) in our contemporary society implies historically unique opportunities for humankind. Big data revolutions coupled with computational power hold unprecedented opportunities for crowd understanding, trends prediction and civil control (Puaschunder 2019). The time has come to use insights gained by algorithms to draw inference about the populace and couple it with legal implications. In a most extreme case, the Chinese government is currently implementing the so-called Social Credit Score. China plans to rank all its citizens based on their "social credit" by 2020 and citizens can be rewarded or punished according to their scores. Like private financial credit scores, a person's social scores can move up and down according to their behavior. The Chinese state is setting up a vast ranking system that will monitor the behavior of its enormous population, and rank them all based on their social credit, which is mandatorily collected.

But in order to use big data inferences for determining legal implications, empirical legal studies may guide policy makers' rational with insightful knowledge drawn from big data. The data storage, computational power and hierarchical modelling has never been more advanced as of now, which paves the way to incept legal empirical macrodynamics coupling big data insights for the sake of deriving inferences of the power of legal action and optimum policy control. Drawing from normative models of economic theory could provide a clearer vision of how much better decision making could be.

Optimum control theory helps retrieve the necessary optimality conditions for the control of dynamic systems. Since the 1950s, optimal control theory has found entrance in very many different fields solving optimization predicaments with unprecedented precision with applications in engineering, social sciences and foremost macroeconomics. Computational power advances coupled with the big data revolution now herald a call for optimal control theory being used for understanding legal systems better. Optimization could aid to determine better policy outcomes around the world and over time. With Bayesian statistics and unprecedented computational power advancements as well as hierarchical modelling, the time is ripe to predict, call for and support an entrance of legal empirical macrodynamics.

As for implementation guidelines, the insights retrieved to solid research should offer warnings about the possibility of bias and erroneous policy choices in order to offer feedback and intervention plans designed to aid legal scholars and policy experts to improve policy outcomes for this generation's and coming generations' welfare of society.

Discussion

Empirically, an introduction to the basic control-theoretical methods should aid the meaningful introduction of optimal control in empirical legal studies. Remarkable features of structuring complex societal outcomes of different policies, which could be compared over time and comparatively around the world, could be promoted through hierarchical modeling approaches. Dynamic modeling could – for

the very first time – help draw inferences over the optimum control of policy outcomes over different finite and infinite time horizons based on real-world big data. Dynamic strategies seek to anticipate and capture the real effects of central planning with an economy. The influence of a decision maker on the state trajectory can be outlined with mathematical precision. The state trajectory thereby may be influenced by a decision maker's actions, in which case the decision maker exerts control over the dynamic process. The social credit revolution could now also help deriving inferences of optimum control in the social sphere. The time is now to combine and integrate big data for the improvement of society based on empirical legal insights. The insights gained could aid to sophisticate nudge theory, where small policy changes' impact on societal outcomes could be elucidated with economic precision over time and in a legal comparative way. Nudge theory has most recently been adopted by governments and global governance institutions around the world to help citizens to better their living conditions of today and the future. The growing field has been crowned by three recent Nobel prizes awarded to Daniel Kahneman and Amos Tversky, Elinor Ostrom, and Richard Thaler. The next cutting-edge extension is predicted for those who use the insights derived from big data for empirical legal studies with Bayesian and hierarchical modelling as well as optimal control methods.

This overall strategy will help accomplish objectives of individual profit maximization in harmony with the larger societal compound. Heterodox optimal control advancements also allow continuous-time and finite time-horizon maximizations over several periods. The research agenda may generate novel recommendations on legal codifications, economic action and public policy making. All these developments that have been called for are aimed at making policy choices more controlled and bestowing legal decision makers with an even elevated feeling that their choices were the scientifically-proven right ones.

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The Mischief of Mobile Phones as Caregivers or Babysitters for Children with Collaborative Developmental Delays

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ABSTRACT: The boon of connectivity using mobile phones is rather a bane in most family situations. The cases related to early dependence/addiction of mobile phones with the counselors and clinicians are rising alarmingly. Giving mobile phones to children is an easy way for engaging in various applications or other visual material which stimulates and involves the tender but vulnerable minds. Managing children with delayed milestones with regard to speaking, mobility, overall body control and social participation, is very challenging for the parents, furthermore for dual working parents. The study was done to assess the damage on children up to the age of 14 years by seeking inputs from clinical psychologists, school counselors and parents of children with developmental delay (N=120) over the period of 1 month. Case reports with the clinical psychologists were analysed. Inputs of school counselors/teacher report were studied. The parents were interviewed using semi structured interview schedule. The findings showed that most of these children had more than one developmental issues. Autism cases are on the rise, including secondary symptoms in some cases. Almost all parents reporting to clinicians admitted to using mobile phones to manage these children. Instead of one to one quality time for pro-active and purposive interactions which require dedication and focused time, mobile phones were making them indulge into poor and passive learning. The intervention suggestions included weeding out the mobile phone, practicing behavioral therapies involving active learning by simple instructions, expecting responses from children and using positive reinforcement. Use of music, dance, and storytelling, narrations on a concept or theme were expected to bring positive results. Polite public policy to keep out mobile phones can bring accepted change in working with children.

KEYWORDS: Collaborative developmental delays, active learning, passive learning, mobile addiction, vulnerable minds, autism, behavioural therapy

Introduction

Parents' distraction with mobile phones and other related devices is a growing concern. Much evidence has been collected on neglect towards children, affecting quality of bringing them up. The sensitivity is poor. There is passivity and inattentiveness (McCarthy 2016). Children miss on normal verbal expressions and mindful non-verbal gestures. The care-giver is missing even while being around. The parents/care-givers have certain personal traits and baggage that determines their conduct. The children of such setups end up exhibiting behavioural problems. Mothers and fathers have admitted to different kinds of 'technoference' in interpersonal relationships between the parents and children; more with mothers than with fathers (McDaniel and Radesky, 2017; Hynas 2018). A few behaviour disorders found were temper tantrums, frustration, whining, sulking and hyper activity. The challenge for bringing up children with developmental delays and those with collaborative health issues is too heavy on the parents/care-givers. Further the dynamics of family such as single parent family, low socio-economic status, ignorant parents, large families with over-engaged mothers, dual working families with long hours of being away to work, compound the situation. Developmental delay is a condition with significant delay in the process of development that requires special intervention to attain developmental milestones, interferes in the learning process, and demands special education and intervention to facilitate them in maximizing their language, perception, social development, emotional development, motor abilities and meta-cognition (Hassenfeld Children Hospital, n.d.). They exhibit burden on day to day skills in the early years. There can be delays in crawling or walking. They might find it difficult to cope with delay in language development (Blair, O 2017) and the change in social setups. Their speech could be delayed both in receptive and expressive aspects (Department of Education and Early Childhood Development, Government of Newfoundland, Labrador, Canada n.d.).

While healthy parenting is interactive, mindful, involves direct eye-contact, meaningful touch and thoughtfully engaged care-givers who build up the child's behaviour and expression, both verbal and non-verbal. In a normal process children develop following the developmental principles in a sequential manner. The environment has much to contribute to reach their potentials. The concern is significant number of children reporting developmental delays. The association of these delays with collaborated disorders like ADHD, epilepsy, labour issues, anxiety disorders, conduct disorders, autism, and intellectual disability (Scott J.G., Mihalopoulos C, Erskine H.E., Roberts J., Rahman A. 2016) is furthermore challenging receptive and expressive aspects. Parents maybe escaping from children's issues and over involved with mobile devices, which allows them to be away from reading children's emotions. They are likely to be lower on understanding their children's mental states and intentions (Radesky, Schumacher and Zuckerman 2015).

The trend has reversed on the importance of mobiles among youth and the adults. In a news article (Medium German Broadcasting 2018) psychologist Catarina Katzer on parents if not responding to eye-contact to lead to physical and hormonal stress among children. A widely publicised protest by Emil Rustige in Hamburg, Germany in September 2018 caught attention globally wherein the kids revolted against parents to put down their phones (Anderson & Petezinger 2018). 'Play with me, not with your phone' was the voice of the children with Emil. Face to face interactions are essential for healthy cognitive language and emotional development. But, the 'pacifier' use of mobiles is inappropriate. Options available on mobile like video games and other aggressive videos lead to restlessness.

There is seen a casual behaviour of care-givers while handling their children and intermittent fidgeting with their mobile devices (Radesky et. al. 2014). On meal-time observations at restaurants, it was found that the mothers were too engaged on their phones and declined proper availability to the toddlers. There is a warning to understand that the children may accept such behaviour while actually missing on language and on emotional bonding. Another study at Boston University Medical Campus 2014, points at inadequate balance exhibited by parents between the devices and their children. Some harms reported were - asthma, adolescent risk behaviour and obesity.

The concern on streamlining the use of smartphones by caregivers has caught attention by more researchers. Psychology Today on its blog shared some aspects studied on 7 months to 2-year-old infants and toddlers (Matthews 2017). Distress, weak exploratory behaviour, poor social-emotional functioning and parent-child interaction were pointed out. The children here pointed out negative and poor emotions even when their mothers put the phone down. AVG Technologies research in Amsterdam (AVG Now 2015) on 200 million monthly active users drew the challenge the child interprets to compete with the cell-phone and highlights the parents as poor role models. There was concern on mothers' low on predictability, attention and reliability leading to poor emotions. There is a hidden sadness in such children.

The vicious cycle of pleasure rewards sets in, described as dopamine effect, including diverted attention to someone else's phone nearby. Children look up to parents in a normal, gadget-free parenting/care-giving. Mobile media device use was found to be significantly associated with parent-reported expressive speech delay in young children. Wallace (2017) showed speech delay reports from the parents to have let their babies play on an iPad. The menace of handheld device use and communication delays boggled the minds of professionals working in the area and set doubts to approve the length of exposures to these devices, if at all. Cheung et. al. (2017), in a study discussed brain and sleep patterns that undergo substantial developmental change during initial years. There was a concern on the impact that it caused to the brain and on cognition during this critical period of early development. The touch screen devices fascinate infants and toddlers for being very portable and allowing multiple settings. Problematic sleep has been studied longitudinally. There is an alarm about reduced sleep duration in the first two years of life on later developmental outcomes. The screens were strongly recommended to be out a child's bedroom.

Meta-analysis on chosen 20 studies among children between 6 and 19 concluded on detrimental effects on sleep. The average touch screen usage time was found to be 24.44 minutes. Every additional hour of tablet use decreased sleep by 15.6 minutes. The content of media could possibly

elevate psychological and physiological arousals. The bright blue light from the screens was found to affect arousal levels. Another consequence was increased day time sleep, increased background TV exposure and thus leading to poor night time sleep. Cell phones emit radio-frequency electromagnetic radiation which can lead to cancer (Kalvi, H. n.d.). Mothers who used cell phones during pregnancy had children exhibiting hyper activity or other emotional or behavioural problems. Children with ADHD exhibit higher impulsivity, cannot remain still and are distracted (Pedersen 2018). Children with ADHD who also had higher levels of lead in their blood, had a link with more number of phone calls and time spent on the phone. Younger the child, the greater was said to be the risk of brain cancer and brain tumours (Johnson KJ, et al. 2017) at the National Center for Health Research, Washington, DC. These facts have been debated as cancer and other health problems usually show up many years later.

Objectives

- To assess the damage of mobile dependency on children between 2-13 years, under clinical care
- To assess the parent(s) contribution in the setback to the progress of children with developmental delays

Methodology

Sample selection: 120 toddlers, infants and children between the age 2 years to 13 years were identified with parents reporting delayed speech, restlessness and hyper-activity, isolated behaviour, blinking of eyes and other motor ticks and peculiar behaviour after seizures. They took initiative to visit a clinic for seeking remedy. They were concerned by pointers from family and/or school.

Tools used: Case reports with history, parental observations, mother/father/caregiver other than a parent report, purposive captured videos, live observations, teacher inputs, open ended interviews and findings by paediatric neurologist and clinical psychologist.

The cases were direct walk-ins, referrals from neurologists. They were first time visitors and review cases after 1/3/6/12 months. The patients were usually accompanied by the mother or both parents or one parent with grandmother or a sibling.

Inputs from four school counsellors were taken on understanding the incidence and readiness and provisions available to include such children in the schools they were working in.

Results

- The parents reported in distress and inquired on possibility of normalcy in their children's delays. The cases were from low income group (16), low middle income group (58), middle income group (33), upper middle income group (9) and high income group (4).
- The educational background of the parents was a barrier as those from low SES, were occupied at skills level, unaware of the developmental delay. They had long work hours. In spite of intervention, they required repeated instructions to execute the strategies suggested. All the cases had issues on using mobiles, one or both parents distracted with the smart phones. There were cases causing marital conflict due to extreme usage of phone on the apps involving messaging, making and sharing videos, online shopping and listening to spiritual discourse. Many fathers had complained about mothers making lengthy phone calls. Few mothers had complained about the fathers using adult website late at night. Many parents were addicted to games. Among cases reported in paediatric care, children were observed to be helplessly claiming the mobile phone of their parents. Those who showed parameters close to autism hardly made an eye contact with the persons present in the room.
- Temper tantrums could be observed on withdrawing the mobile. The toddlers did not realize the presence of others while hitting their mothers to snatch the phone.
- Toddlers were dependent on cell phones to accept meals.
- Few parents were pro-active in management of their children when they visited the psychologist for the first time. These parents were not so active on social media. These parents

had reported better management of their child on 2nd or 3rd visit. Their behaviour was calm and they had resolved the panic. Also those cases which came for a follow on after a year had clear resolved and unresolved areas. They had put away the mobile phones from over handedness and the social interaction with the child had improved. However, the felt a block in their child making friends.

- The cases with hyper-active behaviour as a prognosis were highly significant on mobile dependence for involvement in aggressive video games. Such children were visibly restless; some of them reported destructive behaviour at home and in neighbourhood; their teacher reports endorsed their inattentiveness in class and attention seeking behaviour. Such parents needed psychotherapy in practicing low stimulation and creating calm, uninterrupted and uncluttered environment.
- The cases referred from neurology clinics with epilepsy also showed hyper-activity and consequent effect on classroom performance. The mobile was a major destructive agent. The parents were advised to follow medication and have more outdoor safe activities to make other joyful experiences.
- A peculiar case of a doctor mother who had over-expectations from the ten-year-old child was discussed. The child was very expressive, self-styled and reluctant to take instructions. On individual interaction and assessment, he was found to be high on IQ, had complaints about a gap between how parents thought about him, less family outings and over anxious mother. The parents were suggested to not suffocate the child with too many instructions, often appreciate him and function as pleasant parents.
- There was a borderline intellectual 8-year-old girl who had meek body language, average performance in academics but she loved to dance on certain songs available on a video browsing application.
- The counsellors were concerned on the growing restlessness and distraction among many school going children in early years. They had dealt with the global mess of few devastating online games leading to depression and death. Peer education and teacher alertness had to be used. According to them, most parents were on a denial of permissive mobile phone usage by their wards to entertain compulsive, misuse gadgets to do shortcuts in home tasks, fidgety body language in many children, and early exposure inappropriate videos. The schools were trying to go back to physical activities on a priority basis.

Discussion

The mobile devices and other screen engagements were found to be culprit of stealing the child of wholesome childhood experiences (McCrum 2015). The children with developmental delays were noticed of the challenge at different stages and the parents felt awkward and concerned without realizing how their distracted behaviour was stealing the warm parenting. The limitations on awareness, limited means, need for long working hours, stereotyped interference of grandparents, lack of an exemplary behaviour on the behalf of parents were concerns and required family therapy over the sessions. The teacher reports and observation sessions helped to decide the path of intervention. Cases with behavioural problems of parents were dealt with sensitive counselling. Children are likely to revolt on mobile withdrawal. Concern on the marketing strategies of E-learning products and gadgets is alarming. Fundamental risk with children who have developmental issues and the parents' escape in terms of helpless dependence on gadgets (Davidow 2012) can be reduced. These children need instructed play, exploring the nature around, enjoying physical toys and enjoying socializing with peers and grown-ups. Significant others and those in immediate environment be encouraged to interact with these borderline toddlers. There are interesting observations on the devices to be intuitive interfaces and versatile to draw children to solve puzzles, be entertained while on the go and children find these handy. Over-stimulation with media is feared to cause and imbalance in the cerebral cortex that can disturb the focus, memory and impulsivity in later life. In the article by Solon (2016), as mentioned, Maria Liu from UCB found more children to be myopic. Smith inquired on tablet use and rewards leading to child being driven for more use. Mark Livine questioned the authenticity of learning apps which may unintentionally the decreasing the over-all educational by

enhancing stories using animations and sounds. A study at Stanford University in the US found that toddlers from disadvantaged families were behind their peers on language proficiency. They were kept busy with mobiles.

To manage the situation few changes can be inculcated. Airplane was recommended while a pregnant woman is around. Wireless networks and devices should be turned off when not in use. Turn off Wi-Fi router at bed time. Speaker phone, earphones creating distance between the body and the cell-phone, educating on manufacturer's advice, sharing information with friends, family and schools can be incorporated to keep out the harm. Morin, A. (n.d.), in an article, recommended using cell-phone contracts for kids, especially for those struggled with impulse control. Using cell-phones during family time has been out-rightly discouraged (PTI News 2018).

Serve and return (conceptualized by the Center for Developing Child, Harvard University n.d.) to shape a healthy brain architecture. Appropriate adult responses build neural connections which develop communication and social skills. Care-givers should acknowledge an infant's babbles, gestures or cries. Absence of responsive relationships is a serious threat to child's development and well-being. The persistent absence of serve and return is a double loss to not receive positive stimulation; it rather leads to stress response.

Conclusion

The masses need to be educated on deviations in development and when to report. They can be educated on recording evidences and generating global information about the child when they visit a clinician. Outdoor supervised activities of the special children should be encouraged. The parents can regiment a day with 'no gadget time'. The paper pencil method of recording things can be revived. Indoor activities like story telling can help develop rich vocabulary and better verbal and non-verbal expressions. It also helps to have better emotional development. The parents must do correct narrative talking to stimulate the child's thought process; there should be questions seeking answers as well as answering the queries of the child on time. There must be unconditional acceptance of the child and of the life-situation that the family is going through. The non-judgemental response from the support team can help develop appreciation for good things in life and help focus on haves than have-nots. Behavioural therapy may include individual or family activities like walks, dancing and creating social time.

The Way Forward

The study can be pursued longitudinally. Home visits can bring in important understanding of dynamics of the family to offer doable paths in the near future. It can be repeated on one particular area of developmental delay or behavioural issues. The policy makers and the school programs should be well equipped and sensitized.

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Proposal of a Social Responsibility Indicator Model Based on Systems Dynamics

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ABSTRACT: This document presents the advances in the construction of an indicator model based on the economic, social and environmental dimensions, which serve to measure the performance of manufacturing companies in terms of Social Responsibility (SR). To model the proposed indicator, the methodology of system dynamics using the iThink® software is used. The main reference for this construction is the work carried out by Pavláková Dočekalová and Kocmanová (2016) that proposes the Complex Performance Indicator (CPI). The sectors that make up the model are two: physical flow, which includes production, workers, innovation, marketing and machines; and information flow, which is represented in Key Performance Indicators (KPI) and in the CPI sector that calculates the consolidated indicator of the three groups (environmental, social and economic). The work contributes to the measurement of the performance of companies that engage in SR actions and shows the relationships and causalities between the sectors and indicators mentioned above.

KEYWORDS: systems dynamics, social responsibility, dynamic indicators, sectors, sustainability

Introduction

The evolution of Social Responsibility (SR) has taken place from academic and institutional perspectives. The latter has elicited international regulations that have set off from guiding principles such as those promoted by the United Nations (UN), and have escalated up to industry-specific codes. In this sense, Rodríguez (2018) has called as “hard law” the regulations on SR originating in organizations such as the UN, the European Union (EU) and the World Trade Organization (WTO), and “soft law” the guidelines on SR by the Organization for Economic Cooperation and Development (OECD) and other private bodies, which propose codes of conduct that have been adapted by national and transnational companies.

The influence of “hard law” has promoted worldwide the adherence of companies to initiatives such as the Global Compact (GC), as a mechanism to develop an SR management system and the use of the Global Reporting Initiative (GRI) as a methodology for the preparation of sustainability reports. In this sense, organizations use these reports to legitimize their activities and the use of sustainability indicators (Bradley and Botchway, 2018).

The GRI collects the three lines established by Elkington (1998) in the concept of sustainability, establishing a series of indicators that allow measuring the economic, social and environmental performance that a company can have. For adequate performance, these three dimensions must be balanced; however, it is common for them to move independently, generating friction between them or leading to situations where they are located above, below or next to each other (García, 2015), generating an imbalanced performance.

In the reports presented by companies through the GRI, they are observed to engage in different practices, and although they are reported qualitatively or quantitatively, they do not allow to determine their contribution to the performance of a specific dimension.

In this sense, the present work, using system dynamics as a methodology for modeling, shows the advances in the construction of a consolidated indicator on the performance of companies in terms of SR, fed by indicators for the economic, social and environmental dimensions. This proposal starts by recognizing that there is no single way to measure socially responsible activities (Wolfe and Aupperle 1991) and that the relationship between dimensions is still in the exploratory phase.

The main reference for this construction was the work carried out by Pavláková Dočekalová and Kocmanová (2016) from which the Complex Performance Indicator (CPI) was obtained. This research is justified by the fact that companies should use computerized systems to manage SR, ensuring the adoption of best practices that lead them to obtain competitive advantages (Campos and Grangel, 2018) and thus improve their performance. Thus, a contribution is made in the area of socio-environmental modeling, because a dynamic indicator allows the continuous evaluation of variables to project and control practices, and implement improvements that contribute to social performance. For authors such as Crane, Henriques, Husted, and Matten (2017) this issue still has questions that need to be resolved, and for which research still does not reflect enlightening results on SR measurements. This document is organized as follows: introduction, literature review, methodology, results and conclusions.

Literature Review

SR is a multidimensional concept that is often measured using various indicators. One of the mechanisms that exist is synthetic or composite indexes, which aggregate different individual indicators into one measure, summarizing multidimensional concepts (Paredes-Gazquez, Rodríguez-Fernández and de la Cuesta-González 2016). However, composite indicators do not allow measuring changes that can occur in variables over a period of time, in that sense a Dynamics System (DS) provides a framework that allows managing changes through the understanding of dynamic interactions, delays and feedbacks integrated in complex systems (Rasmussen, Rasmussen, Reenberg and Proud 2012; Martínez-Fernández, Esteve-Selma, Baños-González, Carreño and Moreno, 2013; Zhao and Zhong 2015), as is the case of SR performance through economic, social and environmental dimensions.

For Baños-González, Martínez-Fernández and Esteve-Selma (2016), DS allow early decisions to be made in the long term, taking into account the consequences of these and of the actions undertaken, as well as the unintended consequences along with the uncertainty of policies and strategies. To fulfill this purpose, scenario development is one of the main tools used to visualize and compare the potential of the results of a variety of policies and strategies.

A DS corresponds to an approach that combines quantitative and qualitative analysis in order to understand the transformations that occur in a complex system (Zhao and Zhong 2015), which is applicable to an SR management system that involves the measurement of performance through indicators that are represented by means of methodologies such as the GRI. The limitation is that because it is composed of indicators whose application is widespread, it is difficult to measure the performance of SR. Thus, the difference in the outcome after processing is the effect of the process or the impact on what is being sought to measure (Crane, Henriques, Husted, & Matten 2017), therefore, to measure performance in the social, economic and environmental dimensions, it is necessary to organize the variables into a function that shows the changes in time and allow the necessary recalculations to be made.

To this end, an index must be built that takes into account the activities carried out by companies, which contribute to better social performance, and which in turn generate a balance between the three dimensions. Determining the weights to assign indicators is one of the main obstacles when constructing this type of index (Paredes-Gazquez, Rodríguez-Fernández and de la Cuesta-González 2016), wherefore building a truly representative measure is a challenge for the multidimensionality of theoretical constructions (Ioannou and Serafeim 2012) and external indicators related to social performance.

Within the development of indexes is the work developed by Shokravi, Smit, and Burvill (2014), who conducted an assessment on the environmental performance of industry based on the Markov model, to determine that operational and environmental performance are related. For the model, operational aspects were included regarding variables such as the rise and fall times, the environmental management system and the objectives of safety and machinery failure history, as well as inputs (raw materials such as water and energy) and outputs (products, waste and by-products) used in the production process.

Finally, Pavláková Dočekalová & Kocmanová, (2016) they proposed a composite GRI standards-based sustainability indicator, for which they identified variables in the environmental, economic, social and corporate governance, which resulted in indicators of these dimensions through linear functions.

Methodology

For the construction of the SR indicator, systems dynamics were used, a methodology used for various analyses, including simulation of logistical problems, and other analogous ones, as well as applications in supply chains and manufacturing systems (Aracil 1995).

Considering the methodological proposal of Becerra, González, Herrera and Romero (2016), progress was made for the purposes of this document in two of the four phases required for the construction of the system dynamics model based on the CPI designed by Pavláková Dočekalová and Kocmanová (2016), that is, we worked on the formulation of the problem and in the design of the model, phases that allowed identifying and quantifying the variables of the model from relevant data extracted from GRI reports of manufacturing companies adhering to PG Colombia, and using causal diagrams to identify the relationship between the variables involved. The dynamic indicator was worked in the iThink® software.

Results

The two main sectors, which were found to make up the model are shown in Figure 1 and are classified into:

- Physical flow sectors: in this group are the basic sectors for calculating indicators, such as production, workers, machines, marketing and innovation.
- Information flow sectors: These are the sectors derived from the physical flow, by which model result indicators are calculated. These are the sector of social KPIs, environmental KPIs, economic KPIs and the CPI.

Physical flow sectors are described as follows:

- Production sector: here the manufacturing process takes place, considering raw materials and materials, which are inputs.¹ From the production process, stocks of the finished product are generated, which respond to the needs of demand in the market.
- Workers sector: the number of workers in the model responds to the production needs, taking into account times for the hiring and dismissal of these. Elements of occupational diseases, collective agreements, breaches of the code of ethics and wages are included.
- Innovation sector: this represents the company's innovation strategy. Increased innovation incentives result in improvements in the impact of products that affect safety and health.
- Marketing sector: This sector represents the marketing strategy of the company. Increased investment in marketing represents an increase in demand for the finished product.
- Machinery sector: shows the dynamics for acquisition and obsolescence of machinery, derived from the need for this resource by the manufacturing process.

Information flow sectors are described as follows:

- Environmental KPIs: include indicators of material consumption, energy consumption, waste production and environmental cost.
- Social KPIs: they include indicators of collective agreement workers, occupational diseases, products that impact safety and health, identification of customer needs, salaries and failures to the code of ethics.
- Economic KPIs: include cash flow and return on investment indicators.
- CPI sector: this calculates the consolidated indicator of the three previous groups (environmental, social and economic).

¹ The materials for manufacturing are the ancillary ones within the process, such as packaging.

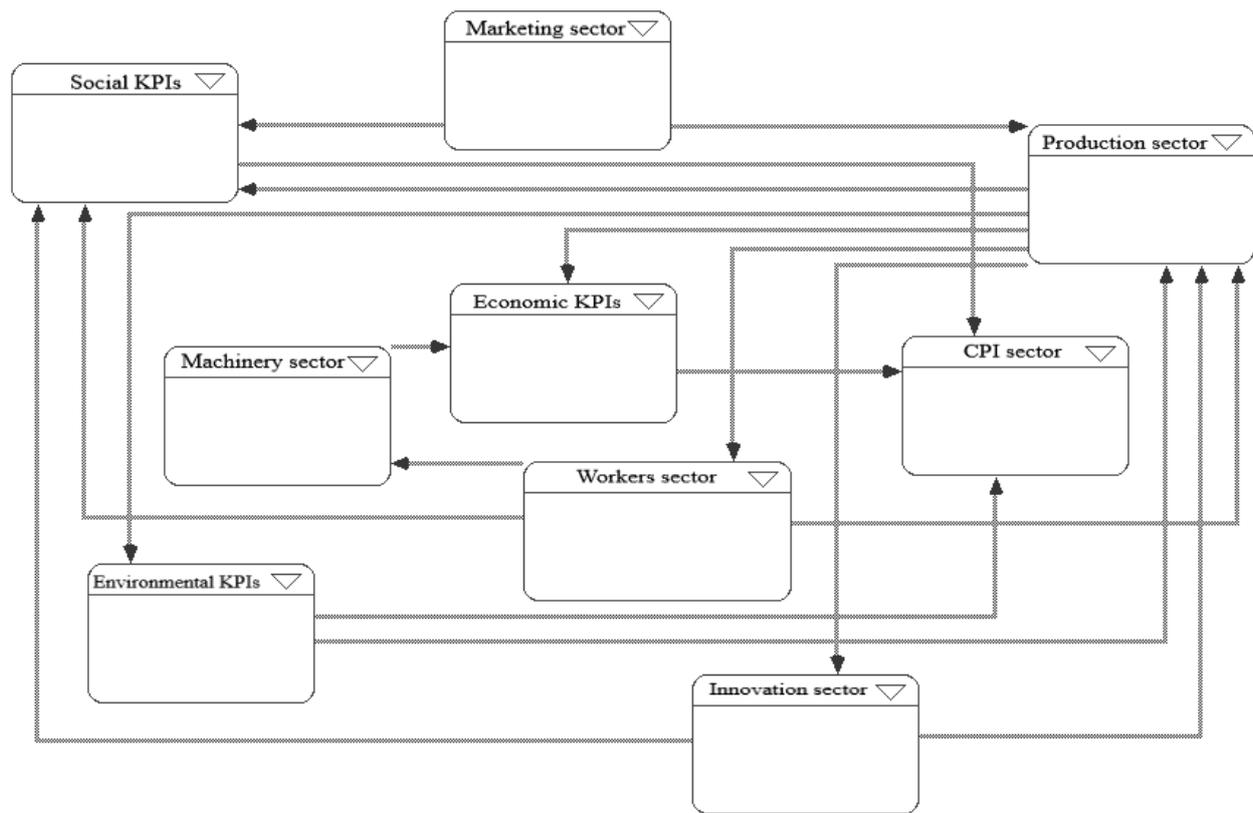


Figure 1. Diagram of relationships and causalities of the model for the dynamic indicator of social responsibility based on reports (GRI).

Source: Authors' Own elaboration

Conclusions

Measurement of the performance of manufacturing companies engaged in SR actions can be done through the CPI, which as a consolidated indicator of environmental, social and economic performance, includes KPIs.

KPIs are determined by the physical flow sectors, highlighting the bidirectional relationship between environmental KPIs and the production sector, by the waste flows that leave the manufacturing process and the recycling of these to be used back as inputs of the system.

The phases of the model that follow the construction presented here are two: the operationalization phase, where the verification and validation of the model will be carried out; and the measures and results phase, where the study of the “strategies” will be carried out through scenario analysis.

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A Review of Wagner's Law and Income Elasticity of the Government Expenditures in Iran (1985-2018)

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ABSTRACT: Wagner's Law holds that the relative size of public sector increases with the growth of per capita income. The aim of this study is to investigate the validity of Wagner's Law in Iran. We test the Wagner's Law by incorporating a vector Autoregression model (VAR) and vector error correction model (VECM) for the Iranian economy using 1985-2018 health and education data. The results of the estimates show that this law holds in Iran. The elasticity of government expenditures with respect to national income must be greater than one for the Wagner's law to hold. However, government spending on health and education have been less than expected. This could suggest that the state does not pay enough attention to health and education. One can conclude that health and education are not priorities of the government in allocating funds to these two sectors.

KEYWORDS: Gross Domestic Product (GDP), Wagner's Law, Government Expenditure, Vector Autoregression (VAR), Vector Error Correction Model (VECM)

1. Introduction

The relationship between public expenditures and gross domestic product (GDP) has been well debated in economic literature. The role of governments and the reasons for the existence of states has been studied extensively during past decades (Peacock and Wiseman 1961). In general, some economists believe in the least interference of states in economies whereas others believe that state interference is necessary to run a smooth economy. Along with such viewpoints there are factors that can explain the size and the growth of governments in different countries. A theoretical discussion of the relationship between the general size of public sector and growth domestic product is Wagner's law, according to which increased production results in increased government spending. As a result, government services, such as judiciary, education, health and infrastructure lead to economic growth. It needs to be mentioned that other theories such as the state-run development perspective of state spending, as expressed by Musgrave and Rostow, and the Baumol's theory of growth, do explain the expansion of government size, but Wagner's theory concentrates on the relationship between GDP and government spending.

For Wagner's law to hold it is necessary that the public goods provided by the government have income elasticity greater than one. In this study the existence of Wagner's Law in the Iranian economy is examined by estimating the income elasticity of government expenditures in the health and education sectors. Also, in case the Wagner's law holds we like to show how long it takes for government size (spending) to grow at the same rate as GDP.

The hypotheses we are discussing in this study are: 1) Wagner's Law holds in Iran. 2) It takes more than one year for GDP to impact government expenditures. 3) Public education and health have an income elasticity greater than one.

2. Wagner's Law

The relationship between government expenditures and economic growth was first examined by the German economist Adolph Wagner (1835-1917). As the result of his studies, Wagner revealed that the speed of increase in government expenditures was higher than the speed of increase in national income (Kumar et al. 2012). In other words, he showed that the income elasticity of demand for governmental

expenditures was higher than 1 so that governmental expenditures would increase at a higher rate than national income annually (Koop and Poirier 1995: 123). Therefore, the opinion Wagner adopted is characterized as the “Law of Governmental Expenditure Increase” in the economic literature. Wagner assumes that there is a direct relationship between government expenditures and production levels. He also emphasized that the growth of the public sector is faster than the economic growth. At the same time, market inefficiencies, in particular with regard to external implications or privileged goods, require government intervention to provide an optimal supply line of goods and services by providing subsidies or direct supply. Also, Wagner states that goods offered by the public sector are of high income elasticities (Dadgar 2007).

Government expenditures are regarded as an internal variable and the direction of causality is from economic growth to such expenditures (Bird 1971: 2). This opinion, asserted as a hypothesis by Wagner, which was then named as “Wagner’s Law”, constituted the basis for many theoretical and empirical studies to follow.

2.1 Various forms of Wagner's Law

Empirically Wagner's law refers to the long-term relationship between government size (usually government spending) and income (GDP). Since there are different criteria for measuring government size, such as the ratio of government expenditure to income, per capita government expenditures and consumption expenditures, and also there are various criteria for income measurement such as income and per capita income we are faced with different empirical versions of Wagner's Law as follows:

$$\text{Peacock-Wismen (1967)} \quad \beta > 1 \quad \text{Ln}G_t = \alpha + \beta \text{Ln}GDP_t + \varepsilon_{1t} \quad (1)$$

$$\text{Pryor (1969)} \quad \beta > 1 \quad \text{Ln}GC_t = \alpha + \beta \text{Ln}GDP_t + \varepsilon_{2t} \quad (2)$$

$$\text{Gupta (1967)} \quad \beta > 1 \quad \text{Ln}(G/P)_t = \alpha + \beta \text{Ln}(GDP/P)_t + \varepsilon_{3t} \quad (3)$$

$$\text{Goffman (1967)} \quad \beta > 1 \quad \text{Ln}G_t = \alpha + \beta \text{Ln}(GDP/P)_t + \varepsilon_{4t} \quad (4)$$

$$\text{Musgrave (1969)} \quad \beta > 0 \quad \text{Ln}(G/GDP)_t = \alpha + \beta \text{Ln}(GDP/P)_t + \varepsilon_{5t} \quad (5)$$

$$\text{Man (1980)} \quad \beta > 0 \quad \text{Ln}(G/GDP)_t = \alpha + \beta \text{Ln}GDP_t + \varepsilon_{6t} \quad (6)$$

Where $\text{Ln}G_t$: Log of government expenditures, $\text{Ln}GC_t$: Log of consumption expenditure, P : population, $\text{Ln}(G/P)_t$: Log of per capita government expenditure, $\text{Ln}(G/GDP)_t$: Log of the share of government expenditures from income, $\text{Ln}GDP_t$: Log of income, and $\text{Ln}(GDP/P)_t$: Log of per capita income. For the realization and confirmation of the Wagner hypothesis in the above models, it is necessary that the estimated coefficient (β) be equal to the values given above.

3. Literature review

Hussain et al. (2010) examined the validity of Wagner’s Law and the relationship between economic growth, population and exports for Pakistan. The ARDL Bounds Cointegration and ECM were used for the long and the short run equilibrium for the period of 1972-2007. With the increase in GDP, the government expenditures may or may not increase. The empirical results indicate that the Wagner’s Law does hold, as economic growth is significantly and positively correlated with government expenditures. However, population and exports also have significant and positive impact on government expenditures both in the short and the long run. The significant and negative coefficient of error correction term in ECM indicates that after a shock, the long run equilibrium will again converge towards its equilibrium at about 70.82 percent within a year.

Srinivasan (2013) investigated the causal nexus between public expenditure and economic growth in India using Cointegration approach and Error Correction Model (ECM). The analysis was carried out for the period 1973 to 2012. The Cointegration test results confirm the existence of a long-run equilibrium relationship between public expenditure and economic growth in India. The empirical results based on ECM indicates a one-way causality run from economic growth to public expenditure in the short-run and long-run, supporting the Wagner's law of public expenditures.

Abu Eideh (2015) studied the causal relationship between public expenditure and the GDP growth in the Palestinian territories during 1994-2013. They found that there exist a two-way causal relation between public expenditures and GDP growth in Palestine.

4. Methodology and Data

Johansen's (1988) cointegration approach and Vector Error Correction Model (VECM) have been employed to investigate the causal relationship between public expenditures and economic growth in Iran. Before doing cointegration analysis, it is necessary to test the stationarity of the series. The Augmented Dickey-Fuller (1979) test was employed for this purpose. If the series are non-stationary in levels and stationary in differences, then there is a chance of cointegration relationship between them which reveals the long-run relationship between the series. Johansen's cointegration test has been employed to investigate the long-run relationship between the two variables. Besides, the causal relationship between Gross Domestic Product (GDP) and public expenditure was investigated by estimating the following Vector Error Correction Model (VECM) (Johansen, 1988).

$$\Delta X_t = \sum_{i=1}^{p-1} \Gamma_i \Delta X_{t-i} + \Pi X_{t-1} + \varepsilon_t ; \varepsilon_t | \Omega_{t-1} \sim \text{distr}(0, H_t) \quad (7)$$

where Δ denotes the first difference operator, ε_t is a 2×1 vector of residuals with mean zero and time-varying covariance matrix, H_t . The VECM specification contains information on both the short- and the long-run adjustment to changes in X_t , via the estimated parameters Γ_i and Π , respectively. X_t is a 2×1 vector of log-Public expenditure and log-Gross Domestic Product (GDP).

There are two likelihood ratio tests that can be employed to identify the cointegration between the two series. The variables are cointegrated if and only if a single cointegrating equation exists. The first statistic λ_{trace} tests the number of cointegrating vectors is zero or one, and the other λ_{max} tests whether a single cointegrating equation is sufficient or if two are required. In general, if the r cointegrating vector is correct, the following test statistics can be constructed as:

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^n \ln(1 - \widehat{\lambda}_i) \quad (8)$$

$$\lambda_{max}(r, r+1) = -T \ln(1 - \widehat{\lambda}_{r+1}) \quad (9)$$

where $\widehat{\lambda}_i$ are the eigen values obtained from the estimate of the Π matrix and T is the number of usable observations. The λ_{trace} tests the null that there are at most r cointegrating vectors, against the alternative that the number of cointegrating vectors is greater than r and the λ_{max} tests the null that the number of cointegrating vectors is r , against the alternative of $r+1$. Critical values for the λ_{trace} and λ_{max} statistics are provided by Osterwald-Lenum (1992).

In this study, the annual time series data of the variables under consideration, namely the Gross Domestic Product without oil (GDP) and the public expenditure of Iran, have been carried out from the year 1985 to

2018. The real Gross Domestic Product (GDP) is used as a proxy for economic growth in Iran and we represent the economic growth by using the constant value of GDP measured in Iranian money (rial). The total expenditure of the central government (G) has been considered for public expenditure under the study, oil revenues (OIL), gross domestic product per capita without oil (GDPP), oil per capita (OILP), government spending on health (HY), and government spending on education (ED). All variables are logarithmic and therefore the estimated coefficients are elasticity measures. All necessary data for the sample period are obtained from the Central Bank of Iran.

5. Empirical Results and Discussion

In this study, given that per capita GDP (GDP/P) and the ratio of government expenditures to income (G/GDP) (equations (2) to (6)) do not have unit roots, they cannot be used in a VECM model. Only Wagner's model presented by Peacock Wismen (equation (1)) which does not have restriction is estimated. First, we examine the variables in terms of stationarity and then we estimate the model. We will then estimate the revenue elasticity of health and education expenditures provided by the government.

Peacock-Wisemen's model states that GDP (income) is the reason for rising government spending. In this study, GDP is divided into two parts:

1. GDP without oil at the base price of 2002
2. Oil Revenues at the base price of 2002

As a result, the above example is expressed as:

$$\ln G_t = \alpha + \beta \ln GDP_t + \varepsilon_t$$

In order to estimate the revenue elasticity of government expenditure in health and education sector, we use the following equations respectively:

$$ED = \alpha_1 + \beta_1 \ln(GDP/P)_t + \varepsilon_t \quad (10)$$

$$HY = \alpha_2 + \beta_2 \ln(GDP/P)_t + \varepsilon_t \quad (11)$$

5.1 Unit Root Test

The Augmented Dickey-Fuller test (ADF) was employed to test the stationarity of the variables. The null hypothesis is that variables in level have unit root and therefore are nonstationary, while the opposite hypothesis means that the variables in level are stationary. The test reveals that all variables become stationary when their first differences are used and it can be concluded that they have unit roots. In other words, it can be determined that all the variables are integrated in order of one, I (1). The results of first difference ADF test of these variables are presented in Table 1.

Table 1. Dickey-Fuller test for unit roots

Variable	ADF-statistic	t-statistic (1%)	t-statistic (5%)	Prob
LG	-3.440327	-3.421023	-2.943927	0.0157
LGDP	-4.088576	-3.605593	-2.936942	0.0027
LOIL	-3.794875	-3.621023	-2.943427	0.0064
LGDPP	-3.952156	-3.605136	-2.886954	0.0040
ED	-7.192053	-3.59669	-2.975236	0.0000
HY	-7.730797	-3.625606	-2.981593	0.0000

5.2 Determining the Optimum Lag Length of the VAR Model

The estimation of the Johansen's Cointegration model requires the estimation of a system of VAR equations. However, to obtain this an optimal lag length is required.

Among the various criteria used to determine an optimal lag, Akaike Information Criterion (AIC), Schwarz-Bayesian (SC), Hannan Quinn (HQ), Final Prediction Error (FPE) and the Likelihood Ratio (LR) were used. The statistical results are shown in Table 2 with lengths of P=1, 2 and 3 lags.

Table 2. VAR Lag Order Selection Criteria

Lag Length	LR	FPE	AIC	SC	HQ
0	NA	0.002505	2.524162	2.660208	2.569937
1	214.5944	2.65e-06	-4.330189	-3.786004	-4.147087
2	21.68654	2.02e-06	-4.618832	-3.666509	-4.298404
3	9.178022	2.43e-06	-4.472422	-3.111960	-4.014668

In general, when the number of observations or sample size is less than 100, the Schwarz criterion yields better results than other criteria. According to the Schwarz criterion, the optimal lag length is 1.

5.3 Johansen's Cointegration Test

Once the optimum lag is determined and the VAR model is estimated. Johansen's Cointegration Test (1998) was performed to examine the long-run relationship between public expenditure and other variables. Johansen test uses the maximum likelihood method to determine the cointegration relationship. If the variables are cointegrated, it means that they move together over time, so that short-term disturbances are corrected in the long run. The results are presented in Table 3.

Table 3. Johansen's Cointegration test

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	0.05 Critical Value	Prob.**
None * ($r=0$)	0.727643	54.31922	29.79707	0.0000
At most 1 ($r \leq 0$)	0.252955	11.39801	15.49471	0.1882
At most 2 ($r \geq 0$)	0.052345	1.774234	3.841466	0.1829

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

The Johansen's cointegration tests result reject the null hypothesis of no cointegration at the 5 percent significance level. Thus, it can be concluded that GDP, public expenditure (G) and LOIL are cointegrated or they co-move in the long run. The above results allow us to estimate the VECM model with cointegration vectors.

5.4 Estimation of the VECM model

This model relates the volatility of short-term variables to their long-term values and considers the short-term dynamic response between variables. In this section, the results of estimating error correction equations are presented Table 4.

Table 4. Vector Error Correction Estimates

Variables	D(LG)	D(LGDP)	D(LOIL)
Error Correction	0.015686 (0.02002) [0.78357]	0.010468 (0.00629) [1.66347]	0.111483 (0.025350) [4.39860]

$$D(LG) = 3.424176 LGDP(-1) + 6.653224 LOIL(-1)$$

se	(0.72800)	(0.90785)
t	[4.70355]	[7.32856]

The coefficients of the equation show that GDP growth will increase government spending indicating that Wagner's law holds in Iran. Also, if oil revenues increase one percent, government expenditure increase 6.65 percent.

The government expenditures elasticity with respect to GDP and oil revenues are estimated to be higher than one, and the government's response to rising oil revenues is about twice as high. This indicates that government expenditures depend on oil revenues. The t-statistic implies a significant causality running from GDP to public expenditure in the short-run.

5.5 Response Functions

These functions are a moving average of the VAR model and enable characterization of the dynamic interactions among variables and allow us to observe the speed of adjustment of variables in the system. Figure 1 plots the response of public expenditure to shocks in GDP and vice versa. The effect of a GDP shock on government expenditures is increasing over time. In fact, it will take about four years to have an impulse-free GDP shock on government spending.

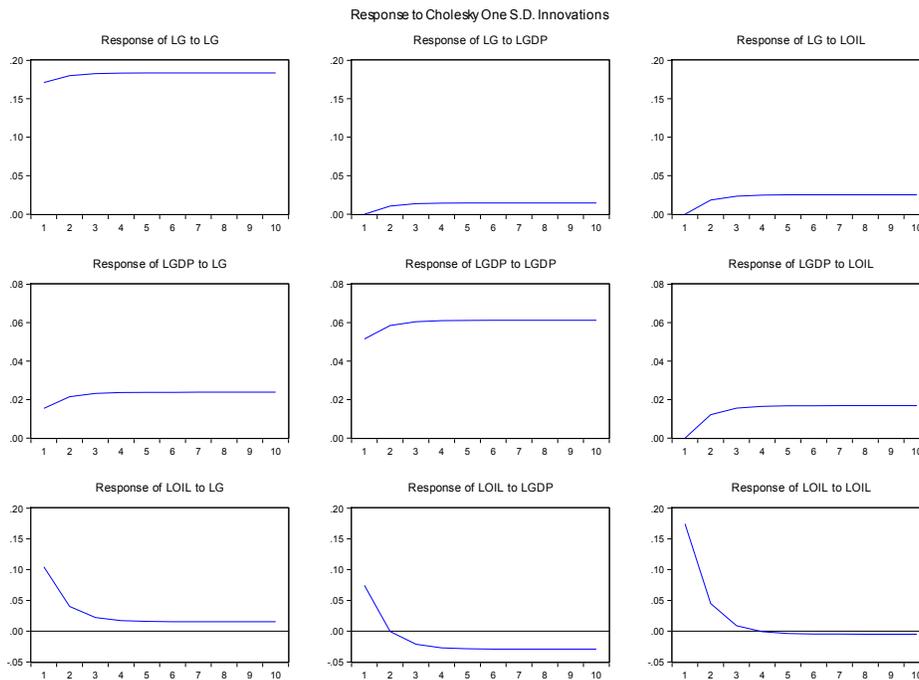


Figure 1. Response Functions

5.6 Estimating Income Elasticity of Government Expenditures on Health and Education

To estimate the income elasticity of government expenditures in the two sectors of health and education we use Vector Error Correction Estimation as shown in Table 5.

Table 5. Vector Error Correction Estimates

Variables		LGDPP
ED	Error Correction	10356.40 (5651.14) [1.83262]
HY		3003.369 (240.187) [12.5043]

From Table 5 the following estimated equations for ED and HY are obtained:

$$ED = \alpha_1 + 10356.40 \text{ LGPPP}$$

$$HY = \alpha_2 + 3003.369 \text{ LGDPP}$$

From the above equations income elasticities for health and education are calculated and presented in Table 6.

Table 6. Income Elasticities of Government Expenditures on Health and Education

Income Elasticity	Variables	
	Health	Education
	0.95	0.40

Elasticity of government spending on health is 0.95. If GDP grows by 1%, government spending in health will increase by 0.95%. Therefore, the government expenditures in the health sector are not bigger than one, but close to one. Income elasticity of government spending in the education sector is 0.40. If GDP increases by one percent, government spending in the education sector will increase by 0.4%.

6. Conclusions and Policy Recommendations

The purpose of this study was to investigate the causal nexus between public expenditures and economic growth in Iran using cointegration approach and error correction model. The analysis was carried out over the period 1985 to 2018. Wagner's Law explains the relationship between GDP growth and government expenditure. Wagner's Law has been expressed in different versions. In this study, we estimate the Peacock and Wismen version. Considering the positive and significant coefficient estimates we conclude that Wagner's Law holds in Iran (validity of the first hypothesis). According to the estimates, it takes four years for a GDP shock to fully affect government expenditures. Therefore, the second hypothesis that it takes more than one year for the GDP effect to be fully realized is confirmed. Income elasticities of government spending on health and education was estimated to be less than one. As a result, the third hypothesis that income elasticity of health and of education is higher than one is rejected.

With respect to oil revenues, much of the government's response depends on this variable and GDP without oil has no power to explain changes in government spending, which indicates the high contribution of oil revenues in explaining government expenditures. As a result, GDP without oil plays a very small role in adjusting government expenditure. This indicates a strong dependence of the Iranian economy on oil resources. On the other hand, the share of government spending in health and education sectors in the overall government spending is negligible. This could suggest that the government does not

pay enough attention to health and education. One can conclude that health and education are not priorities of the government in allocating proper budget share to these sectors.

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Formal Institutional Factors Influencing the Entrepreneurial Intent in Quindío (Colombia)

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ABSTRACT: The objective of this research is to analyze the formal institutional framework that influences the intention to create companies in the department of Quindío (Colombia). The study is descriptive and uses the transversal-nature non-experimental methodology. According to the structure of the project and the type of information collected, the research is mixed natured. This work involves obtaining information from two groups of sources that were chosen by convenience: fourteen public and private institutions connected to entrepreneurship in the region, to which a semi-structured questionnaire was applied, and four experts on entrepreneurship on whom an unstructured interview was applied. The research uses the theoretical institutional framework proposed by Douglas North as regards formal institutions. The findings conclude that the works by the different formal entities that support entrepreneurship in Quindío is disperse and that they are not articulated in a specialized and collaborative work scheme that fosters the achievement of a common goal to generate a positive impact of greater magnitude at the departmental level.

KEYWORDS: Douglas North, entrepreneurial intent, entrepreneurship, institutionalism

Introduction

Entrepreneurship has positioned itself as an important driver of the economies of countries by promoting, among other factors, innovation, competition and employment (Nenzhelele, 2014). Therefore, entrepreneurship and business creation have been regarded as key factors for regional development, possibly because the results of national and international efforts to stimulate entrepreneurship in less-advanced economies have often been disappointing (García, García and Diaz, 2018).

In this sense, in recent years, research on entrepreneurship and regional studies seem to be more interrelated, while research on regional entrepreneurship has become more popular (Carvalho, 2018), as there are apparently particular aspects associated with the territory that influence the creation of companies. At the same time, the interaction between entrepreneurship and institutions is a determining factor for economic development (Tao 2016; Elert and Henrekson 2017). In this sense, entrepreneurs have a fundamental influence capable of changing institutions (Kuchar 2016), whether they respect, attempt to alter or evade them (Elert and Henrekson 2017), while the institutional environment has a positive and significant impact on the entrepreneurial intent (EI) of individuals (Mouselli and Khalifa 2017).

Quindío is one of the 32 departments of Colombia and is the second smallest in the country with only 1,845 km², it has a population of about 570,000 inhabitants and is located in the mid-west of the nation in the Andean region. Its economy is based on the sectors of trade and services, and agriculture, hunting and fishing. It is important to note that Quindío belongs to the area called the Coffee Growing Axis, which is the region that has traditionally produced coffee in Colombia. The area is also characterized by the wide range of tourist accommodation on coffee farms and its theme parks that revolve around the agricultural culture of the area.

However, despite the relative improvement in employment rates experienced by Colombia until 2018, the rate of unemployment in the region has not been able to drop from two digits. Since this year, according to the National Administrative Department of Statistics (DANE), unemployment has risen again at the national and regional levels. The unemployment rate in Colombia in the November 2018 - January 2019 mobile quarter was 10.4%, representing an

increase of 0.8% compared to the same period of the previous year; while the city of Armenia (the capital of Quindío) ranked fourth in unemployment in the country with a rate of 16% in the same period, which represents an increase of 1.4% compared to the same period of the previous year.

According to the Chamber of Commerce of Armenia and Quindío (2018), the number of companies incorporated increased from 12,826 in 2011 to 19,205 in 2017, which represents an increase in the business density ratio of 28 companies per thousand people in 2011 to almost 34 in 2017. It can also be observed that the number of new companies created has increased year after year, to the point that 5,475 (15 companies per day) were created in 2017, of which 88% belong to natural persons and 12% to legal entities. Despite the above, the volume of assets reported by startups decreased from \$55,172 billion to \$47,238 billion.

On the other hand, between 2015 and 2017 around 2,200 companies closed down per year of which 66% shut down operations when they had been operating for three years or less. This report also shows that 96% of the total number of companies registered in 2017 correspond to microenterprises, that is, productive units with 10 employees at most. As can be seen, the business structure of the region is characterized by focusing on the tertiary sector, with the majority participation by smaller companies and an increase in the density of productive units.

The core objective of this paper is to analyze the formal institutional framework that influences EI in the department of Quindío (Colombia). This document is divided into six components, to wit, introduction, theoretical framework, methodology, results, conclusions and bibliographic references.

Theoretical framework

Regarding theoretical references, it should be mentioned that an increasing number of research has used the institutional theoretical framework since the 90s, although EI gained real interest as a field of research about two decades ago, time during which it has grown to the point that it has formed a heterogeneous area of study (Liñán and Fayolle 2015).

According to Nenzhelele (2014), entrepreneurship is a process and EI is its first step. No business behavior occurs by accident, as they are intentionally planned, so EI is the best predictor of business behavior. For Bird (1988), the intention corresponds to a process that is required before carrying out a certain action, that is, EI can be assumed as an a priori step to the action of creating a business. Thompson (2009), meanwhile, assumes EI as a self-recognized conviction by individuals who intend to create new businesses and who consciously plan to do so at some point in their future life. Fini, Grimaldi, Marzzochi, and Sobrero (2009), define EI as a personal projection of future actions and goals to be implemented to create one's own business.

In the study of the business process, research has revealed the importance of institutions in the development of the system because, according to Tao (2016), the economy deals with them. In this regard, there are two basic currents of institutional economic thinking, namely the Original Institutional Economics based on the tradition of Veblen, Ayres, Commons and Mitchell, and the New Institutional Economics, known as the North-Williamson School, which considers companies to be one of the most important institutions in the modern world (Parada 2003). According to Urbano, Díaz and Hernández (2007), North is among the authors of the new institutional economics, whose proposal provides an adequate theoretical reference to explain the aspects that influence the creation of companies.

North's main contribution (1993a) is his input to the studying of institutions, institutional change and their implications for economic development. In this way, institutions create the limitations established by the human being that shape the interaction between individuals and promote incentives for different exchanges. Subsequently, North (1993a,b) defines institutions as society's rules of the game, that is, they constitute the limitations devised by men that promote human interaction and, at the same time, structure incentives for human exchange of various kinds (political, social or economic).

By mentioning that these are the rules of the game, he does it literally, as he compares what happens in society with what happens during a sporting encounter, where there are written formal

rules and “generally unwritten codes of conduct that underlie and complement formal rules, such as not deliberately hurting a key player of the opposing team” (North, 1993a, 14). North equates institutions with the rules of the game, and players with organizations and their entrepreneurs. In short, he assumes that “The purpose of the rules [of institutions that is] is to define how the game will play out” (p.15).

According to North (1993a, 14), “Institutions reduce uncertainty because they provide a structure to daily life.” In this regard, he mentions a series of everyday situations in which institutions serve to guide actions between individuals. He mentions cases as disparate as burying the dead or setting up a business, where people know how to do it or can easily find out. He also clarifies that these institutions change from country to country. According to Tao (2016), institutions are broadly defined as lasting systems of established and incorporated social rules that structure social interactions. Language, money, law, weight and measuring systems, vehicle traffic rules, table manners, companies and other organizations are all institutions.

For North (1993a), it is important to clarify that there are two types of institutions, formal and informal ones. He points out that both are human creations and that therefore the initial analysis must be based on the individual, since “Institutions arise from individual behavior, through the interaction between individuals” (Parada 2003, 95). Formal institutions, thence, refer to those that can be created, such as the Political Constitutions of States, while informal ones correspond to what he calls common law, which corresponds to uses and customs, which evolve over time. North argues that informal institutions are more difficult to change than formal ones and carry a greater weight in determining human behavior (North 1981, 1993a).

In this sense, Chang (2006) argues that some formal institutions work very well in developed countries and do so because they are backed by a set of tacit informal institutions that are not easily observed. North (2000, 147) even mentions that “The imposition of a set of formal rules on an existing culture whose informal restrictions are not consistent with the new set of formal rules is the recipe for political and economic failure.”

On the other hand, North (1993a) also states that organizations or bodies “are groups of individuals tied by some common identity towards certain objectives” (p. 15) and notes that the way of evolution and its survival depend on the institutional framework, while organizations are agents of institutional change. Organizations, according to North, are stable but in permanent change and can be of several kinds, such as political, economic, social and educational.

Thus, Jakšić and Jakšić (2018) assume that the key role of institutions is to ensure stability and continuity. Aside from the independence and responsibility of the institutions, what is needed is a sufficient level of inclusion. The introduction of the principles of independence, responsibility and inclusion is essential for the emergence and performance of all institutions. In this sense, Easley, Roberts, Tian and Yang (2014) argue that flexible institutions foster entrepreneurship by allowing the development of individual choices. In economics, a shift from rigid to more flexible institutional rules is found to increase entrepreneurship

Methodology

The research is descriptive and uses the transversal-nature non-experimental methodology. According to the structure of the project and the type of information collected, the research is mixed-natured. Information was obtained from two groups of sources: institutions connected to entrepreneurship in the region and experts on entrepreneurship. To collect information from the first group, the form validated by Díaz (2003) was adapted, while the experts on entrepreneurship were approached through an unstructured interview.

For the analysis of the formal institutional aspects, 14 public and private entities, which have services to support entrepreneurship in the Quindío, were: the Chamber of Commerce of Armenia and Quindío, EAM University Institution, Bancolombia, Colombia's Hotel and Tourism Association (Cotelco), National Federation of Traders — Fenalco —, Act Famiempresas (microcredits), Remington University Corporation, Bank Woman World, Social Prosperity (governmental entity that assists vulnerable groups in their social and economic reintegration),

National Learning Service (SENA Quindío), University of Quindío, Governorate of Quindío and the Mayors' Offices of Armenia and Calarcá. The collection of information was conducted through semi-structured interviews during the first half of 2018.

On the other hand, four experts on entrepreneurship were chosen by convenience, different from those chosen in the sample of institutions. The four experts were approached through informal interviews, two are men and two are women, who have extensive experience in the regional business field.

Results

Overview of the institutions

In the case of Colombia, the central administration of the country functions as a roof that houses institutions to support entrepreneurship, develop policies and programs at the national level, several of them are based in the department of Quindío, a situation that allows them to interact with local and regional entities to support the creation of companies. These institutions make up the formal framework to support the creation of businesses, within which the entities that make part of the Regional Entrepreneurship Network are also highlighted, whose incorporation is regulated by article 6 of Act 1014 (Congress of the Republic of Colombia, 2006) (Figure 1).

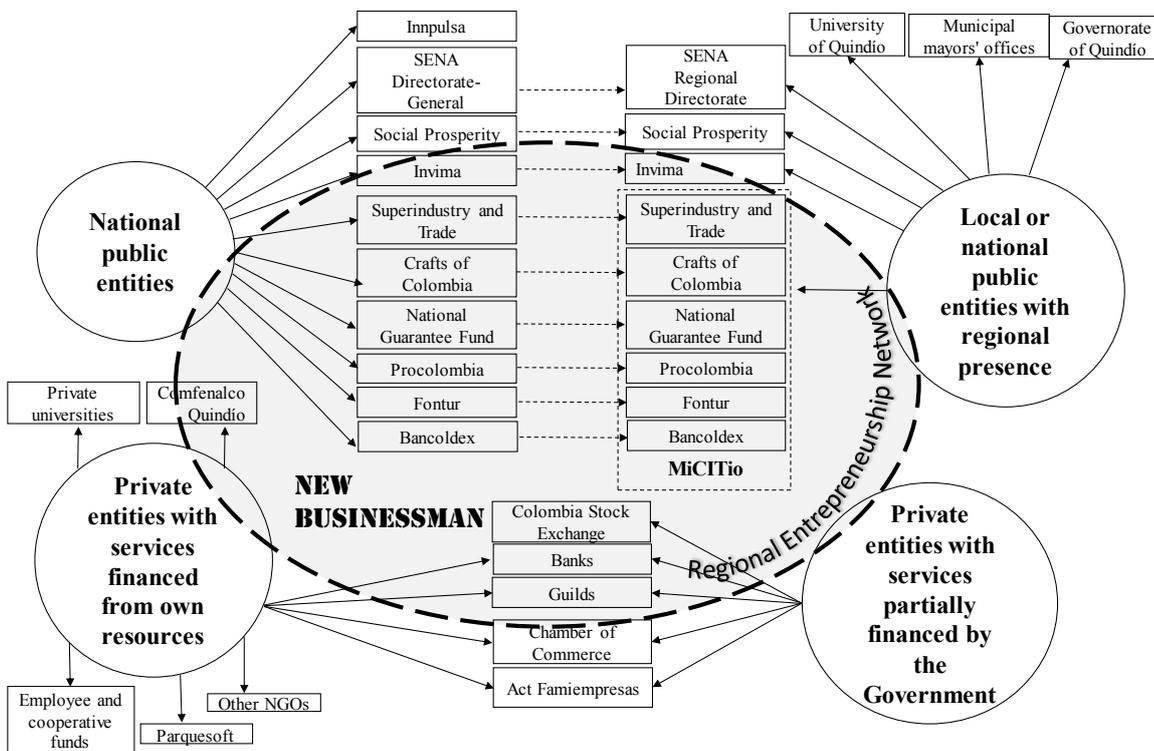


Figure 1. The formal institutional framework to support entrepreneurship in Quindío

Regarding the budget allocated to entrepreneurial activities, 6 of the 14 entities surveyed are not clear regarding the number of resources assigned to this activity. As for the institutional objectives, only three (SENA, University of Quindío and Chamber of Commerce) intend to specifically generate a culture of entrepreneurship in the department.

Regarding dependence on other public and/or private institutions only four mention that they depend on other entities (the Governorate, the Mayor's Office of Armenia, the Remington University Corporation and Cotelco), however, eleven organizations say they collaborate with other institutions. The SENA is the entity most connected with the organizations interviewed.

Measures to support the creation of new businesses

Nine institutions have economic measures to support entrepreneurship, three of them do so through venture capital, four provide loans and two provide subsidies. On the other hand, with regard to non-economic strategies, 13 entities offer information, guidance, advice and support, 12 provide training, 11 follow-ups and 6 provide incubation and business development services.

Concerning the target population, the affiliated entities were noted to not have a specific group to which they target their programs. Despite the fact that young people, women and vulnerable population are the three groups that receive the most support measures from these institutions, it is evident that the majority of organizations provide support to different groups of the population that are interested in creating businesses (unemployed, pensioners, students, graduates, immigrants, entrepreneurs and the citizens in general). Public entities such as the SENA, the Governorate and the Mayor's Office serve the largest number of population groups in the department. Only Fenalco does not focus its measures on a delimited population.

Regarding the perception of institutions as to whether their support services and programmes are known to potential entrepreneurs, nine institutions have a positive perception, while the other five believe that they are newly created entities or that their programmes were recently designed. Specifically, Social Prosperity assumes that potential entrepreneurs do not know support services because these types of programs are regularly adjusted or because there is no dissemination.

Regarding the use of institutional support services and programs by potential entrepreneurs, 11 of the 14 entities studied assume that these are widely used. The reasons that are argued relate to the scarcity of services offered by other entities, the wide demand by potential entrepreneurs, an adequate approach to the services provided and the demand for stakeholders to stay in some programs to access other services. Six institutions believe that business support measures should be undertaken differently, for they believe that entities could agree on differential schedules so as not to cross with the same programs as other organizations; more funding sources are needed, as well as a more personalized approach, and being closer to the different groups of the population.

About the main sources of funding for institutions supporting business creation, public organizations or national government support programs support six entities. The remaining eight entities use their own resources or other companies to finance entrepreneurship supporting activities. Furthermore, it is emphasized that the governorate and the mayors' offices support each other in the development of community projects. None of the entities studied mentioned international support as a source of funding for business supporting activities. Figure 2 shows the sources of funding for institutional support measures and the importance of contributions from the national government, institutions' own resources and contributions from other companies. According to the information collected, the contributions by municipal and departmental governments are the least representative.

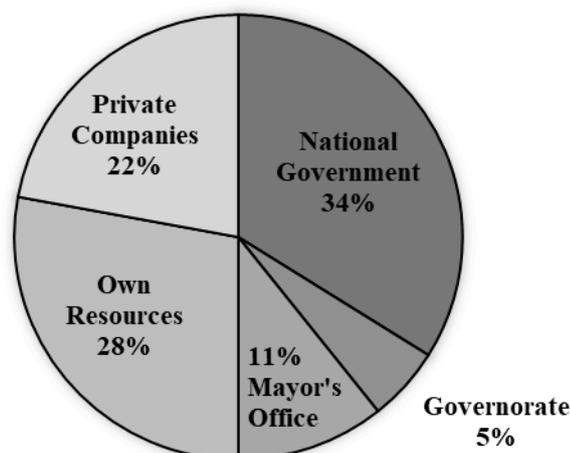


Figure 2. Sources of funding for institutional support measures

With regards to the conditioning of the source of funding, eight institutions consider that it does not limit the type of support for entrepreneurship, while six entities presume that it is conditioned, especially by five of them. Some constraints relate to the type of target population, credit experience and behavior, and the consistency of projects with expected results.

Assessment of entrepreneurship support measures

The interviews provide valuable information about the recognition of other institutions that support entrepreneurship in Quindío. A special highlight is the SENA (26% of the total number of responses), followed by the Governorate (15%), the Chamber of Commerce and Act Famiempresas (14% each); the Mayors' Offices (12%); the aforementioned banks (7%), universities (5%) and others, including Parquesoft, Colciencias and cooperatives, obtained a total of 7% of the responses (figure 3).

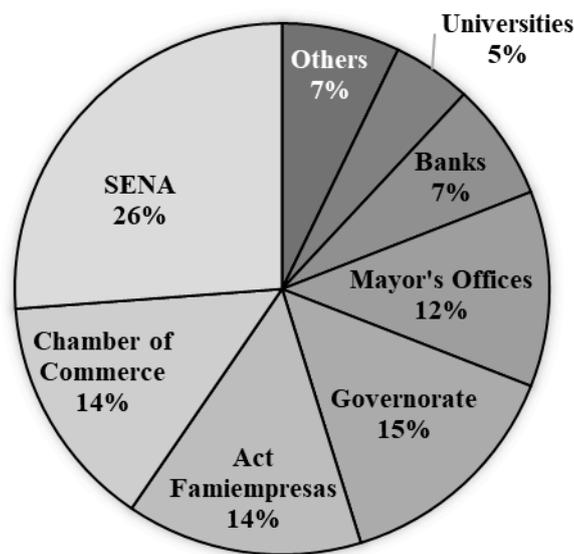


Figure 3. Identification of institutions that support entrepreneurship most (%)

On the other hand, the interviewees consider that the institutions they represent have a notorious commitment to promoting entrepreneurship in the region, however, representatives of the entities interviewed argue that the support programs are insufficient and incipient and that they do not yet have the necessary resources to provide greater support to entrepreneurs.

Regarding the knowledge of entrepreneurs about the measures that support the creation of businesses in the department, seven of the entities interviewed assume that entrepreneurs know the institutional offer of support means; the other seven entities believe that there is a need for greater dissemination so that those interested in creating a company know the offer of programs to support entrepreneurship. They also mention that they work with insufficient resources and that entrepreneurs are unaware of other sources of funding.

Conclusions

In general, there are a significant number of entities that support entrepreneurship from different scopes, however, their work is disperse and they are not articulated into a collaborative work scheme that pursues a common objective explicitly to generate a positive impact of greater magnitude in the creation of companies at the departmental level.

On the other hand, formal institutions promoting entrepreneurship in Quindío (except one of those interviewed) do not have a specific target population on which to focus their programs and projects. In this sense, support is provided in a generic way to all individuals who require support in the creation of their own business, regardless of whether it materializes or not. Despite the above,

the institutions analyzed assume that their programs are known among the population with EI and that the people concerned use them.

Although there is an interrelationship between institutions to support entrepreneurship in Quindío, the entities involved in the creation of companies are unaware of the dependence and collaboration level with other agencies. Despite this, SENA leads as the entity that brings together much of the efforts to promote entrepreneurship and the creation of new companies in the department.

On the other hand, it is seen that the entities linked to support the creation of companies show duplicity in their functions and strategies to support entrepreneurs, which implies oversupply of services in some fields such as training and deficit in others such as marketing and availability of seed capital. This situation implies that a greater degree of specialization by each entity could be sought in some of the components of the value chain of business creation and the development of institutional competencies in areas where support is still lacking.

Funding for entrepreneurship development activities in Quindío is provided especially through local and national resources, although there appears to be a lack of budgetary commitment on the part of the mayor's office of Armenia and the Governorate of Quindío, however, the latter entity enjoys recognition among the other institutions interviewed, possibly because it presides over the Regional Entrepreneurship Network. On the other hand, there is a noticeable lack of international cooperation furtherance, both public and private, to finance activities that support the creation of businesses in the department.

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Climate Change, Endangered Environment and Vulnerable Aboriginals of India – A Critical Study

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ABSTRACT: The severe effects of unprecedented climate change are justifiably considered a serious threat to human civilization in general and tribal-rural or aboriginal population in particular. The crisis has been identified globally but its consistently negative effects on indigenous people of the developing countries are not properly measured. In India such effects are projected to impact the millions of lives in folk-tribal heartland. It is historically proved that various effects of climate change such as sea level rise, recurrent floods, draughts, evaporation, increased cyclonic activities like tsunami, rising temperature have badly affected the downtrodden backward people like ‘adivasis’ (Indian tribal) and their tradition-bound livelihood in this subcontinent. Due to changed weather pattern agricultural production has been rapidly declined in the last few decades in India. The present study needs to state that if climate change occurs in such way, India will lose land especially in the coastline and the rural economy will be affected drastically. In fact, climate change is a scary prospect especially for these rural populations whose culture is predominantly subsistence-based and non-urbanized in basic nature. The paper also tries to focus on the age-old indigenous awareness of ills of global warming and ongoing climatic change. The forested tribes have raised again and again their voices against the abrupt tree-falling and the timber merchant-contractors-politicians nexus that lies behind it. Growing social awareness of climate change and balanced sustainable development can minimize the vulnerability of these marginal populations.

KEYWORDS: climate change, damage to environment, indian aboriginal, livelihood, vulnerability

1. Introduction

Our blue planet and its environment are explicitly endangered in present times, and it is happening with rapidity due to drastic climate change. The climate change as a phenomenon is being experienced by people all over the world in many forms like rising temperature or global warming, extreme climate events, changes in rainfall pattern and increase of drought like situations. It poses new challenges to natural resource management and livelihood of common people. It is rightly argued that since the birth of the Industrial Revolution, humankind has become a carbon-producing, greenhouse gas-making machine that is annihilating our earth’s atmosphere and destroying wildlife habitat at an unbelievable rate. The hard truth is ‘The unimpeded growth of greenhouse gas emissions is raising the earth’s temperature. The consequences include melting glaciers, more precipitation, more and more extreme weather events, and shifting seasons. The accelerating pace of climate change, combined with global population and income growth, threatens food security everywhere’ (Nelson et al. 2009). No doubt, it is a global crisis but at the same time, the effects of climate change on the aboriginals of the countries like India are extremely vibrant. The subsistence-based and non-urbanized rural tribal communities of India are considered the most vulnerable to the effects of climate change and changes in environment in our times. Persistent changes in the weather have resulted in the overall decrease in the quantity of available water in all water sources of land, habited by the rural and agrarian folk-tribal people of India. Rising temperature in increased level has led to a shift in forest diversity proved fatal for livelihood of the forested tribes of India. The present study attempts to reveal that tribal heartland mostly forest and hilly regions in India whose economy is completely dependent on natural resources have transformed into more fragile, complex and vulnerable to global climate changes. Indeed, India is the second most populous country in the world with population of nearly 130 crore people. Keeping pace with the growing population rapid industrialization and urbanization in this country, climate change could put additional pressures on its overall ecology, environment and socio-economic systems. India has justified reasons to be concerned about the climate change (Dhani 2010).

1.1. Objectives

The principal aim of this proposed study is to identify and assess the multiplied impacts of climate change upon the aboriginal population living mainly in forest and hilly areas, scattered in different states of India. To assess especially the climate change impact on livelihood and changed socio-economic status of the tribal peoples. To study the social, economic and cultural vulnerabilities in this respect of those marginalized tribal societies of India. Besides, to unearth the truth that the impacts of this ensuing climate change even among the aboriginal are not gender neutral. Lastly, in this study attempts have been made to identify the traditional knowledge to face the climatic variability such as global warming and to promote the age old concept of sustainable development.

1.2. Methodology

The random physical survey in the tribal core areas of this subcontinent was done. Primary data were collected in different times through participation in the community programs and interviews with individuals and tribal groups. Trend analysis was done by collecting secondary data on various subjects such as temperature, rainfall, flood and drought, crops production and animal husbandry from several governmental and also NGO levels. Secondary data had been accumulated mostly from *panchyaets* (village assemblies) and District Agriculture, Irrigation and Statistics Departments. Moreover, Focus Group Discussions (FGDs) were conducted with tribal-village folks to determine visible impacts of heavy and low rainfall on agriculture, livestock and overall livelihoods in the regions. These were conducted on in different groups based on gender, socio-economic status, and primary occupation. Apart from survey and interaction with the indigenous peoples, studying various literatures helped a lot in collection of empirical data.

2. Climate Change and Indigenous People of India: An Overview

As a consequence of ongoing climate change, the climate of India in general has become increasingly volatile over last few decades. This dangerous trend is expected to continue. Extreme weather events like flood and drought indicate climate change which used to affect badly the indigenous rural people of India. It is argued empirically that India will be among the worst hit countries that may face calamities like floods, and heat waves and reduced GDP (Sharma 2018). Climate change and its ways of affecting the present world is a burning issue, no doubt. But rarely does its impact on minorities and indigenous groups get a mention, even though they are among the worst affected (Baird 2008). Indeed, ‘The close relationship of some indigenous peoples and minorities with their natural environments makes them especially sensitive to the effects of global warming. In some cases, people’s way of life and even their way of existence are being threatened by climate change’ (Baird 2008). It is equally applicable for India also. Aboriginal in India who relies more heavily upon natural resources for food, medicine, travel and utility in their daily lives are affected badly by ongoing climate change (Mc Lean 2009). Consequently, they are now facing cultural, health and food security challenges and are in need of finding solutions to adapt (Downing & Cuerrier 2011).

Unquestionably, the existing problems of poor indigenous farming peoples in India, if not addressed in time, will become more acute due to global warming induced climate change and growing environmental hazards. Saxena observes few vital effects of climate change on both tribal and non-tribal populations in India such as growing rise of sea level and further displacement of peoples, ingress of saline water and food insecurity, reduced fresh water supplies, spread of water-related diseases and so on (Saxena 2009, 39-40). In fact, the most vulnerable to climate change are the poor indigenous peoples of India and unfortunately their assets and livelihoods are mostly tied to climate-sensitive factors of production. It is assumed that globalization and climate change are two interrelated phenomena that have eroded indigenous communities’ forest rights and traditional forms of livelihoods.

2.1. Aboriginal or Tribal people of India: in Nutshell

Aboriginal or indigenous people in Indian subcontinent are generally called tribal or ‘*Adivasi*’ (implying original inhabitants of the land) and India has the second largest concentration of tribal population, after

that of the African continent. There are about 360 tribal groups or communities speaking more than 100 languages and dialects in India. Tribal population of the country, according to 2011 census, was 1,210,193,422 and constituted 8.6% to the total Indian population (Census Report of India 2011). The areas comprising a large number of states or provinces like Andhra Pradesh, Chattisgarh, Orissa, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, Himachal Pradesh, West Bengal and North-East regions habited by the tribal people (STs) in India are known as ‘Scheduled Areas’. Those tribal people are living mainly in forest and mountainous regions, within the close proximity of nature. Thus, most of those *Adivasis* depend on forests and forest resources for their livelihood. Tribal have been facing so many socio-economic and psychological problems since historical times. Now there has been an addition such as climatic and environmental changes which expedited their hardship immensely. These primitive tribal communities of India have virtually reached a state of total collapse, and their sufferings have been enhanced due to changes in climate and ecology. Gradual but steady changes in natural resource base due to global warming will affect lives and livelihood of these *Adivasis* permanently.

2.2. Impact of Climate Change on Tribal womenfolk: Gender Discrimination

These aboriginal people have fewer resources to assist them adapt to climate change and who usually depend more directly on local ecosystem than their wealthier neighbors do. However, the interesting point is womenfolk among the tribal peoples even in India used to suffer most in the backdrop of climate change induced natural disasters. Minj in respect of tribal societies of Jharkhand, India observed, ‘If climate change has a huge impact on tribal community as a whole, then women are the most disproportionately affected the change. Gender discrimination combined with current marginalized situations increase the probabilities of women casualties and victims during disaster and emergency situations’ (Minj 2013, 39). Women usually risk their lives because of their tendency to stay behind to rescue their children and the elders. In tribal societies also, food securities may force womenfolk to eat last and eat least even if they are pregnant or nursing mother making them susceptible to illness and diseases (Tebtebba Foundation 2008).

Brundtland commented on this few years ago: ‘Poor people are more vulnerable to climate change due to their limited adaptive capacities to a changing environment. Among them, the rural poor, rural women and girls are the ones most immediately affected. Climate change impacts are not gender neutral (Brundtland 2007). In fact, climate change and natural disasters such as floods, droughts, cyclones and storms affect the aboriginal women differently, and more severely. Climate change induced large-scale migration from inundated areas is expected, and migration again leads to extra hardships for women among downtrodden ethnic communities.

3. Climate Change, experienced by the Aboriginal in India: Vulnerable Life and Livelihood

Climate Vulnerability Index (CVI), calculated from social, economic, agriculture, water resources, forest and climate indices, suggest that millions of aboriginal-tribal people in India are threatened by climate change and changing nature of the environment. It is rightly observed that the close relationship of some indigenous peoples and minorities with their natural environments makes them especially sensitive to the effects of global warming. In some cases, peoples’ ways of life and even their very existence are being threatened by climate change (Baird 2008, 341).

3.1. The Himalayan Tribes in India and their Vulnerability

So far India’s hilly tribes or tribal folks living particularly in the Himalayas Mountain regions are concerned; the situation produced by the climate change is graver as well as alarming. Researches show that ‘In addition to the already existing threats and pressures on mountain ecosystems, climate change can be additional burden to bear by the mountain ecosystems, species and peoples. Mountain people have lived with and survived great hazards for thousands of years, but the current rate of climate change is very rapid which adds to the socio-economic pressures. Mountain regions are seeing the greatest impacts on livelihoods and ecosystems with reduced ice and snow cover affecting biodiversity and water resources’ (Dhani 2010, 34). The Himalayan tribes are witnessing with fear in last fifty years the effects of global warming: retreat of glaciers, abrupt melting snow, advancement in leafing time in trees and plants, delay in autumnal leaf shedding, upward movement of wood species, and disappearing of several flora and fauna in

mountain. Stretching from east to west are, covering 3000 km, is the massive Himalayan mountain chain which represent one of the largest wilderness areas of the planet. The evolution of monsoon rainfall pattern of Asia is attributed to the rise of the Himalayan Mountain range. The uncontrolled global warming might severely affect the rivers that flow from the Himalaya through the Gangetic Plains, as well as the climate regime of the entire region (Dhani 2010, 34).

However, the flowering time, fruiting time and new leaf formation time in this hilly regions has shifted from February-April to December-February are clear examples of climate change. These new phenomena have bewildered the mountainous ethnic peoples of India whose livelihood predominantly depended on plantation and vegetation. Patwal (2010) in his study on Himalayan villages has shown that how the tribal-folks expressed their valued observation relating to ongoing changes in climate. There were rare snowfalls in recent years in their locality which earlier used to be a regular annual feature. They observed that there were huge apple and orange trees in the villages, but now almost they are nowhere to be seen. Though the villagers tried to re-plant them the tree could not survive due to higher temperatures (Patwal 2010). Patwal (2010) further argues that rapid melting of Himalayan glaciers or decrease in snow cover has affected the overall availability of water for drinking, agriculture, hydropower and other purposes. Shift in forest vegetation, biodiversity and cover will have positive or negative impact on the livelihood of local communities.

3.2 Experiences of Sufferings of the Indian Forest Tribes

Fourth Assessment Report of Intergovernmental Panel on Climate Change (IPCC) after a prolonged debate in 2007 finally accepted that communities who live in marginal lands and whose livelihoods are highly dependent on natural resources are among the most vulnerable to the climate change (Fourth Assessment Report of IPCC 2007). Undoubtedly, forest is the basic supporting system of these tribes. Their economy is agro-forest based which substituted with livestock and skilled labor. Macchi observes in this context that many indigenous and traditional peoples who have been pushed to the least fertile and most fragile lands as a consequence of historical, social, political and economic exclusion are among those who are at greatest risk (Macchi 2012). In this complex perspective, aboriginal people such as innumerable forest tribes living in different regions of India are considered the worst victims of the climate change. In his research of nearly 32 tribal communities of Jharkhand, India Minj comments explicitly, ‘Vulnerabilities of climate change in Jharkhand can effect health, education, family, gender, social conflicts, access to political power, income generating activities, migration, dignified access to food and employment’ (Minj 2013, 40). Tribal communities of these regions of India are often highly dependent on local natural resources such as forests, hence are far more vulnerable to the impacts of climate change than urbanized parts of the country (Bhattacharya & Prasad 2009). Sushant argues that climate change can affect forests by causing shifts in vegetation types and altering the frequency, intensity, duration, and timing of fire, drought, insect and pathogen outbreaks. Changes in the climate and atmospheric carbon dioxide concentration also affect forest structures and species composition, as these conditions determine the ecological niches within which different organisms can thrive and the amount of primary productivity that can be sustained by the ecosystem (Sushant 2013, 339).

About 100 million people mostly tribal in ethnicity living around forests in India derive their livelihoods from the collection and marketing of non-timber forest products (NTFPs) (Saxena 2003). Changes in forestry due to change in climate could have profound implications for the traditional livelihoods of these aboriginal population. Again, most of the tribal in India are victims of acute poverty and are living in worst living conditions (Sharma & Dwivedi 2007). In India, seventy-five tribes such as *Gond* and *Baiga* (Sushant 2013, 341), categorized as Primitive Tribal Groups (PTGs) generally known as forest-dwellers are suffering most on account of severe changes in climate.

4. Indigenous Knowledge and Perception of Environment and Sustainable Development in Aboriginal Culture

“A sustainable society meets the needs of the present without sacrificing the ability of future generations to meet their own needs.”

—The World Commission on Environment and Development (Davis 2007)

Survival and existence of human beings primarily depends on environment in which they dwell. Development of mankind on the earth is profoundly connected to the environment and nature. Hence, environment and development are interlinked and interdependent. In other words, ‘The “environment” defined as those whole outer physical and biological systems in which man and other organisms live as a whole, albeit a complicated one with many interacting components. The wise management of that environment depends upon an understanding of those components: of its rock, soil, minerals and waters, of its present and potential vegetation, of its animal life and potential for livestock husbandry and of its climate’ (Subramanyam & Bhadrudu 2013). On the other hand, sustainable development has many definitions. ‘Sustainable development is a process of social and economic wellbeing. In order to meet this end, we must ensure that the demand in the environment does not exceed its carrying capacity for the present as well as for future generations’ (Subramanyam & Bhadrudu 2013). It demands a change of attitude towards nature. Nature is not just natural resources for human consumption (Subramanyam & Bhadrudu 2013). In this new perception development process should not disturb the ecological balance and environmental purity as well as equality. Interestingly, aboriginal people all over the world do possess such basic knowledge since earliest times.

4.1 Global Warming in Indian Tribal Mythology and Folklore

In India aboriginal people through the ages preserved their own indigenous knowledge to understand the changes in climate and phenomenon like global warming. Sarangi observes, ‘Traditional *Adivasi* food systems tie together ecological realities, *Adivasi* identity, indigenous knowledge, social meanings, health, nutrition, and economics’ (Sarangi 2019). It is also argued that production practices are grounded in ecological principles like sustaining soil fertility, sustaining biodiversity, and conserving energy through practicing poly-cultural farming, with numerous crops growing in tandem (Sarangi 2019).

Primitive tribes of this subcontinent are well aware of the global warming over the ages. Several myths are current in tribal folklore demonstrate that the earlier tribal peoples knew this environmental phenomenon very well. Indeed, climate change in general and global warming in particular is not recent phenomena. It is argued that our planet has passed through several warming phases as proved by geological evidences. Times of glaciations on the earth have followed by warm intervals and the duration of years both cold and warm intervals has varied by several orders and magnitude. Priyadarshi adds a new dimension and comments, ‘Other than scientific evidences some of the Indian Tribes of Jharkhand State indicate in their folk stories warming as a major factor of disaster in ancient times...They expressed global warming in the form of Fire Rain, which God showered from Heaven to destroy the evil people’ (Priyadarshi 2007). Mythologies and folk stories of the *Munda*, *Asura*, *Santhal* and *Ho* tribes of Eastern India reveal such stories of global warming. The essence of these stories tells us that *Sing Bonga*, the Sun and Supreme God of the aforesaid clans once became so furious against the mankind, and showered down on the earth below a terrible rain of fire to destroy them. Here rain of the fire can be interpreted as scorching heat (during the phase of global warming) at that time which affected human civilization (Priyadarshi 2007).

4.2 Tribal Knowledge of Ecology, Environment and Sustainable Development

Tribal peoples of this ancient land have their sufficient age old knowledge to maintain eco-friendly as well as symbiotic relationship with mainly the forest environment in which they inhabits centuries together. But presently outside influences are the major threats to the natural forest environment inside India. Large scale of forest degradation is taking place due to ‘commercialization of forests’ since colonial regime in India (Priyadarshi 2007). However, the tribes in India have a lot of empirical knowledge on the basis of their experiences while dealing with the forest and its resources as well as entire environment. It is argued emphatically that ‘The traditional wisdom is based on the intrinsic realization that man and nature form a part of an indivisible whole, and therefore should live in partnership with each other. This eco-centric view of tribal communities is widely reflected in their attitudes towards plants, animals, land and water. The whole body of knowledge centered in the economic value of plant and animal species, is part of ethno-biology, and has potential value for the forest dwellers of this country (Subramanyam & Bhadrudu 2013).

One can hardly ignore that indigenous knowledge of the aboriginals also play a pivotal role in conservation of natural resources such as forest, land, water, minerals etc. the aboriginals have traditional knowledge of the flora and fauna, to which they interact in everyday life to meet their basic prime need of food. In general, the *Adivasi* people of India rarely kill the animals, bird or cut a tree or plant with which they claim totemic affiliation (Subramanyam & Bhadrudu 2013). Those people draw their sustenance largely from the forests which provide them with food, timber, medicinal plants and herbs, materials for construction of houses etc. Moreover, ‘Their belief systems, social, economic and ritual activities are intricately interwoven around forest and hills. They have coexisted since time immemorial. The tribals hold this symbiotic relationship in great esteem and they regard various species of forest as their kith and kin (Subramanyam & Bhadrudu 2013).

In the above wider perspective, it may be assumed that the so-called modern concept of sustainable development is not at all new or unknown to the indigenous people in India. In brief, a strong environmental ethics is embedded in India’s aboriginal life and culture. These people believe from their hearts over the centuries that proper protection, conservation and regeneration of natural resources are the best solution to achieve the sustainable environment which can diminish or reduce the impact and effects of the ongoing climate change.

5. Conclusions

The present study hardly claims to encompass the whole human-environment interaction consisting of so many fundamental and huge aspects in the background of multi-faced climate change. But simultaneously, this study has been successful in highlighting and analyzing the major issues and perceptions related to climate change and changes in environment. Besides, the most and prime concern of this topic was to focus light on a gray area, i.e. the growing vulnerability of the aboriginal-tribal peoples of contemporary India in the context of climate change. The study has reviewed the status of indigenous peoples’ perception and concern of climate change along with their unique adaptation strategies for survival. Indigenous people not only in this subcontinent but in everywhere in the world have long been exposed to many types of environmental changes and have developed strategies for coping with these phenomena. (Minj 2013, 35) They have valued knowledge about adapting to climate change, but the magnitude of future hazards may exceed their adaptive capacity, especially given their current conditions of marginalization (Macchi 2012). It is rightly argued that ‘Science and technology are useful but, it is traditional knowledge that has kept these people in a flux of adaptation’ (Downing & Cuerrier 2011, 67).

In current times, ongoing climate change has made the environment fatally endangered in one hand and pushed the aboriginal peoples towards vulnerability on the other. Researches carried out by the United Nations High Commissioner for Refugees, Geneva has substantiated the fact that environmental change and climate change is one of a larger set of factors that affect human migration and displacement worldwide (Warner 2011). Moreover, social interaction between different tribal groups and communities can have positive effects to face this crisis. Groups hit by adverse conditions can acquire resources from other groups not experiencing the same problems (Salick & Byg 2007). Stronger democratic institutions, open and democratic platform are highly needed for supporting community resilience to the livelihood impacts of climate change (Sushant. 2013, 353). As concluding statement it may be stated that for understanding the complex nature and its effects of climate change on the aboriginal population more comprehensive studies covering both social sciences and natural sciences together (Minj 2013, 37) are required. Study of climate change and its coherent volatile impacts upon the life and culture of indigenous peoples needed a holistic approach for an interdisciplinary understanding.

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The Effectiveness of Administrative Consolidation Processes in Urban Functional Areas.

Case Studies from Poland and the USA

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ABSTRACT: Urban functional areas usually extend beyond the city's administrative boundaries. As a result, there is a problem of coordinating effective public service provision between the city and its suburbs. A review of world experience shows that two institutional solutions are usually applied here – intercommunal cooperation or adaptation of administrative borders to the scope of the functional zone. However, the studies so far have not provided an answer as to which method is more effective. The objective of the paper is to compare the processes of adapting administrative borders to urban functional areas. The hypothesis was formulated that uniform management of the entire functional area favors effectiveness and institutional sustainability of public service provision. Princeton in the USA and Lubin in Poland were selected as case studies. Princeton is an example of successful administrative consolidation of the city with the surrounding rural commune, while in Lubin, unfortunately, such a project was not implemented. In the conclusion was found that inter-communal cooperation does not provide sustainable solutions and is exposed to cadenza changes of decision-makers. The most effective seems to be the consolidation of individuals, but its success depends on a very well prepared and transparent procedure.

KEYWORDS: urban functional area, administrative consolidation, public services, inter-communal cooperation

Introduction

Administrative borders do not usually coincide with the functional impact zone of the cities. Urban functional areas extend beyond the administrative boundaries of the city. This situation has an impact on the organization of public services. The structure of these services and their quality should be continuous throughout the functional zone. As a result, there is a problem of coordination of effective public service provision between the city and its suburbs. Management in closed administrative boundaries of areas does not correspond to the real needs of the inhabitants and thus interferes with the regularity of the city development process. Therefore, there is a need for solutions that would eliminate these dysfunctions. A review of international experiences shows that two institutional solutions are usually used here – inter-municipal cooperation or the adaptation of administrative borders to the scope of a functional zone. However, the research so far has not provided a clear answer to the question of which method is more effective.

The aim of the study is to compare the processes of adaptation of administrative borders to urban functional areas on the example of two cities. One of them is Princeton in New Jersey (USA), which is an example of successful administrative consolidation of the city with the surrounding rural municipality. The second example is the Polish city of Lubin, where inter-communal cooperation was developed and the initiative to consolidate two administrative units has not yet been implemented. The analysis of these two separate cases, although they originate from other continents and countries, should prove the universal regularities that accompany the processes of managing functional zones.

Declarative inter-municipal cooperation is able to eliminate many problems and adapt the scope of tasks to the developing functional zones. However, in practice, there are few effective and stable examples of such actions. Sub-optimal solutions dominate, and their sustainability is largely based on leaders' personalities rather than institutional solutions. This results in a research hypothesis of this article expressing the conviction that uniform management of the entire functional area fosters efficiency and institutional sustainability of public service provision. Due to the fact that inter-communal cooperation does not provide sustainable solutions and is exposed to

cadence changes of decision-makers, the most effective seems to be a consolidation of entities. In practice, this means that the changes in administrative boundaries should follow the changes in the functional zone. It is worth noting, however, that due to the inertia of administrative divisions, carrying out consolidation projects is not easy—their success often depends on a well-prepared procedure, long-term consultations, and transparency in presenting the results.

Background

The nature of many public tasks performed by local government units (LGU) often exceeds their administrative boundaries. These issues were dealt with in detail by Bennett (1997), distinguishing between administrative and functional space. Defining the relationships between these types of space, he distinguished three model situations, which are presented in the figure 1.

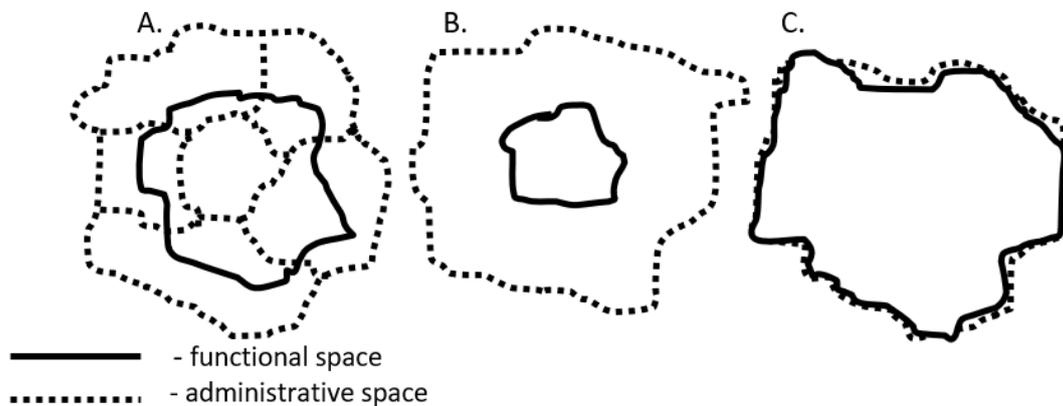


Figure. 1. The models of relations between administrative and functional space

Source: Own elaboration based on Bennett (1997)

In the first model (A) small administrative structures divide a uniform functional space, in the second (B) the functional structure is entirely contained in the administrative unit and is much smaller than it is, and in the third model (C) administrative boundaries are adapted to social, economic and environmental functions. In practice, the third type of relationship is very rare, where there is a good relationship between administrative boundaries and gravitational zones. In the case of agglomeration systems, this is usually the first type where a smaller administrative space is included in a wider functional area. In this case, more efficient and effective provision of public services requires coordination of activities, institutional forms of cooperation, or changes in administrative boundaries.

A functional area is a geographically, spatially and economically coherent zone of city influence, based not only on the existence of functional links but also on advanced urbanization processes (Śleszyński 2013). According to the OECD (2013), urban functional areas are considered in terms of population density, which allows determining the city core and flow streams (a daily mobility variable) defining a suburban zone. In other words, it is a compact urban settlement system (core) and a functionally linked urbanized zone. This complex, economically, socially and spatially coherent area allows for the coordination of flows shaping the quality of life of residents (Yanqiang 2014; Przybyła, Kachniarz 2017; Hansen 1959). The scope of these flows, therefore, determines the cohesion limit of a given functional area. Its effective management requires an integrated and horizontal territorial approach. It optimizes costs, increases efficiency and rationalizes the prices of services provided, ensuring an efficient management process.

Such a research problem is the subject of many discussions, polemics, and research concepts. Representatives of the traditional school of metropolitan reforms, such as Stephens and Wilkstrom (2000), tend to favor formal solutions, i.e. LGU consolidation. Communalists', such as Ostrom,

Tiebout, and Warren, (1961), based on the theory of public choice, believe that the situation can be controlled through inter-communal cooperation.

Looking at global trends over the last few decades, we can see a clear trend towards increasing the size of LGUs through their consolidation. In Europe, for example, this was diagnosed by Swianiewicz (2015), while in the USA, Faulk & Hicks (2011). However, the results of research on the effects of these consolidations are not unambiguous. The assumed effect of scale and reduction of operating costs of LGU in ex-post studies is very difficult to demonstrate. Tavares (2018) carried out a broad review of the results of such studies.

The results of recent research undertaken in the USA (Caprio & Pfeiffer 2014; Bel & Warner 2015), the Netherlands (Allers & Geertsema 2016), Denmark (Blom-Hansen et al. 2016) and in Poland (Kachniarz 2014) recommend cautious expectations rather than unbridled optimism, which often results from government reports. The effects of intercommunal cooperation are assessed in a similar way. Research conducted in the Netherlands (Allers & de Greef 2018), France (Frère, Leprince, and Paty 2014) and the USA (White 2002) has shown that theoretical assumptions rarely bring results in practice. As Swianiewicz (2018) notes, such a shape of results may result from the fact that most of the reforms are forced in nature. There are relatively few bottom-up consolidations, voluntarily initiated by local authorities and communities. In such a case, conformism may be smaller and thus more beneficial. Swianiewicz points to a research gap concerning such projects, which this article tries to fill, albeit in part.

Materials and methods

In order to achieve this goal, in the first part of the research, the source materials were searched in order to reconstruct the history of spatial structure formation in Princeton (USA) and Lubin (Poland). In this way, the functional dynamics of cities were identified, along with the identification of the causes of these processes. In the second part, the literature and source materials concerning the process of designing and implementing consolidation projects in both cities were analyzed using the desk research method. On this basis, the course and nature of decision-making processes, which were the basis of these undertakings, were reconstructed. Particular attention was paid to the role of communication and consultation elements with local leaders and residents in the achievement of key decisions. All these elements were subjected to comparative analysis in order to sublimate the characteristics of each of the processes, which could become good universal practices.

A number of different primary and secondary sources have been used in these studies. These were mainly statistical databases aggregated in the Central Statistical Office's Local Data Bank (BDL GUS), City Data and New Jersey State Data Center (NJSDC). A great deal of information was also obtained from analyses and reports prepared in both cities to justify consolidation projects. In Princeton, it was primarily a study by the Consolidation Committee entitled: "Borough of Princeton and Township of Princeton Joint Consolidation/Shared Services" (Summary Report, 2011). In Lubin, in turn, the basis for the expert report was the "Functional and spatial conditions of Lubin's development." (Czamara et al. 2019). The basis for the evaluation of the effectiveness of these projects was the analysis of studies and evaluation reports prepared by various bodies. It included materials created by self-government executive boards, studies by independent experts and scientific analyses. In order to determine the moods accompanying these projects, a media analysis of press publications (e.g. New Jersey Monthly and Gazeta Wrocławska), information portals (e.g. njspotlight.com; lubin.pl) and radio and television programs (e.g. PCTV; NJTV; TVP3; Radio Wrocław) was carried out.

Results and discussions

The first subject of analysis is Princeton - a city and borough's located in New Jersey, USA. Princeton's municipalities had roughly similar demographics. The township's population of 16 200 was comparable to the borough's 12 300. Princeton's municipalities had roughly similar demographics. The township's population of 16 200 was comparable to the borough's 12 300. The

town and the surrounding residential areas, by age, race, income, and average household size, were comparable.

The functioning of Princeton University, a leading university in the USA, makes the city stand out from other areas of New Jersey in many ways. The structure of employment is dominated by creative class - in terms of the population holding Master's and Ph.D. degrees, Princeton is ranked 4th in the entire United States. It is also one of the leading American cities with the highest percentage of the population working in educational professions and in the field of science. For this reason, average earnings, the value of a real estate or property tax revenues are also higher in this area. The power of attraction is manifested in daily migrations - commuters and service users account for almost 100% of the local population. The characteristic feature is that the urbanized functional zone developed independently of the historically shaped borders. An example was the university campus, which until the moment of consolidation was crossed by the border of these two communes.

The second subject of our analyses is Lubin—a city in the Lower Silesian Region in south-western Poland. Lubin is the capital of the Copper Basin, with a large dominance of industrial functions (copper mining and metallurgy). With a population of around 80,000 and a rural municipality of 15,000, the city is a much larger center than the surrounding rural areas. The urban sprawl processes diagnosed here are typical of many similar centers, so this case study can be representative of many European cities. In the case of Lubin, strong external suburbanization processes were defined, in which the city loses its inhabitants to the benefit of the neighboring communes. This is related to spatial effects ("spill-over" of the city), economic effects ("taxpayer relocation") and social effects ("elution" of active social groups from existing urban structures). The consequence is, clearly defined, difficulties in integrated management of this functional area. After 1988, despite the expansion of the functional zone, management remained within the former administrative boundaries. Earlier, along with the process of the spatial development of Lubin, its borders were also extended. As a result, the former rural areas underwent significant changes not only in terms of infrastructure but also in social terms. They constitute Lubin's residential base and their inhabitants are connected with the city by both work and daily migrations in order to fulfill their life functions. In both cases, therefore, the influence of the city is, in fact, wider than the administrative boundaries, which in many places seem rather random. Both in Princeton and Lubin, the LGU layout resembles boroughs doughnut hole, which was fully surrounded by the township.

Therefore, the question arises about the effectiveness of logistics of the entire functional area, which is the basis for its development processes. From the point of view of urban and social logistics, it is an area which allows for long-term shaping and coordination of appropriate organization of public services. Neither a city separated from its suburbs nor suburban areas separated from the city are able to meet such a condition. Only coherent management of a functional zone can combine these two potentials. It can take place in the form of cooperation between two local governments or administrative consolidation.

In both cases, attempts at joint management of services can be identified. In the case of Princeton, the municipalities already had many shared services (thirteen in all). Among the shared services were animals control, common social service agency (The Corner House), the Fire Department, first aid and rescue, the Health Department, recreation, planning, and the library. In addition, the two municipalities shared some school district and the Open Space Fund. The sharing services had a wide scope and a long tradition here.

The situation in Lubin was very different. Although cooperation was undertaken in many areas (e.g. education, communication, economic development, planning, municipal management), the practices of service sharing turned out to be surprisingly unstable. Many services were combined, then distributed, and after the next elections, they were combined again. These decisions were clearly influenced by cadences and the lack of mutual trust between the authorities. Many coordination initiatives have not avoided sub-optimal solutions, not only in terms of costs but also in terms of the quality of services offered to citizens.

Therefore, it can be concluded that the initiative to consolidate communes in the case of Princeton appeared thanks to long-term cooperation in providing services, whereas in Lubin it was exactly the opposite - the problems in cooperation led to the idea of a merger. In both cases, however, the goal of consolidation was the same - elimination of problems of coordination of activities in the areas which were previously under different jurisdictions. It should be stressed that, despite the different circumstances of the consolidation decision, in both cases, it was a bottom-up decision that originated in the directly concerned LGUs. This is an important remark, as many consolidation reforms in the world are forced by central governments. In this case, the role of governments was limited to stimulating the process only. In the case of Princeton, the state of New Jersey declared to cover a significant part of the costs of the merger, while in the case of Lubin, the government provides a systemic incentive in the form of a financial bonus (5% more share in the PIT for a period of 5 years). The proposals for consolidation in both cases were to be the same - through the amalgamation of two communes and the establishment of one LGU. However, the process itself proceeded differently, which is why we are now dealing with different effects of the process.

In Princeton, such proposals were not new - the first time the consolidation question appeared on Princeton ballots was in 1953, when the proposal was soundly rejected in both the borough and township. Another consolidation referendum in 1979 passed in the township and was narrowly defeated in the borough. And in 1996, one more consolidation proposal failed by a thin margin in the borough while winning strong support in the township (Summary Report 2011). In the case of Poland, self-governing communes were established as a result of the reform in 1990. The first concrete proposals of the city concerning the merger appeared in 2003, unfortunately, they were unambiguously rejected by the rural commune. Again, the proposal was submitted by the city in 2011, after the change of authorities in the rural commune, and in 2015. Unfortunately, the commune reacted negatively to both proposals by creating a media narrative that the city wants to "annex" the rural commune. As you can see, Princeton's experiences were similar to those in Lubin, but the second case had a much shorter time horizon.

The key decisions to merge the two Princeton municipalities were taken in 2009 when Borough and Township's governing bodies initiated a process to explore the potential benefits of consolidating into a single municipality. A Commission of Borough and Township representatives was formed to examine the issue in depth. The Commission has produced several transparent reports presenting different versions of the solutions. Great emphasis was placed on reaching the citizens directly with objective information. It was like an election campaign. As a university town, Princeton boasts an abundance of intellectual capital, producing an unusually active and involved citizenry. This made it easier to staff the various volunteer commissions studying, promoting and enacting consolidation. For example one of typical consolidation study group held about 70 public meetings over 16 months, first to gather feedback and later to explain how consolidation would work (Municipal Consolidation 2013).

Throughout the whole process, expert support—Center for Governmental Research (CEG)—was also used. Following nearly a year of intensive study, and working closely with the consultant (CGR), on 25 May 2011, the Commission adopted a resolution on the consolidation. In November 2011, voters in both the township and the borough decisively approved consolidation ballot questions. This past Jan. 1 2013, after a 13-month implementation process led by a transition task force, a new mayor and council took office and the new Princeton came into being (figure 2).

In the case of Lubin, the city submitted a proposal to merge the two communes in 2015, but the lack of consent of the rural commune authorities made it impossible to continue the process. Therefore, the municipality prepared analyses concerning the functional and spatial conditions of the city's development (Czamara et al. 2019). On this basis, in December 2018, the city council unilaterally adopted a resolution on including a part of the rural commune in the city (see figure 3). As you can easily guess, it caused a protest of the rural commune authorities, which would lose the most urbanized areas. They activated its inhabitants, who expressed their opposition to such a solution in consultations. There were also many demonstrations and a media campaign based on

emotional accusations and not on factual arguments. In similar polls, the city residents were in favor of including these areas.

Despite this atmosphere, in March 2019 the city authorities applied to change their borders. According to the procedure in force in Poland, the final decision in such cases is taken by the central government. Thus, the game of changing borders has moved to the level of central politics, and more important than the opinions of local residents becomes the game of interests of major political parties. Unlike Princeton, where local decision-makers were very keen to support the residents, political power in Lubin counts in reaching the ear of the president of the ruling political party.

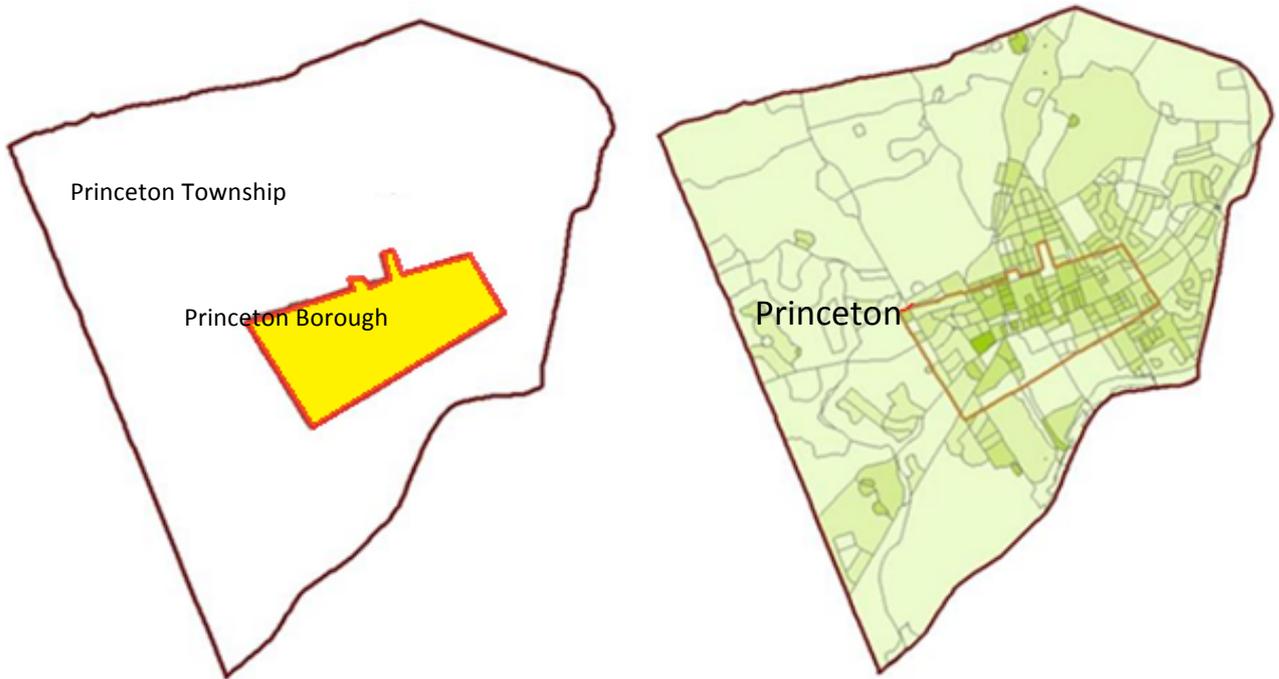


Figure 2. The Princeton's, pre- and post-consolidation
 Source: own elaboration based on (Summary Report, 2011)

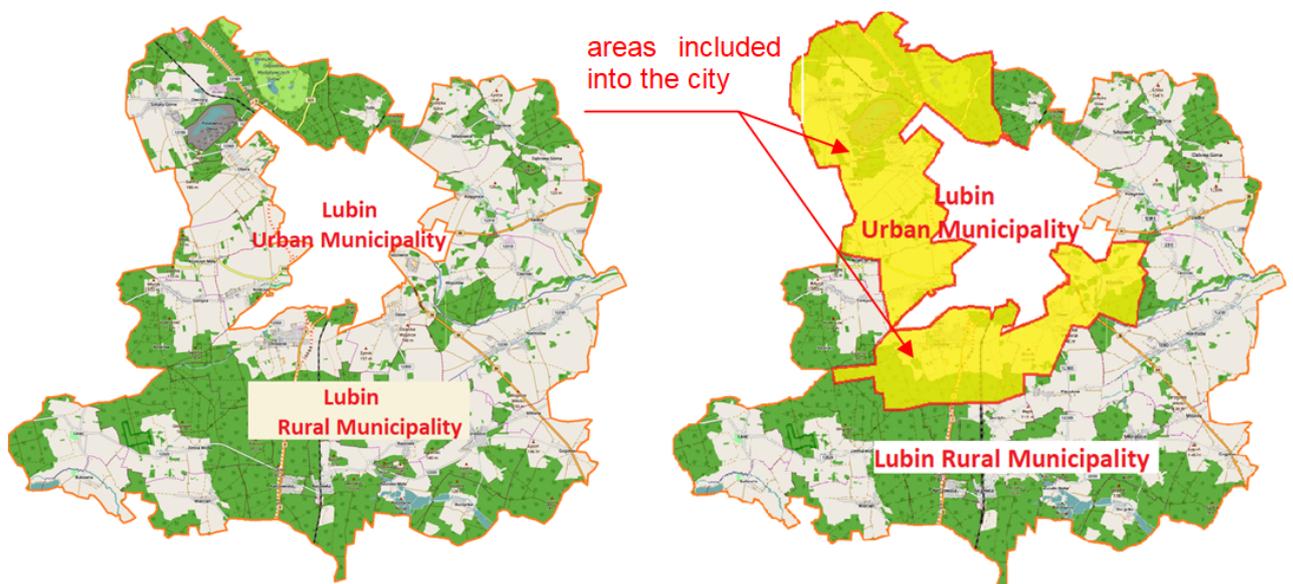


Figure 3. Lubin, pre- and post-consolidation
 Source: own elaboration

Conclusions

Neither a city separated from its suburbs nor suburban areas separated from the city are able to meet condition the long-term shaping and coordination of appropriate organization of public services. Only coherent management of a functional zone can combine these two potentials. It can take place in the form of cooperation between two local governments or administrative consolidation. The cities that have been analyzed here are cases where problems of coordination in the functional zone have been solved through inter-communal cooperation. Both cases had different experiences, but both in Princeton and Lubin, it did not bring satisfactory results. Therefore, the research hypothesis adopted in the introduction that inter-communal cooperation does not provide sustainable solutions and is exposed to cadences changes of decision-makers has been confirmed, which makes the consolidation of entities seem to be the best solution. In practice, this means that the changes in administrative boundaries should follow the changes in the functional zone. This conclusion is also the result of a number of other studies (e.g. Voorn, Van Genugten and Van Thiel, 2017; Jochen, Klimovský and Pinterič. 2016; Bel and Warner 2015).

Therefore, the initiative to consolidate the municipalities in the Princeton case appeared despite the longstanding cooperation in the provision of services, whereas in Lubin it was exactly the opposite—short-term problems with cooperation led to the idea of a merger. In both cases, however, the objective of consolidation was the same—to eliminate coordination problems in areas that were previously located in different jurisdictions. In the article a comparative analysis of two such consolidation projects was carried out, adapting administrative borders to urban functional areas. In this way, the objective of the work, as set out in the introduction, was achieved. The results of the conducted works also allow formulating a few basic conclusions.

Firstly, in the light of the studies presented here, a more effective solution to the dilemma of using soft (communal cooperation) or hard instruments (changes in administrative borders) seems the use of the latter. The many years of cooperation at Princeton have not led to fully satisfactory solutions. In the case of Lubin, the cooperation was not sustainable and depended on the authorities cadence.

Secondly, consolidation reforms seem to be more effective if they are undertaken from the bottom up. Then there is a greater chance of conciliatory rather than forceful solutions. The former are able to make better use of local conditions, which are often underestimated by top-down solutions.

Thirdly, the only way to achieve consensus for consolidation is a very active and transparent social campaign with the ability to reach out to broad groups of stakeholders with reliable information. Otherwise, demagogic propaganda will fill this gap.

Fourthly and finally, as the Princeton case has shown, it is worthwhile to involve an objective consultant in the project. His task is to lead the process to success, which requires not only the preparation of documentation but also accompaniment in all stages of the project.

This case study is a clear signal to governments policy. Taking into account the institutional conditions, it can be assumed that it is even important from the point of view of international considerations concerning the management of functional areas.

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Right to Happiness – A Challenge for International Organizations and Governments

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ABSTRACT: Through all his life, the humans seek happiness. Across the world, people aspire to live happily without fear to something or someone, and in harmony with God or with nature. In a world shaken by economic crisis, natural disasters or armed conflicts, life has shown that to be truly happy, in addition to material wealth, people also need spiritual wellbeing. We need a new paradigm of sustainable development. Economic wellbeing, social and a healthy environment together define the concept of happiness on a global scale. This might be implemented through a generic index named *the gross global happiness index*. UN, OECD, EC bodies and governments of some countries have understood that only economic indicators are not enough to develop public policies able to find solutions to the problems of the contemporary world. Economic data should be complemented with information designed to measure quality of life not only in material terms. The international community should promote sustainable development capable of ensuring every opportunity to seek happiness. The debates on the subject, held at international level could result, among other things, that the right to happiness should be recognized legally binding. There are already proposals for inclusion in the Charter of Fundamental Rights of the European Union. This paper is a call for continued efforts made by the governments of some countries and several international bodies towards the elaboration of public policies able to lead to sustainable development and improving the quality of life.

KEYWORDS: right to happiness, prosperity, human rights, sustainable development, public policy, GDP, economic growth, international community, the United Nations

Introduction

Happiness is a fundamental goal of humanity. We all strive to achieve this. Lately, economic crises, environmental disasters or armed conflicts are increasingly difficult to achieve this goal for many people. A debate was launched on the international level in order to find solutions to such problems. One of the topics proposed for debate is that of implementation of new public policies that focus on human well-being, not just economic growth. Such an approach should be based on sustainable development solutions to combat poverty and to promote the welfare and happiness of the people. For that, it would require indicators capable of measuring the degree of human happiness. A proposal in this regard is the so-called „Gross National Happiness” index, aimed at completing the GDP (Gross Domestic Product), which covers only the economic side of the issue. „Gross National Happiness” could be an indicator to harmonize the business side of the company, which keeps the environment and cultural and spiritual values of mankind. The accumulation of wealth is not enough in itself. To bring happiness, people should be completed with both *material* and *spiritual wealth* and also reconciliation with themselves, but mainly with the *Creator*, even before achieving reconciliation with nature. Lately, more and more voices are heard internationally that require new public policies, closer to people's real needs. Political leaders speak about the need to give more importance to sustainable development, to the spiritual side of being, and not just to policies aimed at assuring economic growth.

International documents, policies and mechanisms

In August 2011, the UN General Assembly adopted the Resolution 65/309 entitled: “**Happiness: towards a holistic approach to development**”, which states, *inter alia*:

„Conscious that the pursuit of happiness is a fundamental human goal, Cognizant that happiness as a universal goal and aspiration embodies the spirit of the Millennium Development Goals, Recognizing that the gross domestic product indicator by nature was not designed to and does not adequately reflect the happiness and well-being of people in a country, Conscious that unsustainable patterns of production and consumption can impede sustainable development, and

recognizing the need for a more inclusive, equitable and balanced approach to economic growth that promotes sustainable development, poverty eradication, happiness and well-being of all peoples, Acknowledging the need to promote sustainable development and achieve the Millennium Development Goals,

1. Invites Member States to pursue the elaboration of additional measures that better capture the importance of the pursuit of happiness and well-being in development with a view to guiding their public policies;
2. Invites those Member States that have taken initiatives to develop new indicators, and other initiatives, to share information there on with the Secretary-General as a contribution to the United Nations development agenda, including the Millennium Development Goals; ...Invites the Secretary-General to seek the views of Member States and relevant regional and international organizations on the pursuit of happiness and well-being and to communicate such views to the General Assembly at its sixty-seventh session for further consideration” (UN General Assembly, Resolution 65 /309, 2011).

Following this Resolution, in April 2012, at the initiative of Bhutan, at UN headquarters in New York held a high-level meeting entitled „Wealth and Happiness: Defining a new economic paradigm”, attended by hundreds of representatives of governments Member States of the UN, the religious organizations, academia and civil society.

In 1970, Bhutan has introduced a new system for measuring national prosperity, focused on people's welfare, which gradually replaced indicators that economic productivity, resulted in an indicator called "Gross National Happiness" as an alternative to GDP. One such indicator consider criteria other than strictly economic, such as the distribution of resources, sustainability, health, human rights and education.

And also due to the same Resolution adopted in August 2011 by the UN General Assembly, March 20 was declared International Day of Happiness. During the first celebration of this day, on March 20, 2013, UN Secretary General Ban Ki Moon (2013), stated that: „At last year’s Rio+20 United Nations Conference on Sustainable Development, United Nations Member States agreed on the need for a balanced approach to sustainable development by integrating its three pillars — economic growth, social development and environmental protection. They recognized that in order to better inform policy decisions, broader measures of progress should complement gross domestic product. I am encouraged by the efforts of some Governments to design policies based on comprehensive well-being indicators. I encourage others to follow suit.”

UN Example was followed by European Economic and Social Committee (EESC 2014), a consultative body of the European Union, which in June 2014 organized a debate called "Let's talk about happiness - beyond the GDP". On this occasion, EUROSTAT, the EU agency in charge of statistical indicators to use in his studies to measure sustainability and quality of life. In addition, the EESC launched the idea of a public debate on the review of Europe 2020, to include among the objectives of the strategy, in addition to creating conditions for sustainable economic growth (job creation, research, energy, environment, education, social inclusion poverty reduction) objectives regarding spiritual welfare and happiness.

On this occasion it was reminded that some EU Member States they have already taken steps in this direction. For example, in 2012 the British government published the first national index of happiness, the German Parliament has set up a commission to examine the subject, Austria had already published the first official statistics on the national welfare and happiness, and the French government established a national model for achieving a national index of happiness. Moreover, in 2008, the French Government asked a committee led by renowned professor of economics Joseph Stiglitz, to conduct a study on the measurement of economic performance. The Commission's report on measuring economic performance and social progress was published in September 2009. The aim of the committee was to identify the limits of GDP as an indicator of economic performance and social progress and determine whether other indicators could be considered for measurement in May proper social progress. One of the main conclusions of the report was the necessity to shift emphasis from measuring economic production to measuring people's well-being. „Measuring well-being is important because there is a significant difference between the information contained in the

information about GDP and what really matters to people's welfare. Recommendation No. 10: Measuring well-being both objectively and subjectively provide essential information about the quality of people's lives. Statistical studies should include questions relating to the evaluation of people's lives, what they expect from life and their priorities" (Stiglitz, Sen, & Fitoussi 2009, 12). Subjective well-being encompasses different aspects: cognitive assessments on personal life, happiness, satisfaction, positive emotions such as pride or joy that and negative, such as pain or concern. Each of these should be measured to have a complete picture on the quality of people's lives, but also to better understand the causes that determine such developments beyond the material aspects, quantitative. Official statistics should include in future studies to make this kind of measurement and data to be made available for the government (Stiglitz, Sen, & Fitoussi 2009, 16).

In September 2013, the „Network Solutions for Sustainable Development" (UN SDSN) published, under the auspices of the UN Secretary General, Ban Ki-moon, the second edition of the "Report on Global Happiness", which measure overall level of well-being of nations and seek solutions to improve sustainable development worldwide. The report was a ranking of countries by a number of components of well-being, and highlighted other similar initiatives such as „better life index" to measure well-being, conducted by the Organization for Economic Cooperation and Development (OECD) and United Nations Development Programme report. The report's findings were that noticeable improvement of quality of life were recorded in Latin America and the Caribbean, while in contrast, decreases were recorded for the indicator in areas affected by economic and financial crisis, Western Europe and other industrialized western countries, or the instability generated by social or political crisis, North Africa and the Middle East. Overall, despite the impact of the crisis in 2008 (World Happiness Report 2013, 11-13), the report finds that the world had become a little happier and more generous than in 2008-2013.

Among the 156 countries that had been analyzed, Denmark, Norway, Switzerland, the Netherlands and Sweden had the highest ranking while countries such as Rwanda, Burundi, Central Africa, Benin and Togo were at the bottom of the ranking. United States ranked 17th, United Kingdom 22nd, Germany ranked 27th, Republic of Moldova 53rd, Russia 68th and Romania 90th (World Happiness Report 2013, 22-23). According to the report, GDP per capita increased in almost all regions: in Central and Eastern Europe, in the Community of Independent States (CIS), in Latin America and South East Asia, with the exception of industrialized countries (USA, Canada, New Zealand, Australia). The level of perception of corruption has undergone significant improvements (low corruption) in Latin America, Western Europe, Eastern Asia, but has worsened (high level of corruption) in North America, Australia, New Zealand, North Africa and Sub - Saharan Africa and the Middle East.

The level of generosity had grown significantly in Asia, Central and Eastern Europe and the CIS, but had fallen dramatically in Western Europe, Latin America, North Africa and Sub-Saharan Africa and the Middle East. But the main indicator was lower living standards, according to the report, the decline opportunities to make their own decisions, especially due to the reduction in the number of public services available. Within the states most affected by the economic crisis in Europe (Greece, Spain, Portugal and Italy), there was a decrease of generosity and a growing distrust in state institutions due to widespread corruption (World Happiness Report 2013, 16-17).

In times of crisis, the reaction of the state is essential to retain people's confidence in government policies. If people believe that state policy will be able to help them out of the crisis, the difficulties will be overcome more easily. But if people lose confidence in state institutions will channel their discontent against the state. This explains the current skepticism about the European Union and the wave of populism that may be noted recently in several European countries, which prompted the rise of politicians aiming at electoral gains by promoting anti-Europeanism or even xenophobia and racism. Confidence in state authorities has decreased significantly during the crisis period, increased the degree of dissatisfaction with the government and led to social protests, some extremely violent, especially in countries severely affected by economic crisis: Greece, Spain, Portugal, Italy.

The report finds that the main causes of unhappiness among people were generated by decreasing incomes and rising unemployment. Not only those who actually had lost their jobs have been affected, but also their relatives or friends. The threat of unemployment was a cause of anxiety that had a negative influence over the people's level of health.

Situation in Europe

In the European Union, the same report finds that the living standards of economically, socially and institutions, continued to close between West and East, albeit at a rather slow pace. In this regard, another report conducted in 2011 by the Department of European Economic Studies College of Europe, entitled „Can policies make us happier?“ stated that this economic convergence between Western and Eastern European Union has not resulted in a similar way to rapid increase satisfaction for the citizens of Central and Eastern European countries. Determinants of different degrees of happiness in the countries of Central and Eastern Europe, the report found, were: corruption, government spending and decentralization. „A decade after the fall of the Berlin Wall there were two important characteristics which defined Central and Eastern Europeans (CEE) vis-à-vis Western Europeans: they were (i) significantly poorer and (ii) more miserable. Today, the majority of the inhabitants of the 10 CEE member states of the EU (EU10) remain poorer, but their income levels have converged rapidly towards those of Western Europe. Despite significant difficulties during the transition from a system of planned economy to market capitalism, in less than two decades, the EU10 countries have managed, to varying degrees, to build working institutions, establish the rule of law and run relatively successful economies, achieving high growth rates. By contrast, there is little evidence of convergence in life satisfaction. By and large, Central and Eastern Europeans remain as miserable as they were 10 years after the fall of the Wall“ (Rodríguez-Pose & Maslauskaitė 2011, 1). „The fact that corruption levels remained roughly the same throughout a period of rapid economic growth only made matters worse. Our analysis shows that lower levels of corruption would have not only boosted GDP growth even further but would have also improved happiness levels substantially. The policy implication is quite straightforward. Unless governments in the region start tackling corruption seriously, their populations will remain unhappy. By contrast, decentralization in many countries in EU10 is becoming a non-negligible source of improvements in life satisfaction“ (Rodríguez-Pose & Maslauskaitė 2011, 25).

The report of the College of Europe also finds that the workforce in the Central and Eastern European countries became highly mobile after joining the EU, which influenced the low level of unemployment in these countries, many citizens of these countries finding work and Western richer states. But labor exodus from the East to the West also had negative cost, many families being separated in this way, which caused an overall decline in the level of happiness in these countries (Rodríguez-Pose & Maslauskaitė 2011, 2). And because we have reached this topic, it should be stressed that the Charter of Fundamental Rights of the European Union, art. 45 provides that „every citizen of the Union has the right to move and reside freely within the territory of Member States.“ A right that some politicians seem to have forgotten, if we think of populist rhetoric against immigrants generated by the political leaders in Britain and France, who seek to obtain electoral gains (UKIP party in Britain or the National Front in France, to give just two examples) by sending messages against citizens of other EU member states who seek happiness in these countries, forgetting that many British and French citizens who have chosen to live in other countries are not treated in a similar way.

Of course, we can question ourselves whether it would be right for happiness to be specially included within the Charter of Fundamental Rights of the EU? For this to happen, perhaps we would need instruments capable of measuring the level of happiness. As we have already seen, some states, by means of their governments, have begun to look for indicators to measure the level of happiness of their citizens. As we have already emphasized, reports about the degree of happiness globally have been issued. International organizations (UN, OECD) are seeking to define criterias which would help to determine, as precisely as possible, the degree of happiness. Public policies able to offer people the need to seek happiness may be developed on the basis of objective criterias, as this principle has been stated by the Founding Fathers of the United States Declaration of Independence, 1776: „*We hold*

these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness” (The United States Declaration of Independence 1776).

The relatively recent dispute on limiting migration in the United Kingdom has brought attention of the European public debate on citizens' rights that are enshrined in the Charter of Fundamental Rights. Even if the pursuit of happiness is one of the rights in the Charter, there are a number of rights which, taken together, could be interpreted as a corollary of that right. British citizens' right to seek happiness in other EU countries is equal to the right of citizens from other EU countries (Romanian included) to seek happiness in the UK.

Coming back to the issue of including the right to the pursuit of happiness in the EU Charter of fundamental rights, it must be said that there are already proposals in this regard. During a philosophical Symposium held in Athens in July 2014, the European Union Declaration on the right to happiness (*Pallini Declaration*) has been adopted. The document states that: "Given the fact that the right to pursue happiness is not included in the 54 articles of the Charter of Fundamental Rights of the European Union (2010/C 83/02), we ask for the recognition of this right of happiness in the European Union, since it is self-evident that it is a fundamental human right and its non-recognition in any part of the world constitutes the violation of this natural right" (Declaration of the right of happiness in the European Union 2014).

Security challenges

In the context of numerous armed conflicts that broke out in the world in recent years, the question arises whether or not wars can contribute to economic growth? A report called *„Life beyond growth - report 2011 - Alternative happiness and additions to GDP - measured increase as a concept for social progress - the annual report of the Institute for the study of happiness, economy and society”* (2011) found that when taking into criteria which take account of GDP, the statistics show that wars have contributed to economic growth in the United States due to goods and services produced and sold in impressive numbers. On the other hand, the wars in which the United States have been involved had enormous cost in casualties and material damages. This had an impact over the US economy, considering that resources directed towards producing weapons significantly generated different decreases in spending for social programmes that some American citizens needed. Finally, after more than a decade of wars in Afghanistan and Iraq, the United States decided to withdraw troops from the two countries.

Conflicts in the Arab world are likely to continue in the next period, if we mention only the conflict in Syria or the campaign against the terrorist organisation of Islamic State/ISIS. It is therefore expected that those conflicts would generate the need to continue to produce weapons, physical destruction and loss of life (Life Beyond Growth 2011, 53). In general terms, the war is not beneficial to human welfare or happiness condition. Even if the production of weapons contribute to GDP growth in the countries concerned (increased exports), we must not forget that wars and armed conflicts do not contribute to human welfare and happiness, if we consider the long-term costs arising destruction, loss of life and environmental degradation (Life Beyond Growth 2011, 54).

The security crisis related to Ukraine in turn has affected not only Ukrainian society but also the economies of some EU Member States, if we take into account that several EU countries depend in a high degree on the Russian gas. Russia's economy also suffered from sanctions imposed by the US and EU. Experts agree that the situation of insecurity in the area has a negative impact on investment and increasing defense budgets, especially in EU and NATO countries, which leads to reduced investment required to develop other sectors. Protests generated some years ago by the economic crisis in the US and some EU countries (Greece, Spain, Italy, Portugal) – the so-called „Occupy Wall Street” movement or the „Arab spring”- that led to the change of governments in some countries in North Africa - have shown that people's discontent is generated not only by elements that are related to material/economic wealth, but also by issues that may be considered related to the concept of happiness.

Conclusion

If happiness is considered as a national goal, one question arises: can happiness be considered as one of the internationally recognized human rights? None of the 30 articles of the Universal Declaration of Human Rights adopted by the United Nations in 1948, is actually referring to happiness. Nonetheless, Article 25 states: „Everyone has the right to a standard of living adequate for his health and his family.” However, the text adopted by the UN contains a number of other rights which some specialists believe that can bring happiness, such as the right to work, or the people’s right to participate in decisions that may affect their lives (Life Beyond Growth 2011, 65).

Major events that have occurred in recent years, which affected a large part of the world, have changed the way we look at humanity. Political leaders, scientists, or what we usually call civil society, have contributed in recent years to impose a new perspective on what we used to call „world and life”. The global economic crisis, natural disasters (earthquakes followed by tsunamis, floods etc.), armed conflicts that devastated many areas of the world have made us look differently at how we live our lives. Governments have begun to take seriously the new paradigm proposed by opinion leaders. And so it emerged in public debate (or rather re-emerged) the concept of happiness and the notion of living well (welfare).

What is of course really important is to agree on the usefulness of the idea that the right to happiness or the right to the pursuit of happiness can be considered a universal human right and therefore decide that states have public policies that seek to ensure conditions so that all their citizens to benefit from this right. This is why a number of authors undelined through the International Law doctrine that this right became part of the third generation of fundamental rights and liberties, the so-called „solidarity rights”.

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Discrimination of Excellence: A Research Agenda

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ABSTRACT: Discrimination is unjust or prejudicial treatment of different categories of people or things. Long-standing, ample evidence of discrimination and most important attempts exist to legally abolish, economically counter-weight and societally alleviate the negative impacts of discrimination around the world. Yet to this day, there is hardly any description of discrimination of excellence. Unfair treatment of outperformers occurs when focusing away from merit leads to economic inefficiency based on arbitrary decision making.

KEYWORDS: Academia, Discrimination, Economic Disadvantage, Excellence, Outperformers, Teaching, Unjust Treatment

Introduction

Discrimination is the unjust or prejudicial treatment of different categories of people or things. Long-standing, ample evidence exists of discrimination in our schooling, education, health care, housing, workplace, markets, economy, taxation, democracy, and society—to name just a few areas discrimination touches upon. Discrimination is especially faced by whom social psychologists call 'outgroups'—social groups that are treated differently and face unjustified disadvantages.

Anti-discrimination legislation and public policies to alleviate the negative consequences of discrimination exist around the world.

As a most advanced anti-discrimination effort, the Fifth and Fourteenth Amendments of the United States Constitution outrule the federal and state governments to discriminate. The United States Employment Discrimination laws seek to prevent discrimination based on race, sex, sexual orientation, religion, national origin, physical disability, and age by employers. The United States Equal Employment Opportunity Commission lists as especially sensitive areas of discrimination attention age, disability, equal pay and compensation, genetic information, harassment, national origin, pregnancy, race and color, religion, retaliation, sex and sexual harassment.

In the European world, the European Union first introduced an Anti-Discrimination Directive that would ban discrimination on the grounds of age, disability, religion or belief and sexual orientation in all areas of EU competence. The Lisbon Treaty on European Union and the Treaty on the Functioning of the European Union, which came into binding effect on all European Union member states in 2009 and serves as legal protection against discrimination for all European citizens since then, grounds anti-discrimination laws on the idea of equal rights to be treated unbiased with equal fairness and dignity.

Very many different and most important attempts exist to legally abolish, economically counter-weight and societally alleviate the negative impacts of discrimination around the world. People seem to have a natural inclination towards giving everyone a fair chance to compete and a helping hand to those who appear to not get a fair chance. It ennobles society to treat people with respect and meet them in dignity—even if they may be different.

The American educational world is based on the foundations of merit-based equal opportunity and allows for overcoming discrimination in quota efforts. People from all over the world enter the US educational system as a safe haven of protection from discrimination in the hope to be evaluated based on merit. It appears to be an innate human wish to be given a fair chance to compete without any prejudice and be met with equal fairness and dignity.

Yet to this day, there is hardly any description of discrimination of excellence or unjust treatment of outperformers, which appears most striking in the educational world. While most important work has been done and should continue on how to overcome discrimination towards outgroups; this article argues for most novel attention to discrimination of outperformers, who - as the paper will outline in data from the higher educational sector and macro-economic modeling - are weakened by unfair discrimination in the wake of their stellar performance shadowing others' relative underperformance. Discrimination based on excellence differs from purely fair competitive contest by the nature of focusing attention away from merit, skills or performance. Performance gets evaluated biased with the view of outperformers lacking social skills and behind-the-back defamation often leads to unfair disadvantages and unjust treatment, such as setting people up as failures, erecting hidden hurdles with intentional glitches and/or prolonged and arbitrary decision making—to name a few discriminatory barriers excellent outperformers face, which are put up by those who fear not being able to keep up with outperformers, who dwarf their performance relatively.

Discrimination of excellence includes the most recent case of standardized admission test outperformers suing a U.S. higher education institution over fair admission standards and admission fraud scandals coupled with an economic modeling of socio-economic losses implied by discriminating against strivers. The societal value of outperformers is outlined in Veblen's trickling down of excellence, The American Dream ideals of striving being an economic driver as well as political science comparisons of different regimes' conduct around excellency. The social psychology categorization of society into so-called 'ingroups' and 'outgroups' is spearheaded with integrating 'übergroups' as natural strivers who face unprecedentedly captured discrimination. Socio-psychological motives—such as envy, jealousy, inferiority complex, reputation greed and suboptimal group norms—explain discrimination towards outperformance to provide coping and alleviation strategies. Intergenerational aspects and leadership features of discrimination of excellence are proposed.

Research Question

The research provides a truly heterodox economics standpoint on reconsidering discrimination in a novel light with attention to those who are put down due to their stellar excellence outshining underperformers, whose inappropriate discriminatory conduct deserves to be left behind for the sake of upholding individual well-being derived from dignity, economic prosperity grounded in respect for striving and societal advancement founded on excellency.

Theory

Theoretically, research should present an overview of the history and conduct around discrimination in society from legal, economic, political and socio-psychological science perspectives with special attention to the United States and Europe.

Discrimination of excellence is introduced from a legal standpoint—including the most recent case of standardized admission test outperformers suing a U.S. higher education institution over fair admission standards and admission fraud scandals—coupled with an economic modeling of socio-economic losses implied by discriminating and weakening strivers in our society.

The societal value of outperformers will be outlined in Thorsten Veblen's trickling down of excellence argument, The American Dream ideals of constant striving being a motivator and economic driver by aspiration and hope as well as political science theories on capitalist versus communist ideals shaping economic productivity and society.

The research also adds to the political social psychology categorization of society into so-called 'ingroups' and 'outgroups' (Tajfel & Turner 1979) the theoretical idea of integrating 'übergroups'—natural strivers and outperformers who may face unprecedentedly captured resistance and discrimination in schooling and higher educational institutions, workplace environments and society.

In addition, the theoretical part speaks about potential socio-psychological foundations and behavioral economics decision making failures—such as envy, jealousy, inferiority complexes, reputation greed and suboptimal group norms—to explain the hostility towards outperformers. Socio-psychological coping and alleviation strategies are given.

Intergenerational aspects of discrimination of excellence are proposed. While elders may in particular be prone to feel envy of young having accomplished more earlier than them given their shorter time span ahead to make up for underperformance; young may face envy in light of resources being distributed less merit or performance-based but on established hierarchies of seniority.

Lastly, leadership features of discrimination of excellence are introduced. Leaders may fear outperformers in lower hierarchical positions and being shadowed by those whom they should lead and be superior to as a justification for their hierarchical leadership standing.

Results

Empirically, qualitative case studies, diary technique collected data and an external review report in the higher education sector are advised to be carried out to vividly outline discrimination based on excellence (Study 1). Qualitative analyses of PhD studies blog entries could reveal a pattern of outperformers being forced out of higher educational institutions to successfully continuing in higher-ranked institutions (Study 2). Evidence of intangible admission criteria, unfair testing situations and delayed or unsuccessful academic promotion statistics serve as additional evidence on discrimination based on excellence. Resistance to share information on testing and promotion criteria transparently is detected to allow for discrimination (Study 3). Macro-economic analyses reveal industries that are prone to breed discrimination based on excellence (Study 4) to estimate the short and long-term losses of discrimination of excellence based on economic trickling down and too-big-to-fail arguments but also Keynes' multiplier innovatively applied in endogenous growth theory alongside including health and societal risks in the wake of discrimination (Study 5). Macro-economic cross-sectional and time series analyses in the laboratory of modern world history outline socio-economic costs of slowing outperformers and abolishing intellectual advancement (Study 6). Artificial intelligence increasing the currently unprecedently wide divide between skilled and unskilled labor is predicted to even higher importance of attention to excellency in the future (Study 7).

The concrete empirical plan should start with Study 1 presenting qualitative case studies, diary technique collected data and an external review report in the higher education sector that vividly outline discrimination based on excellence examples. Strategies to slow down or weaken outperformers—such as indirect agency, unresponsiveness, unjustified prolonged decision making, belittling, defamation, behind-the-back reputation destruction, disciplinary punishment, censoring free speech, shaming, bullying, restriction of access to information, resources, leadership and communities as well as unfair competition enacted in arbitrary decision-making, intransparent testing and promotion criteria—are presented. Evidence for destroying the image of outperformers is found based on prejudice against excellence being biasedly pegged to lacking social skills and fit. These hidden tactics are speculated to make individuals who outperform slower, cut them off from access to information, communities, resources and leadership in an attempt to make excellent individuals feel inferior inside as their outside performance trumps and sets higher standards while shadowing the relative underperformance of those around.

Study 2 analyzes contents of PhD studies blogs qualitatively that reveal a pattern of outperformers and strivers being forced out of educational institutions but successfully continuing on in higher-ranked institutions serving as a natural field experiment and expert evidence of discrimination based on excellence that grants hope of justice over time and merit winning in a more excellent environment. Economic inefficiencies of lost time and career-switching costs but also speculations of unnoticed destruction of human capital of those who may be ashamed and not represented on blogs are mentioned.

Study 3 presents quantitative evidence of tenure track decisions and delayed or unsuccessful academic promotion statistics as additional evidence on discrimination based on excellence in the

academic world. Resistance to share data on promotion criteria transparently, unfair testing situations and intangible admission criteria are detected as critical career gatekeeping events, in which outperformers seem to underperform due to an unfair discrimination bias.

Study 4 provides a macro-economic analysis of what industries are prone to breed discrimination based on excellence. Institutions that face competition from outside contestants but also competition within institutions over scarce resources that have merit-based up-or-out placement criteria in structuring hierarchical rank orders yet performance being partially measured on intangible or intransparent performance criteria appear to be prevalent to breed discrimination based on excellence.

Study 5 estimates in macro-economic modeling societal short-term and long-term losses due to curbed excellent performance alongside integrating the social, socio-psychological and emotional burdens that may hold health and societal risks in the wake of discrimination. A macro-economic estimate of the societal losses and risks in the wake of discriminating against those who outperform and accomplish more than average is given based on the economic trickling down and too-big-to-fail arguments but also Keynes' multiplier, which are—for the very first time—applied on endogenous growth theory labor components.

Study 6 provides macro-economic cross-sectional but also time series analyses in the history of modern economies what social costs and economic consequences slowing down outperformers and abolishing intellectual advancement have. Cambodia, East versus West Germany but also former Eastern European countries' regimes attempts to kill, cut down or slow economic performance and individual striving provide shocking examples what discrimination of excellence could do to individuals, countries, democracies and society in the laboratory of world history.

Study 7 grants a future prospect in the age of artificial intelligence. The socio-economic divide between skilled and unskilled labor gratification has never been higher as of now. This is seen as a sign of a currently ringing-in artificial intelligence revolution. With artificial intelligence entering the workforce, future success is speculated to be dependent on creative excellency. Currently captured trends of slowbalization—the slowing of globalization—and reshoring—as the countertrend to offshoring and outsourcing to low-income countries during the golden era of globalization being relocating to high-tech artificial intelligence hubs—are expected to increase competition over knowledge and excellence. Individual workgroups, educational institutions, countries and societies who allow discrimination of excellent outperformers are expected to fall behind as we compete already now and even more so in the future to come with artificial superiority on excellency.

Discussion

The research agenda may generate novel recommendations on legal codifications, economic action and public policy making as well as corporate workplace incentives to foster performance free from discrimination. Outperformers and underperforming segments should transfer coping in lieu of performance strategies and strategically align in the striving towards a discrimination-free economy and society. Innovatively the project presents that excellence should become part of the especially screened and protected areas of discrimination secured by law and tackled by economic policy action, especially in light of the social, economic and societal losses and downfalls that this paper unprecedentedly highlights in a multi-faceted way. In order to overcome a further societal stratification and performance polarization between übergroups and outgroups, the project finally argues that outperformers and potentially underperforming segments due to discrimination should transfer coping strategies in lieu of performance strategies and strategically align in the striving towards a discrimination-free workplace, economy, democracy and society. Awareness building, transparency as natural disinfectant and mandatory access to information on hiring, testing and promotion criteria appear as natural and fast, relatively-affordable and easily-implementable remedies besides legal action to combat excellency-discriminating individuals and institutional structures. Cultures-of-excellence safe havens but also rescue funds for those whose career has taken a hit due to their outperformance are additional innovative discrimination alleviation strategies proposed. As one of the most vulnerable assets of an economy and

society, excellency should be cherished and protected from discrimination and treated with equal respect and dignity.

In total, the project provides a truly heterodox economics standpoint on reconsidering discrimination in a novel light with attention to those who are put down due to their stellar excellence outshining underperformers, whose inappropriate discriminatory conduct deserves to be left behind - for the sake of upholding individual well-being derived from dignity, economic prosperity grounded in respect for striving and societal advancement founded on excellency.

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Electronic Arts: Strategic Differentiation in the Global Video Gaming Industry

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ABSTRACT: Electronic Arts Incorporated (EA) is a leading global developer of video game software with FY2018 revenues in excess of \$5B. And although the organization has demonstrated innovative leadership in the industry for many years and has an established portfolio of “hit” game titles, industry trends have created an increasingly competitive environment. Digital game distribution, for example, has dramatically reduced the cost of product delivery, but has also negated a previous barrier to entry for new competitors. In a \$36B industry that has been completely reshaped by digital content and distribution, EA seeks to better engage and retain players via digital capabilities. This case study analyzes EA’s differentiated competitive strategy founded on three pillars: Player-First, Commitment to Digital, and One EA. Each of these strategic focuses has a direct connection to trends in the transforming video game industry, as the company seeks to expand its player base across platforms, geographies, and business models. Together, these highlight the path for the company to operate more efficiently, create more engaging products and services, and develop increased customer loyalty towards EA games.

KEYWORDS: Electronic Arts Inc., digital content, video games, strategy

Introduction

Since its founding in 1982, Electronic Arts Inc. (EA) has grown to become one of the most profitable video game software developers and publishers in the world, posting revenues of \$5.1 billion for the fiscal year 2018. EA’s video game portfolio boasts top-selling video game titles across multiple platforms, including its Star Wars, Need for Speed, Battlefield, FIFA, and Madden NFL franchises. While EA has benefited from the success of such popular franchises, the rapidly evolving video game industry is becoming increasingly competitive as barriers to entry dissolve through digital distribution of products, independent game publication, and free to play video games. In an industry where success is heavily dependent on ‘hit’ games, EA faces intense competition from both established rivals and innovative newcomers. To remain competitive, the company has become increasingly focused on developing its relationship with video game players through online services and digital content (Electronic Arts 2018b). This case examines EA’s competitive position in the video game industry and its player-centric, digitally focused strategy.

Video Game Software Industry

As a developer and publisher of video games, EA competes in the entertainment and games software industry, which is primarily focused on developing software that is compatible with existing video game consoles, personal computers (PC), and portable media devices. Console developers also compete in this industry by publishing proprietary games, which run exclusively on their respective hardware. The most popular current video game platforms include Nintendo’s Switch, Microsoft’s Xbox One, Sony’s PlayStation 4, and PC. These consoles are referred to as eighth generation game consoles, which consists of gaming hardware released since the debut of Nintendo’s Wii U in 2012. Although these platforms and their predecessors have long been consumer favorites, the rapid acceleration of technology in mobile devices over the past decade have spurred an increased focus on developing immersive games for cell phones and tablets (Kuchera 2018).

In 2017, software sales, including in-game purchases and subscriptions, accounted for 80% of video game industry revenues at \$29.1 billion (ESA 2018). In an industry where a small number of ‘hit’ titles account for a large percentage of total revenue, each of EA’s primary competitors, Activision Blizzard, Nintendo, Take Two Interactive, and Ubisoft, have established a solid portfolio of popular franchise games (Morningstar 2018). Franchise games are continuations that build upon the

storyline, characters, or theme of existing game titles (Roberto & Carioggia, 2004). Recurring revenue and market share growth from these titles are critical to developers' success. Table 1 lists the ten best-selling games in 2017, all continuations of previously successful titles (Kaine 2018). While prevalent game franchises often account for a significant portion of a publisher's revenue, they also pose a risk to financial stability. Given the significant investment in development and marketing, a titles failure to generate sales can be detrimental to a publisher's bottom line (Roberto & Carioggia 2004).

Table 1. Top Selling Video Games 2017

Title	Publisher
Call of Duty: WWII	Activision
NBA 2K18	Take Two Interactive
Destiny 2	Activision
Madden NFL 18	Electronic Arts
The Legend of Zelda: Breath of the Wild**	Nintendo
Grand Theft Auto V	Take-Two Interactive
Ghost Recon: Wildlands	Ubisoft
Star Wars: Battlefront II	Electronic Arts
Super Mario Odyssey**	Nintendo
Mario Kart 8**	Nintendo
<i>Source: Kaine (2018). Note. Not including digital sales.</i>	

Traditionally, video games have been printed onto optical media and either shipped to retailers or directly to consumers through online purchases. The old distribution model has been increasingly disrupted in recent years, due to improving Internet speeds, and a significant increase in both physical and cloud storage capacity. Each year an increasing number of gamers choose to purchase downloadable digital versions of games over their disk predecessors. Digital video game sales exceeded box sales of video games for the first time in 2018 (Santiago 2018). While the shift towards electronic distribution of video games has the potential to reduce production costs for existing game developers, it also shatters a previous barrier to entry into the video game industry that has strategic planning implications. Entry to the industry no longer requires substantial investment in packaging, shipping, and complex channels of distribution as developers may now publish games directly to the chosen platform at a fraction of the cost.

Along with this, the industry has seen an influx of video games that are free for consumers to download and play but monetized through in-game purchases. Rather than paying for a game that they may not enjoy, gamers can test the game for free and decide whether to purchase additional content or the 'full version' of a game. This trend emerged from mobile platforms but has shown the potential to disrupt traditional console markets as well. In 2017, Epic Games, Inc. made a unique decision to adopt the free to play model, when a multiplayer shooter, Fortnite failed to generate expected sales at its original \$40 price tag. Making the game free created rapid userbase expansion and the game earned over \$150 million through in-game purchases of digital content, including weapons, in-game currency, and add-on characters known as 'skins' (Needleman 2018). This model promotes rapid user base expansion because it reduces the decision-making process for purchasers. However, it can be costly if large investments are made in titles that are not well-received or fail to stimulate sales of add-on content.

EA's Background

Trip Hawkins, a former director of strategy and marketing at Apple, founded Electronic Arts in 1982. Hawkins' vision for EA was to create a large video game production company that would seek out potential hit video games from independent developers, provide financial and project management assistance to the developer, and then distribute games to retailers under the EA brand (Roberto & Carioggia 2004). This was a fundamental shift from the common practice of smaller developers attempting to sell their intellectual property directly to console manufacturers. Through the early 1990s, EA saw

continued success under the leadership of VP of sales Larry Probst by building its distribution capacity and selling directly to retailers.

When Hawkins left the company in 1991 to pursue other ventures, Probst took over as CEO and shifted EA's focus from marketing other developers' games to acquiring software distributors and development studios to acquire their technological capabilities, intellectual property, and human capital (Roberto & Carioggia, 2004). These acquisitions included companies such as Origin Systems, Maxis, and DreamWorks Interactive, among others. By successfully merging these newly acquired technology companies that were more narrowly focused on specific segments of the video game industry, EA built a well-rounded portfolio with a wide range of capabilities and resources. This expansion allowed the company to easily adapt its most successful titles for multiple gaming platforms.

In the late 1990s and early 2000s EA saw growing demand for online multiplayer video games as Internet speeds improved to rates that could handle the transmission of advancing graphics. The company capitalized on this trend by selling games that were capable of both online and offline play. They then offered a subscription service that allowed players to use the games online functionalities giving them a distinct competitive advantage in its sports and first-person shooter competitive online games (Eisanman & Wong 2006).

In 2007, Probst resigned as CEO, and John Riccitiello, a former EA executive, returned to serve in as the company's chief executive (Tassi 2013). Probst stayed on as Chairman of the Board of Directors and has served in that capacity since. Riccitiello was charged with leading EA through the rapid changes in the video game industry. Unfortunately, during his tenure, EA struggled to transition its business model toward digital game distribution and mobile development, and saw multiple game titles failed to meet sales expectations (Scherr 2013). He resigned as CEO in 2013, after the company failed to meet earnings expectations on multiple occasions (Tassi 2013).

EA and others in the industry have since continued to focus on building their online service revenue through in-game purchases, subscription services, and downloadable content. In 2018, EA's profits were just as dependent on the success of its online live services as its games. EA's Ultimate Team service, in which players of its sports games, such as Madden and FIFA, trade and collect digital 'cards' of professional players, and build a virtual team to compete against other player's personalized teams online, accounted for roughly 21% of the company's total revenue for FY 2018 (Electronic Arts 2018a).

Competitive Strategy

EA Sports executive VP, Andrew Wilson, took over as CEO following the resignation of John Riccitiello (Lenley & Sharr 2013). Wilson formed a new strategy for EA based on three pillars: Player-First, Commitment to Digital, and One EA (Electronic Arts 2018b). Each of these strategic focuses has a direct connection to trends in the transforming video game industry, as the company seeks to expand its player base across platforms, geographies, and business models.

Player-First

The Player-First strategy is focused on customer retention and relationship management. To deliver games and services that consumers find both enjoyable and valuable, developers must adopt a player's mindset to forecast player expectations on every level. Historically, EA has frequently failed to implement new business initiatives in a player-oriented manner (Tassi 2017). For example, the company received widespread criticism upon the release of the most recent installment of its Star Wars game franchise, *Battlefront 2*, which allowed for a quicker game progression advancement by purchasing additional digital content. Following negative customer feedback and requests from licensing partner Disney, EA eventually halted microtransactions in the game to protect unit sales (Fritz & Needleman 2017). To avoid such potentially costly mistakes, EA must connect with players through in-game feedback channels. Player-First also means a focus on continuing to build on EA's most successful franchises, including FIFA, Madden, the Sims and Need for Speed (Electronic Arts 2018b). Retaining consumers who purchase each iteration of these titles is critical, as the development expenses are much lower for established games

than completely new projects (Roberto & Carioggia 2004). EA also has the capability of adapting and extending the life cycle of its most valuable games through periodic digital content releases.

Commitment to Digital

In the past decade, digital media and services have vastly reshaped the way consumers engage with technology to consume media. Netflix, Spotify, and other digital streaming services using a subscription-based model, have seen overwhelming user growth. The video game industry has embraced the digital revolution, with game developers offering cloud-based game streaming subscriptions, digital game purchases, microtransactions, and virtual currency (Nowak 2018). Continuous development of digital media content and services is now a necessity to remain viable in the video game industry. EA's digital product revenue for the fiscal year 2018 accounted for 67% of the company's total revenue (Electronic Arts 2018a). The company wants to expand this portion of its business, as profit margins are higher for digital products versus packaged and digital capabilities give greater opportunity to engage players. EA offers subscription services: EA Access, and Origin Access, which allow players to download and play its most popular games for a monthly fee. The company also wants to continue developing mobile games which can be monetized through live services (Electronic Arts 2018b). Mobile games give EA additional flexibility in generating revenue, as they can monetize advertisements in free-to-play games, even if player's never make an actual purchase. The combination of subscription-based gaming, live streaming services, and mobile gaming capabilities will be critical as the video game industry shifts away from the traditional console towards universal playability (Kaine 2017).

One EA

EA's acquisition of several successful game developers in the 1990s gave the company a breadth of talent, technological capabilities, and intellectual property (Roberto & Carioggia 2004). The purpose of the 'One EA' model is to leverage the company's scale and resources to create a value chain that allows the company to deliver similar game experiences across as many platforms as possible (Electronic Arts 2018b). EA has moved all of PC and console development to a single game engine so that employees with varying expertise can now develop across multiple titles seamlessly. An initiative called Project Atlas is also underway at EA to develop a cloud-based game processing which could bypass the capabilities of individual hardware through the processing power of servers, which is the next step towards a unified user experience for purchasers of EA games, regardless of the console (Smith 2018). By adopting consistent methodologies across the company, EA hopes to identify ways to improve player experiences and introduce existing players to other through its subscription services (Electronic Arts 2018b).

Recommendations

Wilson's three-pillared strategy for Electronic Arts, focused Player-First, Commitment to Digital, and One EA, addresses the most critical priorities facing the video game software industry. Player-First improves the way EA approaches player acquisition and relationship management. Commitment to digital confronts the rapidly expanding preference of digital media by both consumers and video game developers. One EA recentralizes the company, by adapting processes and organizational structure, to create a more efficient value chain. These foci complement each other and overlap to create a comprehensive strategy, but to ameliorate this strategy, EA must consider two more specific considerations that may reinforce the three pillars.

First, EA must fix its reputation of putting profits over players. The company has long received criticism for inadequate customer service and poor monetization tactics (Campbell 2012). Additional downloadable content and live services are a critical revenue pipeline for all game developers, but EA has been particularly scrutinized for its inability to forecast gamer expectations. Consumer outrage upon the release of Star Wars: Battlefront 2 surrounding the ability for gamers to purchase additional content that gave an unfair advantage exemplifies the improvements still needed to achieve its goal of being a Player-First company (Fritz & Needleman 2017). Electronic Arts should consider utilizing in-game social networks, already part of the One EA emphasis, to obtain direct customer feedback about what digital products gamers find valuable at varying price points.

In-game social networks are a powerful source of data, which EA can leverage to improve upon existing products and services, develop new offerings, and forecast how customers may respond to pricing tactics. While some industry leaders, including Take Two Interactive’s CEO Strauss Zelnick, feel that larger game developers are not threatened by the free to play access of games like Fortnite (Fritz & Needleman 2017), EA must consider how the preference of customers shift over time. With the advancement of markets of one, EA must consider how its pricing structures can attract the largest number of players. One way that EA can do this is by diversifying the channels that players can access games. EA Access and Origin Access are subscription services for Xbox One and PC that allow players to access a library EA games for a monthly fee. Expanding these services to capture market share of video game subscribers must be a priority given the expansion of online-only media subscription services in all entertainment industries (Lee 2018). Another approach that EA should consider piloting is providing customers with the option of purchasing access to certain modes versus full-versions of all games. For example, Madden 19 has various game modes including Franchise, Exhibition, Online, and Longshot. Some players may use all game modes and want the full version of the game, typically priced at \$59, while others may use online or Franchise modes exclusively and prefer to pay accordingly. Although this may not be a viable option for all its titles, EA should consider the potential ability to expand its player base through tiered pricing.

Conclusion

The rise of digital media and services created a new playing field for the video game software industry. Game software developers, including EA, now benefit from increased margins, direct customer access, and additional revenue streams via digital content, add-ons, and services. Along with the benefits of technological innovation comes the realization that, as when EA was founded, business models must be adjusted to meet changing consumer preferences. Even independent video game developers with relatively low budgets, now can reach consumers directly via digital distribution, which means increased competition for established companies. EA’s strategy to remain competitive includes three pillars: Player-First, Commitment to Digital, and One EA. Together, these highlight the path for the company to operate more efficiently, create more engaging products and services, and develop increased customer loyalty towards EA games. However, to fully realize these ideal traits, EA must repair its reputation with video game consumers, grow its subscription services, and utilize in-game social networks to better understand consumer demand.

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Taste Preference Differences in Juvenile Delinquency

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ABSTRACT: Smart food policy models for improving dietary intake recommend tailoring intervention to people's food preference. Food choice plays a major role in the psychological, economic, and social aspects of life by expressing preferences, identities, and cultural meaning. Poor health behavior has been associated with delinquency and antisocial personality features have been associated with taste preferences. The purpose of this study was to identify the taste preferences differences between non-delinquent and delinquent population. PrefQuest (PQ) was used for measuring food preferences. 56 participants were included. The results show a statistically significant difference (18.03) between experimental (n=21, M=158.13, SD=30.89) and control groups (n=35, M=176.17, SD=31.19) related to sweet taste preferences, $t(54)=2.10$, $p=0.040$, 95% CI [.82, 35.23] and a statistically significant difference (29.30) between experimental (n=21, M=195.13, SD=50.84) and control groups (n=35, M=224.46, SD=47.78) regarding to sweet & fatty taste preferences, $t(54)=2.16$, $p=0.035$, 95% CI [2.21, 56.38]. There were no statistically significant differences between control and experimental groups related to salty and salty & fatty taste preferences. The findings could bring a novel insight into the crime prevention strategy based on improving eating behavior, which may contribute to booster the health of the young people with the added benefit of reducing delinquency. Efforts to control delinquency should consider that the adequate emotional reward offered by the food, as an identity and social marker, could be a pathway to psychological rehabilitation in juvenile delinquency.

KEYWORDS: delinquency, taste preferences, food choice, health behavior

Introduction

Juvenile delinquency is a complex, multifactorial problem in today's society, causing considerable financial and societal costs (Spruit, Hoffenaar, van der Put, van Vugt, & Stams 2018). A meta-analytic review showed that once youth committed a crime, they were more likely to develop a persistent pattern of offending (Assink et al. 2015; Spruit et al. 2018). Moreover, juvenile delinquency often goes with other unwanted developmental outcomes, including educational dropout, unemployment, and health and social problems (Spruit et al., 2018). The risk factors for juvenile offending are individual (e.g. impulsiveness and IQ), familial (e.g. child abuse and family dysfunction), social (e.g. negative peer influences, school commitment problems), and societal (poor housing and low SES) (Murray & Farrington 2010; Spruit et al. 2018).

Therefore, preventing juvenile delinquency has become an important topic in youth studies. The relationship between diet and antisocial or aggressive behavior has brought substantial interest and contention among psychologists, criminologists, and nutritionists. Research shows a significant negative relationship between good diet and delinquency (Semenza 2018) (2). Poor health behavior may be associated with delinquency because they increase negative health outcomes and illness, which have been associated with delinquency (Semenza 2018) (3). Furthermore, criminality, among other adversities (Yao et al. 2017), has been associated with eating disorders (Coker, Smith, Westphal, Zonana, & McKee 2014). Rates of committing theft were typically greater in individuals with bulimia nervosa (BN) and the binge-purge subtype of anorexia nervosa (AN) than in individuals with the restrictive subtype of AN (McElroy, Pope, Hudson, Keck, & White 1991; Vandereycken & Houdenhove, 1996). Stealing behavior have been related to increased levels of impulsivity, comorbidities, and severity of eating disorders (Blum, Odlaug, Redden, & Grant 2018; Krahn, Nairn, Gosnell, & Drewnowski, 1991). Convictions of both theft and other crimes were more prevalent in females exposed to eating disorders than in unexposed females (except other crimes in AN) and more prevalent in females exposed to BN than in females exposed to AN.

It is known that personality traits influence eating styles and food choices and eating styles influence food choices (Petre 2018; Sagioglou & Greitemeyer 2016). Across time and place, people have used ‘foodways’ to construct, express, and negotiate their identity (Smoyer 2014, 527). Interactions of food components with human biology and with social and eating context give rise, in some predictable ways, to relatively stable individual food likes or taste preferences (Mela 2006; Petre 2018). Taste-related terms—particularly bitter, spicy, sour, and sweet—are used to characterize behavior and the manner in which people differ from each other. People invoke sweetness metaphors in the interpersonal context (e.g. nicknames for romantic partners “honey,” “sugar,” “sweetie,” and “sweetheart”). Because sweet tastes are especially palatable and pleasant, the word sweet is often used to characterize a kind action, such as a compliment or the granting of a favor or it is used to describe a nice, friendly, and caring person (Meier, Moeller, Riemer-Peltz & Robinson 2012; Petre 2018). Previous research showed that prison foodways may offer incarcerated women a mechanism for building positive identities: good and healthy (Smoyer 2014, 536). Despite the aforementioned data, the line of research related to the link between eating behavior and delinquency has a lot of space for development. Our study aims to bring more understanding regarding the link between delinquency and a taste preference for food.

Material & Methods

The participants were 56 men, 21 young offenders, which were serving sentences for juvenile convictions in Probation Office, and 35 students. Detailed information about socio-demographic characteristics is provided in table 1.

Instruments

Taste Preferences. The preference for salty, sweet, sweet & fatty, and salty & fatty, was assessed with ‘PrefQuest’ (PQ) (Amélie Deglaire et al., 2012), which measures recalled liking for the four sensations: salty, sweet, fatty and salty, and fatty and sweet. PQ includes four types of items: liking for sweet, fatty-sweet, salty, and fatty-salty; preferences in the level of seasoning by adding salt, sweeteners or fat; preferences for types of dishes in a restaurant menu; overall questions about sweet-, salt-, and fat-related behaviors (A. Deglaire et al. 2015; Amélie Deglaire et al. 2012; Lampuré et al. 2016, 2014). Participants described PQ as short, easy and entertaining. The completion time for PQ items lasted, on average, 23.5 min (Amélie Deglaire et al. 2012). PQ is the first internally validated questionnaire, which proposes a liking score to be calculated based on various types of items, that include liking for foods, preferred seasoning level, and a few items related to dietary behaviors. The factors of each scale had good psychometric properties. Positive correlations between PQ and sensory test measurements in the laboratory have been shown. Therefore, PQ was demonstrated to be valid, repeatable, feasible, and can thus serve as a proxy for sensory test measurements of liking (Lampuré et al. 2014).

Procedure

The participants were informed about the purpose of the study to explore taste preferences. Each participant was evaluated separately within a psychological setting. The subjects were invited to a psychological assessment of taste preferences. The instructions were presented in the same manner for every participant. A printed version of the PQ was provided to each participant. The subjects were asked to complete the items of PQ according to their general taste preferences irrespective of their current diet or eating behavior. Inclusion criteria included a lifetime absence of psychiatric illness (established through a psychological interview). Exclusion criteria included diagnosis of severe personality disorder or other neurological/medical conditions known to affect mental health. Research Ethics Committee of the University of Bucharest approved the study (IRB no. 03/21.01.2019). The procedure conformed to the College of Psychologists from Romania and the American Psychological Association ethical standards. Participants gave written informed consent, and pseudonyms were used to protect their anonymity.

Statistical Methods

PQ was found to have an acceptable normal distribution in the prevailing sample and parametric tests were accordingly used for all analysis. Descriptive statistics were calculated for study variables including frequencies and percentage, and mean, media and standard deviation for age as a continuous variable. An independent t-test was conducted to compare the taste preferences between delinquent and non-delinquent samples. For all statistical analysis, the Statistical Package for Social Sciences (SPSS) was used.

Results and discussions

Descriptive Statistics

The participants were 56 subjects, young men between the ages of 19 and 25. The experimental group consisted of 21 participants and the comparison group of 35. Table 1 shows the samples' characteristics.

Table 1. Baseline characteristics

Age (Years)	Mean	Media		Std. Deviation	
	21.14	21.00		1.82	
	Delinquency		Non-delinquency		
	Frequency	%	Frequency	%	
	17	2	9.5	0	0
Age Cut-points	18 - 19	3	14.3	2	5.7
	20 - 21	6	28.6	23	65.7
	22 - 23	6	28.6	7	20
	24 - 25	4	19	3	8.6
Marital Status	Single	17	81	34	97.1
	Married	4	19	1	2.9
Residence	Urbal	13	61.9	28	80
	Rural	8	38.1	7	20
Education	Elementary	7	33.3	0	0
	Secondary	4	19	0	0
	High School	9	42.9	0	0
	Undergraduate	1	4.8	35	100
	Postgraduate	0	0	0	0
N	56	21		35	

Taste preferences differences

The means of taste preferences between delinquent and non-delinquent samples are shown in figure 1.

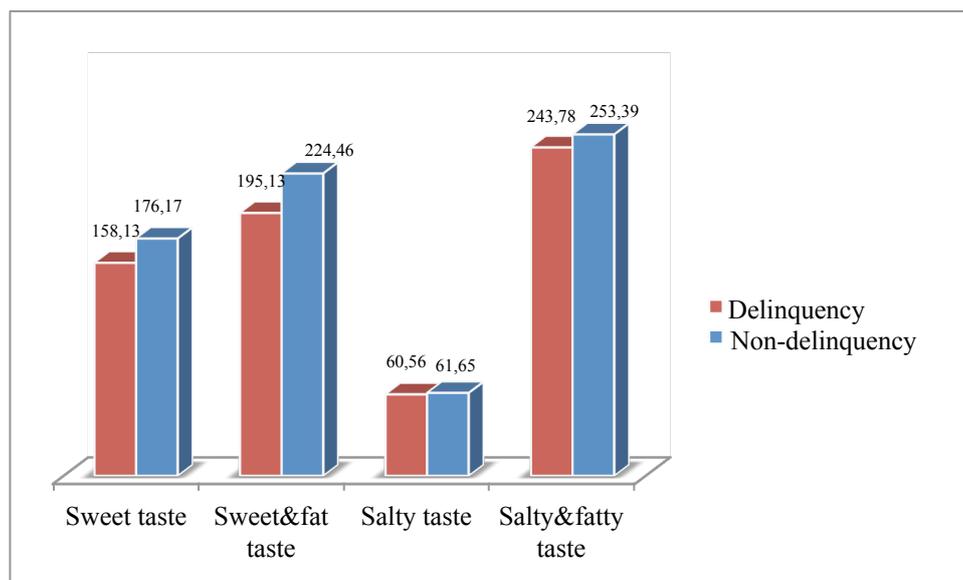


Figure 1. Means of taste preferences

The results show a statistically significant difference (18.03) between experimental ($n=21$, $M=158.13$, $SD=30.89$) and control groups ($n=35$, $M=176.17$, $SD=31.19$) related to sweet taste preferences, $t(54)=2.10$, $p=0.040$, 95% CI [.82, 35.23]. There was a statistically significant difference (29.30) between experimental ($n=21$, $M=195.13$, $SD=50.84$) and control groups ($n=35$, $M=224.46$, $SD=47.78$) regarding to sweet & fatty taste preferences, $t(54)=2.16$, $p=0.035$, 95% CI [2.21, 56.38]. Data suggests no statistically significant differences between control and experimental groups related to salty and salty & fatty taste preferences (table 2).

The future psychological interventions in juvenile delinquency must be focused on the development of smart food policy models for improving dietary intake. Food preferences create a 'voice' that communicates individual and group values. There are differences in taste preferences between young offenders and non-delinquent young men. The interaction's between people's food preferences and the environment in which those preferences are learned, acted upon, and reassessed (Hawkes et al. 2015; Turnwald & Crum 2019) shapes a personal eating style, which could be reshaped with immediate and long-term effects on health state and emotional balance of the individuals. In order to develop more prosocial behavior and empathic skills, psychologists and nutritionist should target interventions on eating behavior of the young offenders and use taste preferences to construct positive identities and proper emotion regulation strategy, which are also reshaped through eating behavior. The nutritional diets of juvenile offenders must be in agreement with their personality (Petre 2018; Sagioglou & Greitemeyer 2016), taste preferences and eating behavior.

One of the limits of the present study is the assessment of only four tastes. In addition, the taste preference was measured by recalled liking. Another limitation was the use of a small number of covariates to assess health characteristics of participants. Future studies should take into consideration an experimental study to better control taste preferences, and include bitter, spicy, and umami tastes, or multiple tests to assess recalled liking.

Table 2

		Levene's Test		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Taste preferences									Lower	Upper
Sweet	Equal variances assumed	.018	.893	2.101	54	.040	18.030	8.580	.828	35.232
	Equal variances not assumed			2.107	42.577	.041	18.030	8.559	.764	35.296
Sweet & fat	Equal variances assumed	.123	.727	2.169	54	.035	29.302	13.509	2.217	56.387
	Equal variances not assumed			2.135	40.175	.039	29.302	13.725	1.567	57.037
Salty	Equal variances assumed	.553	.460	.303	54	.763	1.087	3.586	-6.103	8.278
	Equal variances not assumed			.314	47.093	.755	1.087	3.458	-5.869	8.043
Salty & fatty	Equal variances assumed	.001	.980	.684	54	.497	9.608	14.044	-18.548	37.764
	Equal variances not assumed			.704	45.991	.485	9.608	13.655	-17.879	37.095

Conclusions

The present study sought to address the understudied link between taste preferences and juvenile delinquency in a Romanian sample of youth. The analysis revealed a statistically significant difference between sweet and sweet & fat taste preferences between the juvenile men offenders and the young man from the comparison group. The findings can contribute to increased understanding of the link between juvenile delinquency and food preferences, and may help build therapeutic and nutritional strategies for promoting healthy eating behaviors and preventing the development of eating disorders associated with delinquency. In addition, the psychological and nutritional rewards of recalled liking could be a pathway to psychosocial rehabilitation of these patients.

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Particularities of the Forensic Investigation of Software Piracy and Online Piracy

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ABSTRACT: Starting from the analysis of the Law no 8/1996 on copyright and related rights in Romania, and continuing with the analysis of the main provisions of the European Union Directive 2001/29/EC on copyright and related rights in the information society and the European Union Directive 2009/24 / EC on the legal protection of computer programs, the article presents and analyzes aspects of the criminal investigation of software piracy and online piracy. The article analyzes both some of the criminal investigation acts commonly used in software piracy such as technical-scientific findings and forensic expertise of copyrighted software or related rights, and some methodological issues related to forensic investigation of software piracy and online piracy.

KEYWORDS: copyrights, forensic investigation, online piracy, software piracy

Introduction

Piracy was defined as “the unauthorized copying of the work protected by copyright or related rights, for commercial or non-commercial purposes as well as the unauthorized sale of the copied work, activity carried out by a third party, without the consent or authorization of the right holders” (Pantea 2016, 260).

Some of the areas most affected by the phenomenon of piracy are software-related, including operating systems, utility programs, but also the one related to the online domain, including illegally downloading or uploading software on the Internet, illegally displaying some works on some web pages, online games, etc.

In Romania, the protection of computer programs is governed by Law no 8/1996 on copyright and related rights. The offenses related to the protection of computer programs are provided by Law no 8/1996 in Article 194 (making the products available, without right, of the products having related rights or sui generis rights through the Internet or other computer networks), Article 195 (unauthorized reproduction on computer software systems), Article 198 (illegal use of access control devices, whether original or pirate), Article 199 (possession and illegal use of devices to neutralize technical protection measures).

The most common forms of piracy are as follows: software piracy and online piracy

According to the provisions of Art.195 of Law no 8/1996, the notion of *software piracy* consists in unauthorized reproduction of software in any of the following ways (Vasiu and Vasiu 2011, 270): *installation*, which refers to the configuration of a software in accordance with the requirements of the system; *storage*, which represents the action of preserving data and computer programs on a specific computer data storage medium; *running* or *execution*, which refers to the action of executing or running the instruction sequences of a software; *display* which refers to the presentation of the information in a form readable to the user, which can be modified to its action or the computer system; *transmission in the internal network*, representing the transmission of computer data from one digital location to another.

The notion of *online piracy* consists of computer programs that are uploaded to different websites or other computer networks so that they can be accessed by persons who are not authorized to use them. In most cases, online piracy is done through peer-to-peer networks, which represent a method used, through the Internet, to share some files between multiple computer systems within the Internet network. Peer-to-peer networks are used both to share software and to share music, video, or other files (Savin 2013, 155).

Regulating the protection of computer programs at the level of the European Union

The most important legal instruments regulating software protection at European level are: Directive 2001/29/EU of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society and Directive 2009/24/EU of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

Directive 2001/29/EU on the harmonization of certain aspects of copyright and related rights in the information society relates to the legal protection of copyright and related rights within the internal market, paying special attention to the information society. According to Article 6 paragraph 1 of the Directive, it shall be provided adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

Also, in Article 6(2) it shall be provided adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services which: are promoted, advertised; or marketed for the purpose of circumvention of; or have only a limited commercially significant purpose or use other than to circumvent; or are primarily designed, produced, adapted and performed for the purpose of enabling or facilitating the circumvention of, any effective technological measures.

Directive 2009/24/EU on the legal protection of computer programs provides that protection is applicable to any form of expression of a computer program. The notion of *computer program* includes preparatory design material. The computer program should include programs in whatever form, including those embedded in hardware. This notion also includes preparatory design works having as purpose the development of a program on condition that they allow the creation of a computer program in a later stage.

According to Article 1 paragraph 3 of the Directive 2009/24/EU, a computer program shall be protected if it is original in the sense that it is the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection. The exclusive rights of the holder include the right to make or authorize, in accordance with Article 4: "permanent or temporary reproduction of a computer program, by any means and in any form, in part or in whole".

Major problems to be clarified in the forensic investigation of software piracy and online piracy

The major problems to be clarified regarding the forensic investigation of software piracy and online piracy refer to the following aspects:

Establishing the existence of illicit activity of software piracy or online piracy

For the purpose of investigating the criminal activity of one or more individuals, the investigators must first establish the existence of the offense related to software piracy or online piracy.

In the case of the offense under Article 194 of Law no 8/1996 on copyright and related rights, illicit activity consists of *making available to the public, including via the Internet or other computer networks, without right, of works or products carrying related rights or sui generis rights of the producers of their databases or their copies, regardless of the medium, so that the public to access them anywhere or at any time individually chosen.*

A frequent way of committing this offense is software piracy committed through the Internet, that is, the act of hosting software carrying copyright or related rights that can be accessed from different websites by any person who meets certain conditions. Another frequent way of committing the offense, stipulated by Article 194, refers to allowing people to access their own computer system through Peer-to-Peer (P2P) software that is used to share files between several computer systems linked to each other on the Internet (Moise 2011, 348). We point out that P2P is often legally used to share music, video, and other types of files and software. The most common

file sharing programs are: KaZaA, Morpheus, Gnutella, FreeNet, WinMx, iMesh. The KaZaA file-sharing program can be used to share many types of files, including images and video. Investigators can use the command *netstat* to see active connections with remote computer systems when downloading software files. Once the computer system has been seized by investigators, the continuity of the software piracy offense can be determined using the information stored in the registers and files created by the KaZaA application. There is also the KaZAlyser investigation tool, which is used to display IP addresses and other details about file-sharing.

The KaZaA file-sharing program has an important feature for investigators, namely sharing software files as far as possible between computer systems in the same region.

In the case of the offense referred to in Article 195 of Law no 8/1996, the illicit activity consists in unauthorized reproduction of computer programs in any of the following ways: installation, storage, running or execution, display or transmission on the internal network.

In the case of the offense referred to in Article 198 of Law no 8/1996, illicit activity consists in the *production, import, distribution, possession, installation, maintenance or replacement, in any way, of access control devices, either original or pirate, used for program services with conditional access or connection, without right, or connection, without right, of another person to program services with conditional access, or the sale or rent of access control pirate devices.*

In the case of the offense referred to in Article 199 of Law no 8/1996, illicit activity consists in producing, importing, distributing or renting, offering in any way, for sale or for rent, or possessing, without the right to trade them, devices or components which allow the neutralization of technical protection measures or providing services which lead to the neutralization of technical protection measures or neutralizing these technical protection measures, including in the digital environment.

Identifying the work that is the object of software piracy or online piracy illegal actions

The work that is the object of illicit actions of piracy is software that does not have license. According to the provisions of Article 73 of the Law no 8/1996, “the protection of computer programs includes any expression of a program, application programs and operating systems, expressed in any language, either in source-code or object-code, preparatory design material, and textbooks”. According to the provisions of art. 74 of Law no 8/1996, “the copyright owner of a computer program shall in particular enjoy the exclusive right to achieve and authorize: the permanent or temporary reproduction of a program, in whole or in part, by any means and in any form, including in the case where reproduction is determined by the installation, storage, running or execution, displaying or transmission on the network; translation, adaptation, arrangement and any other changes to a computer program, as well as the reproduction of the result of such operations, without prejudice to the rights of the person transforming the computer program; distributing and renting the original or the copies in any form of a computer program”.

Identifying the author and the circumstances that favored software piracy or online piracy

The active subject of software protection offenses may be any natural person criminally liable. Criminal participation is possible in all forms provided by law (co-author, instigation, complicity). Investigators will determine how offenders have access to confidential information on a computer data storage medium or on a website, starting from the possibility of unauthorized use of software (Stancu 2007, 711).

Identifying the injured person by committing the illicit activity provided by Law no 8/1996

Identification of the person who is the copyright owner of a software and who has been injured by committing one of the offenses provided by Law no 8/1996 is carried out by consulting some records administered by some organizations or bodies with attributions in the field of software protection.

At the level of Romania, this body is the Romanian Copyright Office, which acts as a specialized body under the authority of the Romanian Government, being the sole regulatory authority, recording through national registers, supervision, authorization, arbitration and technical-scientific finding in the field of copyright and related rights, including in the field of software

protection. Please note that the Romanian Copyright Office manages the National Computer Software Registry, in the sense that this registry contains all the software licenses accompanying computer software programs issued by the copyright holders regarding the rights to use these programs. A software license consists of the written authorization that accompanies the computer program, and which is issued by the copyright owner in relation to the right to use that software (Cojanu, 2017, 159).

Identifying practices in the field of software piracy and online piracy investigations

Investigation of offenses related to software protection is carried out according to the forensic investigation methodology of cybercrime. The methodology of software piracy and online piracy forensic investigation is best suited to the peculiarities of cybercrime investigations and includes the following investigation phases (Moise 2011, 213-251): preparation of the investigation; collecting evidence; examination of evidence; evidence analysis; reporting the results.

Identification of digital and physical evidence

Digital evidence represents the “information of probative value that is stored, processed or transmitted in a digital format” (Scientific Working Group on Digital Evidence, 2002, 2).

In the case of software piracy and online piracy, digital evidence consists precisely in the software programs that are used and marketed by offenders without the software license issued by the copyright owner in relation to the right to use that software.

Digital evidence related to software piracy are found on various data carriers (physical evidence), such as: computer systems (desktop computers, laptops, mobile phones), compact discs, DVDs, memory cards, flash drives, optical disks, magnetic disks, computerized agendas, digital cameras.

Regarding digital evidence related to online piracy, we point out that investigators obtain this digital evidence only as a result of the forensic investigation of computer networks, which involves examining digital data in networks within a real time frame. Since computer programs can be uploaded to different web pages or other computer networks, investigators should know that although webpages are written in HTML language, they can be written in languages using scripts (Marcella and Menendez 2008, 155-156). These scripts allow webpages to display content individually for each user. Content can be adapted depending on each user’s IP address. Investigators, when investigating a web site for online piracy, they need to establish (Moise 2011, 272-273): identifying the HTML source on a web page; identifying computer data on the web page; locating, searching and seizing the web server. The web server may contain the HTML source as well as the records showing the users’ IP addresses, who connect and copy data from the website.

The server can also memorize users’ names, passwords, payment methods, and other useful information for investigators when investigating online piracy (Chaikin 2006, 244).

One of the particularities of digital evidence is that it is apparently not obvious, being contained in the IT equipment that stores it. Investigation equipment and specific software are needed to make this evidence available, tangible and usable (Chaikin 2006, 239-256). Another aspect is that this evidence is very fragile, in the sense that it can be changed or can easily disappear by methods that are often at hand of the perpetrators. For this reason, investigators need to take special protective measures to collect, preserve and examine this evidence (Wang 2005, 324).

Identifying the members of the team participating in the investigation of software piracy and online piracy

The team of investigators is generally responsible for the coordination of all activities related to the investigation of software piracy and online piracy. Both due to the special characteristics of the equipment under investigation and the methods used in the forensic investigation process, the members of the investigation team must have the knowledge and skills appropriate to investigate software piracy or online piracy. The team of investigators consists of the following persons: the

prosecutor, who is the head of the investigation team, experts of the Romanian Copyright Office, officers within the competent judicial staff, forensic experts and technical experts.

Identifying the tools needed to investigate software piracy and online piracy

Forensic investigation of software piracy and online piracy requires the use of specific tools. The team of investigators must have enough, high-quality data storage media to enable it to be copied from the analyzed computer system or from another data storage medium. The tools needed to investigate software piracy and online piracy are as follows: hardware tools and software tools.

Ordering and performing evidentiary procedures for investigating software piracy and online piracy

In the case of software piracy and online piracy investigations, forensic expertise, technical-scientific findings and computer searches (Pantea 2016, 278-280) are the most commonly used and conducted evidentiary procedures. The forensic expertise and the technical-scientific finding in the case of pirated computer programs shall be ordered in accordance with the provisions of Article 172 of the Criminal Procedure Code in Romania, in the event that, in order to establish, clarify or assess facts or circumstances relevant to the truth, also required the opinion of an expert. The forensic expertise and the technical-scientific finding in the case of software piracy shall be ordered upon request or ex officio by the criminal prosecution body, by reasoned order, and shall be ordered by the court during trial by reasoned termination. Determining the pirated nature of the software is done in accordance with the provisions of Article 181 paragraph 1 letter k) of Law no 8/1996, which provides that specialists from the Romanian Copyright Office perform expertise for a fee, at the expense of the interested parties or upon the request of the judicial authorities.

We mention that forensic expertise, technical and scientific findings and computer searches in the field of software piracy can be carried out by both the judicial police officers specialized in the field of investigation of cybercrime within the General Inspectorate of Romanian Police - Directorate for Combating Organized Crime, Cybercrime Service, as well as experts from other public institutions, such as National Institute of Forensic Expertise within the Ministry of Justice or the National Forensic Institute within the General Inspectorate of the Romanian Police. After the judicial bodies have indicated the facts and circumstances subject to the assessment and the objectives to be clarified by the experts, the forensic expert's technical-scientific findings and forensic expert reports must provide the judicial authorities with the following important information to prove the existence of software piracy: identifying those programs that do not have software licenses and which are contained by various data storage media; determining the original or pirated nature of that copyrighted software; type and number of pirated software; labeling the data storage media with the manufacturer's code; identifying programs that allow to reproduce and make available to other persons software through peer-to-peer networks; identifying programs that offer the possibility of neutralizing access control measures; the indication of the copyright owners regarding the software they have investigated. (Cojanu 2017, 172).

Carrying out the computer search in the case of software piracy consists of the process of research, discovery, identification and collection of evidence stored in a computer system or storage medium for computer data, made by appropriate technical means and procedures, capable of ensuring the integrity of the information contained therein. Computer searches will be performed on a computer system or data storage medium (CD, DVD, data stick) containing the pirated software. The search warrant is issued by the judge following the computer search provided by the court and includes: the computer system or the data storage support to be searched for the pirated program; the name of the person who illegally uses this pirated software; the period for which the search warrant was issued; the judge's signature and court stamp; date, time and place of issue; the name of the court.

Conclusions

In the field of investigating software piracy and online piracy, investigators must comply with a number of principles of digital evidence (International Organization on Computer Evidence 1999,1): in the process of obtaining digital evidence, the carried out actions should not be modified; when it is necessary for a person to have access to the original digital evidence, this person must be competent from the forensic point of view; all activities in connection with the investigation, storage, examination, or transfer of digital evidence must be entirely recorded in writing, and shall be kept available for evaluation; a person is responsible for all activities in connection with digital evidence as long as they are in possession of it; any organization responsible for investigating, accessing, storing or transferring digital evidence is responsible for compliance with these principles.

Investigating software piracy and online piracy involves two sides: the hardware side and the software side.

The hardware side refers to the investigation of computer systems and data storage media. The software side refers to the investigation of pirated programs and possible other evidence in the data carriers.

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The Impact of Using a Robot Mannequin (*RoMa*) in Visual Merchandising

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ABSTRACT: Social robots applications are becoming more and more popular in our daily life. Advertising, in this case, apparel advertising, is an area that humans must deal with every day. *RoMa* is a social robot mannequin that has been designed and developed as a mobile robot for use in the field of advertising and visual trading. In this paper, characteristics such as the interaction of people with *RoMa*, the impact of using a social robot on the sustainability of a store's brand name for customers, the desire to revisit the store for another purchase, and the robot's structural features were measured in a Tehran retail store using various tools such as questionnaires, cameras, and a microphone. Finally, customer preferences for the process of selecting and buying clothes as well as an examination of the mannequin's display features have also been studied.

KEYWORDS: Robot Mannequin, Social Robot, Smart Showcase, *RoMa*

1. Introduction

Visual Merchandising is the use of customized programs and various product views to maximize sale of a product. In other words, the salesperson is trying to attract more customers by offering a product in a different way. One of the many ways in which the merchandise can be presented is the arrangement of store products, the use of mannequins, lighting, showcase space and store environment, music, coloration, seasonal displays, etc. A mannequin is often used to attract customers in the apparel industry as it allows the customer to imagine that outfit on themselves, which allows the person to easily communicate with the product. Results of a study by Jain and colleagues in the field of impact of visual trade on female customer behavior showed that the proper use of a mannequin encouraged women to buy clothes from that store (Jain, Sharma, Narwal 2012).

Retailers have many different ways to attract customers. A study examining the attractiveness and attraction points in a showcase by the Point of Purchase Advertising International (POPAI) organization revealed that no other factor attracts customer attention as much as the moving window of a showcase, and statistical data and analysis showed that this can increase sales by about 310% (www.popai.co.uk). Previous research has examined several factors that influence an increase in retail sales, and specific factors, such as robots, the internet of objects, virtual reality, etc., have been found to have a direct impact on this area (Grewal, Roggeveen, Nordfält 2017). Arousing a customer's feelings can lead them to certain actions. In other words, merchandizing can be used to sell a product by stimulating people's opinion about that product (Darrat, Amyx 2016). The design of a showcase, especially a smart showcase, can excite the emotions and affect the viewer, which could cause the length of pause and amount of eye contact with the desired item to increase during the period of viewing.

Technology is rapidly changing the nature of the services provided to the customer, and it is anticipated that by 2025 services using humanoid robots will become very common. In Van Doorn, Mende et al. (2017), the ability to use technology as an automated social presence in service work is examined. The paper states that technology can be used to add a social factor in services provided to people. Social robotics is an emerging field in modern research that examines the social behaviors involved in interaction between humans and robots. Social robots are being built and designed for use in a variety of fields, including education (Meghdari, Alemi, et al. 2013), medical treatment (Meghdari, Alemi, et al. 2016 and Kwakkel et al. 2008), and social services (Smarr, Mitzner, et al. 2014; Severinson-

Eklundh, Green, Hüttenrauch 2003). These robots are also being used for entertainment and promotions. As social robots are designed to live in human society, the most important factor in their design is the ability to communicate with humans. This relationship can be a verbal, animated or physical interaction. In a study conducted in the Social and Cognitive Robotics Laboratory of Sharif University of Technology, Meghdari and Alemi investigated the use of social robots to teach a foreign language to children (Meghdari, Alemi, et al. 2013), educate and rehabilitate children with autism (Taheri, Alemi, Meghdari, et al. 2015), and to teach sign language to deaf children (Zakipour, Meghdari, Alemi 2016).

In this paper, the social robot *RoMa* was used as a smart animated mannequin in the field of fashion and clothing. Mannequins are a simplified model of the human body in a stationary state. This robot, with its 9 degrees-of-freedom, has the ability to display many human upper body movements. The robot was designed specifically to meet the needs of fashion and apparel (Alemi, Meghdari, et al. 2017). In our study, the following parameters were investigated in the real environment of a women's clothing shop in Tehran, Iran.

- 1- Customers' priorities when buying clothes such as materials, the dress model, the way the dress fits the ins and outs of the body, etc.
- 2- People's interaction with the mannequin-operated smart showcase.
- 3- Analyzes of the robot's structural features such as beauty, human likeness, and natural movements.
- 4- Reusability of the robot.
- 5- Increasing brand durability in customers.

In the next section, the hypotheses on which each of these parameters is based is explained.

2. Effective parameters of the social robot *RoMa*

The following factors were examined to investigate the impact of the use of a social robot in the field of visual trade.

2.1 Priority of customers in buying clothes

People do not buy products just because they are products, they pursue certain goals such as tidying up their environment, enjoyment, attracting attention, and so on. Therefore, the retailer must provide the buyer an incentive to buy their product (Jain, Sharma, Narwal 2012). The primary priority of clothing and apparel buyers includes factors such as price, clothing material, color, dress style, the way the dress fits the ins and outs of the body, seasonal conditions, clothing comfort, etc. In this paper, these factors are divided into two parts. The first type, as mentioned above, includes factors such as price, clothing material, color and comfort of clothing. These factors are not affected by the mannequin type. Additionally, stimulation of customer sentiment has little effect on these factors. The second type of factors, such as the dress style and the way the dress fits the ins and outs of the body, are factors that are shown by mannequins.

For this study we choose a factor, the clothing material, from the first group and compared its effect on customer sentiment with the criteria of the second group. Since the poll was taken randomly it is expected that there will be people of different ages and attitudes, but all are expected to consider the way the dress fits the ins and outs of the body as more important than the clothing material.

2.2 People's interaction with smart showcase

A recent study claims that a store's showcase should motivate the customer and bring people into the store (Alemi, Meghdari, et al. 2017). The showcase should create an allure for the viewer, and by increasing the duration of pausing in front of the showcase, stimulates the customer's emotions and motivates him/her to enter the store. Using a moving mannequin in a showcase should cause some form of social interaction between people and the product; thereby, causing the person to respond appropriately and enter the store. When the client feels that his presence is identified by the mannequin, he/she starts interacting with that

mannequin. The role of the robot mannequin in the showcase is to interact with the customer by communicating in a visual, verbal and animated way. Since the robot is able to move with very human-like gestures, an initial interaction is formed and the consumer is gradually enticed into the store by the appeal of this phenomenon, and after entering the store they seek out the desired product. Three different methods of buying a dress have been investigated in this research. Online shopping, clothes displayed on mannequins, and trying on clothes before buying. In addition, we studied the method people preferred to use when selecting clothes.

2.3 Analysis of robot mannequin features

When using a humanoid robot as a mannequin it must include factors to attract the attention of the clients. These factors are discussed in an article on the robot's conceptual design and have been applied to *RoMa* (Alemi, Meghdari, et al. 2017). All degrees of freedom of the robot have been selected in such a way that the robot is able to correctly emulate humanoid moves. One of the issues that should be considered in the design and construction of humanoid robots is the Uncanny Valley hypothesis. Psychologists believe that when a humanoid robot resembles a human being too closely it creates an unpleasant sensation for the audience (Mori, MacDorman, Kageki 2012). Fig. 1 illustrates the graph of the amount of a robot's appeal based on its likeness to humans. Additionally, people should not expect the robot to function entirely like a human. In this aesthetic assumption, the more a robot looks like a human but is unable to act like a human the more repulsive it is. As this hypothesis was incorporated into *RoMa*'s design, we should be able to avoid the uncanny valley in the consumer/audience in this study.

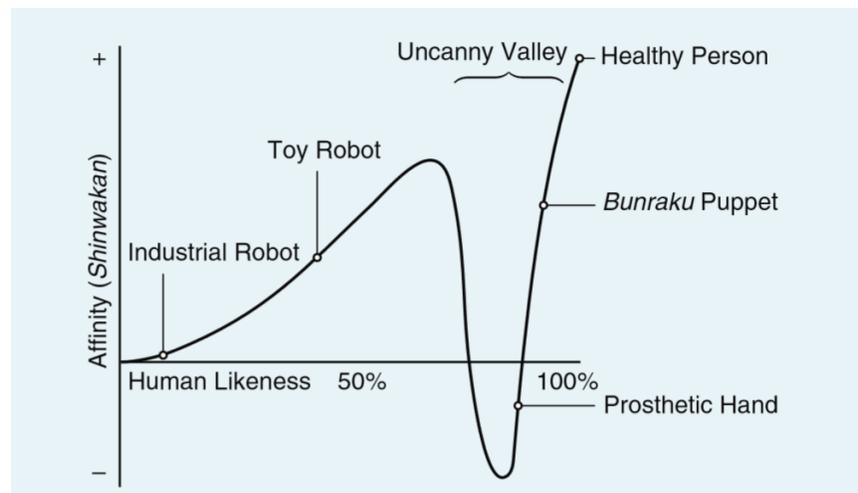


Fig. 1. The Uncanny Valley in the Affinity chart based on the percentage of robot likeness to humans (Mori, MacDorman, Kageki 2012)

2.4 Reusability of the robot

An important point in using a robot is to maintain its long-term attraction in the eyes of the audience. People should not become accustomed to seeing the robot after several viewings, and it should not become a normal or common phenomenon for them. An article by Leite and colleagues (Leite, Martinho, Paiva, 2013), studying the interaction between humans and social robots reports that robots have finally been able to captivate an audience/consumer for an extended period of time. In another study a robot named Valerie was used to greet people, give weather forecasts, tips for routes, and so on for nine months (Gockley, Bruce, et al. 2005). The researchers found that as the robot's similarity to humans increased, humans

interacted with the robot for a longer time (Gockley, Bruce, et al. 2005). To further investigate this the robot's motions can be varied and the results monitored over a period of time. As the use of a moving factor is effective in increasing the charm of the showcase, it is anticipated that over time the robot will remain attractive to audiences, and people will tend to continue to be influenced by the showcase whenever they go to the store.

2.5 Brand durability in customers

In another study a social robot was used to help teach English as a second language to school students in Tehran, and learning and retention rates were found to be far higher than traditional educational methods. This research also showed that the use of robots to teach English vocabulary led pupils to learn in less time than traditional educational methods (Alemi, Meghdari, Ghazisaedy 2015). A similar study done in Japan by Takayuki Kanda also found the results were better than other groups of children who learnt English in traditional methods (Kanda, Hirano, et al. 2004). These studies show the use of a robot makes learning more attractive and long-lasting with students able to retain the words after longer periods of time (Meghdari and Alemi 2018). Extending this hypothesis to the research conducted with *RoMa*, people should remember the brand name and the location of the apparel longer, and as time goes by this will increase the number of store customers. In the next section, a framework test designed to meet the requirements for measuring the desired parameters is explained.

3. Designing a framework test for the robot mannequin

The Robot Mannequin is located in the showcase of a women's clothing store in Tehran. This store is one of the well-known clothing brands in Tehran, and is visited daily by many people. Two robot mannequins wearing women's dresses were placed at the front of the store's showcase. This retailer is located on a crowded street, with lots of customers with different tastes and various cultural and social levels buying from this store. The showcase of the store is facing and slightly above the street, so that the showcase is easily visible to pedestrians. Fig. 2 shows the front showcase of the store.



Fig. 2. A view of the mannequins posed in the front window of the retailer's clothing store

Inside the store, there are two CCTV cameras to record the reaction of pedestrians and customers who enter the store to both the mobile mannequins and fixed mannequins. Fig. 3 shows a view of the camera position

relative to the mannequins. Outside, where passing pedestrians can stand and view the showcase, a microphone was placed to record the verbal responses of the audiences to the robots. Fig. 4 shows the location of the microphone.

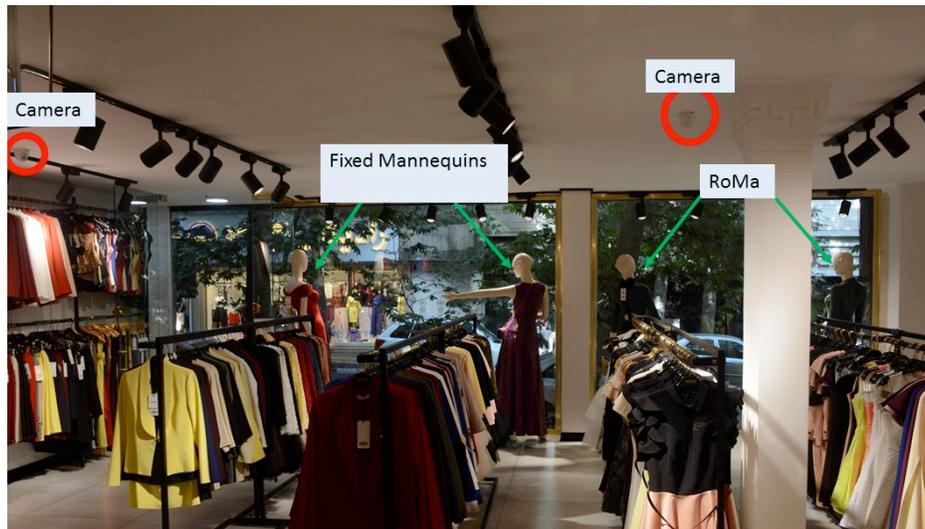


Fig. 3. Location of the cameras relative to the showcase, the *RoMa*, and the fixed mannequins



Fig. 4. Location of the microphone relative to the showcase, the *RoMa*, and the fixed mannequins

To measure important client factors, an audience/potential customer survey is asked from willing participants before seeing the robot mannequins. The questions were about their tendency to buy apparel in person or otherwise and important client factors as discussed above, such as price, clothing material, color, the way the dress fits the ins and outs of the body, seasonal conditions, clothing comfort, etc., for the purchase of the dress. After seeing the robots the same people will finish the survey by answering questions about the characteristics of the robot, its attractiveness, brand name reminder, and the measurement of brand-name durability after seeing the robot.

The questionnaire was completely randomized from 100 female clients aged 18 to 62 years old with an average age of 28 years and a standard deviation of 10.1. All questions in this questionnaire used

the Likert scale with scores by customers from grade 1 (very low), 2 (low), 3 (average), 4 (high) to 5 (very high). The text of this questionnaire can be found in Appendix 1.

4. Analyze and review the results

Different parameters affect the interaction between social robots and humans. Section 2 presents the parameters used by the social robot *RoMa*. After testing the robot and conducting a survey about customers' preferences when buying clothes as well as about the features of the robot, the results and analyzes are as follows:

4.1 Priority of customers when buying clothes

As stated in Section 2, the customer's priorities when buying clothes are divided into two categories. The first category is the factors that cannot be provided or influenced by mannequins, and the second is the factors that can be presented to the customer by mannequins. The dress material was selected from the first group, and the way the dress fits the ins and outs of the body and the dress style were selected from the second group for a customer survey. The survey results are presented in Table 1.

Table 1. The Results of the Customer's Priority in Buying Clothes

	Standard Deviation	Average (From 5)
The way the dress fits the ins and outs of the body	0.75	4.42
Dress material	1.12	3.54
Dress style	0.89	4.36

The survey results show that customers' preferences when buying clothes are more focused on the dress style and the way the dress fits the ins and outs of the body. Therefore, it is concluded that when people are buying clothes they are paying attention to how the dress is presented; thus, customer attention can be drawn and stimulated to the appropriate clothing through a smart showcase.

4.2 People's interaction with the smart showcase

In another section of the survey, the customer's method of buying was addressed. In the questionnaire, customers were asked to choose between online shopping, seeing clothes on mannequins, and buying clothes after trying them on. Table 2 presents customer clothes buying method preferences.

Table 2. The Results of the Customer Clothes Buying Method Preferences

	Standard Deviation	Average (From 5)
Online shopping	1.1	1.68
Seeing clothes on a mannequin	1.07	3.1
Buying after wearing	0.36	4.9

A notable result of this question is that the purchase of clothing after wearing got the highest score. Online shopping got the lowest score which shows that this choice is not at all a priority for customers to buy a dress. The result of the question is that these customers do not have enough confidence to buy clothes from the internet rather prefer to be able to actually carefully examine the clothes. These results are in agreement with a report from (www.salehoo.com), which shows that only 13.5% and 2.1% of sales were online in 2014 in England and Italy, respectively. Customers were also asked if they would buy a dress without

trying it on. Answers showed that only 32% of people said they might buy clothes without trying it or seeing it on a body. From the review of comments, it is concluded that people pay much more attention to the way the dress fits the ins and outs of the body. This factor can easily be shown to the customer by the mobile robot mannequin. The advantage of the robot mannequin is that it displays a myriad of upper body shapes and movements allowing the potential customer to easily imagine the dress on their own body.

In this study, cameras located inside the store filmed the behavior of pedestrians outside the front showcase during two periods before and after the installation of the *RoMa* mannequin. The data recorded was examined for different hours of the day. The results recorded before the installation of the *RoMa* showed on average about 5 people per hour looked at the store's showroom. After placing the robot mannequin in the showcase, that number increased to 19. This shows the creation of the mobility factor in the showcase drew people's attention to the shop windows. Data recorded from the microphone installed in front of the showcase store where pedestrians crossed in front of the showcase was also remarkable. Most people were surprised at the presence of the moving object simulating human movements inside the showcase.

4.3 Analysis of robot mannequin features

As stated above, during the design and construction of *RoMa* the designers considered certain factors to increase the robot attractiveness. The features of the robot were examined from the perspective of anthropology, animation and likeability.

4.3.1 Anthropology

From this point of view, the naturalness or unnaturalness of the robot's movements compared to human movements from the perspective of customers have been examined. The results of this question are shown in Fig. 5.

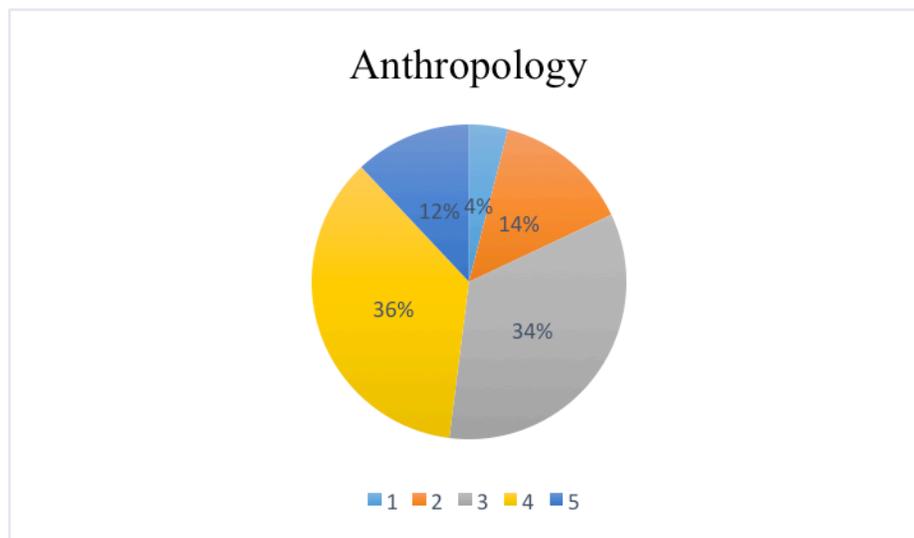


Fig. 5. The naturalness of the robot movements from the customer's perspective

As can be seen in Fig. 5, a significant number of people believe that the robot's movements are moderately similar to human movements. The standard deviation of this data is 1, which indicates that a significant number of people have voted for option 3 (medium) and 4 (high).

4.3.2 Animation

- Human-like or machine-like

The question relates to how human-like the robot operates. The movement of the robot's appendages in its workspace. The survey results are shown in Fig. 6.

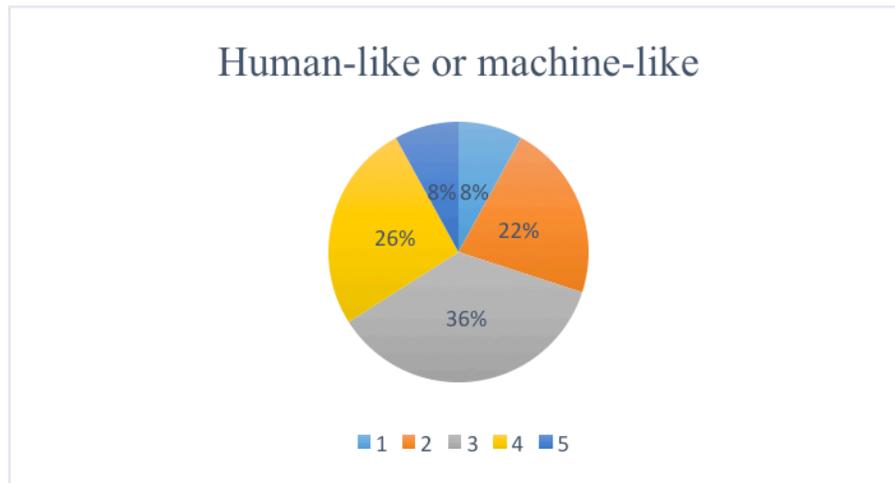


Fig. 6. Human/machine-like movements from the perspective of the customers

According to the results of Fig. 6, the majority of survey participants believe the robot movements were sufficiently human-like. A significant percentage voted for option 3 (medium) and 4 (high).

- Dead or Alive

This question was asked from the customers. Does the mannequin in the showcase feel like it is alive to you? The results of this question are also noteworthy as shown in Fig. 7.

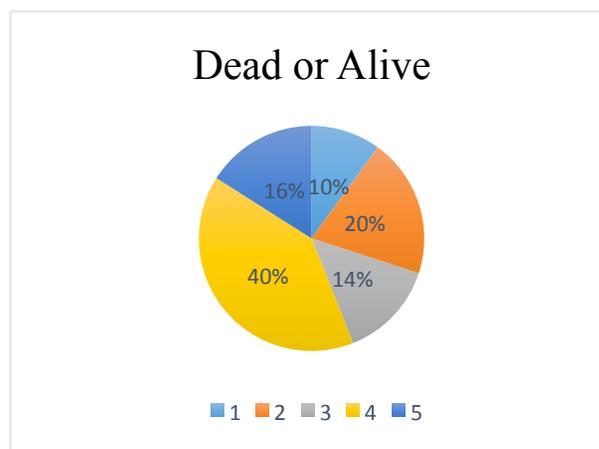


Fig. 7. The audiences/customer's sense about RoMA as a living creature

Seventy-four percent of customers believed that robot mannequins are more than 60 % similar to a living creature; therefore, they will interact with it as a living creature.

4.3.3 Likeability

From this perspective, three important factors have been studied and analyzed.

- Creation of a sense of relaxation or anxiety when seeing a robot

This is a very important factor, it is important that customers do not feel distracted after seeing the robot mannequin and that they are not afraid of the moving object inside the showcase. As seen in Fig. 8, 80% of the customers feel comfortable with the robot mannequin. The standard deviation of this data is also 0.8, which indicates that a significant percentage of customers did not feel afraid when seeing the robot mannequin.

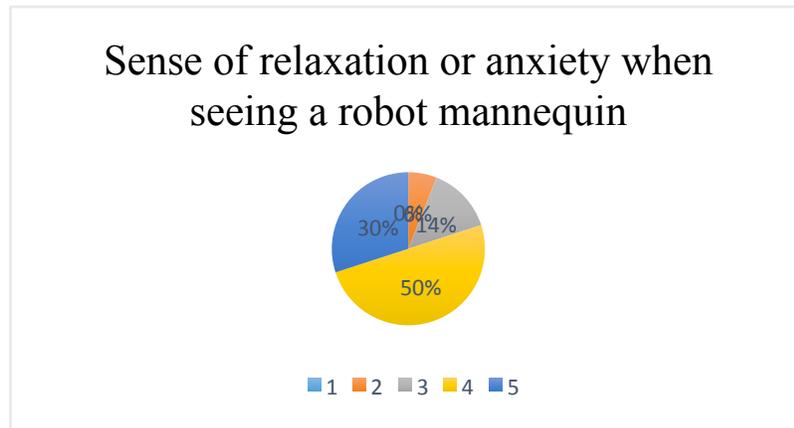


Fig. 8. The sense of relaxation or anxiety when seeing a robot mannequin from the audience's/customer's perspective

- Fearsome or Loveable

After seeing the robot, 78% of the customers believed the robot to be an attractive creature who mimics human movements inside the showcase. These results are presented in Fig. 9. The magnitude of the standard deviation of this feature examined by the Robot mannequin is 0.88, which suggests that the customers overwhelmingly believed that the Robot mannequin is a beautiful entity.

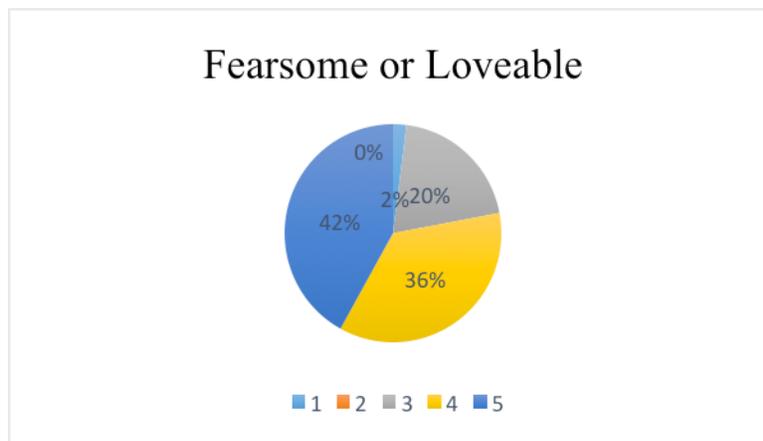


Fig. 9. The robot mannequin was fearsome or lovely from the audience's/customer's perspective

- Kind or Unkind

In another part of the questionnaire, customers were asked about the sense of intimacy they felt with the robot mannequin in their first encounter. In this question, 78% of the customers believed that they experienced a sense of humor and convenience in the first encounter. The results of this question are shown in Fig. 10. A number of customers had interesting views on this. Some expressed that this robot mannequin is like a living creature that mimics human movements, and thus a sense of intimacy in the first encounter between them was formed.

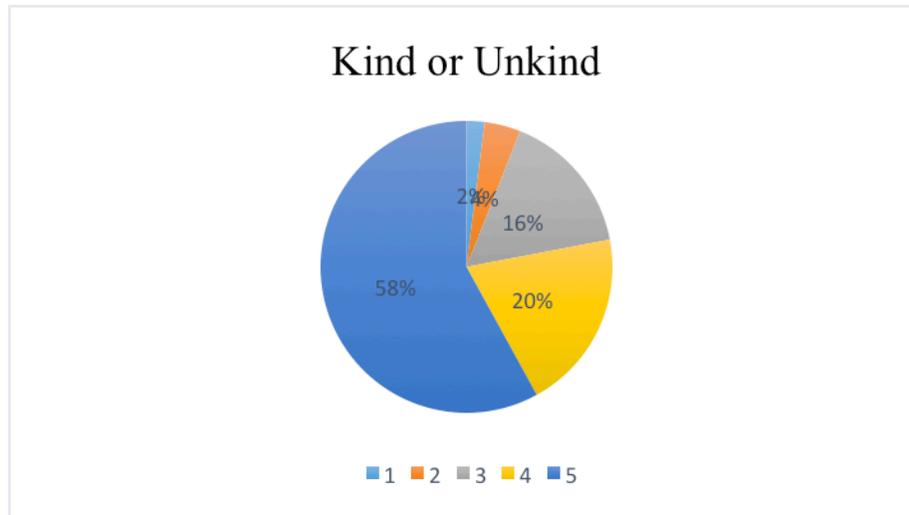


Fig. 10. Kindness of the robot mannequin from audience's/customer's perspective

From the analysis of data from Fig. 5-10 and data from the questionnaire, it is concluded that the uncanny valley hypothesis has been well documented in the mannequin design, and humans are not afraid of this human social robot.

4.4 Reusability of the robot

One of the important features that a robot must have is to keep its attraction in the eyes of the audience/consumer over time. The amount of attractiveness of the moving robot in the audience's view was one of the questions raised in the questionnaire. The thought-provoking result of this question was that the robot maintains its charm in the eyes of 94% of the audience, so they tended to return to the store again not only to watch *RoMa* display different clothes but to buy the clothes.

4.5 The durability of the store's brand name for customers

One of the important effects that the social robot had in dealing with human beings was to preserve the names and locations of the stores as described in the previous sections. The brand name of the store, shown in Fig. 4, remained in the mind for 60 percent of the people following the robot observation. In fact, the use of a mobile showcase caused people to pay more attention to the brand-name and shop location. This result suggests that the use of a social robot makes advertisement more effective and long-lasting in the minds of the audience/consumer.

5. Conclusion

The use of the robot mannequin in the showcase of a store and the smartness of the showcase caused it to increase the number of people who looked at the showcase by 280% during the day. Our results also showed that the customer's priority is the way the dress fits the ins and outs of the body and clothing style. Poll results indicated that people prefer to buy a dress after wearing it rather than online shopping. In fact, they preferred to see the dresses in person. These results indicate the significance of using a robot mannequin to display apparel to the customer. The results of the survey on the structural features of the robot showed that with this robot design, the uncanny valley hypothesis is met and customers will not experience any discomfort or anxiety when seeing the robot.

Acknowledgment

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The Environment of Professional Activity for the Key Knowledge Workers

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ABSTRACT: There is an extensive research gap in the study of methods participation and involvement key knowledge workers in different management processes. There are not many ideas how to manage knowledge workers, and in particular key knowledge workers (KKWs). KKWs – top class specialists, knowledge which they have acquired is not only advanced, but also an innovative and unique one and therefore it is always of highly individual nature. The best specialists (such as KKWs) have right to expect the special treatment adequate to the achieved results and represented potential. The knowledge-oriented enterprise have to create the adequate working environment for the KKWs. The comfort's zones for the specialists guarantee that they become aware investors of their own intellectual capital. Their engagement is the key issue regarding to the achieving the competitive advantage on the market which is based on the intangible assets. The article has a theoretical character referring to previously conducted by the author of the research. The aim of this paper is develop a model of KKWs' environment of professional activity within intelligent organization. The study was finalised with conclusions and the list of references. One of the conclusions: The elements of work environment which stimulate creativity are mainly represented by the so-called "soft management" components referring to various aspects of human capital management in an organization. However, these findings need to be interpreted with caution due to present limitations. Further research is necessary that would replicate and extend current study to other questions.

KEYWORDS: Knowledge Workers, management of Knowledge Workers, environment of professional activity for Key Knowledge Workers

Introduction

There is an extensive research gap in the study of methods participation and involvement ey knowledge workers in different management processes. There are not many ideas how to manage knowledge workers, and in particular key knowledge workers (KKWs). KKWs – top class specialists, knowledge which they have acquired is not only advanced, but also an innovative and unique one and therefore it is always of highly individual nature. The best specialists (such as KKWs) have right to expect the special treatment adequate to the achieved results and represented potential. The success of any organization is dependent on several factors among which human capital plays the crucial role. Knowledge workers are often the core of contemporary organization. It can be their ideas, experiences, interpretations, observations and reviews that keep the business moving forward. They invent new products, technologies and processes, but also analyze, develop and design more competitive business models, company strategies, costumer approaches, etc.

Creating a model of management knowledge workers, we need to solve many problems. It's necessary to answer such questions, for example:

- What does this mean for the managers and leaders of these workers?
- How to get, keep and what to offer KKWs who know more than others and can easily find an even better job?
- What are the elements to build a space to mobilize the intellectual activity, creativity and commitment?
- Which characteristics are desirable in the environment of KKWs to encourage their creative thinking and operating?
- How enforce and evaluate the effects of tasks performed when managers are not the experts and don't know of all the consequences of the adopted and approved solutions?
- How do measure the amount of knowledge a person creates or uses?

This type of work is mostly intangible – and very often invisible. It's difficult to determine the value of mental work and the ideas they inspire.

The article gives the theoretical background of the term knowledge worker and covers the part of the author's research on knowledge workers.

The aim of this paper is develop a model of the environment of professional activity for the Key Knowledge Workers. The author of the following study conducts research focussing on the knowledge worker, managing this group of employees, motivating them, working in a group and intellectual leadership for a decade. During this time, he conducted a lot of research, based on surveys and interviews.

The survey questions were addressed not only to entrepreneurs and managers. In fact, in each study, personal interviews were conducted with key employees. The obtained results were used in presenting final conclusions.

Knowledge workers - definitions and observations in the literature of the subject

Highly gifted people represent the core of new economy, e.g.: ICT specialists, engineer, fashion designers, architects, consultants and many other professions. Their activities are based on creativity and high competences. In the literature of management science are often called "knowledge workers". Although importance of knowledge workers has been widely discussed in many earlier studies globally, yet, so little is really known about these workers. and It is still difficult for many people to understand on exactly what this term means. In recent years the dominance of knowledge economies has resulted in a need for knowledge workers who are adept at intellectual thinking, managing of knowledge and problem-solving at work. Knowledge workers are workers whose main capital is knowledge.

The term of a "knowledge worker" is included among the concepts which characterize different categories and groups of employees distinguished among other members of an organization by the much higher level of education, knowledge, skills, experience, talent and other abilities and predispositions. We've come a long way since management expert Peter Drucker first created the term "knowledge worker" in the late 1950s. In fact, Drucker was referring to a set of workers that were not making things with their hands, but creating ideas using their minds. Drucker defined knowledge worker as: "someone who knows more about his or her job than anyone else in the organization" (Maruta, 2011, 35-47). According to Drucker, knowledge worker is a term used to identify a group of workers who own the means of production their knowledge (Wickramasinghe & Ginzberg 2001). At that time, they began to be seen a change from manual labor to jobs that need high levels of expertise, education, and experience. Now as estimated, anywhere from 25-50 percent of jobs require people to create, use, and share knowledge. According to T.H. Davenport, knowledge workers possess a high level of professional knowledge, education or experience, and creation, transfer and practical use of knowledge are among the core tasks of their work (Davenport 2005, 21-24) In other words, Davenport defines knowledge workers as some people who are highly expert, educated and experienced; their main goal is to create, distribute and use knowledge. Knowledge worker is a member of organization who utilizes knowledge to increase the productivity Davenport claims that the primary purpose of a knowledge workers' job involves the creation, distribution, or application of knowledge. Knowledge workers think for a living. As businesses increase their dependence on information technology, the number of fields in which knowledge workers must operate has expanded dramatically (Cooper 2006).

In turn, Davis and Parker (1997) argue that the work based on knowledge is a human mental work performed in order to generate useful information. During this work knowledge workers find information, using the knowledge involved mental models, using concentration and attention.

Due to tacit knowledge, knowledge as a whole remains intangible. The intangibility of knowledge makes knowledge workers special and difficult to manage. The most important part of work performed by knowledge workers happens in their heads, even though the final result may be material (Mladkova 2013, 446). Knowledge workers are highly regarded by employers for their innovation and creativity. Thompson defined knowledge worker as "workers who possess thinking skills and change symbols and ideas when they identify and solve problems". Due to the intangible character of knowledge, managing knowledge workers requires different approaches, tools and methods than managing non-knowledge workers (Thompson et al. 2001, 923-42). Knowledge

workers are employees who are responsible for knowledge work, and in a near future the majority of work force will be constituted of this group of workers. For many organizations, knowledge workers are the most important employees and it is critical for organizations to retain them. Human Resources Management can increase work efficiency of employees by increasing the level of job factors. Improving the job factors provides conditions demanded by knowledge workers and improve their efficiency as well as satisfaction, involvement and loyalty.

Knowledge workers are usually responsible for exploring and creating ideas, rather than implementing and managing existing processes. New technologies, new products, new designs, new models for doing business – these are typical outputs of knowledge work.

In a broader sense, in the conditions of knowledge-based economy (KBE) these workers create knowledge (or are potentially ready for it) based on the available information. Mladkova states that knowledge workers represent the special group of highly qualified employees. The specificity of their work and management reflect the intangibility of their major tool and resource, i.e. knowledge. Owing to tacit knowledge, the entire knowledge remains intangible. The intangibility of knowledge makes knowledge workers special and difficult to manage. The most important part of work performed by knowledge workers happens in their heads, even though the final result may be material (Mladkova 2013). Most valuable employees are those that can grow and learn together in line with the business change and transformations.

Empirical Research – The most important findings

One of the significant results of the author's studies (Morawski 2016; Morawski, Szalko 2015; Morawski 2014) was to determine a set of characteristic features of a Key Knowledge Worker defining his/her competences, organizational roles, motivations, etc. (see table1).

Table 1. Features of Key Knowledge Workers

Features/ categories	Key Knowledge Worker
Substantive competencies	unique, top quality knowledge based on many years of experience and master skills
Other valuable competencies	leadership skills, extensive contacts in the sector (with suppliers, clients, scientists, investors), innovative approach, mentoring skills
Substitution for a leaving employee	practically impossible, requires the introduction of long-lasting programmes for the succession of posts and trainings of successors
Organizational roles: performed in the same time or different time	<ul style="list-style-type: none"> • top level manager • management representative • innovator and the author of patents • coordinator and leader of many projects • mentor • internal trainer • supervisor of newly admitted employees
Incentives	<ul style="list-style-type: none"> • individually agreed salary • extensive financial means for trainings • contracts for participation in company profits • comfortable work conditions adjusted to individual preferences • flexible working hours • autonomy at work

Accomplished career level	<ul style="list-style-type: none"> • professional comprehensive qualifications • authority of knowledge • recognition and fame outside the company
Fundamental work results	<ul style="list-style-type: none"> • initiating changes based on creative thinking • implementation of systemic management concepts • establishment of new products generations

Source: own study

Other findings resulting from the research:

1. The Key KWS are the top class specialist constructing the intellectual and substantive elite. They constitute the group of knowledge workers who have decisive influence on the value of core corporation competencies. They provide unique skills, extensive professional contacts, deep and broad experience. Knowledge which they have acquired is not only advanced, but also an innovative and unique one and therefore it is always of highly individual nature (so-called: tacit knowledge). They include specialist within enterprises, for example: high-class engineers, technologists, programmers, economists and experienced managers.
2. The Key KWs have the right to expect special working conditions. The best specialists have right to expect the special treatment adequate to the achieved results and represented potential. If enterprise treats these persons in the same way as the others – especially these who are judged as the worst, it can count with negative consequences.
3. The Key KWs expect organizational comfort which provide them with extensive independence and opportunities for professional skills advancement. They also value organizational culture in which competencies and knowledge are respected.
4. You need an approach that can be called management without management. Managing Key KWs can be a difficult task. Most of them prefer high level of autonomy, and do not like being overseen or managed. Projects must be carefully considered before assigning to a key knowledge worker, as their interest and goals will affect the quality of the completed project. Solutions to empower the best employees are needed. Specific solutions: high level of autonomy, various work hours, motivation referring to the content of work, personal responsibility, opportunities for continuous development and learning. Key KWs must be treated as unique people like artists in their profession.

Conclusions

The conclusions resulting from the carried out research allowed formulating the proposals for basic guidelines related to the construction of a comprehensive knowledge workers' management system, which may become useful for enterprises and their managers. These guidelines relate to e.g. the needs for identifying the core values of an enterprise, defining its mission, vision and strategic goals, developing the key competences of the intelligent organization, attracting and identifying key knowledge employees, developing the personnel strategy for knowledge workers. It is necessary to specify, at the strategic level of an enterprise management, the substantive guidelines for KKW's management system construction.

The underlying guidelines are as follows:

1. The identification of basic values featuring a professional company and ingrained in the concept of an intelligent organization. Professionalism is of fundamental importance as the basic imperative influencing attitudes presented towards supervisors and co-workers and manifesting itself in competent, rational, thought over and logical activities.
2. The identification of a vision, mission and strategic goals focused on competitive advantage construction based on intellectual capital quality. Its consequence is shown in the form of emphasis placed on attracting, developing and retaining best personnel in the company.

3. Defining key competencies in an organization which ensure its competitive position at a given market. It refers to certain unique skills which allow an enterprise for added value creation, as perceived by its clients, which outweighs advantages offered by market competitors.
4. Distinguishing key knowledge workers. It has to be clearly specified which employees and at which positions represent competencies which are in what respect crucial for an enterprise competitive position construction (e.g. unique education, intellectual predispositions for creative performance, entrepreneurial attitudes and behaviour, extensive business contacts).
5. Individual strategy preparation for KKW's. The most important choices to make: signing agreements which guarantee employment stabilization and opportunities for professional development, providing comfortable working conditions, offering capital partnership.

Particular solutions referring to key employees can follow the suggestions presented below:

- Career based on work positions rotation, changing organizational roles, performing different, changing in time and scope functions for an organization, taking part in different projects.
- Promotion depending on sharing one's own experiences with others: playing the role of an internal coach, mentor, trainings, seminars and conferences organizer, participation in trainings upgrading knowledge sharing skills.
- Social competencies development by organizing knowledge sharing places: workshops for particular departments, meetings with new employees, inviting key and less experienced employees to work together in the same team.
- Organizational culture creation based on the sense of creating a cooperating community underlying collective responsibility principles: organizing events for particular occasions gatherings of all company employees, joint celebrations of both the company and individual employees success, motivation oriented business trips, meetings with families, etc. competitions checking knowledge about the company, online discussion forums, company newsletter publishing. Emphasis on meeting and the participation of all company employees in them, the sense of closeness and direct communication.
- Company environment monitoring by means of formal relations (personal consultancy agencies, universities, research and development institutes) and informal ones (distinctive scientists, patent authors, inventors, professional experts) in order to attract the best candidates from the environment.
- Ongoing monitoring and development of company employees presenting the highest potential and performance by applying talent management or leader creation programs by the establishment of suggestions offering systems.
- Flexible selection of human resources management methods divided into the leading and supportive ones, depending on the preferred development directions and company expansion. The situation may prefer new knowledge creation methods (technologies, products), the existing solutions implementation in new applications, gaining knowledge from external sources, concentrating knowledge in teams, sharing knowledge between functional areas, etc.
- Constructing tools for the purposes of knowledge intensification and dissemination in an enterprise: information techniques, access to data bases or the topography of office rooms.

The presented set of guidelines, if implemented in the company, allows for the creation of an environment of key employees for professional activity. The basic areas and highlighted specific factors that it covers are based on the author's research and his analytical considerations. Elements of the work environment that stimulate a high level of substantive and intellectual activity of knowledge workers are mainly represented by the so-called "soft management" components relating to various aspects of human capital management in the organization. Their coexistence must be properly targeted at

empowering employees. Knowledge workers are employees whose major tool and resource is knowledge. Managers cannot follow processes of knowledge work and therefore they cannot control knowledge worker while working. It may be difficult to identify and support the most productive moment of a knowledge worker's activity, and to control it. We need management by encouragement based on trust, mutual communication, versatile motivation, job satisfaction, cooperation, democratic styles of leadership.

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Forensic Examination of Soil Samples from the Point of View of Physico-Chemical Expertise

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ABSTRACT: The potential of forensic expertise in the analysis of soil samples has been recognized for a century now, but over the last 20 years, these types of evidence have been much more widely used both as an investigative tool and as evidence in court. Forensic Chemistry is at the crossroads of science with the law, being a discipline apart from its applicability to the judiciary. Samples are obtained from various objects and often contain only very small amounts of chemicals. Most of the time, the sample harvested on the spot is no longer sampled, but it is actually the sample to be analyzed. This is also the condition of aggregation of the sample, the homogeneity of the sample/matrix or the compounds sought. Sometimes, however, even the evidence can be considered chemically homogeneous, and then representative samples (paints, textiles, plastics, etc.) can be sampled. The rest of the materials are heterogeneous (soil, building materials, fire residues, etc.). The extremely rapid evolution of science in recent years has resulted in the development of new, powerful and performing technologies. This evolution and the refinement of analytical tools make it possible at present to perform forensic investigations at the smallest scale of dimensions, with greater sensitivity and with great differentiation intervals. At the same time it is possible to discover unpredictable or previously inaccessible samples.

KEYWORDS: chromatography, forensic expertise, samples, spectrometry, trace soil

Introduction

Soil is a part of the upper layer of the Earth's crust, consisting of a complex mixture of minerals, decomposing organisms, water and air, and a variety of chemical, mineralogical, biological and physical properties. Pedology is the science that deals with the study of the control and improvement of soil properties. Pedology deals with both paedogenesis, morphology, classification and the study of physical, chemical, biological and mineralogical properties of soils. Pedology also investigates the correlation between the laws underlying the formation, evolution, geographical distribution, classification and soil fertility (Seceleanu 2008, 4-10).

Morphological soil interpretation provides a quick, non-destructive visual approach to examine and distinguish between several types of soil samples in criminological expertise. This is why all samples are characterized primarily by morphological descriptors:

- 1) Colour of the soil matrix and segregation;
- 2) Soil oxidation reactions;
- 3) Texture;
- 4) Form of granules;
- 5) Structure, type, quality, and size;
- 6) Consistency;
- 7) Segregation and coarse fragmentation;
- 8) Roots and pores;
- 9) Water retention;
- 10) Effervescent reactions, etc.

A full, visual description of the soil is essential because it serves as a basis for soil identification, classification, correlation, mapping and interpretation. This is particularly the case where the land in question was transported by a vehicle, footwear or shovel.

Also, in analysing different layers of soil or horizons with different properties, it is recommended that the forensic expertise of the soil be analysed in each layer. Of particular importance are the morphological characteristics of the soil.

In most cases, the classification or assessment of a soil requires information on the chemical composition. Forensic experts can often estimate to a certain extent the composition of soils by simply visual and physical examination. They can determine the content of organic substances in soil material, iron content, saturation degree, can determine if it is sand/mud/clay, components that can be determined due to colour and texture. Other sensory indices, including the overall horizon structure, vegetation and topography, can be determined and information about the probable composition of a soil can be provided. This produces promising results, although it is usually still based on sample preparation, transport and laboratory analysis (Aitkenhead et al. 2012, 108).

Forensic Chemistry, as an integral part of forensics, is the one that, through the chemical expertise of the following matter left on the spot, handles relevant, decisive evidence to document criminal and civil cases. Physico-chemical expertise in most cases refers to examinations and analyses of elements or features of objects related to the circumstances of the offense, especially those directly related to the results of the examination, the basic objective of physico-chemical expertise determining the nature of the evidence raised during the investigation of the place of deed and their comparative examination in the context of establishing the legal truth. In the criminological investigation of a wide variety of cases, the chemist expert has an important role to play by examining and analysing the evidence available, able to produce pertinent conclusions demonstrating the power of science in completing the idea of justice, creating maximum opportunities for a fair and equitable solution of all judicial cases (Stoian and Galan, 111).

Soil composition

Soil is a complex mixture of minerals, decomposition organisms, water and air, with a variety of chemical, mineralogical, biological and physical properties.

Soil texture describes the size of mineral particles. There are three large sizes of soil particles: sand, sludge and clay. Sand describes the largest particle size and the smallest particle size. There are also three subcategories of soil - clay soil, peat soil and limestone soil (Table 1).

Table 1. Subcategories of Type Soil (Bertino 2012, 341)

Soil Type	Feel	Composed of	Location	Other Characteristics	
Sand	gritty	Weathered rock	deserts, beaches, riverbeds	large visible particles, loses water quickly	
Clay	sticky	small particles adhering to each other	various	small particles, clumps, poor drainage	
Silt	crumbly, slippery like flour	medium-sized mineral particles	sediment in riverbeds	good drainage, easily farmed	
Peat	compressible	decaying organic material	bogs, areas where water is retained by organic matter failing to decompose	acidic, used with other soil types in fertilizer because of its ability to retain water	

Loam	loose	sand, silt, and clay mixture	various	best soil for agriculture	
Chalk	brown	alkaline (basic) soil with mineral stones	below the top soil	poor for agriculture, requires the addition of fertilizer and humus	

The clay soil is a light-brown soil type and is sticky when wet. In these soils we encounter metal oxides (primary minerals in rock) and quartz (secondary minerals), clay minerals. Clay minerals are of particular importance for soil. They are able to retain, provide ions involved in nutrition, such as calcium, potassium, magnesium. Together with mineral particles, the soil may also contain organic matter, such as plants and decomposing animals.

Soil containing 20% more organic decomposing materials is called peat soil (Turbot is an accumulation of organic matter consisting of leaves, grass, mushrooms or decomposed insects). It is acidic and wet.

Physico-chemical forensic expertise aspects of soil samples

The principle of E. Locard's transfer postulates that traces of both physical and biological nature can be found at the scene of the crime, because the perpetrator always leaves something behind him in direct contact with the victim and/or the objects in that area, in a similar manner, the perpetrator will take with him fragments of a material nature, which can be found on his clothing, on motor vehicles or on certain objects. These traces are often found in infinitesimal quantities, "micrograms", which can be emphasized only by appropriate methods of physical-chemical analysis. (Alămoreanu, 2013).

Traces and micro-traces abound on-site in most cases and can be used as chemical samples in a rich casuistry. In the forensic sense, any contact, no matter how easy, will leave a trace; traces of what remains material, visible or invisible, at the crime scene from the person of the perpetrator, from his clothing or footwear, from the vehicles, weapons, tools or materials he has used, objects or fragments of objects any kind, abandoned or lost by the offender at the place of deed, as well as all that could be materially attached, visible or invisible from the crime scene to him. The traces are the result of contact between two surfaces, such as the carpet or floor shoes, or the garments with the upholstered furniture on which the offender has been seated or touched (Stoian 2013, 10).

In forensics, especially comparative examination of traces and micro-traces is of particular importance in determining the circumstances in which crimes have occurred and involves a series of morphological and analytical analyses. The extremely rapid evolution of science in recent years has resulted in the development of new, powerful and performing technologies. This evolution and the refinement of analytical tools make it possible at present to perform forensic investigations at the smallest scale of dimensions, with greater sensitivity and with great differentiation intervals. At the same time it is possible to discover unpredictable or previously inaccessible samples.

The multitude of available analytical equipment makes it easy to obtain certain conclusions by making a greater number of determinations on a single sample.

The soil examination procedure will depend on the amount of sample available. Comparative visual examination of suspicious soil samples with the comparative ones (colours and microstructures) will quickly determine their similarity or non-assimilation. However, before performing colour comparisons, it is necessary for the soil samples examined to be completely dried so that the soils appear darker than the dry soils.

The following analytical methods and techniques are used to analyse soil samples:

- 1) Microscopic examinations;
- 2) Thin layer chromatography (TLC);
- 3) Spectrometric analysis;
- 4) Inductively coupled plasma atomic emission spectroscopy (ICP-AES) and inductively coupled plasma mass spectrometry (ICP-MS) analysis.

Microscopic examinations

Because of similar inorganic composition of soils - generally silicates mixed with carbonates, ubiquitously, soils differentiation from different locations is facilitated by the presence of various highly individualized impurities. It should be noted that the litigation in question must be in sufficient quantity to build a representative soil matrix in order to perform comparative examinations/analyses. Also, for conclusive analyses in such cases, the fine and very fine features coming from the ground with which the support was in contact can only be compared with those of the same size particles. Lower microscopic examination will highlight the content of plant residue, animal residue and fragments of various man-made materials, and with greater increase will highlight the soil's mineral content. If the litigation sample consists of micrograms, only large-scale microscopy will be the main means of comparison (Stoian 2013, 297).

Thin layer chromatography (TLC)

This method highlights the humus (the organic soil component). Since humus is the result of the decomposition of plants and microorganisms, in humic substances there is a complex mixture of organic substances with different molecular structures characteristic of each phenotype, the soils being different and depending on the quantity and quality of the humus. Organic matter has a major influence on soil aggregation, nutrient reserve and availability, moisture retention and biological activity. Humus influences a range of physical and physicochemical properties of soil: colour, temperature, water capacity, structure, porosity, reaction, pH, adsorption capacity, etc. In the forensic interest, however, the qualitative analysis of humus is not of particular relevance, instead, by calcination the soil samples the quantity of all organic and inorganic soil substances is determined and relevant in the comparative analysis of soils (Stoian 2013, 297 and 298).

Spectrometric analysis

After examining the naked eye and stereomicroscopes of soil approvals for comparative determination/examination of colour, microstructure and impurities, spectrometric methods are basic tools for establishing the similarities or differences (Stoian 2013, 298 and 299).

Infrared Spectrometry (FTIR)

FTIR provides information on organic and inorganic soil components (carbonates, silicates). Patterns taken from samples are analysed on a spectrometer by absorbance, transmittance or reflectivity

X-Ray Fluorescence Spectrometry (XRF)

X-ray fluorescence spectra provide qualitative and quantitative information on elemental soil composition. The analysis is non-destructive.

Analysis with scanning electron microscope (SEM)

It is addressed in the case where the soil impurity dimensions are below the optical resolution limit of the optical microscope. The method provides information on the morphological appearance of highlighted micro particles as well as qualitative and quantitative inorganic composite information by using energy dispersion (EDS) and wavelength (WDS) x-ray spectrometers.

Inductively coupled plasma atomic emission spectroscopy (ICP-AES) and inductively coupled plasma mass spectrometry (ICP-MS) analysis

This analysis allow for the determination of about 50 elements from small clusters. For most elements, the accuracy of ICP measurement is good, but there may be a degree of variation due to sub-sampling procedures, selective material transfer mechanisms, and the grease of spatial variation in existence. If the amount of soil sample is large enough, several fractions of different sizes may be tested, but usually a 150 mm standard fraction split from a global curve provides sufficient discrimination between the samples and is the most practical means of screening the samples.

GC-MS Analysis

Is addressed if it is desired to establish the nature of any traces of oil products, bitumen mineral oils, gasoline, diesel, etc. or traces of pesticides, waste, etc. in suspended solids.

Conclusions

At present, the evolution and refinement of analytical tools makes it possible to conduct forensic investigations at the smallest scale of dimensions, with great sensitivity and with great differentiation intervals. Therefore, it is now possible to discover samples that are impossible to detect or previously inaccessible, and the microum analysis has become a reality. Performing judicial experiments is necessary as an integral part of the comparative examination. Results are thus obtained which lead to the link between the high-level evidence from the site or the suspects concerned and the comparison ones. The two components of forensic expertise, namely: research (remote sensing, mapping, geophysics, archeology) and sampling / analysis (soil and mineralogical and geochemical sediments) both rely on understanding and evolution of the landscape.

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Legal Education – The Elevation from a Person to a Citizen

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ABSTRACT: The law is acknowledged as the conscience of the public. Legal education has become the ladder to the entity of a citizen. The sovereign nature of the majority of the states further promotes the role of legal education beyond a professional qualification. The researchers found it imperative to explore the relationship between legal education and the becoming of a citizen in its true nature, to the extents of self, family, community, country, and world. Perspectives of students of law, educators of law, law practitioners, qualified professionals in non-legal streams, and judicial officers were included in the sample (N=100, 20 each) and observations were noted using a self-developed questionnaire based on the feedback of 2 members from each group in the pilot study. The findings revealed awareness of rights and duties, self-sufficiency in voicing individual viewpoints, and compassion for mankind in all the groups. The students and teachers credited legal education for the development of critical thinking, leadership in the community, and spirit of the development of human resources in the country and the world. Patriotism, respect for the system, feeling of responsibility towards the fate of the whole society was observed by the law practitioners and the judicial officers. Non-practicing professionals associated their legal education to prudence related to money, a better acceptance of cultures, and planning abilities. The study brings attention to the significance of legal education in development at micro and macro levels.

KEYWORDS: legal education, citizen, awareness, compassion, non-practicing professionals, prudence

Introduction

“Citizens are not born, but made.”
— Baruch Spinoza, *Traité politique*

Mankind has come a long way, transforming from human beings to human civilizations. The inherent agenda of this transformation was exploring the human potential sans conflict. Achievement of social harmony was therefore facilitated through a system of rules, particular to the territories of the societies, also known as the law. Adherence to this system of rules, therefore, created the entity of a citizen. In addition to the obedience of the law, citizens are attributed with characteristics like patriotism, morality, recognition, and access to remedies in the form of rights. While most of such characteristics are attained through experiential learning, the fine-tuning towards the becoming of a citizen in its true nature can be done through objective learning of laws or legal education. H.L.A. Hart emphasized that law is comprised of primary and secondary rules, where the primary rules are duty imposing and the secondary rules confer power (Paranjape 2013, 35). The essence of Hart’s concept of law can also be assigned to the concept of citizenship. Article 1 of the most commonly recognized document of the international law, the United Nations Declaration of Human Rights (United Nations n.d.), which says – ‘All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood,’ also sets the premise to the entity of a citizen.

Citizenship is an active and reflective process, occurring between members of a community; it includes social and collective nature of co-living in everyday life (Stevenson, Dixon, Hopkins and Luyt 2015, 1). Civic initiatives along with market forces are helping shape an emerging global civil society which allows a counter-balance to the exclusionary, inegalitarian and undemocratic nature of global power (Armstrong 2006).

The American Bar Association defines a lawyer as – “A representative of clients, an officer of the legal system and a public citizen having special responsibility for the quality of justice” (American

Bar Association). Legal education in the form of a degree course is associated with qualification and technical proficiency to serve in the legal system, however, in effect, the country or the world benefits from the perspective and efficacy of persons who possess the knowledge of the law and can deliver to the nation as social engineers (Yadav 2016, 12). Moral transformation among law students has been highlighted in an article by (Tan 2010, 420). The author appreciates the manner in which the students become self-aware and more responsible, work on their attitude as future lawyers. There is a natural connection between legal education and social responsibility which compels the people of the most developed civilizations to expect the senior responsibility holders to have studied law formally (Gewirtz and Prescott 2001). Members of the society find themselves disoriented when asked for participation in the political process (O'Brien and Smith 2011, 9); in such situations people with legal backgrounds not only actively participate but also, spread awareness in the society. The history of any country entails lawyers as exemplary citizens (Heineman and Wilkins 2014, 12). Respect for the legal process, ethical compliance and humanity contribute to the acumen of lawyers (Legal Mosaic n.d.). Moreover, quality of justice, creating access to the rights of individuals, self-regulation and pro-bono culture are understood to be lawyers' civic role (Rhode 2009, 1324). Obligations and entitlement are synonymous to the term 'citizen', both of which are also the object of legal education.

The sovereign nature of the majority of the states has led to the establishment of fine areas of entity of a citizen that can be identified as rights and duties as an individual, at the familial level, in the community, in the country, and even at the global level. In a time when everything runs in a system of polity, economy, and society, it is imperative to learn the impact of legal education on the becoming of a citizen in its true nature, especially because the purpose of the law is the uninterrupted exploration of human potential of the citizens as individuals, and as a whole (Gewirtz and Prescott 2001). The logic of legal education being chosen as a major factor to understand the real meaning of the term citizen comes from the fundamentals of law, equality, and liberty (Rani 2016, 71). Legal education is attributed to case method learning which brings about the traits of critical thinking, skepticism, and judiciousness (Heineman and Wilkins 2014, 13). The training in law schools fulfills the requirements of leadership and related qualities like vision, planning, and management as Judges, Attorneys, Heads of the firms and Deans of institutions (Heineman and Wilkins 2014, 10), criticism and growth of laws (Ravi n.d.) and access to rights (Rani 2016, 71). Graduates from law schools hold posts that influence policy and society such as government roles, business managers and foreign affairs experts (Gewirtz and Prescott 2001). Lawyers deal with multi-dimensional issues that arise with the growth in the economy (Heineman and Wilkins 2014, 18), and therefore act as assets to the nation, often serving as alternate dispute resolution practitioners which pacify the enormity of adversarial methods with innovative compassion in quality and quantity (Sullar 2018, 28). All persons associated with legal education, including the educators themselves, understand not just what the law is, but also what it should be; they use reasoned argument to persuade others (Gewirtz and Prescott 2001). Prioritizing the general interest of society is primary teaching in legal education (Rhode 2009, 1324). Research shows that CEOs with legal education were associated with much less corporate litigation (Henderson 2017), which directly indicates traits like problem-solving and regard for peace and harmony (Morgan 2011, 20). A study by Association of American Law Schools suggests that students of law are evidently more inclusive and non-discriminating in comparison to other college graduates (Droddy and Scott 2003, 42).

In the era where citizenships can be bought by making hefty investments in the host country, also known as 'golden passport citizenship', the risk of money laundering, tax evasion and corruption increases (Scherrer and Thirion 2018, 5). Modern risks necessitate modern safeguards, which not only demand for patriotic commitment, but also, legal intellectual readiness.

Objectives

- To understand how the study of law allows one to elevate one's self.
- To understand how the study of law allows one to favour family.
- To understand how the study of law allows one to be a better member of the community.
- To understand how the study of law allows one to contribute to one's country.

- To understand how the study of law allows one to be an effective part of the bigger world.
- To document the expressions of law graduates in favour of becoming a good citizen.

Methodology

A purposive sample was chosen. These included - 5-year B.A./B.Com. LLB. Students (20), faculty in law colleges/universities in and around Chandigarh (20), advocates practicing at the Punjab and Haryana High Court (20), Law graduates working in non-legal streams (corporate managers: 7; administrative officers: 5; businessmen: 4; Journalists; 3; faculty in college in history: 1; total 20), and Judicial Officers serving in Chandigarh, Punjab and Haryana (20, between the length of 5 to 30 years of service). Each group was contacted personally and consent taken, after explaining the purpose of academic research and fully ensuring that all responses be kept confidential if they so desired; and if permitted quoting, the same has been used in the discussions. In phase one, a small pilot study was undertaken and two respondents from each category were chosen on open-ended discussions. Their responses helped to form the questions for drafting the questions in the questionnaire administered in the next phase. The second phase included all the chosen individuals who were contacted and responses were taken. The researchers developed a self-designed questionnaire to enquire on how their education of law brought about change in their outlook as a member of the community, as a person, student/professional, family member, and what would be missing in their learning and understanding as a citizen of the country if they did not choose educational path of studying laws. 20 items were developed after improving on two initial drafts and inputs taken from two faculty members from Education who were experts in applied research. There was no time limit to respond, however, they were expected to connect well to the questions first, and then freely express what they thought about, individually. Most of them took about 70-90 minutes to respond. More senior people in the profession took longer to ponder on the questions in a deep reflection. The researchers clubbed the responses to each question for each category of respondents. The similarities, differences, detailing, and depth of response has been presented in the next section.

Results and Discussions

- The findings revealed awareness of rights and duties, self-sufficiency in voicing individual viewpoints, and compassion for mankind in all the groups.
- All the groups admitted to possessing problem-solving skills, leadership qualities and language of reason, used on day to day basis in the community, and for the individual purposes.
- The students of law developed critical thinking and confidence to choose the right over wrong at a personal level. They admitted to having an influence on their families concerning the creation of a democratic environment and the development of obedience to law and belief in the system. National human resource development was found to be a strong concern for the students of law. Sincerity towards work was considered necessary and practiced with a view of the global development of the economy. Sensitivity towards the environment emerged to be a popular self-perspective for contribution as a good citizen.
- Educators in the field of law habituated honesty and good conscience as a personal asset. The promotion of the larger interest of the society among the family members was found in most of the teachers whereas the role of a wise counsellor was assumed by all the group members. Community work in the form of free legal aid was a common finding. The educators displayed a productive mindset and public spirit, indicated by voting devoid of self-interest. The educators were also found to be sensitive towards the issue of conservation of the environment.
- Hard-core law practitioners displayed self-discipline as the most necessary quality required in their profession. Careful and informed decision making on the matters related to property and wealth in the families of lawyers was commonly found. Lawyer families admitted being tolerant and liberal in the matter of worship. Responsibility towards the community was a common phenomenon throughout the group which was fulfilled by acting as peacemakers in the community and by taking up pro-bono cases. Patriotism and respect for the system of country were strongly

established. From a worldwide perspective, lawyers exhibit key role by assuming big roles in both the public and private sectors.

- Qualified professionals in non-legal streams admitted to possessing qualities like prudence, planning, problem solving and language of reason. Accountability was a prominent characteristic in their families, according to them. Consumer protection, ethical compliance, and acceptance of different cultures in the community were attributed to their sense of justice. The practitioners in the non-legal streams observed grand participation in running the system and at world level as politicians, administrators, foreign affair experts, diplomats, journalists, lobbyists, and business tycoons.
- Judicial officers considered the language of reason, compassion, and courtesy as their primary qualities. They were considered as role models in their family and the community. Respect for the system and responsibility for the fate of the society were fundamentally present in all members of the group. Judicial officers were found to be extremely patriotic and centrally contributing to the nation and the world.

Conclusions

The persons formally educated in the field of law are integral contributors to the sanctity of the system prevalent in a country and the globe as exemplary citizens. The dominant factor of this phenomenon is the nature of the related professions which are indispensably related to justice and harmony. The training of a law school in the identification of dos and don'ts further equips the person to be an asset to any organisation, society and the country, despite working in non-legal streams. Judicial officers determine the quality of justice and hence, act as social engineers. They act as role models in every society. The students and the educators of law are the forces of good behaviour, sincerity and development which lead by example, provide fair perspectives and guidance.

However, misuse of the law by people who have attained legal education cannot be ignored. It has been observed throughout the history of mankind that people who have the knowledge and access to the system which is governed by laws are often found to be the ones who exploit the system through its loopholes.

Way Forward

The fundamental difference between a protector of laws and abuser of laws is compassion. Legal education should include and encourage the practice of pro-bono culture and legal aid clinics. Such practices help in developing strength of character, besides the direct influence on the people who receive the free legal aid.

Basic legal education should be encouraged as a curriculum in schools and colleges for the overall development and real-life skill-building.

Employment opportunities for people who attain legal education must be broadened and considered beyond their technical proficiencies. Skills like problem-solving, analysis and reasoning, research, communication, negotiation, organisation, and management must be considered at the time of recruitments.

When a child is empowered by the parents, he gets transformed into a responsible citizen.

-Former President of India, A.P.J. Abdul Kalam, 2005

And what better way to get empowered than to know the law.

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Is It Worth Doing Science Online? A Reflexive View on the Online Surveys

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ABSTRACT: The paper addresses the issues and challenges scientific communication is facing in current scholarly practices both within a specific scientific community and public at large. First, the paper presents methodological groundings for studying communication of results as a particular mechanism of operating with discourse. Such methodological framework focuses on the process of ‘black-boxing’ of scientific results. Further, the authors illustrate a way such results go from a hypothesis to a scholarly output, and call for actions. On the basis of the Online Surveys organized and conducted by the American-Russian Research Laboratory at St Petersburg State University (www.tandem.spbu.ru) for a specific field research in 2017-2018, the authors demonstrate gradual detextualization and generalization of results, which are inherent to the specific way of scientific persuasion. Finally, the authors outline the paths of the current transformation of scientific knowledge production and dissemination which calls for further research problematization.

KEYWORDS: scientific communication, black-boxing, generalization, knowledge distribution, online surveys

Introduction

Sociology of science has emphasized the importance of informal communication in the process of scientific knowledge production. Notwithstanding the significance of this discussion, this paper is oriented to discuss the issue of scientific communication in terms of the written output of scientific activities. Even being informal, scientific communication almost always entangles the substance of formal communication (Latour & Woolgar 1986), which becomes possible primarily by virtue of visual representations. Indeed, it is the invention of new forms of inscriptions and transcriptions of knowledge that made feasible for objects to become mobile and immutable through time and space due to their representation through texts, charts, tables, etc. These new forms of representation consequently became one of the most influential causal factors of modern science success (Latour 1986). Thus, scientists “pack the world into words”, converting real objects into referents of discourse (Latour 1999, 30).

One of the main distinctive features of science is its legitimate superiority over other truth-claiming practices, especially when matter comes to establishment of facts concerning reality: “in modern societies, science is near to being the source of cognitive authority: anyone who would be widely believed and trusted as an interpreter of nature needs a license from the scientific community” (Barnes and Edge 1982, 2, cited in Gieryn, 1983, 784). How come science enjoys such avowal? It is not simply unique ways of transforming objects of nature into referents of discourse, but also particular mechanism of operating with discourse itself. Scientific description and explanation have a fundamental distinctive feature – specific mechanisms of persuasion, as Latour and Woolgar (1986) argue. The reader's belief in veracity of the claimed is one of the most essential conditions for spreading faith in a fact or, put differently, in terms of actor-network theory, for successful enlarging of supporting elements in a network.

Scientific facts are constructed through coherent, often costly research activities aimed at producing traces of objects, i.e. their representations, conducting manipulations with these representations, and struggling of researchers for gradual increasing evidence of statements based on these traces (Latour&Woolgar, 1986; Latour 1999). Thus, there is a significant consistency between a “fact” and the successful operations of various processes of ‘literary inscription’. The main function of literary inscription is the effective conviction of its reader, but full conviction is possible only in case when all sources of persuasion disappear. Thus, black-boxing refers to “the way scientific and technical work is made invisible by its own success” (Latour 1999, 304). Yet specific tricks here lay not in work on the *content* of the text, but on operations to change the *modalities* of statements, i.e. efforts towards decontextualization and generalization of conditions of their production. Absence of modalities in a

statement signals the appearance of a ‘black box’, and the more a statement contains the conditions for its production, the weaker are its claims that it should be automatically taken for granted. A ‘counterthrust’ is also possible accordingly through problematization of those processes that made possible the statement. It is possible to arrange assertions on the continuum from the fact or the strongest assertion to the statement with the least persuasive power, i.e. according to the extent to which they refer to the conditions of their construction. A ‘fact’ in this sense can be understood as a statement without modalities and traces of authorship (Latour, Woolgar 1986, 176). From this point of view scientific communication can be presented as a “game” wherein the main aim is to rid a statement of modalities, whereas the terms of the game assume a constant exposure to the risk of problematization of the context, potentially capable of turning an assertion from a fact into an artefact.

Black-boxing of the results of one online survey

Let us illustrate this reasoning by conducting a thought experiment based on one of the research conducted by the International Research Laboratory “TANDEM” (www.tandem.spbu.ru). Our aim here is to trace the way a scientific statement should come in order to transform from a weak assertion to a matter of fact. We have chosen certain questions of interest to us, with the help of which we can produce a certain narrative: “The data was collected via an online survey among students of higher education institutions of St. Petersburg and Moscow in the period from April to May 2017. The number of respondents was 4,276 people—students from five universities in Moscow and St. Petersburg having studied in Russian Federation for at least nine months. The data is biased towards female representatives enrolled in higher education in social sciences and humanities, as well as towards white students with a good income, and students of younger courses. The data was analyzed using the SPSS program. The simplest operations were carried out - we chose absolute frequencies as the analysis procedure for the whole array of available data.

The results show that the majority of the respondents in our sample of students evaluate their health not less than "satisfactory", basically they assess their health as "good" and "very good". Also, the results of our analysis show that the students in our sample are mostly inclined to take care of their health: 28.4% of respondents highly concern for their health, 29.3% try to take care of their health and only 8.8% and 9, 4% care little or do not care at all, respectively. In addition, the majority of students (74%) noted that they are aware of what a rational diet should be. The major part of the students, being asked the question "How often do your colleagues and friends (other students) share vegetables, fruits, and useful products with you during study hours?", answered "often" (32%) and "from time to time" (22.3%). As for meals during the educational process, the majority of respondents attend a cafeteria at a university: 37.3% go to the dining room constantly and 43% visit it from time to time. This research is the first attempt to investigate the mutual influence of social factors, state of health and nutritional behavior of students of higher educational institutions in Russia. Since the study was conducted among students in St. Petersburg and Moscow, and also taking into account the bias of the data, caution should be exercised in the generalization of data”.

Thus, our text is full of various kinds of modalities. Although many conditions of production have already been hidden (e.g., how data was collected, by whom, why the idea of such a study was generated, etc.), the text still contains plenty of clarifications concerning both the facts themselves and the conditions of their production. Conditionally we can distinguish several contexts: (1) data collection; (2) sampling characteristics; (3) data analysis procedures; (4) specification of results; (5) limitation of the results.

Let us now simulate the situation of “migration” of statements from this text, tracing the gradual decontextualization and generalization of the results obtained. First, we need to turn into a ‘black box’ conditions of the production of statements. Imagine a situation wherein the conditions for the production of statements become irrelevant. For example, the results of the study become verified in subsequent TANDEM research, wherein sample of the study comprised of all Russian regions without exception. Then the specification of data collection and analysis, as well as sample characteristics, do not play any special role, we have revealed the repeatability and regularity of some connections.

In our following narrative modalities now refer not to condition of the assertion production, but to the assertion itself: “We have analysed health and nutrition situation among Russian students and came to the conclusion that most students evaluate their health at least as satisfactorily, mostly as good and very good. Also, the results of the study show that most students take care of their health, only a small part of the students noted that they care little for it or do not care at all. In addition, most students know what should be a rational diet and tend to share vegetables, fruits and other healthy foods with each other, while during the school day most students tend to attend a cafeteria at the university”. Instead of specifying both the program which researchers used and the mechanisms for working with data, we put them in a black box, replacing them with “We have analysed”. We also generalized a certain sample to the “students of Russia” and now speak on behalf of a new object. We also removed references to the limitations of the study, thereby increasing the potential validity of our statements, and omitted such specifications as “within our sample”, “students who answered our survey.”

The next step is to create regularity, repeatability, reproducibility of the fact. Let us imagine that after publication of an article with these results several different research teams in different Russian cities will conduct similar studies. Our network is enlarging due to the insertion of the statements into various localizations, including citation. Fact-like status of assertions is now reinforced by an increasing number of operations of their production hidden from the reader's eyes, the indication of which is no longer so significant to the reader. In fact what an engaged reader sees is a number of scientific studies wherein different research teams come up with similar results. Now we need to strengthen the factuality of the assertions by complete eliminating from modalities, keeping only one, yet reinforced: instead of “Scientists analysed...” we write “Scientists prove,” thereby increasing fact-like status of assertions and, at the same time, affecting complete decontextualization of the previous costly and labor-intensive activities of various research teams, including the formulation of questions and their interpretation. For example, students’ subjective estimations of their health will be interpreted as an objective state of health of the studied population, and rational diet will be generalized to “eat right”: “Scientists prove that Russian students have good health. The majority of students care for their health and know how to eat right. During the school day, students prefer to attend cafeteria at university and share fruit, vegetables and other healthy food with each other.”

Instead of conclusion: Further paths for the problematization of scientific results communication

Now we will illustrate the last step on the way of becoming a matter of fact. The communication of scientific statements is essentially connected with enlarging the network outside science. Let us imagine that our statements get into some FMCG international marketing practical training manual. These “facts” are taught in special courses in foreign universities, and for many specialists in this field become tacit knowledge. A company that produces vitamin preparations needs to expand its market segment. One solution might be to expand distribution to retail within the walls of Russian universities or nearby, or at least to expand the target audience to Russian students. What can be a fragment of an argument for this solution? “As is known, students in Russia have good health, they take care of it and eat right. Since in school hours students eat the healthy food and share it with their friends and colleagues, we believe that the university environment promotes proper nutrition”. Having passed the way of gradual increasing of persuasive power by eliminating from conditions and details of various contexts, our initial statements have become unproblematic, and as a result they are used in argumentation of another statement. Thus, a new causal relationship emerges which requires verification. Thus, the statements progressively “migrated” from the field of scientific production of statements to the business environment.

Yet today scientific knowledge production directly depends on a context of its application (Gibbons et al. 1994). Unlike the traditional dissemination of scientific results through institutionalized channels, the circulation of results is often initially launched during their production. Dissemination of knowledge produced transforms from traditional communication through reporting in professional journals or participation in conferences to translations from one context of application to another. One of the consequences of such changes in the production and distribution of knowledge is the blurring of the quality criteria. In this sense, dissemination of scientific knowledge is, perhaps,

much more flexible and at the same time more difficult to control. In conditions of enlargement of the network of dissemination channels and actors using them, shifting of contexts and conditions for knowledge application, and blurring of its quality criteria, rhetorical methods of persuasion require research (re)problematization.

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Cannabis Stock Behavior and Investor's Expectations on the TSX: A Mixed Method Approach

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ABSTRACT: This study examines the behavior of cannabis stock on the Toronto Stock Exchange and why investors are interested in cannabis stock. The theory of heterogeneous beliefs, bounded rationality theory and the theory of addiction grounded the study. We employed basic descriptive statistics and the Kruskal-Wallis test including an in-depth interview of investors using convenience sampling methods. The study findings showed that cannabis stocks exhibit a higher-level of risk volatility when compared to speculative and growth stocks on the Toronto Stock Exchange within the period under investigation. Other findings show that cannabis stocks share similar characteristics with other speculative stocks but also possess unique features. Finally, investors are interested in cannabis stocks because of its potential for future strong earnings on the platform of the theory of addiction as discussed in the study.

KEYWORDS: cannabis, Toronto Stock Exchange (TSX), addiction, Canada

Introduction

In 2001, Canada became the first country to legalize Cannabis for medical purposes. This was passed into law through the Marijuana Medical Access Regulations (MMAR) Acts (Get Greenline 2019). The passing of this bill into law ushered in a plethora of pharmaceutical firms interested in developing medications derived primarily from Cannabis compound. According to Statistics Canada, Cannabis pharmaceutical industry is worth around \$400 million as at 2017 (Statistics Canada 2019). Medical scientists suggest that a typical cannabis plant possess 113 Cannabinoids of which two are currently most useful; psychoactive tetrahydrocannabinol (the component that make people feel high), and non-psychoactive cannabidiol (CBD, the non-intoxicating compound responsible for calming people down) (Globe & Mail 2019).

Scientists overtime based on their understanding of how the human brain responds to Cannabis have developed medications which are derivatives of cannabis compounds to alleviate human sufferings by mitigating the effects of certain ailments. For instance medical cannabis have been developed for the treatment of neuropathic pain, spasticity in patients with multiple sclerosis, analgesic treatment of adult with cancer, treatment of nausea, appetite stimulant for patient with HIV, regaining memory loss, treatment of traumatic brain injury etc. (Medical Marijuana 2019).

On the basis of the successes recorded in the pharmaceutical industry coupled with a thriving illegal use of recreational cannabis in the black market, the government initiated and approved the bill allowing recreational cannabis. On October 2018, Canada became the first Country amongst the G7 nations to legalize the sale, and the use of recreational cannabis (Statistics Canada 2019). Currently, approximately 4.9 million Canadians use cannabis for recreational purposes, with the potential to grow much more now that it is legal and trending. Economists project that the recreational cannabis industry will grow to \$6.8 billion by 2020.

Considering that the cannabis industry is poised to thrive on the background of proven medical and recreational benefits, a number of firms have become active on the Toronto Stock Exchange (TSX) in recent times. These firms in a bid to expand production and gain share, have invested quite a lot of money in research and development hoping to come up with innovative products that could give them a competitive edge in a potentially lucrative and emerging industry. According to 2019 data, there are 21 active cannabis stocks trading on the TSX with total market capitalization of \$50.8 billion (marijuana index 2019).

Against the foregoing discussion, this study empirically examines the behavior of cannabis stocks on the TSX, and in addition explores why investors are interested in these stocks. This inquiry is important knowing that most if not all of these firms have very thin or nonexistent historical fundamentals needed to determine their earnings potentials and future prospects. The rest of the paper

is as follows; section ii, we explore the theoretical literature and the empirical literature regarding the theory of heterogeneous beliefs, section iii we highlights the study purpose and pertinent research questions, section iv, we provide a description of research methods and finally, we discuss data analysis and results.

Theoretical Framework and Empirical Analysis

This analysis is an assortment or a mixed analysis of, otherwise reflecting a cocktail of related theories in support of the discussion on cannabis use, cannabis revenue or earnings, cannabis stock behavior and, ultimately future cannabis stock price expectations. Our theoretical framework establishes a strong link between the theory of heterogeneous beliefs, bounded rationality theory and the theory of addiction.

The earliest work on the theory of heterogeneous beliefs was proposed by Lintner (1969). The theory of heterogeneous beliefs or expectations acknowledges that economic agents possess different future expectations regarding stock prices, and as such make different decisions in the current period. Economic agents are adjudged to have different prior knowledge leading to different future expectations (Morris 1996; Allen & Gale 1999).

A variant of the theory of heterogeneous expectations suggests that economic agents receive homogenous information but surprisingly produce different or heterogeneous expectations (Harris & Raviv 1993; Miller 1977). Brock & Hommes (1997) argued that investors have consistent heterogeneous beliefs about underlying market fundamentals, and therefore holds heterogeneous beliefs about the future returns on asset prices.

Other studies showed that heterogeneous beliefs is dynamic or nonstationary in nature due to ongoing access to new information, resulting in changing beliefs over a period (Shelifer & Vishny 2003; Detemple & Murthy 1994). Investors develop heterogeneous future expectations based on information gleaned from a variety of sources and the interpretation assigned to the information obtained (Morris & Shin 2003; Lam *et al.* 2000; Dumas, *et al.* 2009). Interpretation however is based on prior knowledge and investment objective (Xiong & Yan 2010; Morris 1996). Brock *et al.* (1992) showed that heterogeneous beliefs is a significant factor causing asset price volatility wherein investors are constantly changing their position in the market due to consistent changes in future expectations. Invariably, heterogeneous beliefs could lead to stock price overvaluation or a higher trading frequency otherwise known as churning (LeBaron 1995; Sethi 1996).

DeLong *et al.* (1990) indicated that the prospects of a firm stock price could be observed from the valuation optimist traders attach to it contending that pessimists would rather stay away from investing. Speculative investor behavior is reflected based on heterogeneous beliefs and trading behavior (Morris & Shin 2003). Heterogeneous belief theory also holds that investors identify a finite set of information alluding to how future asset prices should behave and therefore update their expectations in a boundedly rational way (Harris & Raviv 1993; Wu 2004). The bounded rationality theory establishes that investors are limited in their drive to make rational decisions that could deliver maximum satisfaction (Simon, 1956). This limitation is evident based on limited access to relevant information, limited cognitive ability, and limited information processing skills (Conlisk, 1996), investors will rather settle for a satisficing solution instead of aiming for an optimal solution (Wu & Scott, 2016).

Cannabis industry stands a good chance of thriving on the basis of its supposedly recreational benefits which are also addictive in nature (Marijuana index 2019). According to the biopsychological theory of addiction, addiction involves intense cravings which eventually translate to a persistent pattern of compulsive consumption of the substance addicted to (Robinson & Berridge 1993). Substance consumption translates gradually to a compulsive substance use pattern over a period time.

Becker & Murphy (1988) linked addiction to the theory of rational choice indicating that people get addicted to different things in their quest to satisfy their rational cravings. Addiction could manifest in form of alcohol, cocaine, eating, work, music, television, lifestyles, religion and a host of other activities. Once a habit is formed translating to addiction, the individual concerned finds it extremely difficult to break out of the already formed pattern. The pattern will have to be observed no matter the cost whether it is affordable or not.

Donegan *et al.* (1983) however, identified a distinction between harmful addiction and beneficial addiction noting that most harmful addiction cases requires that current consumption of the addictive substance be greater than the previous level of consumption. The consequences in this case may be life threatening. On the other hand, beneficial addiction could just be the case where a persistent consumption pattern level is maintained over time.

Study Purpose and Research Questions

Scheinkman and Xiong (2003) indicated that heterogeneous beliefs regarding speculative stocks could inflate and create a bubble leading to increased trading volume and extreme price volatility. On the basis of the forgoing discussion, this study examines the behavior of cannabis stocks on the Toronto Stock Exchange (TSX). The study tries to answer the following questions;

- 1) What are the unique features of Cannabis stock behavior on the TSX?
- 2) Are Cannabis stocks similar to other speculative stocks on the TSX?
- 3) Why are investors buying cannabis stocks on the TSX?

Research Methodology

Kruskal-Wallis Test

This paper uses one core methodology to perform the analysis, the Kruskal-Wallis Test. This test is suitable for an analysis of this nature due to the characteristics of the data being analyzed and the analytical attributes of each test applied. The Kruskal Wallis test was used to analyze the time series data acquired for this study. The Kruskal-Wallis test is typically used when more than two independent samples are being compared (Sharpe 2018). In situations where the data set is too small consisting of non-numeric data, and the distribution does not appear to be normally distributed, the Kruskal-Wallis test is a suitable alternative to parametric tests. Hecke (2010), showed that the Kruskal-Wallis test represents a non-parametric approach to investigating two or more populations without the assumption about normality. While setting the hypotheses, the null hypotheses should indicate that the samples are obtained from identical populations.

The Kruskal-Wallis Test requires the same assumptions as the Wilcoxon Rank Sum (Mann-Whitney) Test (Sedgwick, 2014), which are listed below:

- (i) The sample of observations have to be independent
- (ii) The two samples have to be independent

The Kruskal-Wallis Test Test uses the following hypotheses in constructing the test:

H_0 : The samples belong to the same distribution

H_A : At least one of the samples belongs to a distribution that has shifted higher or lower

Each data value in the samples used is assigned a rank. The sum of the ranks is then calculated to obtain:

$$H = \frac{12}{N(N+1)} \sum_{i=0}^k \frac{T_i^2}{n_i} - 3(N+1),$$

Where T_i are the sum of the ranks of each sample, n_i is the number of data values in the i^{th} sample, k is the number of samples, and N is the total number of values.

The null hypothesis H_0 is rejected if $H > \chi^2$, with $k - 1$ degrees of freedom,

Where χ^2 is the chi-squared distribution with degrees of freedom equal to the number of samples minus one.

Prior studies that have used the Kruskal Wallis test have found its effectiveness in analyzing independent samples, as is the case in the current analysis (Sedgwick, 2014). The Kruskal-Wallis test has the ability to test multiple samples and has proven relatively accurate in highlighting any shifts in one or more of the samples considered. Hecke (2010) however noted that the Kruskal-Wallis approach

rests on the assumption that the samples be taken from populations having similar shape of distribution. If this assumption is violated, the test result could be spurious.

In-depth Interview

The in-depth interview process involves an elaborate interaction with research subjects, which could be structured, semistructured, or unstructured based on the level of pre-arranged set of questions intended (Janesick 2011). We utilized the semistructured option because it encourages a blend of flexibility and structure preferred by the researcher. We selected participants in this study via convenience sampling method. Teddie and Tashakkori (2009) indicated that convenience sampling is not random; it involves a selection of units of analysis based on a convenience and qualifying factors. In this case, we targeted individuals who have invested or planned to invest in cannabis stock on the TSX.

Data Analysis and Results

In order to observe the comparative descriptive characteristics of cannabis stocks, alongside large cap growth stocks on the Toronto Stock Exchange (TSX), we obtained daily closing prices for one large cap stock (RBC), one large cap cannabis stock (Aurora), all on the TSX for the period March 12, 2018 to March 12, 2019, a total of 252 observation. For the Kruskal-Wallis test we obtained daily closing prices for four speculative stocks (GDNP, GGM, TETH, PWM) and two cannabis stocks (Canopy and Dutchman) for the period March 12, 2018 to March 12, 2019. From figure 1 below, the paired sample descriptive statistics involving RBC and Aurora showed that RBC exhibited a higher measure of standard deviation, however the average BETA and the coefficient of variation obtained for the two stocks showed contrary results. While RBC showed a modest amount of volatility of 0.92, Aurora produced an average beta of 2.80 indicating higher level of risk relatively. In addition, Aurora coefficient of variation showed that standard deviation is 18.72 percent of the mean, while RBC produced a coefficient of variation of 3.20. Evidence from both the Beta coefficient and the coefficient of variation showed Aurora as possessing higher risk relative to RBC. The coefficient of variation is helpful when using the risk/reward ratio when implementing stock selection for a portfolio. An investor who is risk-averse may consider stocks with a historically low degree of volatility or low coefficient of variation, and a high degree of return. Conversely, risk-seeking investors may be attracted to assets with a historically high degree of volatility or higher level of coefficient of variation.

Figure 1. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean	Coefficient of Variation	BETA coefficient
Aurora	8.918095	252	1.6690824	.1051423	18.72	2.80
RBC	99.421944	252	3.1764022	.2000945	3.20	0.92

Source: Estimation obtained from SPSS & Yahoofinance

From figure 2 below, pairwise correlation coefficient of 0.372 between the two stocks showed a weak form of strength of association indicating potential diversification benefit when the two stocks are included in a portfolio. The two stocks are likely to respond to macroeconomic shocks differently.

Figure 2. Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Aurora & RBC	252	.372	.000

Source: Estimation obtained from SPSS

Figure 3 below, illustrates the descriptive statistics for four speculative stocks and two cannabis stocks. With the exception of PWM stocks, the two cannabis stocks demonstrated greater volume of volatility or risk level in terms of coefficient of variation and beta coefficient. Going by standard deviation and data range, Canopy and Dutchman possess a higher level of volatility when compared with the other four speculative stocks. This observation confirms the theory of heterogenous belief. According to Brock et al. (1992) heterogeneous beliefs is a significant factor influencing asset price volatility, a situation where investors are constantly changing their position in the market due to consistent changes in future expectations. This observation further showed that cannabis stocks possess a unique characteristics of risk level different from typical speculative stocks.

Figure 3. Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Coefficient of variation	Beta Coefficient
GDNP	201	.117687	.0142213	.0900	.1500	12.08	0.37
GGM	201	.17421852	.036018779	.116487	.268817	20.67	0.11
TETH	201	.21746	.045423	.140	.350	20.89	1.98
PWM	201	.3662	.15473	.16	.68	42.25	1.46
Canopy	201	43.1018	12.26895	25.74	73.75	28.47	4.76
Dutchman	201	4.7826	1.68389	1.35	8.78	35.21	1.63

Source: Estimation obtained from SPSS & Yahoofinance

The variables under investigation exhibit different shapes and as a result the Kruskal-Wallis H test was utilized to help analyze their mean ranks. Figure 5 in the appendix produced 8 ranks for each of the variables analyzed. In addition, from figure 4 below, our test statistics tagged Chi-square is known as Kruskal-Wallis H. A larger value is evidence that larger differences exists between the variables under investigation. Asymp, Sig as indicated in figure 4 below is the p-value based on our chi-square approximation. From figure 4 below, the Kruskal-Wallis H test statistics is 112.702, 84.432, 45.977, 83.599 and 89.398 for stocks GDNP, GGM, TETH, PWM and Canopy respectively. These highlighted large values further confirms that there exists significant differences between the variables in the group. The p-value is less than 1 per cent and 5 percent respectively which proves that the difference in mean ranks among the variables are statistically significant. We therefore reject the null hypothesis that the samples were taken from identical populations and accept the alternative that the samples were not chosen from identical populations.

Figure 4. Test Statistics^{a,b}

	GDNP	GGM	TETH	PWM	Canopy
Chi-Square	112.702	84.432	45.977	83.599	89.398
df	7	7	7	7	7
Asymp. Sig.	.000	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: Dutchman

In-depth Interview

Five respondents were interviewed as to why they would invest in cannabis stock knowing that most of the firms lack fundamentals that could provide a basis for analysis. The consistent data gathered across the five respondents showed that because recreational cannabis possess addictive tendencies, addictive spending pattern will follow and as a result active cannabis consumer will ensure that sales stay consistent and when earnings is regular, share price will appreciate accordingly.

Conclusion

This paper set out to analyze certain key aspects of cannabis stock relative to other stocks on the TSX as well as their perceived value to investors. Canada recently legalized the recreational use of cannabis, which is in addition to an existing thriving legal exploration of medical cannabis within the Canadian pharmaceutical industry. Webster (2018) indicated that 11 per cent of Canadian youths and adult consume approximately 700 tons of cannabis annually. This data which promises to improve over time has also triggered fresh entrepreneurial drive in the private sector of the economy. Recent data showed that a sizeable number of firms are increasingly becoming very active on the Toronto Stock Exchange hoping to raise capital to finance aggressive growth and research campaigns. This trend falls on the premise that the cannabis industry promises to deliver on aggressive earnings growth because of its both medical and recreational benefits. This study used a combination of statistical modelling and interviews of target investors to analyze the data. The main research questions of the paper centered on the uniqueness of cannabis stock behavior on the TSX, the similarities of these stocks relative to speculative stocks on the TSX and the reason behind investors' decision to invest in cannabis stock. This study showed that Cannabis stocks on average possess higher level of risk when compared with growth and speculative stocks on the TSX. This observation aligns well with the theory of heterogenous beliefs causing extreme volatility in the market (Brock *et al.* 1992).

In addition, this study showed that investors are buying cannabis stocks because of its addictive tendencies hoping that addictive purchases of cannabis products will guarantee consistent flow of revenue and earnings for firms in the industry. Against the background of the positive implication of the cannabis industry for the Canadian economy, it is important to examine the health implications of recreational cannabis on the society. Webster (2018) argued based on a report by the Association des Médecins psychiatres du Quebec, a group representing over 1200 psychiatrists in Quebec that cannabis consumption could cause psychotic disorder such as schizophrenia. In the same vein, the Canadian cancer society has warned that cannabis consists of chemical compounds capable of causing cancer (Webster 2018). In other to achieve a win-win situation wherein the benefit of this industry is fully exploited while mitigating the risk, a well structured regulation needs to be in place to prevent excessive consumption or the abuse of cannabis product amongst Canadian youths and adults.

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Appendix

	Dutchman	N	Mean Rank
GDP	1.00	2	47.50
	2.00	28	55.54
	3.00	59	58.65
	4.00	14	85.43
	5.00	43	161.77
	6.00	32	127.19
	7.00	17	120.29
	8.00	6	153.92
	Total	201	
GGM	1.00	2	191.00
	2.00	28	46.21
	3.00	59	69.05
	4.00	14	104.21
	5.00	43	122.74
	6.00	32	144.77
	7.00	17	150.24
	8.00	6	104.58
	Total	201	
TETH	1.00	2	182.00
	2.00	28	60.57
	3.00	59	77.50
	4.00	14	113.93
	5.00	43	115.91
	6.00	32	126.58
	7.00	17	143.32
	8.00	6	100.42
	Total	201	
PWM	1.00	2	195.75
	2.00	28	43.09
	3.00	59	68.50
	4.00	14	115.39
	5.00	43	129.09
	6.00	32	138.08
	7.00	17	140.21
	8.00	6	115.50
	Total	201	
Canopy	1.00	2	37.00
	2.00	28	151.13
	3.00	59	128.53
	4.00	14	112.07
	5.00	43	102.48
	6.00	32	44.63
	7.00	17	40.71
	8.00	6	52.83
	Total	201	

The Drugs, Lethal Substances Which Have Become Elixir

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ABSTRACT: The drugs are substances which have found receptors in our organism and act by increasing, slowing down or changing the processes of the organ. The scientists have reached a long time ago the conclusion that there exists a biological foundation for the drug dependency. A repeated usage or consumption of some large dosages can represent a serious threat regarding the health state of the individual. Those who abuse a drug are those who not only used it frequently but consider also that they cannot live without it, leading to dependency. This phenomenon regarding the dependency existed during the entire history, yet from the oldest times, people knew also the properties of the drugs, these being used for various purposes, religious, therapeutic, relaxation, etc. In the past, as well as nowadays, the drug was and is considered a substance which can be used in therapy due to some curative properties, but whose effect is sometimes uncertain and deadly for the organism.

KEYWORDS: victim, elixir, drug, substance, organism

Introduction

Ever since the Antiquity, using drugs, no matter their type has as purpose the religious or ritualistic activities (Rascanu and Zivari 2002, 1), and later, these became known also due to the therapeutic properties. In the prehistoric period, roots, herbs and leaves were used for therapeutic purpose for calming the pain and healing certain disorders, but in addition to the pleasant sensations, it was acknowledged also some strange ones which deformed the passing of time, the perception of sounds and of the colours (Buzatu 2012, 27).

The aromatic plants or the medicinal plants cannot harm, but, on the contrary, if they are mixed with synthetic drugs produce the harmful effects for the human body. Therefore, the hallucinogen plants should be named drugs since to the psychotropic effects of the plants it is added also the harmful effects of the drugs with which they are "improved" (Buzatu 2015, 7).

The drug is psycho-social and cultural reality which was born at the same as the humanity, and its origin must be searched in the antic civilisations which used within the religious rituals the smoke of the aromatic plants or that of the mushroom with hallucinogen effect or with stimulant effect, by the priests or which doctors with the purpose of submitting and controlling the mass of followers (Buzatu 2015, 11).

According to the order of their mentioning, the oldest attestations regarding the narcotic drugs are done in the Sumerian tablets of Mesopotamia, approximately 7000 years ago. These referred to poppy, of which the opium and its derivatives were produced (Griffith 2006, 110).

From the pharmaceutical point of view, the drugs represent the raw material of vegetal, animal or mineral origin which can be used for the preparation of certain drugs, and, at the same time, they can inhibit the nervous centres, causing physical and psychic changes of the organism. The pharmacology frequently uses the notion of "drug abuse" in order to designate those substances which, through their abusive usage, can lead to physical or psychic dependency or to severe disorders of the mental activity, perception or behaviour, in connection with the administered dosage, it actioning firstly as narcotics and then as hallucinogens.

The drug is a psychotropic substance, acting with predilection upon the central nervous system as its stimulant (excitement) or as sedative of the mental activity. The drugs have become a health issue, both for the individual-consumer, as well as for those around him/her, namely a public health issue due to his/her behaviour disorders (Abraham 2005, 106).

The drugs, lethal substances which have become elixir

The opium, as medicinal preparation, was mentioned by Scriponius Largus in 46 b.Ch. (Drăgan 1994, 18). According to the sources, the moment in which the opium entered the Chinese pharmacopeia was signalled during the Tang dynasty (618-906), although some authors sustain that the opium was used in China for hundreds of years before.

It was acknowledged that the opium, even though it was part of the category of toxic substances, with the narcotic properties, being extracted from the capsules of some pope species (*Papaveraceae*), could be used as sleeping, calming, analgesic and narcotic agent.

The pope can be characterised without mistake as a true vegetable JANUS, it combines the properties of an exceptional value with the maleficent ones. It is a very old acquaintance of humankind, but from when, nobody can say for sure (Abraham 2005, 46).

Morphine, extracted from white poppy, is used also today especially as analgesic and sedative as well as for the treatment of the depressions. It is a white powder, soluble in water, with bitter taste. For 100 years, it was considered the most powerful analgesic, being used for therapeutic purposes. The morphine is administered in our days under the form of pill or injectable, its effect being much stronger than the opium.

The codeine is an isolated opium alkaloid, yet its effects are much weaker than those of the morphine. In our days, it is used as treatment for calming the cough or as analgesic.

From the cannabis, *Cannabis Sativa L.*, known under the name of “Indian hemp” the hashish and marijuana are extracted. The hashish is a much more powerful substance obtained from the cannabis raisin, and the marijuana is obtained from the leaf of this plant.

The first written mentioning appears in a medicine book from the 2nd century, in China, named “Treaty about plants”. Marijuana was used as analgesic 5.000 years ago. The old Assyrians, Persians, Romans and Indians used this drug to control the muscular spasms, for calming the pain, as well as treating the indigestion. Moreover, it was used by the African miners in order to ease their difficult work, and the Jamaicans were consuming it at the end of the day in order to get rid of the tiredness. In the 19th century, it was used for treating headaches, labour, insomnia and menstrual pain and in our days it is used for treating the glaucoma and certain ocular disorders linked to the optic nerve as well as in the treatment of some diseases using traditional medicine in Africa and Asia.

The hashish was used for thousands of years and it was mentioned in the Asiatic legends as being a substance which once consumed creates a hallucinating and euphoric state. Herodotus, the father of history, describes the habit of the Scythian tribes from the Caspic Sea who used to place wet hemp seeds on hot rocks and inhale then the resulting mesmerising vapours. The hashish represented for the old Egyptians and for the old Indians a bringer of happiness and a medicine, serving moreover to sustaining some religious ceremonies when its consumption was accompanied by songs and prayers. Moreover, the hashish was served at weddings, it was offered to the relatives and friends who were embarking on a journey, and for the Mahomedan tribes in the Northern India, “the hemp” was considered a sacred plant.

The Indian hemp spread fast on the Eastern coast of Africa and, from here, in Latin America, where the natives considered it as a gift, but consumed it intensely. In Brazil, the hemp arrived brought by the slaves from the Western coast of Africa.

Giovanni Bocaccio describes in “The Decameron” the effects of the hashish; the same thing does Alexandre Dumas in “The count of Monte Cristo”, and Baudelaire, a big consumer of marijuana writes “Artificial paradise” as praise for the virtues of this drug (Stancu 2015, 690). More than 1000 years ago, the natives of South America de Sud were chewing the leaf of the *Erythroxylon coca* plant, a plant rich in nutrients, alkaloids and cocaine. Traces of leaf were found in the Peruvian mummies and there are also traces regarding their use as anaesthetic for the trepanation.

When the Spanish arrived, most ignored the saying of the locals, that the leaf had energising properties, but after they convinced themselves that it was so, they legalised and taxed the cultures. In the 16th century chronicles, it is mentioned the consumption of the tobacco and coca mixture in order

to induce a state of trance, as well as the curative effects of the plant used also for the treatment of the wounds.

The alkaloid was isolated for the first time in 1859 by a PhD candidate at the University of Göttingen, Albert Niemann, who described its structure and the features of the chemical reactions. The first biomimetic synthesis of the organic compound was achieved, however, at the end of the century. Also, then the cocaine began to be popularised in the academic community. Among the first who used and promoted the drug was also Sigmund Freud, who recommended it for the treatment of the depressive episodes and of impotence.

In an article from 1884 in which it was mentioned the benefits, it was called the “magical substance”. Although, it was observed the deadly effects both on the physical as well as on the psychic level, the drug continued to be prescribed. A friend of theirs ended up suffering major hallucinations and although it was believed that no lethal dosage existed for people, one of the patients died. The cocaine was also used for treating the morphine dependency and in Germany, the clinics applied it in the local anaesthesia. Numerous medications appeared which exploited the analgesic properties, including hard drops for the children’s tooth pain (Manea 2019, 1).

Sigismund Freud, neuropsychiatric physician and founder of the psychoanalyst school of psychology thought that in cocaine he found a solution which removes the exhaustion state in front of the extended intellectual effort.

A discovery was extremely important for his medical carrier because the studies regarding this were at the beginning: „if everything went well – he wrote to his fiancé, after he already tried cocaine, even prescribing it in two cases – I will write a study about this (substance) and I expect it to win a place in the therapy together with the morphine and even above it. I have also other hopes and intentions with regard to it. I take very small dosages against depression and indigestion, with the most brilliant result... To be brief, only now I feel that I am a physician, when I have helped a patient and I hope to help many others. If things go well, we should have no other worry regarding the possibility of being together and staying in Wien”.

In the next period, Freud’s letters on the theme of the cocaine continued on the same enthusiastic tone: „at the last severe depression, I took again coca (actually, cocaine, the alkaloid based on the coca leaf – author’s note) and a small dose lift me to heights in a wonderful manner. Right now, I am busy gathering the references for an ode in honour of this magical substance”.

His professional ambition was the same as that of his brethren, and of the discovery of a universal cure; or, however, of a „magical” substance, a „gift of the gods in order to satisfy hunger, fortify the tired ones and make the unhappy forget their sadness” (as Freud himself wrote).

The observations of his own symptoms concentrate upon improving the depression, reinvigorating the increase of the labour capacity (physical and psychic), without having symptoms of some adverse effects.

However, the enthusiastic episode was going to be followed by a powerful disillusion, because the cocaine was going to reveal gradually the dangers. The clinical observation will provide arguments in this regard, including through the example of some close ones, such as the friend Fleischl, who, consuming regularly large quantities (twenty times more than Freud himself) developed a dependency and a terrible cocaine-related psychosis (Fatu-Tutoveanu 2019,1).

The drug is a psychotropic substance, acting with predilection upon the central nervous system as stimulant (exciting element) for it or as sedative of the mental activities. The drugs ended up a health issue, both for the individual consumer, as well as for those around him/her, namely a public health issue due to his/her behaviour disorders (Abraham 2005, 106). In our days, these substances became the enemy of the modern man produces year after year more and more victims, being a very difficult to control phenomenon. Usually, the individual wishes to use the drugs for personal and recreational purpose, yet in almost all the cases he/she ends up being dependent of its consumption. The uncontrolled drug consumption can lead to behavioural, thinking changes, as well as changes of the proper functioning of the organism, changes which can lead to the death of the person.

The depressants decrease the activity of the central nervous system, slowing down the vital functions and the reflexes, they calm and, moreover, relax. In well-established dosages, they are used in medicine, especially as sedative and for inducing the sign.

The hallucinogens lead to the apparition of some sensorial illusions or hallucinations which, simulating the physical functions, give the sensation of force, belief in oneself, but in larger dosages produce delirium, panic, aggressive and irrational behaviour.

The analgesics influence the reaction to pain, diminishing or removing the psychic disorders which accompany it (anxiety, indisposition) (Drăgan 1994, 41).

In order to reduce significantly the number of those who end up a victim of the drugs, an important role is held by the school, but also by the family, maintaining thus the health of the future generation. In comparison to the mature population, the young population is much more open to the new, and more predisposed to the new experiences, to risk (Buzatu 2012, 94).

At the same time with the evolution of society, the desire to obtain a fast profit and enrichment of some persons lead to the spread of drugs on the market and automatically to the increase of consumption in an uncontrolled manner. There are millions of people in the entire world who end up abusing, becoming victims of the usage of such substances. And they are not the only ones who enter in this vicious circle. In reality, the family and the close ones suffer and sometimes, in their turn, become victims.

Conclusions

The drug consumers are seen by the society as being sick persons or persons who have a vice which they could not renounce. They come from various social environments and the reasons which determine them to consume drugs are various. The desire to experiment new things, the surrounding, family issues, lack of a job, etc., can lead to the consumption of psycho-active substances. Following the repeated and repeated consumption there exists the possibility for the apparition of a psychic dependency.

Once they become dependent on the drug consumption, they need the support of the family, friends, colleagues in order to obtain all the information necessary regarding the danger of using in an irrational manner these substances as well as determining them to renounce the consumption. For such situations medical, social, psychologic anti-dependency, counselling and reinsertion programs appeared.

The first signs which can be observed in the case of the drug consumption are:

- Fluctuations of the emotional state;
- The attempt of the individual to hide the problems he/she is facing;
- Finding excuses or using lies to cover up some situations;
- Committing some fraud or theft deeds;
- Tendency to neglect the professional or school activities;
- Negligence regarding the personal care.

There are many types of drugs which can be included in the category of legal or illegal substances. Moreover, these can be useful or harmful drugs, drugs which cause secondary effects or risks when they are administered in an uncontrolled manner.

Using drugs for medical purposes remains a controversial subject. The drugs represent a foreign substance for the human organism and which, once reaching the organism, produces structural and functional changes to it.

The irrational consumption of these substances can lead to negative important consequences upon the human organism. However, the researchers continue to discover a surprising number of benefits of the drugs used for medical and scientific purpose.

Due to the benefits accompanying them, nowadays there are countries which have relaxed the position regarding the cultivation, production, distribution and consumption of drugs and other countries agree, partially, to regulate from the legislative point of view the usage of narcotics strictly for therapeutic purposes.

The negative effects produced upon the health by using these substances in an uncontrolled manner are real and known worldwide. Because of this, their administration must be done only for medical purpose and under strict surveillance.

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Political Affections on Online Social Network: The Opinative Priority During the Presidential Campaigns

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ABSTRACT: How does the urgency on publicizing opinions was expressed in the uses of an online social network during a conflicted period of time like the Presidential Campaign in countries such as Brazil and United States? In these scenarios, it seems that it is not enough to simply reflect on certain relevant topics; it seems essential to externalize opinions that seek to establish an intransigent position. To understand this phenomenon, possible evidence can be found in the way communities of fans are organized, guided by the regulation of affections in the media and in education. Thus, the concept of "opinionative priority" is proposed to understand the disputes about the meaning of democracy that emerge in online social networks, being the attempt to corroborate, counter or refute a statement, in a power dispute. It is the tensioning itself resulting from the need to belong, caused by social networks, and participatory culture, because it is not enough to be and be seen, it is necessary to be part of the discussions, or to initiate a new one. These disputes treat diverse opinions as enemies to be exterminated, obliterating the pluralistic democratic condition, supported by the fundamental right of freedom of speech. Therefore, it is understood that the "opinionative priority" is more than a communication process, since it promotes a pedagogical action in which opinion is formed from absence of moderation, once there is no time for considerations; there is only the urgency to defend a point of view in social networks.

KEYWORDS: opinion; online social network; community of fans; democracy, affect

Introduction

The behavior of people in social networks allows the awakening of an analysis of how important the publication of personal opinions became important. Much motivated by technological ease, it has become a commonplace to comment on all episodes of life in society, sharing other content and integrating a network of interaction. It is not enough just to reflect on certain topics; it seems essential to externalize thoughts and opinions that seek to influence others, an attitude based on the belief that individual opinion has a significant importance in democratic society.

To this new need we call opinative priority, something almost physical that awakens in people the will to express themselves on a certain theme. And to what is called physical, we can approximate the regulations of affection carried out by social networks. "The internet stands out today as the most prodigious archive and court of experiences and emotional manifestations - controversial, proscribed or socially legitimized." (Freire Filho 2017, 74). The areas of discussion have expanded and what was circulating in the personal sphere comes to the general level, with opinions and heated debates about politics, society, right and wrong, good and evil, right and left. Criticism goes beyond individual tastes and seeks, at times, to determine collective truths - however unique and univocal.

In this context, there is no need for dialogue or interlocutors, much less incentive. The space of social networks suffices, supported by the ease of a technology that fits in the palm of the hand. That is, conversations that could generate debate nowadays may not even happen. Sometimes they can be silenced, disregarded before they even begin, or can be extended until one of the parties gives up. I say this because, in this concept, the opinative priority is not a search for a conciliatory idea, but a dispute for the sovereignty of the individual view on a certain theme. Although it may agree with other previously expressed opinions, this opinion carries with it the pretension of surpassing everything that has been said with previously, not necessarily by new information, but by the weight of its authorship.

According Recuero (2009), there is an emergency aspect of social networks involving the appearance of large-scale patterns of behavior. In his words, "emergency appears with the arising of collective, non-centralized behavior. As a complex system, the social system will also tend to show

emerging, collective behavior in this dynamic” (2009, 78). That is, the greater the number of people commenting and sharing the same themes, the greater the sense of urgency for others to participate.

As Hall (2016, 260) argues, “it is the social actors who use the conceptual, linguistic, and other representational systems of their culture to construct meaning, to make the world comprehensible, and to communicate intelligibly about this world, to others ” (49). The social media environment is a powerful tool for this construction, since ideas and opinions circulate in abundance and reinforce meanings and representations. The opinative priority is, therefore, the attempt to corroborate, counter or refute a statement, in a dispute of power - to be able to say, to be able to have more reason. It is the tensioning itself resulting from the need to belong, caused by social networks, and participatory culture, because it is not enough to be and be seen, it is necessary to be part of the discussions, or to base a new one. In this process, those involved need to show and strengthen the visions they advocate in order to override the different ones. It is much less about what to say, but about who has more rights to say, who has the most important opinion.

Generally, this evaluation ends up being individual and, therefore, for the subject, his opinion is the most correct and must, almost obligatorily, come to light. Thus, opinative priority places us in an ambiguous position in which, at the same time as participation is encouraged, it also acts as a form of restriction. It is, at the same time, democratic for its individual rights and censoring for those who oppose it.

Similarly, while roaring encourages others to join in, the speed of internet information creates the habit of quick analysis. The risk lies in the superficiality and lack of development of some manifestations. As a defender of the freedom of speech, I understand that opinion cannot be evaluated on a qualitative scale, but has to be part of an argumentative scale. What is the purpose of saying what was said? How does what was stated contribute to the discussion? What information does opinion bring with itself?

It is also possible to approach the opinative priority to the Dunning-Kruger effect, which demonstrates the difficulty of some people to see that they have no knowledge of a particular subject and, when confronted with people who have more knowledge, are not able to see the difference. According to the study, these people are self-sufficient in their lack of knowledge and respond aggressively to those who know more because they cannot understand that they know less. “In a perfect world, everyone could see the judgments and decisions that other people reach, accurately assess how competent those decisions are, and then revise their view of their own competence by comparison” (Dunning and Kruger 1999, 1131).

Popular participation is also explained from the narrative about the importance of activity in electoral processes. In the Brazilian electoral system, voting is mandatory for citizens between 18 and 70 years old, which forces a choice among most of the country's residents. This obligation has been criticized for years, as many argue that they would not like to choose one of the options presented, as they would not represent them, or discredit the policy presented. The defense of those who believe in the importance of voting is that, even if it was not mandatory, it is necessary to have an opinion and consider the proposals, since the elected candidate will govern anyway. They say that if the decision is inevitable, then the most effective way to have an active participation would be by voting. Exempt does not only nullify the vote but the opinion, so that those who choose this path are diminished in possible claims.

In the United States, one of the most established democracies in the world, voting is not compulsory, which is the basis for those who advocate for voluntary participation. After all, if it works there, why wouldn't it work in other countries?

The year 2018 saw electoral periods in both countries, and both social networks had a large participation. While in Brazil compulsory voting and polarization of campaigns forced their voters to position themselves, in the United States there was a broad campaign to get citizens to the polls. In Brazil, polarization was dividing communities by the opinions that were being published to defend the reasons why, especially, their opponent should not be allowed to win; In the United States, on the other hand, there was a search for young voters, for the diversity at the polls in an attempt to change the current political design. In both cases, the speech was based on the

fundamental importance of democratic processes in both countries, and how a single voice - or a single vote - can change the outcome. With this, I understand that the opinative priority is not a concept that is born in social networks, but is supported by the technology covered and what it allows. Active participation from the opinion already comes from this view that an individual choice, added to many others, changes the course of the country history, while abstention would be synonymous with invisibility of voice.

The compulsory vote narrative somehow forces the voices to find their counterparts to perhaps form a winning majority. What social networks do, from their visibility imperative, is also to force these voices to show themselves more so they exist and gain relevance. Without technology, conversations could happen in another - more measured, thoughtful, and debated - way. On the Internet and its pages, there is no guarantee of dialogue, or even the need for it to happen. Each opinion is given from its individual sovereignty over that publication space. Therefore, this is how the opinative priority arises, when expressing your opinion publicly is mandatory to live in a democratic process in social networks, electoral or not.

In a society in which social networks play a role as a source of information, opinative priority causes individuals to move beyond their positions in the hierarchy of communication and become major emitters, creating new debates, influencing new discussions, rising on the scale of communication. From this, we have this new concept to support the analysis of participation, since the search is not only to be seen as an individual, but to be respected as an informative source, as a sovereign voice.

Polarizations: the opinative priority in social networks

Some say that social networks are an example of free and democratic space. In addition to all the technological peculiarities that make these networks tools highly controlled by behavioral information capture algorithms, we must be aware that it is a “clean” place of everything that is not of interest to the user. Each can allow on their profile only what they see as relevant to interact, be it reading, liking, praising or criticizing in comments. Each user creates its own information “box”, which circulates the content and discussions to which the user intends to devote some time.

In this aspect, we begin to delineate what could be the democracy defended by the users of social networks: the one in which one chooses the truth that matters, and defends such truth based on the right of freedom of speech. It is the liberal version of the concept of democracy, which is believed that anyone has the right to say what one wants, about who and what suits, whenever she wants, in the possible spaces. The “rest”, which individually does not matter, may be disqualified or disregarded as a relevant element to discuss publicly. The freedom to think and say what one thinks is, therefore, a technological tool that circulates these decisions. In a democratic society, it seems fair to be so. On the other hand, democracy is also about the disputes between these individual freedoms, which enters the field of convergence between the public and the private. As in political elections, in social life private choices also have a public reflection: opting for a candidate is a personal decision, the projects implemented in the mandate of the elect influence the whole society: opting to use a few words is a personal decision, but the flow of interpretation and offense that can generate impacts others.

Discussions on social networks often reveal that the choice of the majority is more for personal resolutions than projects for everyone. Thus, it is more interesting to find groups that reverberate the same individualistic thoughts, that demonstrate that they think like an “I”, than echo with others who will not value a single voice, seeking something good for “us.”

The understanding that today's political decisions are influenced by several factors and that social networks, a space formed mainly by individual interests, plays an important role in the circulation of political information and discussions on this topic, and it is necessary to look back at how these conversations are being conducted. For Mouffe (2003, 11), it is a mistake to believe that a “good society” is one without antagonisms. On the contrary, differences are necessary for democracy. Thinking of a common good in this scenario does not mean thinking that what is good

for one will have exactly the same representation for the other, but seeking a balance for individual interests.

According to a research from 2010, the Brazilian population shows a lack of trust regarding the politicians and the parties, believing more in public and private institutions with hierarchic relations, such as the church and the armed force (Moisés 2010). In this context, to find another people that support the same institutions and the same speeches is a more attractive path for those who wants to participate in political discussions, even if they don't believe in the process. Those individuals come close to the participationist concept, in which they see the digital democracy as a way to promote their voices and to guarantee the sovereignty of the popular opinion (Silva, Sampaio e Bragatto 2016, 24).

Conversely, with the Internet access as an information, knowledge and power source, this instrument becomes a significant part of an individual's socialization process (Freitas 2016, 129). Therefore, in polarized environments, the opinative priority takes action gathering these insights, that endorse the truths being defended by these groups. The democracy protected only by the freedom of speech and for the chance to define the power is the justification for that the opinions can be used as information, decreasing the importance of the technical knowledge.

However, if all opinions have equal weight and value, it does not matter where the knowledge comes from, it is the choice of the majority. And this is where the polarizations that we see in social networks emerge. The reasoning is that, being the individual's opinion and his democratic and sovereign choice, in assuming one truth, the other is automatically disqualified. To both political extremes, the other group is a coup or totalitarian. "Totalitarianism and democracy, Furet taught, are not two opposite truths" (Rancière 2014, 24), and neither are the reasons that lead each group to choose their side.

Opinion in the public sphere of networks

If the political dispute happens everywhere, all social relations are in some way disputes for space, identification and belonging. This search was not transferred to social networks, only followed the communication flow. Thus, Jürgen Habermas's concept of the public sphere helps to contextualize this dispute, since it considers this a space in which public and private actors discuss public affairs. In theory, this space would contribute to the formation of a public opinion, with a consensus view. However, Gomes (2008) broadens the understanding of the public sphere, and explains it as “the scope of social life in which interests, wills and pretensions that have consequences concerning the political community are presented in the form of argumentation or discussion” (35). Now Barbero highlights the changes from the public sphere defined by Habermas, which included only those who had education and property, to a public sphere “redefined by the presence of urban masses in the social scene, whose visibility refers to the transformation of politics that, from a matter of state, it becomes 'community sphere, sphere of general people's affairs' ” (Barbero 2014, 104).

The polarized scenario makes the public sphere to become a producer of equally polarized public opinions, so that the private actor seems to have to choose one side in order to occupy the debate. Therefore, far beyond the exchange of information and reasons, what we see today in social networks is an exchange of public truths produced by each extreme, without consideration.

Still, one cannot disregard the importance of the practice of debate in relation to the political paths that are designed for the future, much less reduce the conversation that occurred in social networks to mere opinionated exposure. The deliberation not only happens in the electoral period, but is under constant construction, especially in the public sphere.

In Brazil, the events of recent years were highly influenced by the participation of social networks, which broadened the scope of information and even helped to "teach" the messages on each side. However, the political division is not new to the country, which has always had its decision-making processes and political movements influenced by the construction of threats, whether communist against the current economic system or elite against social conquests. These speeches often appear in campaigns, building a unique thinking for voters and defenders of particular causes.

Now the stage is technological as well as decentralized. Instead of using the voices of political actors, it spreads to the voices of public and private figures. Control of political messages in world movements has moved beyond the exclusivity of official institutions and, with networked movements, is increasingly extended to private actors.

And regardless of the debate side, all actors behave similarly on the web and in the arguments, they only change the information in the speeches as appropriate to their truth. Network movements happen mainly in the field of ideas, of discourse. And it is in this field that the limits of freedom of speech and opinion are challenged from the democratic precedent.

Conclusions

For a long time, the word of formal journalism, the one published in print or on the main news, has been taken as information with the greatest potential for mass influence. Now social networks break through the barrier by letting personal messages, opinions and news circulate with the same weight – scenario harmed by relevance algorithms and message replicator robots.

Nowadays, individuals seem to live with the feeling that they have to choose a side; defend or condemn something; act in group. Although opinions are contrary, the behaviors and strategies of political agents are similar. With no room for the evaluation of the content of what is said or the sides that are chosen, but analyzing the relevance of the chosen characters in their fields - which allows their opinions to assume larger roles than simply reflecting what they think - those involved in the process act in exactly the same way, seeking to reduce the vision of the other side until they can be emptied or even defeated in the electoral process.

In a polarized environment, both sides battle for a larger space and try to overcome opponents to create a "majority". Therefore, the opinative priority is also an indication of what we have been taught about on how to think politically, embedded in a representative democracy that theoretically gives voice to the majority.

If, on the one hand, the public space of social networks could be seen as a "place" for discussions that lead to a consensus view on what is best for most, the comment boxes on these same networks are a "place" to expose an individual view of what each one understands best, and opinative priority becomes an impediment when considering others' view. The pedagogical action of opinative priority is where the lack of moderation is allowed, which does not call for a mature discussion, as there is no time; there is an urgency to speak. Today's social network users seem to understand that their opinion is perhaps the only absolutely free thing left. Thus, it is worth pointing out and reducing the differences to enemies, who deserve to be vigorously fought, making almost nothing noisier than the words written in the comment boxes of social networks.

And it is in this environment that individual opinions and feelings regulate understanding of others' ideals, freedom of speech, and even how much the idea of democracy really matches our behavior as a society. However, just as polarization encourages us to position ourselves, democracy itself may eventually impose the limits of personal opinion, so that it is understood that, although important, it is not sovereign and not true only by desire; to understand that we can be, as a society, more than this noisy tangle of different opinions, fighting for power.

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Frictions on Cross Border Cooperation in Criminal Matters Involving Terrorism Threats – Romanian Standpoint

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ABSTRACT: In countering terrorist crimes, European organizations with police and judicial jurisdiction have emerged as key players in this field, although often being found on a competitive institutional battleground, especially this being the case of Europol and Eurojust. The methods we used consist in a detailed analysis of applicable European provisions, established doctrine, standpoints, press releases and official statistics, and last but not least the presentation of a well-grounded opinion on the reported disagreements. Through the reform to which Europol is currently undergoing, the Agency is self developing as a central element of the European internal security architecture in conducting investigations and operational actions. We emphasize the tendency to widen the competencies of the European Prosecutor's Office, whose duties are likely to overlap with those of Eurojust, and although Eurojust does not have the vocation of a genuine indictment body, according to the EU Treaty, the European Prosecutor's Office may be established from Eurojust, hence under its oversight. Europol is willing to take on the role of managing EU-wide operational counter-terrorism activities, but as for Eurojust, the measures needed to strengthen the Union's response to terrorist threats can only be implemented by creating a framework narrative in which the European Prosecutor's Office is directly subordinated to Eurojust.

KEYWORDS: Europol, Eurojust, cooperation, jurisdiction

Introduction

Taking into account the two systems of thinking encompassing the European community in the context of the UK's leaving the European Union, namely the imminence of the need for the Union's internal structures to be dismantled in order to avoid a total dissolution of the Union (Kaeding, Pollak & Schmidt 2019, 126), in contrast with the achievement of a stronger and more durable union, as European leaders have made a commitment to a secure and safer Europe (The Rome Declaration 2017), there is a need for reflection on the harmonization and approximation of European norms in the field of cooperation in criminal matters, especially regarding terrorism (Calderoni 2010, 7).

Thus, in a world where borders and barriers between different systems of law fade away (Joutsen 2006, 7), even though terrorist networks do not necessarily envisage such a legal framework when they go through their criminal activities (Klip 2005, 118), it is reasonable to assign each criminal justice system with a set of commonly agreed definitions and instruments for a unitary approach of the phenomenon (Klip & van der Wilt 2002, 78), one of the objectives of such an approach being to prevent the development of terrorist organizations on the territory of states that have not previously encountered such a scenario or whose criminal justice system would not deal with the complexity of the terrorist offenses.

In the structure of the area of freedom, security and justice, as stated by the Treaty on the Functioning of the European Union, an important role was played by the European organizations with functional police and judicial powers, which due to the competitive political context, the uncertainty of legal provisions and the existence of areas of competence with similar features they stand on a competitive institutional ground in which the relations between them oscillate between cooperation and rivalry, especially this being the case of Europol and Eurojust (Bures 2013, 68) each of these agencies having an interest in legitimizing their *status quo* amongst other institutional actors (Antoine 2014, 7).

Europol's Developments

The European Police Office (Europol) is the EU's central law enforcement agency with the role of strengthening cooperation relations between Member States in order to prevent and combat organized

crime and terrorism (Europol Review 2010, 7), while maintaining an ascendant course in development capabilities on responding to new challenges and requirements of national police institutions (Europol review 2016-2017, 7).

Currently, operating under Regulation (EU) 2016/794 on the European Union Agency for Law Enforcement Cooperation (Europol), the European Police Office carries out the following functional activities: *collects, stores, processes, analyzes and performs the exchange of information, including operative information in criminal matters; notify EU countries without delay, via the Europol National Units, of any information or links between criminal offenses concerning them; coordinate, organize and implement operational actions to support and strengthen the actions of the authorities of the EU countries; participate in joint investigation teams; Supports EU countries in the fight against organized crime, promoted or committed through the Internet* (Article 4).

According to the new regulations, in addition to the practical and operational role of the Agency in providing information exchange in criminal matters and in facilitating ongoing cooperation with Member States (Djupdal 2018, 46), Europol is currently developing as a core element of the European internal security architecture (Lungu 2018, 28) in order to support and reinforce the actions of the competent authorities of the Member States, carried out either collectively with the competent authorities, in joint investigation teams or in cooperation with Eurojust (Article 4 Section (1) Letter c) of Regulation (EU) 2016/794).

Through this reform to the agency, a multidisciplinary treatment is being applied, in order to effectively prevent the terrorist phenomenon, which integrates criminal and security policies, with the aim of incorporating investigations and prosecutions, thus creating a quantifiable result on informational exchange and police actions (Europol 2015, 57).

A primary tool for Europol to carry out its functional responsibilities in the field of transnational cooperation is the possibility of participating in the activities of joint investigation teams, teams in which the Agency staff has the capacity to manage the information obtained in order to effectively deal with the investigation, Europol being able to certify the need to set up such a team (Article 5 of Regulation (EU) 2016/794).

In this respect, within the meaning of the European provisions, joint investigation team (*hereinafter referred to as "JIT"*) means a team made up of members from at least two Member States, with a precise and limited purpose, for carrying out criminal investigations in one or more Member States constituting the team, when it is necessary to carry out difficult investigations involving the mobilization of important means or when several Member States conduct criminal investigations, in which the circumstances of the case necessitate coordinated and concerted action (Article 1 Section (1) Council Framework Decision 2002/465/JAI), bearing in mind that the priority of setting up such teams subsists in the fight against terrorist offenses (Point 7 of Council Framework Decision 2002/465/JAI Preamble).

In the light of these considerations, the Romanian national legislature has agreed to regulate the procedure for setting up joint investigation teams in cases involving offenses that Europol is committed to.

Thus, with regard to the investigation of terrorist offenses, the judicial authorities, namely the Directorate for the Investigation of Organized Crime and Terrorism (DIICOT), through its Chief Prosecutor (Article 183 Section (1) of Law no. 302/2004), propose to other participating States that Europol should be included personally in the JIT (Article 4 Section (1) of Law no. 56/2018), and will send to the Agency a participation request, via Europol National Unity (Article 7 of Regulation (EU) 2016/794), after obtaining the agreement of the other participating States authorities (Article 4 Section (2) of Law no. 56/2018).

Other means of transnational cooperation represents Europol's ability to request national competent authorities for the initiation, the leading or the coordination of a criminal investigation which fall within the remit of the European Agency, requesting that national judicial authorities have the possibility of declining (Article 6 Section (1) and (3) of Regulation (EU) 2016/794), the issues raised being faithfully transposed into Romanian law (Article 5 of Law no. 56/2018).

Observing the multidisciplinary context in which JITs can be set up, the speed of investigation, the increased information flow and the de-bureaucratization of the procedure involving the transmission of international solicitation addresses (Block 2011, 96), under its coordinating role, Europol provides quick access to relevant information available in other countries than those in which the JIT operates, facilitates the exchange of information between stakeholders through a specialized secure network (SIENA) (Europol, 19), providing logistical, analytical and forensic support (The Network Of National Experts On JIT 2017, 23), all of which are being enhanced by Europol liaison officers (Article 8 of Regulation (EU) 2016/794 and Article 8 of Law no. 56/2018).

In line with the Agency's operational outlook, we underline its receptiveness to the development of analytical capabilities in order to support the identification, coordination and implementation of multidisciplinary teams working with Member States and developing a quick response to terrorist attacks (Europol 2018, 4), an example in this sense being the development of an operational model called the *Counter-Terrorism Joint Liaison Team (CT-JLT)* (European Parliament 2016), with an active role in conducting cross-border investigations into terrorism (Council of the EU 2018, 3).

But the emergence of links between international crime and terrorism has called for the indispensability of centralizing the information flow within the Union, thus appears for the first time at European level a center that provides the Member States with a set of synchronized tools (Wainwright 2016, 17), consisting in the development of the *European Counter Terrorism Centre (ECTC)* emerging from Europol, which works in line with the Agency's regulatory basis, with the aim of maximizing the operational intelligence exchange for conducting counter-terrorism activities (Europol 2019, 63).

Thus, in terms of information distribution, despite the fact it was suggested in the past that the idea of exchanging information between national authorities and Europol being voluntary, the level of involvement of the Member States varies according to the national factor involved in policing and informational exchange, which alters the efforts of Europol to combat terrorism (Bures 2011, 93-94), over time things have evolved, nowadays the efficacy of the development of SIENA alike software's, alongside with the establishment of teams and networks of experts, such as the one mentioned above - (CT-JLT) (Europol 2017, 29) being extremely valued in the fight against terrorism.

At the same time, in order to combat online terrorist propaganda at ECTC was developed the Internet Referral Unit (IRU), a unit composed of specialists from various areas of expertise, ranging from experts in religious terrorism, translators, software developers, police officers with experience in countering terrorism, accountable for supporting competent authorities with operational analyzes, reporting online content of extremist nature, detecting and removing online propaganda content (Europol, www.europol.europa.eu).

Thereby, the IRU supports online content inquiries, at the request of Member States, providing operational support through forensic and technical analyzes, as well as field trials, focusing lately on facilitating transnational access to electronic evidence (Europol 2017, 7).

Notwithstanding the reported skepticism in the field that indicates the uncertainty with which competent national bodies address the distribution of confidential or classified information to Europol by limiting access to intelligence obtained in connection with terrorist acts (Wilkinson 2006, 175) or the perception of the informational exchange through Europol as a burden, and not as added value (Bures 2016, 64), in October 2017, the ECTC, in close cooperation with Eurojust and the European Judicial Network, set up the SIRIUS Project (Eurojust, www.eurojust.europa.eu), which originally consisted of an online platform for law enforcement agencies that facilitates the sharing of knowledge, good practice and expertise investigating online crime, with particular attention being paid to counter-terrorism (Europol 2017), is currently seeking to allow access by the judicial authorities (Council of the European Union 2018, 1).

By balancing the uncertainties mentioned above with the program's effectiveness, the European legislator is confident within the capabilities developed by SIRIUS, by including it into the list of potential platforms that can provide secure means of transmitting and facilitating procedures in the draft regulation on European Production and Preservation Orders for electronic evidence in criminal matters (European Commission 2018, 21).

Applying methods that have been proven effective in other areas of crime prevention, methods such as joint liaison teams, confrontation of operative information, the expansion of databases and the concentration of resources on social networking and financial flow analysis, ECTC succeeded within a short period of time to be developed as an important pillar on counterterrorism, thus newly created databases being an important source for present and future terrorist-related investigations (van Gemert 2018, 39).

Therefore, in relation to the multidimensional development trends and to the priorities established according to the programmatic documents, Europol through the European Counter-Terrorism Center is willing to take on the role of managing the operational anti-terrorist activities in the European Union as a whole, as evidence standing the ongoing projects for the centralization of prevention management, information exchange and the coordination of police investigations in countering terrorist activities.

Progressive restraints of Eurojust

According to the former District Chief Prosecutor of the Court of Paris, François Molins, *The quality of judicial cooperation in the fight against terrorism is a big challenge. We cannot work in silos in our countries anymore. We need an overall approach. To strengthen and bolster judicial cooperation, we need to go through Eurojust, the only European agency able to do that* (Eurojust 2018, 18).

Starting from this statement, and taking into account the substantial changes to the functioning of Eurojust, which will apply from 12 December 2019 (Article 82 Section (2) of Regulation (EU) 2018/1727), it is required to study the provisions of the new Regulation on The European Union Agency for Criminal Justice Cooperation (Eurojust), without omitting the results obtained by the Agency thus far.

Thus, we show that Eurojust is the body with a legal personality of the European Union (Article 1 Section (3) of Regulation (EU) 2018/1727) whose mission is *to support and strengthen coordination and cooperation between national investigating and prosecuting authorities in relation to serious crime affecting two or more Member States or requiring a prosecution on common bases, on the basis of operations conducted and information supplied by the Member States' authorities and by Europol* (Article 85 Section (1) of TFEU).

The new Eurojust Regulation reforms the Agency's operational principles and structure to improve operative efficiency (European Council, www.consilium.europa.eu), bringing novelties to the Agency's operational activity, as follows: it has a proactive role, acting on its own initiative in coordinating inquiries, tracing tasks and carrying out case analyzes (Article 3 (2) of the Regulation); assists investigations that may have repercussions at European level, even if they involve only one Member State (Article 3 (6) of the Regulation); strengthens operational functions by reducing the administrative workload of national members (Article 8 of the Regulation); establishes a close cooperation system with the European Prosecutor's Office (Article 50 of the Regulation) and reinforces cooperation with Europol (Article 49 of the Regulation).

In particular, Eurojust is an efficient team of judges, prosecutors and other legal experts working in the same location, but continues to function as members of their national agencies. For this, it is an advantage that they have quick access to information and expertise, each member of Eurojust knowing the applicable legal system in their state of origin, thus having the opportunity to consult the other members on issues encountered (Bures 2006, 64).

Understanding that Eurojust's mandate ceases when investigations or prosecutions are carried out by the European Public Prosecutor's Office (Article 3 Section (1) of Regulation (EU) 2018/1727), whose competencies are currently limited to crimes that affect the financial interests of the Union (Article 4 of Regulation (EU) 2017/1939), but observing the intention of European leaders to also engage it in the investigation of cross-border terrorism (European Commission 2017), beyond current powers that have been established (Macron 2017), we underline the view that states that Eurojust does not have the vocation to become a true European indictment body and cannot directly carry out prosecutions nor criminal investigations (Brière 2018, 4).

However, we do entirely agree with that judgment, in the sense that the actual legislative context does not set out explicit powers regarding the possibility of criminal investigations directly by Eurojust, meaning that the European legislator, willingly did not comply with the provisions of article 85 Section (1) Subsection 2 Letter a) of the Treaty on the Functioning of the European Union, according to which Eurojust's powers may include, **but are not limited to**, *the initiation of criminal investigations (...)* and the possibility of mandating Eurojust with the execution of criminal proceedings in certain cases.

Thereby, taking into account the recommendations of the Committee on Legal Affairs (European Parliament, europarl.europa.eu) to develop a coherent legislative system for the European Public Prosecutor's Office and Eurojust, that reflects the functional differences between the two European agencies, as well as the conclusions of the European Commission's impact assessment (European Commission 2013) that states the high efficiency of the European Public Prosecutor's Office organization was followed by the establishment of a legal framework for an independent and efficient European Prosecutor (European Parliament 2016).

Regarding the total independence of the European Public Prosecutor's Office, we express our concern that according to the EU Treaty, such a European Criminal Investigation Agency can be set up *from Eurojust* (Article 86 Section (1) Subsection I of TFEU), **hence under its authority**, and not based on mutual cooperation or on the development of operational, administrative and management links between them (as putted by Article 100 Section (1) of Regulation (EU) 2017/1939).

Even taking into account the negative findings on criminal investigations and prosecutions of cross-border terrorism (European Commission, ec.europa.eu) that require the imminence of strengthening the Union's response to terrorist threats by amending the EU Treaty in order to also extend the mandate of the European Public Prosecutor's Office for terrorist offenses affecting two or more Member States (European Commission, ec.europa.eu), we can only conclude that, according to the Treaty on the Functioning of the EU, the European Prosecutor's Office must directly subordinate to Eurojust.

In this respect, without ignoring the role of the European Prosecutor in carrying out investigations and prosecutions, thus exercising the prerogatives of a genuine judicial power, in contrast to Eurojust, whose role is to support the work of national authorities and to carry out coordination and cooperation between the national bodies responsible for investigating and prosecuting criminal offenses (Deboyser 2015, 82), we stress out the concurrent view expressed by the Chamber of Deputies of the Romanian Parliament through the reasoned opinion in the interparliamentary political dialogue, according to which (...) *the optimal use of pre-existing European coordination mechanisms in criminal matters, has not been fully implemented (...)*, opting on strengthening Eurojust and making full use of the powers given to it (Romanian Chamber of Deputies 2013).

Similarly, in the opinion expressed in the context of the Proposal for a Regulation on Eurojust, the Romanian Parliament's Chamber of Deputies supports the attribution to Eurojust of some key competences, namely the possibility of initiating criminal prosecution or conducting criminal investigations (Romanian Chamber of Deputies 2013, 2).

Further on, finding divergent views on the original text of the Regulation establishing the European Public Prosecutor's Office, according to which the establishment of such an agency is premature and would lead to the erosion of Eurojust and not to its development (Czech Senate 2013), given that strengthening and intensifying pre-existing mechanisms at the level of judicial authorities and agencies to combat cross-border crime are more effective instruments (Dutch House of Representatives 2013), we emphasize that the imminent extension of the European Public Prosecutor's Office mandate in the field of terrorist offenses cannot result in the development of Eurojust's role as an *essential link* in the coordination of terrorism prosecution, as the promoters of this trend have concluded (European Commission 2018, 14).

Moreover, the argument that Eurojust's disengagement for the benefit of the European Public Prosecutor's Office in the field of terrorism would facilitate Eurojust's cross-border investigations in other areas of cross-border crime (European Commission 2018, 14) can only be hilarious, leading to

the conclusion that any other transfer of competence to the European Public Prosecutor's Office strengthens and does not erode the European Union Agency for Criminal Justice Cooperation.

Thus, taking into account the ruling of Article 86 Section (4) of TFEU, which establishes the possibility of extending the powers of the European Public Prosecutor's Office to other serious forms of crime with a transnational impact, as well as the positive support of the political and academic environment manifested to supplement the attributions of European Public Prosecutor's Office with the investigation of cross-border terrorist offenses (Giuffrida 2017, 149), our intention is not to criticize the opportunity of expanding the sphere of competence but to underline the existing administrative options, namely to establish such a European judicial body, hierarchically subordinated to Eurojust, especially given that the establishment of a European Public Prosecutor's Office operating in parallel with Eurojust, concurrently maintaining relations of cooperation between the two European agencies would only result in the introduction of an element of complexity in the institutional framework of the Union (Nato 2016, 332).

It is true that one of the reasons for the establishment of Eurojust was to set up a core for a future European Prosecutor (European Parliament 2001, 33), but we have to say that in the time elapsed since the early stages of Eurojust, the European legislator so far has been concerned to increase the mandate of the agency, with the European Prosecutor's project evolving in a parallel approach and not by suppressing the functional attributions of the European Union Agency for Criminal Justice Cooperation.

As for the general legal framework for combating terrorism, we show that Eurojust's role is particularly appreciated in terms of achieving cooperation through joint investigation teams as well as coordination meetings facilitated by Eurojust (Point 7 of Directive (EU) 2017/541 Preamble), not least by endorsing the Agency's position as cooperation and coordination of investigations in the event of a conflict of inter-state jurisdiction (Article 19 Section (3) of Directive (EU) 2017/541).

Likewise, the role of Eurojust as an operational and strategic actor in combating terrorism, facilitating multilateral judicial cooperation, coordinating and exchanging intelligence in cross-border investigations of terrorism It is also highlighted (Council of the EU 2018). In this respect, Eurojust is proving its efficiency in accelerating the execution of European arrest warrants, European investigation orders, as well as information and evidence exchange in ongoing investigations.

There were 108 European arrest warrants issued in 2014 for terrorist offenses and 79 such mandates issued in 2015 (e-justice.europa.eu) and even if we do not have a statistic of the European investigation orders implemented for terrorist offenses, we underscore that there has been a considerable increase in the use of this instrument, from 86 such orders issued in 2017 to 830 issued in the year 2018 (Eurojust 2017; 2018, www.eurojust.europa.eu).

Without overlapping with Europol's specific tasks in setting up JITs, we show that Eurojust plays a key role in setting up the team, providing operational and technical assistance to JITs (Article 4 Section (1) Letter f) of Regulation (EU) 2018/1727), such as assistance with the discovery and admissibility of evidence, involvement of national members or co-ordination between partners (Council of the EU 2017, 21), which is why the coordination of the Secretariat of the Network for joint investigation teams, made up of Eurojust staff, is ensured by Eurojust (Article 48 Section (2) of Regulation (EU) 2018/1727). Furthermore, the European provisions state that national members seconded by each Member State have the competence to participate in, and to set up joint investigation teams (Article 8 Section (1) Letter d) of Regulation (EU) 2018/1727).

In another train of thoughts, we phrase that in recent years an increasing number of Joint Investigation Teams have been implemented at Eurojust to investigate terrorist offenses, and that a considerable number of JITs have been set up for offenses related to illicit activities of terrorist groups (Council of the EU 2016, 2), including migrant trafficking, which is why, like European officials who advocate encouraging national authorities to create an automatism in setting up joint investigation teams in complex transnational cases such as terrorist attacks (Eurojust 2013, 2), we are certain that a future evaluation of Eurojust will considerably increase the added value of joint investigation teams with regard to the investigation of terrorist offenses on European soil.

Casework and joint activities in the priority crime areas, 2015-2018

		TERRORISM	MIGRANT SMUGGLING
Cases (sum of new cases and ongoing cases from previous years)	2018	191	157
	2017	178	153
	2016	124	133
	2015	74	94
Joint investigation teams (sum of newly established JITs and ongoing JITs from previous years)	2018	11	12
	2017	12	14
	2016	6	11
	2015	5	10

Figure 1. Case work and joint activities at Eurojust for terrorism and migrant smuggling offenses between 2015 and 2018 (screen capture from *Eurojust Annual Report of 2018*, page 42)

Cohabitation of Europol and Eurojust

As for the relations between Eurojust and Europol, it is to be noticed that, at least formally, the idea of a continuous cooperation in the field of the two agencies, as well as in various analytical projects and thematic objectives (this includes ECTC) (Eurojust 2018, 34), more precisely by recruiting a national expert (prosecutor) in the fight against terrorism, seconded to the ECTC, to facilitate the exchange of information between Eurojust and the ECT (Eurojust 2017, 31), this was not always the degree of interinstitutional cordiality.

Thus, the motivation behind the establishment of Eurojust consists in that the expansion of judicial cooperation in criminal matters, together with Europol's police powers, is a key factor in establishing an appropriate legal framework for the European Union (European Parliament 2001, 33), in other words, in order to counterbalance activities on judicial cooperation in relation to already existing police cooperation instruments (Mangenot 2006, 52).

Other researchers also argued that the establishment of Eurojust had the objective of proving the increased efficiency of European judicial cooperation in spite of police cooperation (Mangenot 2006, 50), but it was shown that in fact Europol proves to be the organization with a higher degree of autonomy vis-à-vis the Member States in terms of human resources (Bigo 2007, 17).

At the same time, interinstitutional relations of cooperation and information exchange have been shown to have been altered firstly by the obstacles encountered by strict data and information security protocols at Europol (Bures 2006, 88) and ultimately due to rivalries between the two European agencies (Bures 2006, 88).

However, we believe that the hatchet has been buried, with a strong cooperation relationship between the two European agencies, taking into account the active involvement of Europol in Eurojust's ongoing counter-terrorism investigations, as well as the delegation of a Eurojust prosecutor to Europol's headquarters (Council of the EU 2019, 7), thus taking the ultimate interest in ensuring an area of freedom and security for European citizens.

Moreover, the European legislator reserved in the new regulatory framework of Eurojust a whole article consisting of six paragraphs in which the concrete methods of achieving the information exchange between the two agencies are punctually regulated, while reaffirming the need to maintain a close cooperation with Europol (Article 49 of Regulation (EU) 2018/1727).

Conclusions

We emphasize the importance of each of the two major European agencies considered in the fight against terrorism in terms of policing or intelligence, on the one hand, and the judiciary, on the other, without omitting the role of effective cooperation on a horizontal and vertical basis, with a view to resolving the casework that Europol and Eurojust are invested with under the mandate given by the European legislator.

We also note that the measures needed to strengthen the Union's response to terrorist threats by amending the TFEU to extend the authority of the European Public Prosecutor's Office also for terrorist crimes, can only be accomplished by creating a regulatory framework in which the EPPO is directly subordinated to Eurojust.

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Behaviors of Professional Athletes in Terms of the Big Five Model Due to the Type of Contact of the Sport Discipline

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ABSTRACT: Sports disciplines can be divided due to the type of contact allowed with the opponent. We distinguish disciplines with direct and indirect contact as well as non-contact disciplines. The intention of this study was to check if the behavior of professional athletes is determined by the type of contact of sports disciplines. 180 competitive athletes from six sport disciplines, i.e. luge, tennis, wrestling, team mountaineering, volleyball and rugby, were purposefully selected for the study. The research method used was the NEO-FFI Personality Inventory. It was shown that specific samples - lugers, team mountaineers and rugbists are characterized by low neuroticism in relation to tennis players, wrestlers and volleyball players. Athletes of non-contact disciplines stand out by low neuroticism in relation athletes of indirect and direct contact disciplines. Team athletes are distinguished by low neuroticism in relation to individual athletes. On this basis, the following conclusions were made. The behavior of athletes depends on the type of contact of the sport discipline. Behavioral profiles are specific to the requirements of a given sport discipline and are consistent with the average profile of behavior of all athletes, characterized by high conscientiousness and extraversion, average openness to experience and agreeableness. The indicator differentiating the behavior of athletes due to the type of contact of the sport discipline is neuroticism.

KEYWORDS: behaviours, sport psychology, personality, NEO-FFI, type of contact

Introduction

The behavior of the athlete is one of the most important elements of knowledge for the trainer. In sports competition, who wins and who loses decide the physical and mental skills of the player. But in the fight for medal positions, especially when athletes are on the same level, the player's mind determines the winning first. The one who will be more mentally resistant and will show greater will win competition. That is why mental training of the player is so important in the modern sport. Such training prepares the athlete for hard moments in sports competition and allows to predict the behavior of athletes in difficult situations.

Personality psychology is inseparably associated with explaining human behavior, hence personality measurements are used as a criterion for behavior assessment. Often, the NEO-FFI personality inventory is used for this purpose (Wiggins, 1996). It is useful in this case due to the fact that it allows you to study certain patterns in behavior exhibited over a longer period of time. Personality traits describe relatively constant dispositions, hence the search for their manifestations in repetitive patterns is more justified than in individual behaviors - these are dependent on situational factors. The NEO-FFI personality measurement tool explains behaviors that are important from a social and cultural point of view, which are usually dependent on several personality traits in parallel (Buss and Craik, 1983; Bardi and Schwartz, 2003; Paunonen, 2003; Grucza and Goldberg, 2007; John et al., 2008; Hirsh et al., 2009; Agnew et al., 2010).

From previous studies in the field of sport psychology, it appears that people who are physically active are different from those who do not exercise by high conscientiousness. In contrast, athletes (rival) from physically active people are distinguished by high extraversion. And athletes who win (champions) from the rest of the competitors are distinguished by a low marker of neuroticism (Piedmont et al., 1999; Backmand et al., 2003; McKelvie et al., 2003; Kajtna et al., 2004; Zdebski and Blecharz, 2004; Blecharz and Siekańska, 2005; Ekinci and Hosany, 2006; Shipley et al., 2007; Soto et al., 2008; Anghel et al., 2009; Hill et al., 2010; Shrivastaval et al., 2010; Allen et al., 2011; Fuller, 2011; Ilyasi and Salehian, 2011; Tok, 2011; Binboga et al., 2012; Tolea et al., 2012; Allen et al., 2013; Boostani et al., 2013; Mirzaei et al., 2013; Nielsen, 2013; Terracciano et al., 2013; Tomczak et al., 2013; Allen and Laborde, 2014; Piepiora, 2015; Piepiora

and Piepiora, 2015; Piepiora and Witkowski, 2018; Piepiora et al., 2015, 2016a, 2016b, 2017a, 2017b, 2017c, 2017d, 2017e, 2018a, 2018b, 2019a, 2019b, 2019c, 2019d; Witkowski et al., 2018).

In the current research, it is not specified what model of behavior of athletes is characteristic of sports disciplines due to the type of contact with the opponent. In connection with the above, an attempt was made to check professional behavior profiles of athletes in terms of the "Big Five" personality model due to the type of contact with the opponent. Namely, athletes should be characterized by different personality profiles related to their behavior, in accordance with the assumption that it is the contact type of sport discipline that determines the behavior of athletes. The purpose of this study was to verify this hypothesis.

Methods

Participants

180 competitive athletes (men, N=180) from six sport disciplines were selected for the study. Two selection criteria were adopted. The first criterion was the type of contact between the sport discipline: the discipline with direct contact with the opponent, the discipline with indirect contact with the opponent, and the non-contact discipline. The second criterion was the nature of the sport discipline – individual or team. The test samples were as follows:

- Lugers (n=30, individual non-contact discipline);
- Tennis players (n=30, individual discipline with indirect contact);
- Wrestlers (n=30, individual discipline with direct contact);
- Team mountaineers (n=30, team non-contact discipline);
- Volleyball players (n=30, team discipline with indirect contact);
- Rugby players (n=30, team discipline with direct contact).

All respondents are or have been Polish representatives at international competitions. Their age varied between 20 and 29 years of age. The subjects were selected purposefully for the samples. The inclusion criterion was: many years of sports experience; license for one of six established sports disciplines; impeccable trainer; documented sports achievements at various levels of competition (national, continental, global). The exclusion criterion was: ethical or unsportsmanlike lifestyle; no recommendation from the trainer. All participants voluntarily agreed to participate in the research.

Measures

The NEO-FFi Personality Inventory was used as a research method. It is a five-factor personality model—a personality model also called the "Big Five" constructed by P. Costa and R. McCrae—which is a continuation of the Cattell and Allport theories (Allport and Odbert, 1936; Cattell, 1946, 1966). The Big Five was created on the basis of a lexical analysis of free behavior descriptions, which allowed to distinguish five superfactors, which are the basic personality traits. The Big Five scales allow a full description of the research object's behavior.

These are the following dimensions: openness to experience (positive evaluation of life experiences, tolerance for new things and cognitive curiosity), conscientiousness (organization, perseverance and motivation of the individual in goal-oriented activities), extraversion (quality and quantity of social interactions and the level of activity, energy and the ability to experience positive emotions, agreeableness (attitudes towards other people manifested in altruism and antagonism) and neuroticism (tendency to experience negative emotions, i.e. fear, confusion, anger, guilt and vulnerability to psychological stress), described in the high-low scale. The acronym OCEAN is also used to name supercells. On the basis of this theory, the NEO-FFI personality inventory was created to measure the above features. It is accepted that the above factors are independent of race, culture and gender. They are characterized by a high level of inheritance. They are immutable and affect the level of adaptation of the individual to the environment (McCrae and Costa, 2003; Costa and McCrae, 2007).

Design and Procedures

The research was carried out by the author of the article in 2017-2018 during camps and sport camps in Poland. Respondents to completing the NEO-FFI questionnaire had one hour. The tests were approved by the local ethics committee.

Statistical Analysis

One-way analysis of variance and post-hoc tests as basic statistical methods were used. The analysis of the tests was carried out using the Statistica 13.1 package

Results

The average results obtained are summarized in Table 1 and illustrated in Diagram 1. The power of statistically significant differences between athletes in the NEO-FFi scales is presented in Tables 2. The results show that the behavior profiles of athletes from particular disciplines are different, which proves that this part of the verified hypothesis is true. In addition, the ANOVA analysis results in raw results for homogeneity within the extraversion features, and in the neuroticism scale for lack thereof, except for volleyball players in relation to ground tennis players and the level of lugers tendencies in relation to team climbers and rugbists. In addition, single statistically significant differences occurred on the scale of openness to experience, conscientiousness and agreeableness. After converting the results into sten (a measure in psychology), lugers, team mountaineers and rugbists are characterized by high conscientiousness and extroversion, average openness to experience and agreeableness, and low neuroticism. However, tennis players, wrestlers and volleyball players are characterized by high conscientiousness and extraversion and average openness to experience, agreeableness and neuroticism. The neuroticism was the differentiating scale.

Table 1. A comparison of the mean of the examined sports groups

NEO-FFI VARIABLE	LUGERS	TENNIS PLAYERS	WRESTLERS	TEAM MOUNTAINEERS	VOLLEYBALL PLAYERS	RUGBY PLAYERS
OPENNESS TO EXPERIENCE	25,96	28,03	26,06	31,36	27,03	24,06
CONSCIENTIOUSNESS	36,06	34,66	32,96	37,5	32,76	35,76
EXTRAVERSION	33,16	31,2	32,3	33,03	33,3	32,83
AGREEABLENESS	29,66	29	27,26	29,3	25,16	28,1
NEUROTICISM	9,33	15,1	17,53	7,4	13,9	11,23

Table 2. Specification of the power of statistically significant differences between the studied group

NEO-FFI VARIABLE	LUGERS						
	TENNIS PLAYERS	WRESTLERS	TEAM MOUNTAINEERS	VOLLEYBALL PLAYERS	RUGBY PLAYERS		
OPENNESS TO EXPERIENCE	0.067989	0.929293	0.000003	0.344509	0.329682		
CONSCIENTIOUSNESS	0.311137	0.025750	0.299791	0.017711	0.827941		
EXTRAVERSION	0.105055	0.473718	0.912170	0.912170	0.782757		
AGREEABLENESS	0.643097	0.096508	0.798793	0.002029	0.276857		
NEUROTICISM	0.000000	0.000000	0.063085	0.000017	0.067721		
NEO-FFI VARIABLE	TENNIS PLAYERS				WRESTLERS		
	WRESTLERS	TEAM MOUNTAINEERS	VOLLEYBALL PLAYERS	RUGBY PLAYERS	TEAM MOUNTAINEERS	VOLLEYBALL PLAYERS	RUGBY PLAYERS
OPENNESS TO EXPERIENCE	0.082290	0.003483	0.375428	0.005457	0.000005	0.391517	0.287740
CONSCIENTIOUSNESS	0.219065	0.041298	0.169794	0.425885	0.001216	0.884789	0.043716
EXTRAVERSION	0.363392	0.130614	0.083666	0.177760	0.544284	0.408542	0.659148
AGREEABLENESS	0.229119	0.834785	0.008326	0.531713	0.158634	0.145497	0.562512

NEUROTICISM	0.019672	0.000000	0.247216	0.000249	0.000000	0.000560	0.000000
	TEAM MOUNTAINEERS		VOLLEYBALL PLAYERS				
	VOLLEYBALL PLAYERS		RUGBY PLAYERS				
OPENNESS TO EXPERIENCE	0.000165	0.000000	0.055814				
CONSCIENTIOUSNESS	0.000743	0.210203	0.030850				
EXTRAVERSION	0.825411	0.868591	0.699512				
AGREEABLENESS	0.004505	0.404566	0.042621				
NEUROTICISM	0.000000	0.000280	0.010703				

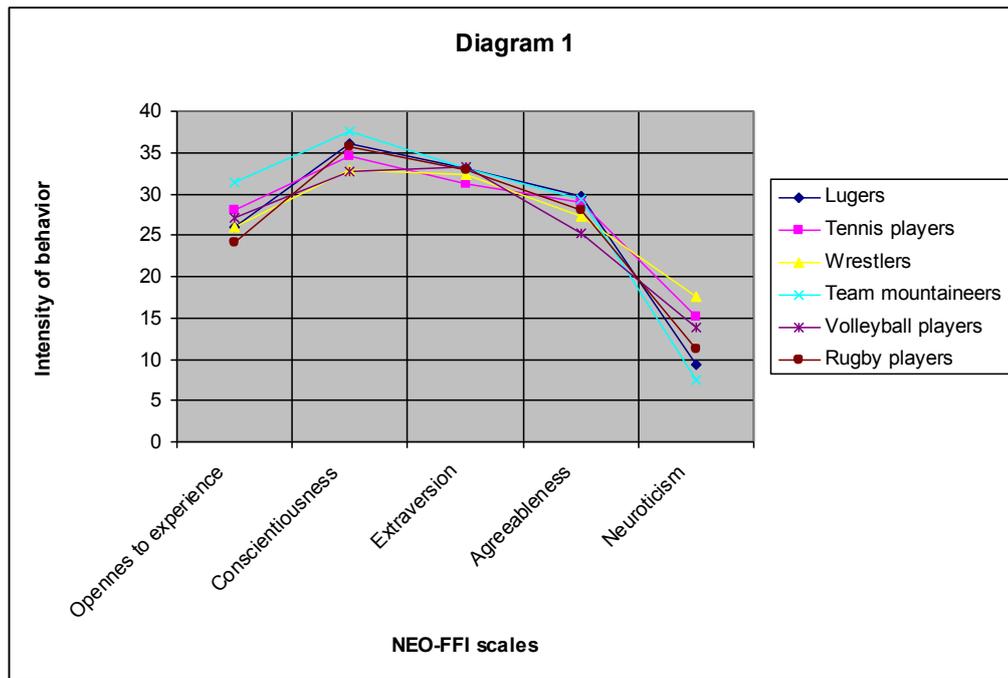


Diagram 1. Summarised data of the examined sports groups

Next, the differences between athletes were checked strictly due to the contact type of the sport discipline. For this purpose, the direct contact disciplines (Wrestling and Rugby), the indirect contact disciplines (Tennis and Volleyball) and the non-contact disciplines (Luge and Team Mountaineering) were juxtaposed together. The average values are summarized in Table 3 and illustrated in Diagram 2. In the raw results, statistically significant differences were found in the scales of openness to experience, conscientiousness, agreeableness and neuroticism. On the sten scale, athletes of non-contact disciplines are characterized by high conscientiousness and extraversion, average openness to experience and agreeableness, and low neuroticism. Whereas athletes of indirect and direct contact disciplines are characterized by high conscientiousness and extraversion, as well as average openness to experience, agreeableness and neuroticism. Again, the differentiating scale was neuroticism.

Table 3. A comparison of means and power statistically significant differences due to the type of contact of a sports discipline

Table 3 NEO-FFI VARIABLE	NON-CONTACT DISCIPLINE (n=60)		INDIRECT CONTACT DISCIPLINE (n=60)		DIRECT CONTACT DISCIPLINE (n=60)	
	Mean	SD	Mean	SD	Mean	SD
OPENNESS TO EXPERIENCE	28.66	0.180863	27.53	0.015270	25.46	0.000204
CONSCIENTIOUSNESS	36.78	0.002175	33.71	0.510521	34.36	0.015199
EXTRAVERSION	33.1	0.320986	32.25	0.711252	32.56	0.533133

AGREEABLENESS	29.48	0.020741	27.08	0.560369	27.68	0.081818
NEUROTICISM	8.36	0.000000	14.5	0.885265	14.38	0.000000

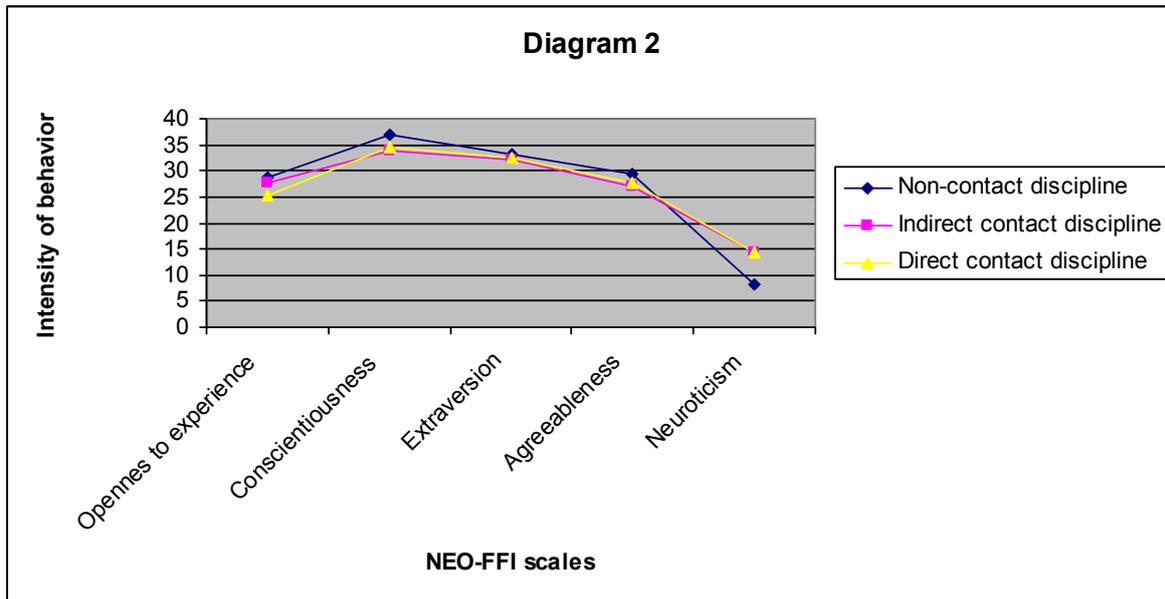


Diagram 2. Summarised data of all athletes due to the contact type of the sport discipline

Next, statistically significant differences between athletes were checked due to the nature of sports disciplines. Individual disciplines (Luge, Tennis, Wrestling) were combined with team disciplines (Team Mountaineering, Volleyball, Rugby). The average results are shown in Table 4 and Diagram 3. The raw results show a statistically significant difference only on the neuroticism scale. On the sten scale, the same dependence occurred. Athletes are characterized by high conscientiousness and extraversion, average openness to experience and agreeableness. But team athletes are distinguished by low neuroticism in relation to individual athletes (average neuroticism). For the third time, neuroticism is the differentiating scale.

Table 4. A comparison of means and power statistically significant differences due to the character of a sports discipline

NEO-FFI VARIABLE	Mean SD		p
	INDIVIDUAL DISCIPLINES (n=90)	TEAM DISCIPLINES (n=90)	
OPENNESS TO EXPERIENCE	26.68	27.75	0.135071
CONSCIENTIOUSNESS	34.56	35.34	0.346843
EXTRAVERSION	32.22	33.05	0.231820
AGREEABLENESS	28.64	27.52	0.186914
NEUROTICISM	13.98	10.84	0.000042

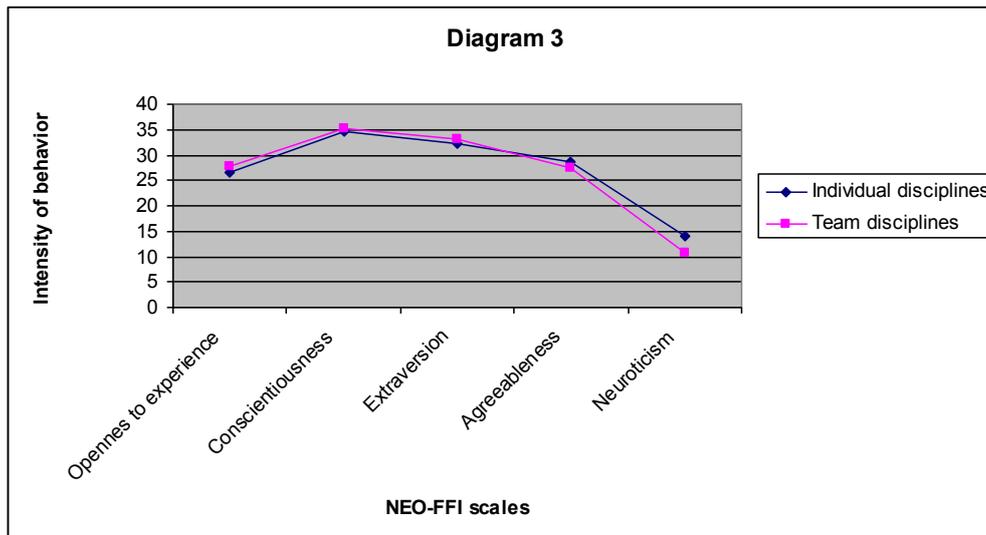


Diagram 3. Summarised data of all athletes due to the character of the sport discipline

Discussion

The obtained results show that the type of contact of the sport discipline determines the behavior of athletes. The variety of sports disciplines depending on the type of contact indicates their individual character. Therefore, the behavioral profiles included in the NEO-FFI model are specific to the requirements of a given discipline. The results clearly show that the behavior of athletes varies depending on the type of contact of the sport discipline.

Considering all the samples, it was noticed that the indicator differentiating the behavior of athletes due to the type of contact of the sport discipline is neuroticism. This is a tendency to experience negative emotional states. Neurotic people are more prone to showing fear, anger, jealousy, sadness and guilt. They react more severely to everyday stress and deal with it less well. They are often self-conscious and shy. Neuroticism is also a risk factor for phobias, mood disorders, panic disorder and other anxiety disorders, formerly referred to as neuroses. The opposite of neuroticism is emotional stability. It is characterized by a milder reaction to stress, calmness and a lower tendency to being tense or aroused. On the other hand, although people who are emotionally stable experience less difficult feelings, they do not necessarily have to experience more positive feelings. A high rate of experiencing pleasant feelings is associated with extraversion. And so, for example, neurotic extroverts - tennis players, wrestlers and volleyball players - experience a lot of both pleasant and unpleasant feelings, perceived as mood swings. On the other hand, people with low levels of neuroticism and high extraversion - lugers, team mountaineers and rugbists - are usually more joyful and content with life.

Behavior is shaped both as a result of innate properties and external factors. Different authors, depending on the adopted concepts, assign a decisive role to behavior. Behavior is a specific, multidimensional personality structure characteristic of a given person. The relatively long-lasting qualities that make up the personality influence each other. Therefore, they should be treated together, and their essence comes down to the description of the individual's behavior. We learn to a certain extent by observing important persons behaving in such a way. In this case, the type of contact and the nature of the sport discipline turned out to be crucial. In non-contact disciplines: individual - luger; team - team mountaineering; low level of neuroticism results from the lack of contact with the opponent. In these disciplines, competition is about fighting against time, with your own limitations, with yourself. Whereas in disciplines with indirect contact: individual - tennis; team - volleyball; the average rate of neuroticism results from the emotional tension caused by eye contact with the opponent and the lack of direct contact. In this case, the main measure of players' skills is the ball - the way it is accepted and / or played. The sense of self-efficacy largely depends on the subject of the game. On the other hand, disciplines with direct contact: individual - wrestling;

team - rugby; the measure of neuroticism depends on the nature of the sport discipline. And so in wrestling is direct contact with the opponent - one on one - the competitor is facing the opponent and his own weaknesses. But in rugby there is direct contact with one or several opponents. In Rugby, the emotional tension is distributed to the entire team, and one player maintains it in wrestling. The perceived level of stress, anxiety and anger is therefore dependent on the number or absence of the game's companions.

Conclusions

The behavior of athletes depends on the type of contact of the sport discipline. Behavioral profiles are specific to the requirements of a given sport discipline and are consistent with the average profile of behavior of all athletes, characterized by high conscientiousness and extraversion, average openness to experience and agreeableness. The indicator differentiating the behavior of athletes due to the type of contact of the sport discipline is neuroticism.

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How Globalization has Changed Diplomacy

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ABSTRACT: Globalization, which refers to the changes in time and space is perhaps one of the most significant events in this century. It has brought with it, unique changes in communication, trade, mobility, international security, and migration. Some have argued that its impact has further weakened the place and role of the state in international politics, given many actors who have emerged in this process. This paper seeks to examine how the changes in time and space are affecting diplomatic relations among states. While it is true that several actors are today playing some roles previously reserved for the state, the field of diplomacy seems to have been protected from non-state actors as government representatives still dominate diplomatic channels. By looking at events such as the Gulf Cooperation Council's role in the Yemen Political crisis and Economic Community of West African States' (ECOWAS) role in Gambia's political turmoil, a new form of regionalized diplomacy is seen. The case of the Syrian crisis also has realized a shift from bilateral to multilateral diplomacy. The writer argues that the changes in space have had little effect on diplomacy but rather the changes in time, largely associated with the rapid flow of information have transformed how diplomacy is practiced today. The paper adopts a qualitative research approach and relies on data from secondary sources like textbooks, among others.

KEYWORDS: diplomacy, globalization, international relations, integration, communication

Introduction

Diplomacy is as old as humanity itself, and one cannot, therefore, claim its date of evolution. From the first human relations, diplomacy has existed, because fundamentally, it is about relationships. Diplomacy can also be defined as the profession, activity, or skill of managing International relations, typically by a country's representative abroad. Globalization, on the other hand, is believed to have emerged at the end of the Cold War with the breaking down of borders and the opening of systems to greater inter-dependence, fueled by the two forces of economic liberalization and technology outburst (Campbell 2015, 20). It is however clear that this post-Cold War era is just an era of the latest phase of globalization. Therefore, one could argue that globalization, like diplomacy, has always existed but only felt in the post-Cold War era since this phase of globalization is the most advanced.

In international relations, various scholars have defined diplomacy in different ways, but the entire definitions sum up to the art of dealing with people/states in a sensitive, organized and tactful way through negotiations and agreements. In another instance, diplomacy was defined as the means through which a political activity enables actors to pursue their objectives and defend their interests through negotiations, with no use of force, propaganda or law (Berridge 2005,1). The art of diplomacy consists of communication between entities designed to achieve agreements, be it formal or informal; implied or explicit. Such communication and its achievements can be facilitated by gathering information, clarifying intentions, and promoting goodwill. Diplomacy, therefore, can be viewed as an alternative foreign policy to maintain peace and stability in the international arena.

Modern diplomacy which involves the sending of emissaries on the other hand is traced to some parts of Northern Italy in the early Renaissance, where the first embassies were established in the Thirteenth century (Berridge 2010,1). Francesco Sforza in Milan played a leading role by establishing permanent embassies to the other city-states of Northern Italy (Neumann 2012, 16-17). It was in Italy, therefore that many of the traditions of modern diplomacy began, such as the presentation of an ambassador's credentials to the head of state.

To some scholars, modern-day diplomacy was born in the 17th century through The Peace of Westphalia, which established the precedent of peace established by a diplomatic congress. Signed in 1648, it created the first modern diplomatic congress and new world order in central Europe based on state

sovereignty (Colegrove 1919, 450-482). The Congress of Vienna of 1815 was, however, the first official treaty to establish an international system on diplomatic relations. The 1815 Congress of Vienna was also the first of a series of international meetings that came to be known as the Concert of Europe, which aimed at creating a peaceful balance of power in Europe (Rie 1950,209). It is not surprising therefore that this same treaty later served as a model for later organizations such as the League of Nations in 1919 that subsequently transformed into the United Nations in 1945.

The Vienna Convention on Diplomatic Relations of 1961 (that shall hereafter be referred to as **The Convention**) which is an international treaty that defines a framework for diplomatic relations between independent countries doesn't specifically define diplomacy but if read in whole, one understands clearly what diplomacy means according to the international treaties.

Ideally, in international politics, diplomacy is officially carried out by a diplomatic agent- a representative chosen by the sending state normally referred to as an ambassador and in some cases a consular. Article 1 (e) of The Vienna Convention defines a diplomatic agent as the head of the mission or a member of the diplomatic staff of the mission. It states that; "*Diplomatic agent*" is the head of the mission or a member of the diplomatic staff of the mission.;

The convention further states in **Article 2** that the establishment of diplomatic relations between States, and permanent diplomatic missions, shall take place by mutual consent between parties intending to create such a relation. Diplomacy is generally about representing states, gathering information and expansion of political, economic, and cultural ties between states. All this is done by facilitating, enforcing, and observing international law. In Article 3 subsection 1 of The Convention, the functions of the diplomatic mission is explained, which further gives us an insight into what modern day state diplomacy is about. It states thus; "*The functions of a diplomatic mission consist inter alia as (a) representing the sending State in the receiving State; (b) protecting in the receiving State the interests of the sending /State and its nationals, within limits permitted by international law. (c) negotiating with the Government of the receiving State; (d) ascertaining by all lawful means conditions and developments in ' the receiving State and reporting thereon to the Government of the sending State. (e) promoting friendly relations between the sending State and the receiving State, and developing their economic, cultural and scientific relations*" **Article 3 (1) of The Vienna Convention on Diplomatic Relations, Vienna, 18 April 1961**

Through the functions of a diplomat as described by the Vienna convention on diplomatic relations above, one derives from them the clear definition of diplomacy as far as the International Treaties and International relations are concerned. In today's international arena, three main treaties govern diplomatic relations and thus define and govern traditional diplomacy. They're; *The Vienna Convention on Diplomatic Relations - 1961, The Vienna convention on consular relations -1963 and The Vienna Convention on special missions - 1969.*

Globalization is originally derived from 'globe' which evolves to the term *globalize*, which refers to the interconnectedness of an international network of economic, social and cultural systems. Globalization thus literally refers to the process by which businesses or other organizations develop international influence or start operating on an international scale.

Several scholars have given definitions of globalization, all not differing any much further from the literal meaning given above. In one instance, Globalization constitutes integration of National economies into the International economy through trade, direct foreign investment whether by corporations or multinationals, short-term capital flows, international flows of workers and humanity generally, and flows of technology (Bhagwati 2004,3).

On another account, it is defined as a progressive increase in the scale of social processes from a local or regional to a world level (Bayly 2002, 48-49). Globalization is a reality whose impact is felt in every part of the globe and every person on it, even though all feel this impact on a largely differing scale (Mazlish 1998, 387).

Globalization increases interconnectedness on all spheres of life. It has increased the worldwide technology and the comprehensibility of fast, effective communication and consumption of information and approved products. It also brings closer and links cultures, economies, and international relations on different levels (Naim 2009,28-30).

Over the last quarter century, globalization has become particularly important. It is in this period that the emergence of a global economy and a communications' revolution has been witnessed on the largest scale. It is also at this time of the cold war that the end of a fundamental ideological division centrally affecting International Relations, which involved both the USA and a multinational entity of the Soviet Union whose core state was Russia, was realized (Jenson, De Sousa Santos,2018, 1-9). It was after the post-cold war era that the world witnessed a rapidly expanding globalization, involving increased technological, political, economic, and cultural interactions.

According to Beck, an influential sociologist who wrote a lot about globalization, he classified the term as a collective process through which sovereign national states are crisscrossed and undermined by transnational actors with varying prospects of power, orientations, identities, and networks (Beck 2000,3). Conceptualized like this, globalization has the potential to undermine a key idea in International Relations widely held by realists and neo-realists that all states are important. This view is undermined because; globalization involves various kinds of cross-border 'actors' also known as transnational or non-state actors.

Accordingly, Beck (2000, 11) argues that the process of globalization is characterized by the geographical expansion and advancement of international trade, which involves global networking of finance markets and the growing power of transnational corporations. Globalization has also resulted into the ongoing vast evolution of information and communications technology that kind of gives the universe one voice in demand of universal human rights and other things. This is realized in media coverage and various non state actors like the Human Rights Watch that has taken on the world in that sphere.

Globalization has also led to the emergence of a post-national, polycentric world politics, in which transnational actors like multinational corporations, non-governmental organizations and the United Nations are growing in power and number alongside governments. It has also led to global cultural industries and the question of world poverty. Globalization has also led to significant trans-cultural conflicts in one and the same place and global environmental destruction.

Globalization thus signifies the capability of reducing the importance of territorial boundaries and, theoretically, of government-directed political and economic structures and processes. Some of these problems can be resolved or curbed by 'reconstructing' the sovereignty of states and their boundaries through diplomacy; thus, a need to look at the relationship between globalization and diplomacy.

Relationship between Diplomacy and Globalization

Both globalization and diplomacy are international relations' aspects that are important in global politics and International Relations' discipline. These two concepts share a mutual necessity. While diplomacy can act as a means of interconnectedness with diplomatic agents being one of the actors who play an increasingly important role in globalizing the world (Borcan 2012, 32), globalization can provide the path for diplomacy's main purpose which is to avoid conflict and promote cooperation.

It should also be noted that, given the fact that foreign policy is experiencing a passage from geopolitics to global politics it will require enhancing, respecting and adapting international institutions guaranteeing the international rule of law under the responsibility of all nations (Borcan 2012, 16).

The difference between geopolitics and global politics is mild as one is interdependent and, or a branch of the other. Whereas geopolitics only focuses on the study of the relationships between separate countries and the importance of their politics on their geographical locations, Global politics simply refers to relations between nation states (countries) or issues relating to all such as environmental regulation to tackle global warming which requires international cooperation, or other major issues that require the attention of all world powers like the global financial crisis of 2008. Geopolitics therefore is a key area of global politics, as international relations affect it profoundly.

Global politics can also be felt under the aspect of soft power; which refers to the ability to achieve your objectives through the attractions of your culture and political system. Take an example of China establishing 350 Confucius centers and promoting Chinese language in the last decade or so. This gets easier with the advancement of communication and technology which are all as a result of globalization. This too is an aspect of cultural diplomacy.

In this regard we see that the politics of the world has largely shifted from geopolitics where the geography was largely a determinant of the world politics to global politics where the international relations and politics are more diverse. Therefore, global politics has as a result become a tightening link between globalization and diplomacy.

It should however be remembered that geopolitics is still in existence; for example, the president of USA Trump's decision to build a wall between USA and Mexico to deter drug cartels from escalating in the US is a geopolitical decision. Kenya's decision to build a wall between its northern border and Somalia to combat terrorism is a geopolitical decision too. These two scenarios are categorized as geopolitics because it's the politics within the geographical location of those countries that pushed for such decisions. To uphold the rule of international law under such circumstances, cultural diplomacy, information and technology are to indeed play a great role (Held 2005,9). With globalization, a state's behavior towards its citizenry is no longer an exclusively internal matter (Beetham, 1998, 61-2) and the leaders' behavior is now shaped by the various external factors like persuasion of international and regional organizations, foreign donors and civil society organizations (Risse, 1999).

While analyzing the relationship between globalization and diplomacy, it is worth noting that although in some instances the differences these two possess can supplement each other, it's not always the case. In other instances, the differences are worth noting and they only point out the two concepts (of Diplomacy and Globalization) as distinct from one another- a discussion worthy of academic research input. It is therefore important to consider the significance of the disconnections the two concepts have as well as discerning the location of these barriers and disconnections because such is a pre-condition to an analysis of the relation between diplomacy and globalization.

Unlike globalization that has no specific and standard form of hierarchy, command and control which makes it an all-inclusive concept – pluralistic with a variety of actors in the mix, a strong image of hierarchy, command and control hangs over the world of diplomacy. Whereas a diplomat is answerable to the state, actors in globalization are all equal with no chain of command or hierarchy. A diplomat is commanded, and he is only expected to say what he has been told to at the right time.

Furthermore, whereas a diplomat must have some level of education and expertise, it is not the case with globalization. A global customer doesn't need any defined qualifications to pass across their information; they have no guidelines and command of saying what and when.

While dealing with diplomacy, the preference is for concentrating on what is doable as opposed to what is right (Maley 2008, 1-2). The end results are often shaped by a cautious sense of pragmatism with a profound recognition of the boundaries of action, whereas patience and discretion are prioritized over emotionalism and transparency (Maley 2008, 2).

Practically, the functions of diplomacy and the effects of globalization may be classified as distinct to one another. Diplomacy, on one hand, is often viewed as a guild activity with well-placed insider's distinguished from excluded outsiders. Thus, diplomatic skills are a type of knowledge possessed by a particular set of professionals and handed down through a long tutelage whereas globalization stands out from the later as being an open-ended way of looking at and navigating the world with a high degree of inclusiveness about whom and what is included in its structure and agenda.

It is important to note that globalization has in a way, altered the sovereignty and boundaries of states which raises the question of whether diplomacy too has changed and, or whether it is still needed at all. The effects of globalization on diplomacy like other disciplines of International relations are immense and can thus be discussed below.

Effects of globalization on Diplomacy

Globalization has got its effects on all spheres of international relations, and thus it's no wonder that its effects have extended to diplomacy too. In this chapter, we examine the effects of globalization on diplomacy and answer our main research question on whether globalization has indeed changed diplomacy.

On whether Globalization has changed diplomacy, the answer is yes is that neither of the two aspects is static. However, globalization has only changed the methodology of diplomacy but not its fundamental nature. Diplomacy has always been about building, maintaining, and using relations, and this has continued to be the case even with the advent of globalization. However, the methodology of traditional diplomacy has been altered by globalization. Ideally, diplomacy requires sovereignty to function, but with the emerging of globalization as already discussed above, the sovereignty of states have been theoretically altered, and thus, the methodology of diplomacy to has changed.

With globalization, comes an easy and fast way of sharing information and involvement of non-state actors in diplomatic missions. Although this is not done officially, it ultimately still changes the traditional methods of diplomacy as we knew them. Thus, globalization may not have revamped the nature of diplomacy, but it has certainly altered something on which diplomacy is significantly based – the sending authority. Traditional diplomacy requires sovereignty to function.

In the past, before the current phase of globalization, states had the monopoly on sovereignty, whether that is in the area of communication or the economy. However, today, states have lost that monopoly, and non-state actors are more involved and have emerged as 'diplomatic agents' than before. These range from journalists, NGOs, civil society groups, among others. However, the fact that the states still value and consider the official statements of their diplomatic agents irrespective of the information and role played by the non-state actors is proof enough that the nature of diplomacy has not been changed by globalization.

Information is key, but the focus should be on accuracy and reliability of such information for any successful diplomatic missions. The contemporary phase of globalization, which has created an unprecedented era of technological change, has led to a revolution in communication, which requires diplomats to be cautious and fast thinkers. We are past the era of diplomats communicating through bags of mails with a month's timeframe for a considered reply. Gone are the days when diplomats would plan trips and spend months on the way. In today's global village, information is received and sent faster than ever before. Trips are shorter than ever before. Thus, globalization has changed diplomacy in a manner that it acts faster than before.

Although the evolution of technology and quick communication might appear as making the diplomat's instant communication easier, diplomats should be cautious of this development and avoid over trusting this transformative effect of the latest technological gadget.

According to globalists, while multilateral diplomacy prevails, power initially shared among several nations, shall be gradually better distributed among less powerful nations as globalization speeds up (Daalder and Lindsay 2003, 16). In such circumstances, diplomacy is likely to be democratized, thereby empowering international actors by providing a voice to each of them in decision making for the sake of higher justice. The case of the North Atlantic Treaty Organization (NATO) and the United Nations in peacekeeping and peace enforcement on the globe is that of a multilateral democratized diplomacy. These organizations are a representation of multilateral diplomacy since they deal and negotiation for or on behalf of more than two countries, and they have acted as a voice for each of these countries, thus being democratized. UN peacekeeping mission in South Sudan-Darfur, for example, was done in the interest of other neighboring countries to which the instability would affect. On the other hand, being a voice of all those countries all together is a kind of democracy in diplomacy. All this is brought about by the interconnectivity of the world through globalization where it is not about a state anymore but a global entity.

With the outburst of the current phase of globalization, diplomacy is seen to have somewhat shifted from bilateral diplomacy to multilateral engagements because with globalization; there have emerged global threats that must be handled globally rather than unilaterally. Whereas bilateral diplomacy is aimed at branding a state's image and creating empathy for the respective state's policies, multilateral diplomacy

focuses on the maintenance of international order and thereby bringing stability to the global arena. Because of the interconnectivity, multilateral diplomacy is now prioritized over bilateral diplomacy. We see multilateral diplomacy in a way Russia, Turkey, Iran, and the USA are trying to redraw peace in Syria. Because of the interconnectivity, the world cannot rely on bilateral diplomacy to create peace where it has been broken. The instability in Syria, for example, can spread instability in these other countries, not necessarily geographically but economically and other spheres. Thus, they need to come together and restore peace in Syria.

As a result of globalization, it can be argued that diplomacy is directing towards regionalized diplomacy in which international concerns are approached as a region. Nevertheless, bilateral diplomacy has remained crucial to explain and coordinate domestic policies (Henrikson 2005, 7). A case in point is the regionalized Arab Gulf diplomacy applied in the Yemen political crisis resolution process through the Gulf Cooperation Council (GCC) as the sole international institution powerful to represent a relevant actor for negotiations of any kind as compared to other western international institutions whose influence had proved unheard (Nonneman 2015).

Another example of regionalized diplomacy is where the Economic Community of West African States (ECOWAS) as a regional body negotiated the peaceful handover of the then president of The Gambia Yahya Jammeh to the current president Adama Barrow. ECOWAS further made agreements on the way forward and maintenance of post-election peace and stability in 2017 a move that identifies with diplomacy. All this was as a result of the economic interdependence and interconnectedness that has come as a result of globalization that has evolved in the West African states just like all other parts of the world.

Even in such scenarios as discussed above, it is no doubt that the activities and format followed through is bound to keep traditional etiquettes of diplomacy, since the role of these regional state actors is neither new nor necessarily something that undermines the position of traditional diplomacy. Accordingly, even with regional diplomacy, the core roots of traditional state to state diplomacy shall be maintained.

As discussed earlier, indeed technology like other forms of globalization has changed the method of traditional diplomacy, but it is unlikely to replace the primary endeavor and root of traditional diplomacy which is getting to know the ‘other.’ This entails building a relationship and cultivating that for national interests. Considering the unreliability of the non-state actors who perhaps might not be having interests of the state at heart, perhaps that’s why even with the advent of globalization (for example communication), the states still consider the official communication from the official diplomats. This has somehow retained the nature of traditional diplomacy.

There are numerous effects of globalization on diplomacy, but those discussed above focused on state diplomacy. It is clear how globalization has, in some ways, changed diplomacy, but it has not replaced diplomacy in any way.

Conclusion

The ability to practice diplomacy is one of the defining elements of a state, and it is no doubt that diplomacy has been practiced since the formation of the first city-states or humanity itself as already discussed. Originally diplomats were sent only for specific negotiations and would return immediately after their mission concluded. Today, however, with globalization that comes with interconnectedness and easy access and receiving of information, permanent diplomatic residences and embassies have been established.

In the past, diplomats were usually relatives of the ruling family or very high rank to give them legitimacy when they sought to negotiate with the other state. This has not changed much since a diplomat must still be a trusted ‘friend’ of the sending state.

The current phase of globalization has created unprecedented progress of communication, information, and technology which has resulted into the interconnectedness of the global economy, political, and cultural aspects of states thereby making the means of movement of people and products easily accessible. As a result, non-state actors have emerged on the scene of global governance and diplomacy in both national and international levels.

The non-state, like non-governmental organizations, multinational corporations, journalists, actors, have acquired a considerable amount of influence by putting to light global concerns and shortfalls of the state actors. This development is responsible for the recent evolution of the alteration of the methodology of diplomacy.

With the discussion above, it is safe to argue that the nature of old-fashioned diplomacy remains somewhat intact, and globalization has only affected and changed the methodology. If one only limits diplomacy to sharing of information, then there's no doubt in that way, globalization has changed diplomacy. However, it should be noted that diplomacy goes beyond the sharing of information. It should, however, be noted that the basics of the old-fashioned diplomacy go beyond sharing of information, they require knowing 'each other' through negotiations and other peaceful means. Such concepts are indeed still intact. Thus, globalization has only changed the methodology and conduct of diplomacy but not its nature as stated above.

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The Measurement of Budget Outlays of Local Government Units for Removing the Natural Disasters' Effects – A Case of Polish Municipalities

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ABSTRACT: The aim of the paper is the measurement of budget outlays of local government units for removing the natural disasters' effects in Poland at the local level of municipality in years 2008-2017. Authors formulated a hypothesis: It is possible to measure the budget outlays of local government units for removing the natural disasters' effects at the local level of municipality. Authors posed the research question: How should we measure the budget outlays of local government units for removing the natural disasters' effects at the local level of municipality? The spatial range of the subject of research covers the area of Poland. The time span of the research concerned the years 2008-2017, which is a common period for all selected features. Data analysis was based on index analysis from the group of statistical methods and cartographic method – cartogram. Cartograms were generated in the QGis 3.6.3 program. The objective of the paper was attained. The carried out analysis made it possible to answer positive the research question. This allowed to test positively the hypothesis. Constructed indicator enabled the measurement of the relation of budget outlays of local government units for removing the natural disasters' effects to the number of citizens of municipalities in Poland. In opinion of authors, the indicator should be applied in other countries. This issue requires further research at the local level of municipality.

KEYWORDS: finance, outlay, local government, natural disaster, recovery, measure, indicator, municipality

Introduction

According to EMDAT, a disaster can be defined as a 'situation or event, which overwhelms local capacity, necessitating a request to national or international level for external assistance (...) An unforeseen and often sudden event that causes great damage, destruction and human suffering. Though often caused by nature, disasters can have human origins'(EMDAT 2019). Thus, disasters resulted from natural beginnings are often called 'natural disasters'(Abbott 2009, Alexander 1999, Piepiora 2012).

Only in years 2007-2018 in the World occurred 3765 natural disasters. In examined period dominated floods (1523) and storms (1008). In Europe happened 421 natural disasters in this time. In Poland located in the center of Europe occurred 21 these kind of phenomena: 11 extreme temperatures, 6 storms and 4 floods. These 21 events affected over 100 thousand people and caused damages estimated to more than 3.5 billion US dollars (EMDAT 2019).

In the conditions of budgetary constraints, the shortage of financial means becomes a problem, so increasing the efficiency of removing the natural disasters' effects in Poland should be primarily of interest of the state and its citizens (Piepiora 2019).

The aim of the article is the measurement of budget outlays of local government units for removing the natural disasters' effects in Poland at the local level of municipality in years 2008-2017. Authors articulated a hypothesis: It is possible to measure the budget outlays of local government units for removing the natural disasters' effects at the local level of municipality. Authors formulated the research question: How should we measure the budget outlays of local government units for removing the natural disasters' effects at the local level of municipality?

Background

Economic efficiency is used in the literature of the subject in many contexts as allocation efficiency, cost efficiency, production efficiency, health care efficiency, investment projects efficiency and exchange efficiency etc. (Becla et al. 2012, Begg et al. 2005, Black 2003, Czechowski 1997, Kachniarz 2012, Krugman i Wells 2012, Mankiw i Taylor 2009, Milewski i Kwiatkowski 2016, Samuelson i

Nordhaus 2009, Stiglitz and Rosengard 2015, Varian 2006, Weiss 2002, Leibenstein 1966, Rutkowska 2013, Kasprzyk 2015, Kryk 2003, Smith 1776, Pareto 1935, Bergson 1938, Hotelling 1938, Kisielewska 2005, Panzar i Willig 1981, Panzar and Willig 1977, Piepiora 2019).

Until the end of the XIX century, leading economists such as A. Smith (1776), D. Ricardo (1817) czy J. B. Say (1803) were convinced of the unlimited resources (Kryk 2003). The slightly different views expressed J.S. Mill (1848) i T.R. Malthus (1798). At the beginning of the 20th century V. Pareto [1935] basing on the theory of the 'invisible hand of the market' created a new concept of the welfare state. He pointed out the conditions of optimal allocation of resources which maximizes the prosperity of the entire economy – in the economy there is such allocation of resources which makes it impossible to improve the situation of any economic participant without simultaneously worsening the situation of at least one of the participants (Pareto's optimality principle) (Kasprzyk 2015, Kryk 2003, Smith 1776, Pareto 1935). In the year 1996 H. Leibenstein (1966) showed that in addition to efficiency in the sense of Pareto (1935), there is another type of efficiency and presented an efficiency concept type X which examines whether the company uses the available and disposal production factors in the most cost-effective way (Rutkowska 2013, Piepiora 2019).

However, due to the lack of data on the effects of natural disasters in BDL GUS, the measurement of budget outlays of local government units for removing the natural disasters' effects can be defined as the relation of measures spent for removing natural disasters' losses in municipalities to the numbers of citizens of each administrative unit.

Materials and methods

The spatial analysis covers the territory of Poland. The time period covered the years 2008-2017. It was a common period for all selected features.

The issues raised justified the use of an evidence-based test method. The research process was divided into two stages – analyses with deductive reasoning and synthesis with inductive reasoning. The index analysis from the group of statistical methods and cartographic method – cartogram were used to do the data analysis. It is worth noting that the cartogram is a quantitative method. It served to present the tested efficiency. Cartograms were created in the QGIS 3.6.3 program.

The method of examination of documents was used to collect source materials. In the conducted research, secondary and external sources were used. The external, secondary source of information was data from the EMDAT and the BDL database of the Central Statistical Office. The EMDAT database contained features concerning on occurrence and effects only on international and national level. The BDL database enclosed data on the number of citizens in Polish municipalities and the budget outlays of local government units for removing the natural disasters' effects. It is worth noting that the Local Data Bank of the Central Statistical Office don't aggregate the features concerning the removal of natural disasters' effects according to the type of natural disaster.

Results and discussions

The first map presents the Polish municipalities and municipalities with county rights according to numbers of citizens in the year 2017. As we can see, dominate huge cities such Warszawa, Kraków, Łódź, Wrocław, Poznań, Gdańsk, Szczecin.

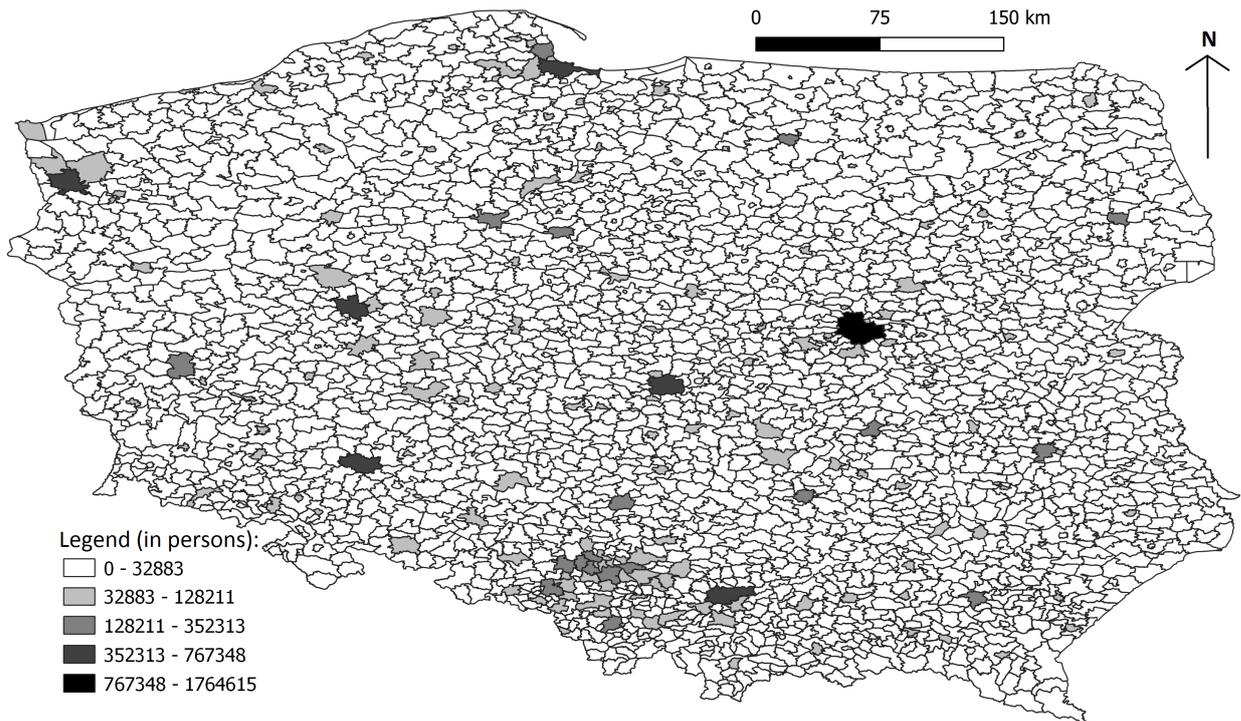


Figure 1. Number of citizens in Polish municipalities and municipalities with county rights
 Source: elaboration based on (BDL GUS, 2019)

The second map shows the measures spent for removing natural disasters' losses in Polish municipalities and municipalities with county rights in 2017 USD. As we can see, the largest amounts were noted in municipalities and municipalities with county rights in the south-west and south-eastern parts of Poland, and in the capitol city – Warsaw. It compares mostly with the area of the great flood that affected the examined country in the year 2010 and with the presence of flash floods and storms.

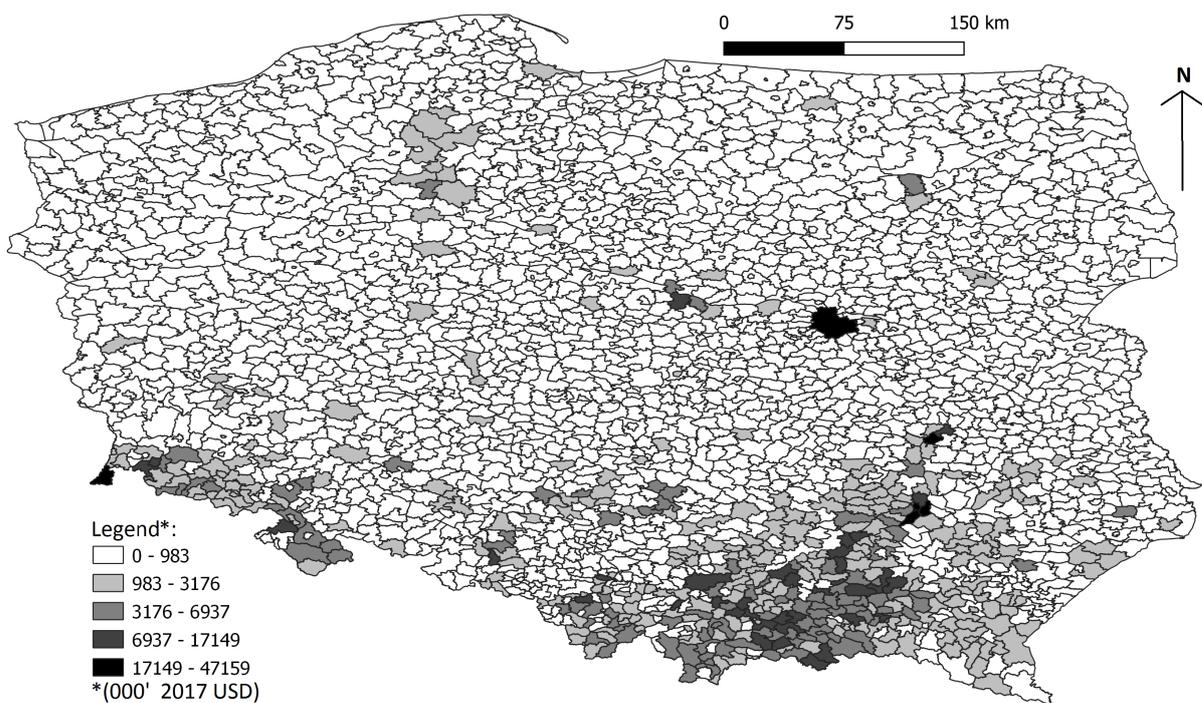


Figure 2. The measures spent for removing natural disasters' losses in Polish municipalities and municipalities with county rights in years 2008-2017 in 2017 USD
 Source: elaboration based on (BDL GUS, 2019)

The third map presents the measures spent for removing natural disasters' losses in Polish municipalities and municipalities with county rights in years 2008-2017 in 2017 USD divided by the numbers of citizens of each administrative unit in 2017. The map 3 is similar to the previous map.

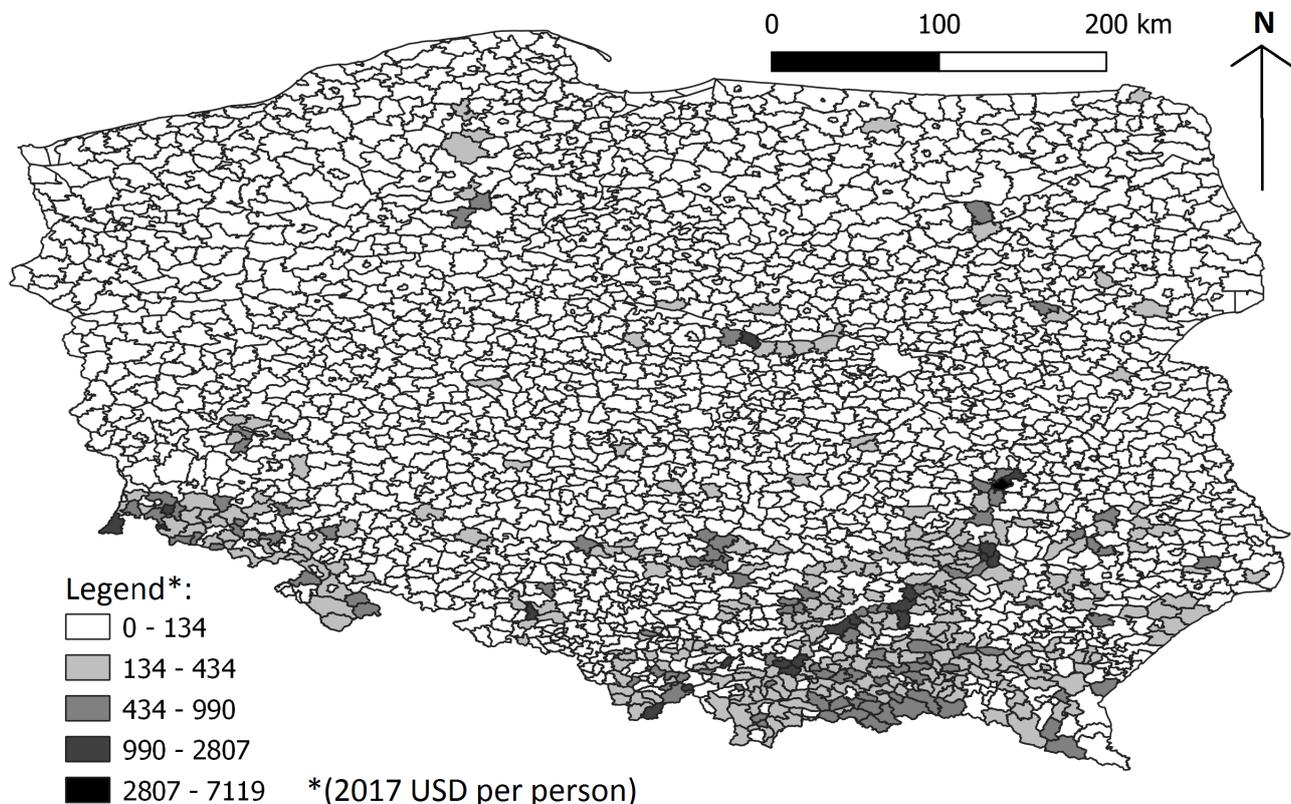


Figure 3. The measures spent for removing natural disasters' losses in Polish municipalities and municipalities with county laws in years 2008-2017 in 2017 USD divided by the numbers of citizens of each administrative unit in 2017

Source: elaboration based on (BDL GUS, 2019)

Conclusions

The objective of the paper was attained. The carried out analysis made it possible to answer positive the research question. This allowed to test positively the hypothesis. Constructed indicator enabled the measurement of the relation of budget outlays of local government units for removing the natural disasters' effects to the number of citizens of municipalities in Poland.

In opinion of authors, the indicator should be applied in other countries. It is also necessary to specify in the EMDAT the data at the local level of the municipality. According to authors, it is necessary to specify in the Local Data Bank of the Central Statistical Office the features concerning the removal of natural disasters' effects according to the type of natural disaster.

It is also necessary similar activity to do by this institution – to start aggregating data in the Local Data Bank of the Central Statistical Office in Poland regarding the damages caused by natural disasters, specifying by years, phenomena and municipalities. However, this issue requires further research at the local level of municipality.

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Poor Results in the Evaluations of the Programme for International Student Assessment (PISA) and the Unsuccessfulness in the Evaluation of Public Policies for Education

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ABSTRACT: The news on Brazil's low ranking in each edition of the Programme for International Student Assessment (PISA) tests creates intense debate about the quality of education in the country, portrayed by the mainstream media, whose discourse will be analyzed herein in order to exemplify contradictions that may become obstacles to the improvement of these indicators. What prevails is an interpretation of the results of standardized educational assessments that holds students (and by association their teachers and their schools) accountable for the poor results in these tests. Although progress has been made in terms of democratizing the entrance of the Brazilian population in schools, said approach compromises students' possibility to remain in school, as well as their access to a quality education through an educational policy perspective that prioritizes social reception to the detriment of the commitment with knowledge transmission. In the discourses analyzed in this work, we notice there is no emphasis on the fact that international assessments, such as the PISA, should be used to measure the efficiency of a country's public policies for education instead of individuals. When one simplifies the analysis of these assessments' results through a discourse that stresses only the measurement of students' performance, one obliterates the Government's duty to ensure quality education. Said movement is justified by a psychologizing interpretation of human development as a mechanism for segregation and pedagogical exclusion.

KEYWORDS: assessment, education, public policies, PISA, academic performance

Introduction

The disclosure of the data analyzed in each edition of the Programme for International Student Assessment (PISA) in Brazil is widely covered national press. When we search for news headlines in newspapers or other digital platforms on the subject, we find emphasis on the poor results obtained by Brazilian students, such as: "*Brazilian students perform poorly, According to Pisa*" (Record TV 2018), "*Brazilian students will take 260 years to reach rich countries' reading index, says World Bank*" (G1 2018), "*Emotional unpreparedness can jeopardize Brazilian students as much as lack of knowledge*" (Idoeta and Guimarães 2018), "*Brazilian students like science, but are overwhelmed by its content*" (Righetti 2016).

The reading of these texts leads to individualizing a complex issue; the body of such articles has many references to a supposed cognitive demotion of Brazilian students, which would result in their poor performance in the programme, and ultimately be related to the limitations arising from low socioeconomic conditions. However, paradoxically, little or no question is asked about the public policies implicated in the poor performance of our students, which directly impact the quality of the education offered. How can students be assessed on content and concepts not taught to them? We will seek to highlight in this paper how standardized assessments such as PISA should produce indicators for policy making and school management; and an ambiguous speech in the documents produced by the Organization for Economic Co-operation and Development (OECD) gives room for the overriding accountability of students (their families, their teachers) for school failure, silencing and exempting the State from the duty, secured by law, to provide conditions for access to quality education for all citizens.

Pisa and the evaluation of education systems (and not student evaluation!)

In the document PISA for Development Assessment and Analytical Framework: Reading, Mathematics and Science (OECD 2018a) we find that PISA is an indicator of a commitment made

between OECD member and partner countries to monitor the result of education systems (and not the cognitive capacity of students from different countries ...) and facilitate the sharing of political actions. According to the text, PISA's focus should be on building the capacity of participating countries to implement large-scale international education assessments, using their results to support evidence-based policies.

We highlight how much Pisa's results should be interpreted to support the assessment of a country's education policies. On the website of the Brazilian Ministry of Education (MEC 2019) PISA's goal is described as follows:

Pisa's goal is to produce indicators that contribute to the discussion of the participating countries' education quality to support policies which improve primary and secondary education. The assessment seeks to ascertain to what extent the schools of each participating country are preparing their youth to act as citizens in contemporary society.

However, on the same platform, we find PISA defined as an “International program that assesses the *capacity of Brazilian students*” (MEC 2019, emphasis added). In fact, in the various tabs of our Ministry of Education's digital platform dedicated to PISA, there are no documents that analyze Brazilian educational policies and correlate them with the results obtained in the evaluation. There are, however, reports on student performance and a discourse on the importance of developing several skills and competencies, which would improve exam results. We think there is an implicit premise here that understands such skills and competencies from an innate developmental perspective, in a bio-psycho-maturational logic, unlike the historical-cultural approach advocated by theorists such as Vygostky (1999), who establishes a correlation between intrapsychic development derived from interpsychic relationships, in which development would originate from learning processes.

PISA's creators understand that the exam should be a demonstration of what citizens in different countries know, and how they apply and extrapolate the knowledge passed on to them, going beyond its mere reproduction. However, how can one apply and extrapolate knowledge in a context such as ours in Brazil, where, for example, many high school students spend months in school without a math teacher? Or are systematically dismissed from classes because of a lack of teachers? Or who can't attend school because it lacks water or toilet paper? How can we measure extrapolated and applied knowledge in a context where learning is absent or fragile? Our education system is divided and uneven, with a few students from socially and economically advantaged families being able to attend high-tuition schools focused on knowledge transmission and use of technological resources, while the majority of the population attends public schools associated with poor educational quality.

Brazil in PISA

In the 2015 edition, of the seventy countries that participated in PISA, Brazil ranked 63rd in science, 59th in reading and 65th in mathematics. In the OECD documents on the indicators of our country in Pisa (OECD 2017) we find that *students'* performance (and not Brazilian educational policies!) is below the average of students from countries associated with the OECD in the three areas that make up the evaluation. In spite of the increase in annual spending per student in Brazil (US\$ 3.8 thousand, although the average spending of OECD member countries is almost threefold; US\$ 9.0 thousand), this increase did not significantly impact students' exam results and increase in learning, which leads us to conclude that such investments have not been applied to effectively improve teacher training policies and enhance teaching practices.

The alleged democratization of school access in Brazil brought the great advantage of virtually universalizing enrollment of school-age children and adolescents, especially from a portion of the population in an income class that for years has been left out of school. However, we still face many challenges; the main one is that access to school is not the same as access to knowledge through education.

We still face high grade repetition rates (36% of 15 year olds have repeated at least one grade), and high levels of reproduction of social inequalities in school, in an education network divided into public and private, with many discrepancies in the quality of education offered in different institutions. There is also a large gap between the age of students in relation to the grade attended, many difficulties of concrete conditions and educational resources to perform pedagogical activities.

All these aspects are indicated in the reports presented by the OEC/MEC on Brazil's performance in PISA, but are not evident when the results are analyzed, ultimately leading to focus on the approach that bad indicators would be a consequence of the intellectual inability of our students (as if the conditions mentioned above did not have a significant impact on student learning).

The silencing and exemption from a public discussion on the evaluation of public education policies in Brazil comprise a perverse mechanism that blames individuals for the failure of State educational programs, as expressed, for example, in the statement of students, in a newspaper article we analyzed:

After learning about the existence of Pisa, **the selected students said they were anxious**. "It makes me proud, but it also is very big responsibility," said Isabela Jesus, 15. "If the grade drops this year, **I'll be kind of upset because I'll think I'll have contributed to it**," adds schoolmate Leticia Prado, also 15 (R7 Educação 2019).

Isabelas and Leticias and so many young people who take the PISA every three years (as well as many teachers) are unaware of the exam and its purpose, but are affected by the insistence on the association between Brazil's performance in the exam and the supposed low cognitive ability of our students. However, as we will discuss further on, the construction of cognitive tools allied with affective energy depends strongly on educational processes. The skills and competencies tested in (standardized or non standardized) assessments are not innate or spontaneous, but rather built on the dynamic between learning and development. But we insist: there is no epistemological construction without education!

The OECD document in conjunction with MEC (OECD, MEC 2016) provides an overview of the "strengths and weaknesses of Brazilian **students** in PISA 2015" (p. 51), and a certain tendency to consider student's "prior knowledge" as a crucial element for conducting the exams, but in a spontaneous manner, and that obliterates the importance of education. "The reader produces meaning as a reaction to the text, using prior knowledge and textual and situational clues that normally derive from his or her society and culture." (OECD, MEC 2016, 93). In addition, we cannot fail to indicate that the very small use of public spaces and cultural apparatuses by children and adolescents from disadvantaged socioeconomic conditions makes it difficult for our students to learn even in non-school contexts.

We understand that PISA's creators assume a (implicit?) premise that education took place, so students (and the educational policies of their countries) could be evaluated under similar conditions in different countries. However, in the case of Brazil, the very document produced by the OECD/MEC affirms the fragility of the educational processes, which would put our students in a different condition when compared to students from other countries, especially those that showed the best indicators in the evaluation:

The level of difficulty shown by Brazilian adolescents in items whose texts represent educational situations suggests that our schools, **generally speaking, do not develop systematic work with the didactic genres**. On top of that, **schools have not yet assumed that teaching how to read - as well as how to write - must be a commitment of all areas**. Therefore, it is not enough for Portuguese language teachers to invest in reading taking into account personal, public and occupational variables. Students need to also be able to read texts from an educational perspective. By building this skill, they can read to learn (Sticht, 1975; Stiggins, 1982 apud OECD, 2016) at school and throughout life (OECD, MEC 2016, 108, emphasis added).

If almost all school-age Brazilians attend school, but most do not know basic mathematical operations, have little notion of scientific concepts and do not interpret written texts, we should ask ourselves; what is the function of schools in Brazil? Libâneo (1992) states that in our country our schools predominantly provide knowledge for the rich and fulfill the function of social assistance for the poor, at the expense of the commitment toward the transmission of knowledge.

Results and discussions

One of the main missions advocated by PISA is that evaluation should "help governments shape their education policy" (OECD 2018c) in order to promote equity in education.

Equity is understood here as the effort of education systems and their schools to promote equal learning opportunities for all students, regardless of their backgrounds. We should highlight here that seeking to control the learning variable once again individualizes and psychologizes a dimension that can hardly be inferred. We think that the issue of equity in education should, in turn, be guided by the promotion of **equitable education opportunities and access to knowledge** for everyone. We cannot guarantee that a student will learn, but we can affirm that without education the learning process is possibly compromised.

Equity as a core value should guide education policies with respect to individual, social, geographical, political, cultural and economic differences, but strictly with respect to the commitment that regardless of differences any student can have access to knowledge. According to the guidelines proposed for PISA's next versions, such access to knowledge occurs not only at school, but also through cultural, social, religious, political and economic apparatuses that impact schooling. In this sense, there is the recognition that educational policies should invest in expanding socially (and culturally) inclusive environments, the quality of education, the time students have for learning and the material resources that mediate the access to knowledge.

On the other hand, following the logic of the dual discourse that we have criticized in this paper, such crucial aspects pointed out in the documents prepared by the OECD are weakened and diluted in the emphasis given to meritocracy, translated above all into the concept of resilience. Such discourse gives rise to the idea that students, despite their poor social, economic, cultural, and educational conditions, should “strive” hard to overcome such difficulties. The document analyzed (OECD 2016) even uses the expression “social resilience”, eliding the social dimension through a psychologized perspective.

PISA's results illustrate global social, economic and political inequalities. They show the fragility of democratic systems, as in the case of Brazil, where everybody is equal in the eyes of the Law, but some are more equal than others (Orwell 2018 [1945]), especially those who can pay (a high amount) for quality education. Evidently the fact that our students now have access to school does not imply that they have access to knowledge. There is no fairness of opportunity in Brazil, as reflected in our low social mobility, which is by no means just a matter of merit.

Through questionnaires answered by the students who took the exam, there was also the aim to identify how psychological well-being affects their performance and their (professional) future expectations. Not surprisingly, it was noted that students designated “to be in social and economic disadvantage” express lower psychological well-being, and since “students' career expectations reflect their psychological well-being” (OECD 2016, 187), the conclusion is that these disadvantaged students (as is the case of Brazilian students) dream little about a socially valued career, and this condition produces psychological distress and a certain demotivation that would impact assessments' results. But how to build dreams with so few tools and contents? (Many students from Brazilian public schools are unaware of the existence and means of entry into competitive and renowned public higher education institutions in Brazil (in our country, many students from public universities are graduates of private primary and secondary schools). For further details, refer to the example of a project to include students from public schools in the University of São Paulo (<https://pt-br.facebook.com/CUCoUSP/>).

We understand to be a trigger of anxiety and psychological distress a situation in which a student is required to perform well in an assessment whose content was not taught to them, an action that in turn compromises the construction of the very psychological structures required in the exams. Therefore, we understand once again that despite the recognition of how social, cultural, political and economic conditions interfere with students' performance in the exams, it reinforces the idea that such difficulties are intrapsychic when affirming for example that “student resilience - the student's capacity to overcome barriers and adversities that typically hinder learning processes and outcomes - is a key issue for both equity in education and social mobility” (OECD 2018d, 98).

But how to overcome such barriers? Only with “willpower?” In this sense we affirm that it is impossible to think of resilience as a subjective condition without offering concrete social, cultural and pedagogical elements through which such psychic action can be supported.

The lack of a thorough and widely publicized evaluation of public education policies contributes to maintain psychologizing mechanism for understanding schooling processes, individualizing and

reducing the complexity of the analysis of such issue. Paradoxically, the lack of commitment to the quality of education compromises the consolidation of what Vygotsky (1999) designates superior psychological structures.

This author states that it is through education, through the transmission of scientific concepts that the most complex psychological structures are constituted. No concept can be taught by simple training; learning is the result of a series of psychic operations of appropriation through language, the result of the establishment of relationships between signs and meanings. Vygotsky affirms that school learning anticipates and enhances psychological development through “vigorous mental activity on the part of the child” (Vygotsky 1999, 107). Scientific knowledge taught at school aims to develop mental operations, reflective consciousness and the deliberate control of thought. Unlike spontaneous knowledge, thanks to the understanding of scientific concepts there is the expansion of a child’s power of thought, through greater attention that becomes increasingly deliberate and voluntary, and the use of a memory that becomes less mechanical and increasingly driven by meaning, and is used intentionally by children.

Vygotsky says that “the consciousness of being aware” (Vygotsky 1999, 114) is synonym of thought, and an action potentiated during schooling, where “school learning induces generalized perception, thus playing a decisive role in raising a child’s awareness regarding their own mental processes (115). Therefore, it is through educational processes, along with the learning of content, concepts and theories of different disciplines that a student develops “mental faculties in general, as well as specific skills” (116).

The psychological functions required in standardized assessments are not spontaneous but rather dependent on educational processes. There is a Brazilian song by Djavan called “*Esquinas*” (Street Corners) with a verse that illustrates well the origin of the uneasiness caused by the disclosure of such exams’ results, and which translation is: “Do you know what is not to have something, but needing to have it to give?”. The evaluation indicators of Brazilian public policies will not increase significantly as long as such policies are not committed to the right to education based on the principles of equal conditions for access to knowledge and attendance in school, as guaranteed in our Federal Constitution (Brazil 1988).

Conclusions

There is a consensus between the documents produced by the OECD and the analysis produced in this paper showing that countries with the best results in PISA deliberately and consistently choose to prioritize teacher appreciation policies.

Such policies relate to teacher training, career planning, salary bonus, as well as continuing education, programs to encourage young people to become teachers, and projects to attract good teachers to more “challenging” contexts and classes.

We understand that standardized assessments such as PISA should be used to provide opportunities for students to learn, through public policy adjustments rather than as a psychometric tool that assesses individuals, which consequently does not contribute to fighting against unequal opportunities for access to knowledge.

The poor results obtained by Brazil in PISA indicate the low appreciation given in our country to educational processes (which, unfortunately, is considered as a luxury commodity, preferably offered in private institutions). The recurring complaint regarding the poor quality of Brazilian public schools and the poor performance of the students who attend it hinders the perception by students themselves, teachers and families that access to quality education (and not only to school) is a right acquired by Law in Brazil. This right is considered subjective, and any person or institution that feels harmed in relation to it can and should bring legal action against the State, claiming such right (Bautheney 2014). Unfortunately, this perspective of quality education as a subjective public right is unknown to a large part of the population, who conform to low quality education, in a context of submission that is so peculiar to the Brazilian people.

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The Role of Traditional Knowledge in Indian Management Education

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ABSTRACT: This paper investigates various roles that traditional knowledge can play in Indian managerial education. As it is shown in previous studies, Indian management schools in general and Indian MBA programs in particular lead Indian prospective entrepreneurs toward different sorts of entrepreneurial activities. Although new managerial education in post-cold-war India which mostly endorses entrepreneurship are not bounded to bureaucratic and industrial capitalism, Indian management education is still largely influenced by western and particularly American management schools' structures and syllabuses. According to such scientific management, unlike modern knowledge which is highly entrenched in rational modes of production, traditional knowledge has been confined to pre-capitalist modes of production and distribution of commodities. Still, new movements for reintegration and revival of traditional knowledge in Indian managerial education pretend that India can largely benefit from its traditional treasures for economic boosts. Thus, the conjunction point of modern managerial education and Indian traditional knowledge remains in new types of leadership as well as genuine entrepreneurial skills which are raised and developed by some of Indian managerial scholars. These novel ideas implicate the need for what is called "spiritual leadership" as well as tradition-based projects in Indian entrepreneurship. As such, I will explain in this paper, the ways by which Indian traditional knowledge can intrigue Indian managerial education in numerous ways, both in elite and popular levels.

KEYWORDS: Sociology of managerial education, India, Indian traditional knowledge, Indian management studies, Business schools, Management education, MBA education

Introduction

In social and human sciences, it has mostly been supposed that there exists a contrast between traditional knowledge and modern one in human and social sciences. Still, referring to historical studies, I believe that this distinction is more of socio-historic construction than an objective one. As Sengupta (2019) illustrates, the frontiers between traditional and modern knowledge are more of labels and socio-historical definitions than objective elements. Consequently, he investigates the roots of such distinctions and shows how they might compromise in different situations particularly in entrepreneurship. He believes that developing entrepreneurial ideas based on traditional knowledge might significantly support economic growth in India. Thus, inspired by Sengupta and other researchers' reflections, examining such possible compromises between the modern and the traditional in contemporary Indian management education will be the basis of my discussions in this essay.

Accordingly, I will further define the role of traditional knowledge in modern Indian managerial education. I will firstly discuss the dominant economic paradigm in postcolonial India and then, I will talk about the manners by which various types of Indian management schools may exploit vast opportunities that traditional knowledge opens to them in order to justify their performances and maintain their pertinence in Indian economic development. In this regard, I will distinguish between elitist management institutions and the more popular ones in order to see different paths each type can take to benefit from traditional knowledge. As I will show, although elitist institutions focus mostly on leadership talents, the more popular management institutes may benefit mostly from students' networks and tradition-based skills to support entrepreneurial projects.

Traditional knowledge in Indian managerial education

Economists generally differentiate several stages of growth in post-independence Indian economic transitions. However, from a sociological viewpoint I believe that the very paradigm of Indian economic development remained the same since the Nehru era, and that is economic and social expansion of small private sectors by promoting entrepreneurial projects. That said, these projects have largely been considered as *attached* to modern knowledge and technology. Even though traditional knowledge and traditional modes of production have been crucial in Indian economic mutations, they could not find their deserved place in Indian entrepreneurship. Here it should also be mentioned that the latter finds its roots even in pre-independence era. Suspicion of independence leaders like Gandhi and Nehru about rapid and intense state-led industrialization had huge impacts on leading Indian economic policies towards more support for entrepreneurship and light manufactures. Consequently, during 1950s and 1960s Indian leaders categorically rejected American theorists' propositions for rapid modernization of economy toward a 'high mass consumption' society (as prescribed by Rostow 1990); although, such theories were largely accepted by several developing countries such as Iran - during 1950s and 1960s) and South Korea (during 1960s and 1970s) (Gilman 2003).

What mentioned in the previous paragraph brought later Indian managerial elites to discuss further about exploiting novelty ideas for the sake of entrepreneurship development in the country especially Indian traditional knowledge. In their views, such knowledge can coexist with modern elements in particular situations. As Sengupta (2019) argues, although traditional ways of human living in India have been more or less in harmony with its cultural and social roots (i.e. its traditional ways of being), induction of modern elements has more or less perpetuated conditions of human being in the country. As an example, Sinha et al. (2004) show that "the local traditional construction practice had adapted earthquake-resistant technologies, which are now being lost due to the induction of modern materials and construction techniques in these areas without addressing the seismic safety of modern construction" (Sengupta 2019, 69). Understandably, Sengupta proposes a revival movement towards application of traditional knowledge in modern Indian entrepreneurship on a case by case basis.

Considering what stated above and based on Sengupta's investigations (2019), I can mention five major domains of traditional knowledge which can significantly contribute in modern Indian economic mutations: *architecture, housing, irrigation, medicine* and *folklore heritage (including yoga practices)*. Besides, Sengupta identifies four Traditional Cultural Expressions (TCE) of each type of traditional knowledge including *Materials* (e.g. handicrafts), *actions* (such as performances), *verbal expressions* (such as poetry) and *written expressions*. While all of these forms of TCEs are present among the five aforementioned categories of traditional knowledge, each may be dominant in a specific category. For example, verbal expression is more present in medicine than in architecture and written expression is more dominant in mythology and history. That said, the question remains on how Indian entrepreneurs will identify and work on novel opportunities engendered by these five traditional domains on the basis of their expressions? What role might Indian business/management schools play in that regard and how can they train new Indian managerial generations for that sake? In what follows, I will elaborate this issue, but before that, I will briefly talk about the eminence of opportunity recognition skills among management students and important place that traditional knowledge may have in that matter.

As Shepherd and Patzelt (2018) argue, there are five themes related to opportunity recognition in entrepreneurship: *prior knowledge, motivation, attention, identity, and emotion*. Thus, although education is vital in shaping prior knowledge among future entrepreneurs, the four other themes are mainly formed during a broader process of socialization and integration of entrepreneurs in communities and networks of colleagues and activists. In the same way, Indian management schools in general and MBA programs in particular play a key role in direction of future Indian entrepreneurs towards various sorts of entrepreneurial activities. Consequently, traditional knowledge may be categorically and paradigmatically used in various types of Indian management institutions not only based on apprenticeship but also by benefiting from wider range of human

experiences such as motivations, identity construction, and emotions. Each of these three elements are vital for opportunity recognition in a diverse context like Indian one: extensive motivations diversify entrepreneurial activities; identity construction further motivates individuals to develop their own projects and networks; and emotions can boost and consolidate human relations during entrepreneurial works and thus, they may open new opportunities to involved individuals.

As we stated previously and many Indian scholars also pointed out in their recent reflections, new waves of revival for Indian tradition knowledge could play a key role in developing opportunity recognition competences and thus, transforming managerial education in the country so that it would be more in line with its needs. Accordingly, Shepherd and Patzelt's discussions on opportunity recognition (2018) help us to better orient our debates on divergent approaches on the role of traditional knowledge in Indian managerial education.

Before elaborating more details, I should distinguish at least between two general levels of managerial education in India. The first one englobes the *elitist level* which consists mainly of state-run institutions that attract the best candidates in the country. The other one could be labeled as *popular level* which contains normally private institutions which are more inclined to lecture based education. Although elitist Indian management schools tend to benefit from the traditional knowledge as a tool to develop entrepreneurship skills, the popular ones seem to be more inclined to use the aforementioned knowledge as a pretext to increase new grounds for entrepreneurial projects such as those in agriculture and arts. Thus, I will further distinguish between these two categories of management institutions regarding their use of traditional knowledge.

Elitist institutions

As stated above, elitist institutions are mostly the ones that are financed by the central government and attract the best talents from all India. An essential conjunction point of modern managerial education and traditional knowledge in these institutions remains in new types of leadership raised by some of Indian managerial scholars and developed more or less in such schools. These novel ideas implicate the need for what is referred to as “spiritual leadership” in Indian entrepreneurship. As Parthasarathi and his colleagues mention: “spiritual leadership comprises of the values, attitudes and behaviors that are necessary to intrinsically motivate one's self and others so that they have a sense of spiritual survival through calling and citizenship” (Parthasarathi, Rao, & Reddy 2016, 6). In the same vein, Mahadevan (2012) insists that working climates based on “psychological contracts” should replace classical forms of work based on hierarchical orders. Referring to Bhagavad Gita (2008), he believes that future entrepreneurs should develop the principle of “mutual dependence” as they go through management education. That said, development of such competences among MBA students seem indispensable for opportunity exploitation in entrepreneurial projects based on traditional knowledge. In conjunction with Shepherd and Patzelt's arguments (2018) about opportunity recognition, one can pretend that “spiritual leadership” as it is defined, may largely ameliorate involved persons' motivations, attentions, and positive emotions in the workplace.

Consequently, genuine leadership ideas and tactics can largely be derived from Indian cultural heritage. In this sense, “inspirational leadership”, as some Indian scholars talk about, might significantly boost entrepreneurship based on traditional knowledge. Even though many western sociologists believe that traditional way of thought and being are incompatible with modern education, inspirational leadership (particularly feeling the necessity for making difference and progress in the world) could prove the opposite. Along the same line, I believe that Indian epical and mythical world could largely be in compromise with modern and even post-industrial world through encouraging the individuals towards inspiration, hope and respect for the others in situations of difficulty and challenges. In the contemporary sphere of work, full of uncertainties and anxieties, such competences are vital for professional success.

Popular institutions

In contrary to elitist institutions, popular Indian institutions (which are normally private ones) may go through different path to integrate traditional heritages into managerial education. In this essay, I will talk about two of the most effective ways by which such institutions may benefit from these heritages.

The first one would be inducing Indian management students to engage further with local communities who work on entrepreneurial and light manufacturing projects. It is supposed that students in popular institutions are more likely to be in touch with local communities and light manufacturing sectors especially because they socialize with other students with similar cultural and geographical background during their studies. Therefore, they could significantly aid these local productions growing their market and networking opportunities in India and beyond. As new Indian managerial generations are more entitled to benefit from information technologies (ITs) and have a broader social network than previous generations, they could fill the gap of marketing issues and technology needs for such local productions. Moreover, these students construct a network among themselves which may definitely be precious if local communities are involved. Aforementioned networks are supposed to be mostly regional ones but they can definitely be broadened by networking strategies.

Besides, I assume that introductory involvement of various aspects of Indian traditional knowledge (especially medicine, folklore heritages and gastronomy) within the course outlines in order to better equip future local entrepreneurs with necessary knowledge and talents to recognize business opportunities in more traditional contexts may be helpful for these potential entrepreneurs. Although, graduated individuals of popular managerial schools may not be necessarily hired by the top manufacturing and distributing organizations, they could certainly assist and even promote entrepreneurial ideas inspired by traditional heritages. As I said at the beginning, traditional knowledge is not forcibly the one that belongs to the past; it could also resolve various modern issues and challenges. The later may not be overcome simply by preemptive prescriptions, and they could be further solved by longstanding packages of traditional heritages.

Conclusion

While new managerial educations in post-cold-war India are not bounded to bureaucratic and industrial capitalism, Indian management education is still largely influenced by western and particularly American management schools' structures and syllabuses (Thakur & Babu 2016). According to these structures, the main distinctive feature between modern and traditional knowledge consists of high capacity of modern knowledge for being integrated in material systems of production, and industrial capitalism based on instrumental rationality. In other words, in the opinion of American scientific management, in contrary to modern knowledge which is highly entrenched in rational modes of production, the traditional knowledge has been confined to pre-capitalist modes of production and distribution of commodities. Still, as explained earlier, new educative movements for reintegration and revival of traditional knowledge in Indian managerial education could prove that India can largely benefit from its traditional treasures for economic boosts. That said, it seems that there remains much more time and efforts until the real capacity of Indian traditional knowledge can be discovered and exploited in management institutions. Such efforts need the involvement of scholars and researchers from different disciplines like sociology, psychology, education and even literature. Today's managerial education has proven to need more interdisciplinary approaches rather than classical divisions among educative branches.

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Forensic Methods of Identifying Corpses with Unknown Identity

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ABSTRACT: Finding the truth is the most difficult process, especially in a society that reveals itself as a high-speed field, whose passengers combine good and evil, honor and dishonesty, respect for the law and crime. Identification of dead bodies is one of the most common but complicated activities that the magistrate, criminal investigation dead bodies, criminalist or forensic doctor encounters, because compared to the living people who appreciate both the static signs, the dynamic signs and the functional features noted by different gestures, attitudes, etc. only the static forms and the personal objects on them or the clothing are appreciated in the case of dead bodies. Most procedures claim certain data and information to be compared, such as DNA, fingerprints, dentition, etc., but if they do not exist, comparison with the rest of the population is impossible. To identify a person, the forensic research bodies also found other methods, such as the over-projection method, the reconstruction of the skull physiognomy, the skeletal identification, dental or dental identification.

KEYWORDS: clothes, dead bodies, dentition, DNA, research, skeleton, unknown

Introduction

In the society where we living, personal and national security is very easy to attack, hence the need for more stringent and trustworthy measures to identify and secure our identity. Although in the book of Alexander Dumas - Martin Guerre, identity was established by cunning and confession, in today's world, a simple comparison of DNA would solve the problem, beyond any reasonable uncertainty (Thompson and Black 2007). The process of identifying living or deceased persons, objects or even phenomena related to the illicit deed through forensic methods, with the aim of establishing truthfulness in the judicial process, is the whole of the idea of forensic identification. Victims of accidents or catastrophes, interference by the perpetrator on the dead body, victims of arson, etc. pose other problems in identifying.

It is necessary to have a close and effective collaboration between criminologists and legal medicine specialists for the good process of identification. You must follow certain steps, from which criminals should not deviate for the identification of a corpse of unknown identity (Belis 1995). It should be noted that these are also required in addition to the type sheet with the following elements:

Capture pointing of the body, metric shooting of the corpse in the way it was found, as well as the objects found on it, digital replication, sub-nail collection, hair picking (Thompson and Black 2007). Samples of great significance are biological ones that are high, packaged and sealed for expertise or for preservation.

The exact description of the external signs, particular signs, dentition, garments, and any other objects on the body, all this information is written in the file, then necropsy is made, the blood group, possibly alcoholism, is established.

Clothes, footwear, objects found on the body are subject to forensic expertise.

Overshooting method

In previous decades, forensic anthropology and forensic odontology have played a special role in identifying human remains (Stancu 2017). Technically speaking, this method consists of designing or overlaying the image of the skull to be identified over a photographic image of a missing person, supposedly belonging to the skull. This method was first used in 1960 in Calcutta, India (Cârjan 2001). The special apparatus required for the application of this method is currently held by the National Criminal Investigation Institute. To perform the comparative examination, the skull should be taken in a position similar to that of the reference picture head, which is performed by means of a special device.

The two images overlap on a screen to determine the similarities or differences of the anatomical and anthropometric elements, evaluated as landmarks, the result being fixed by shooting. Thus, the main means of illustrating the anthropologist's findings is represented by a photogram. Electronic image overlay is an improved version of over-projection, based on the electronic combination of unknown skull images and those of the missing person.

Reconstitution of the physiognomy after the skull

A constituent part of the judicial effort as well as a routine necessity is the identification of the identities and the reconstruction of the bodies discovered on the spot, whether it is murder or not. (Cantemir 1969).

Mutilated, dismembered bodies, body fragments, etc. can be found. If the examination of identity papers is not possible, one of the forensic investigator's remarkable weapons is the reconstruction of the physiognomy after the skull.

Reconstitution of the human figure after the skull has to include the case study at an early stage in order to determine sex, age and craniometric, typological or pathological characters, accurately measure all the bones, specify the correlations between them, reconstruct and restore absent bones.

The process of graphical fixation of the skull and the process of graphic reconstruction form the graphic reconstruction, which is designed to follow the design of the soft tissue contours by means of thickness standards, then to reconstruct the graphic or the plastic one.

Drawings will be made on the front skirt, the profile and the top. The particularities of missing persons such as hair, mustache or various objects will be emphasized.

After all these operations have been performed, the skull physiognomy can be reconstituted. If this method is applied correctly, the results of this kind of identification are remarkable, the similarity reaching the degree of perfection in most cases.

Identification of skeletal parts

Identification of skeletal parts or anthropological identification on bone material has as central objective the identification of an unknown deceased person. The osteological forensic expertise carried out by the anthropologist is able to determine whether the osteological traces are of human nature if we are in the presence of a whole skeleton or if the bones belong to more than one person. (Stefănescu 1990). At the same time, data on age, sex, waist and possible illnesses that the person might have suffered during his or her lifetime can be determined. As early as the 19th century, there have been attempts to identify corpses after bone debris, when some data on the duration of bone stay in the earth appeared in the literature.

When certain skeletal debris is found, the specialist, from the first stage of the process, must determine whether the remnants are of human nature. An important role in determining the stature and weight of the deceased person has the bones of the foot or arm.

Long-term bone degradation signs that are under development are expressed by color change, and transverse and longitudinal clefts appear on the surface of the bone.

A good indicator of age is the sternum because it is not a weight support bone and is not affected by birth, which determines the interest in examining how the ribs are attached to the sternum. Pelvic bones help identify sex, men are narrower and deeper, whereas in women the pelvis is wider and deeper (Pășescu 2000).

Identification of the dental system and dental work

The identification of dental carcasses and dental work, also known as forensic odontology, can be defined as the science of dental expertise in the judiciary, an expertise that has a very important place in the identification of persons and cadavers.

Forensic experts frequently use dental and dental work to identify themselves because they retain their properties for a long time and play a decisive role in identifying unknown corpses, decomposed, sheep-blooming, corroded, carbonized or fragmented bodies.

The anatomical and morphological features of the dental system help determine the sex, and the age of the corpse is based on teeth wear criteria. The membership of a species very easily determined,

the human dentition being different from that of the animals. Maxillary incisors are proportionally higher in humans than in mammals, smaller canines than animals, and premolars and molars have rounded cusps separated by distinct ditches. Breed membership is established taking into account certain morphological aspects present in different species (Stimson and Mertz 2000, 53).

Estimation of sex, as the teeth do not show sexual dimorphism, is very difficult to establish. As a peculiarity that might be the difference between women and men is that crown dimensions tend to be higher in males than in females, or it can also be determined by the Y chromosome test. Estimation of age can be made by comparing the stage of development of dentition to a person whose age is unknown, with tables of dental development characteristics for each age.

Identification through portrait photography expertise

Throughout his life, man accumulates a sequence of physiological changes due to his biological, traumatic, medical or surgical interventions such as surgery or maladies - but man nevertheless presents an objective and undeniable individuality. The scientific basis of the portrait photography expertise lies precisely in this invariability and certainty of individuality (Robe 2013).

In applying this method, two categories of signals are used, respectively anatomical or static and functional or dynamic. An important role is played by particular signs, clothing and portable objects whose characteristics make identification easy. (Buzatu 2013 92).

The method consists in confronting a more recent photograph representing the missing person's figure, with the photograph of the body to be identified. Their comparative examination will result in the determination of whether two or more photos represent the image of one person or two different people.

The method consists in confronting a more recent photograph representing the missing person's figure, with the photograph of the body to be identified. Their comparative examination will result in the determination of whether two or more photos represent the image of one person or two different people.

1. Comparing by confronting traits. The most simplified procedure is to perform the comparative examination by placing the pictures side by side, that of the unknown person to the left and the known one to the right. The next step will be to find the common elements of the two photos. Both the differences and the similarities will be retained and described in the final report in the expert report; these items will be marked on both photos. In the case of the dismantled bodies, the body fragments will be photographed separately as well as in their reconstituted form (Leung 2008, 17).

2. Measuring angular values. Represented by a procedure by which tangential lines are drawn to certain fixed elements of the human figure, pre-established before, to the extremities of other elements. Using mathematical calculations and formulas, you will find that the two photos contain the same person's image.

3. Designing common points. Another method involves a procedure whereby the two photographs under comparison and analysis are made on different scales. It is paramount that the images are made from the front plan. The large image will be placed on a sheet of paper at the bottom of the paper, and the smaller one above the first. Similar items in the two photos merge and find out if the two images reflect the same person.

4. The method of grid or square mesh. A line of parallel lines will be applied at equal distances, both vertically and horizontally. These will be marked with figures and letters, which consist of geometric figures in which the elements of the figure or the part of the figure are arranged. The line spacing must be as small as possible to make the analysis as accurate as possible (Fischman 2005).

Conclusions

Truth is the supreme value of knowledge, which gives it a leading role in gnoseology, and its finding depends directly on the identity that is attributed to each person. The purpose of forensic research is to support investigative and judicial processes to detect traces in raw materials, from which there is the possibility of building events and activities. The basis of the forensic activity lies in the principle of the Locard: "Any contacts leave traces". The science of forensics is based on the truth "told" by evidence here,

resulting in a close connection with criminal science. Karl Popper, the philosopher, drew attention to the fact that scientific evidence is becoming more and more important in criminal justice, an evolution that has been determined by the increasing need for their use. The detection of offenders, the identification of recidivists, the detection of criminal offenses and guilt, the determination of the circumstances in which they were produced, and other situations, including those relating to the settlement of civil litigation, necessarily require the identification of both the living person, the deceased and the objects.

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The Effects of Social and Environmental Condition on the Way People Perceive their Body Image and Appearance: Through the Lens of Gender Difference and Mass Media Influence

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ABSTRACT: This research investigates factors explaining the way people perceive their body and appearance and uncovers the intricate interplay of lookism and its underlying factors. Using data from the Ministry of Gender Equality and Family (MOGEF), 917 people whose age 29 or lower were used. For analysis, an independent sample *t*-test, and two multiple regression analyses were conducted. The results revealed that there is a gender disparity in the way people place their importance on appearance or body image and women are more likely to be discriminated by their appearance than men. Also, in one regression analysis that predicted people's self-perceived appearance, people's BMI, general health condition, stress or negative emotion they experience are shown to affect how people evaluate their appearance. In the second regression analysis that predicted how people evaluate their body image, the results showed that BMI and general health condition affect the way people evaluate their body image. In both of these regression analyses, mass media's derisive portrayal of men or explain affect how people perceive appearance and body image. Therefore, policymakers and alike must use the finding to devise plans and policies that would foster a healthy self-image.

KEYWORDS: body image, appearance, discrimination, social factor, mass media influence

Introduction

The desire to beautify one's appearance is natural. Often, such desire is pressured onto people in our society, thus generating an array of side effects that are left untreated. Lim (2007) argues that a society where its members perceive their appearance as resources that would change their destiny and the quality of life is the one full of prejudice and discrimination. Unfortunately, this is the most befitting description of Korean society today. Media presents contents that glorify beauty while denigrating those who fall short of this set beauty standard. Regardless of any generations in the past, beauty has been appreciated; however, no era of the history had been more intolerant of those who lack beauty than now (Lim, 2007). Often, this beauty standard is forced upon women in Korean society, thus resulting in invisible yet most unwanted competition. Besides, this radical attention paid on women's appearance resultantly classify an acceptable beauty in a narrow spectrum.

When examining a social phenomenon whether it be desirable or undesirable, one should also investigate who are the likely beneficiaries. Ironically, with the sensational K-pop syndrome flocking a wider audience over the past few decades, Korea's cosmetic industry grew its volume in and out of the country. Therefore, people should be keenly aware of this change and carefully examine the flip side of this social phenomenon.

Therefore, this research investigates factors explaining the way people perceive their body and appearances. Unlike some people believe, what affects such perception cannot solely be attributed to the environmental and cultural influences. Therefore, this study will uncover the intricate interplay of lookism and its underlying factors to inform the society of what measures must be taken to help people form a healthy self-image.

More specifically, issues surrounding gender inequality will also be examined along with the lookism pervasive in our society given the public attention paid on the me-too movement that swept across this society. Therefore, how men and women perceive the importance of their appearance differently in various contexts will be explored to break down the gender disparity of lookism.

Literature Review

Drawing a steep upward slope, an interest in one's appearance is evolving into a primary focus of our society as people spend an enormous amount of time and money to spruce up their appearance (Jo & Hwang, 2013; Kim, 2006; Kim, 2006). Caring for one's appearance is central to our self-management

skill, and how satisfied we are with our appearance affects our self-esteem and overall quality of life (Kang & Park, 2009). Park (2005) argued that leaving one's body uncared for is often perceived by many as a poor self-management skill because a body, to modern-day people, is an embodiment of a desirable identity within society. Paying attention to a better-looking appearance may awaken people's understanding and the significance of their own body, thus stimulating their overall metacognitive ability, goal-setting, and behavioral patterns (Hong & Lee 2005).

Unfortunately, paying excessive attention to our appearance may give birth to side-effects. Knowingly and unknowingly, many people are forced to compare their appearance with others, thus damaging their self-esteem and a healthy self-image. Lee and Kim (2015) argued that an ideal body image, to most people, is being tall and skinny, and this standard is formulated through mass media. By and large, the way we view or how satisfied we are about our body is primarily affected by the present-day social and cultural standards (Kang & Park, 2009; Wassner, 1982) that are established most widely through mass media.

Many existing literatures argue that ordinary people's fantasy about an ideal body image is learned through the contents communicated via mass media (Thompson & Heinberg, 1999; Myers & Biocca, 1992; Thompson & Hirschman, 1995; Kim, 2001; Park & Sung, 2001; Hong & Lee, 2005; Park, 2005). They criticized how mass media set a skinny body as the ultimate beauty standard and forced ordinary citizens to fantasize a slender body (Lee, 2009). The more people fantasize an established standard, the less accommodating our society may become different beauty standards. Women with skinnier body winning beauty peasant, frequent coverages of skinny western models on fashion magazines, and a growing number of diet-related newspaper articles all add up to the social phenomenon that society sets this particular body image as an ultimate beauty standard (Lee, 2009). Mass media, powerful channels through which people experience social ideals, strengthens a standard, suggesting that a better-looking appearance is the foundation of happiness and success (Featherstone, 1991).

Botta (1999) argued that there is a strong association between a mass media exposure and a stereotype bodily image, and single females in their 20s are more likely to internalize the body image of (fashion) models they see on mass media. He further asserts that the more they internalize such an ideal body image, the stronger the stereotype becomes. Han (2000) warns that when people perceive body or appearance of fashion models and celebrities as a general beauty standard, they may grow dissatisfied with their body image and appearance. Therefore, we as a society must better identify what contents in mass media have deleterious effects on the way people perceive their body and appearance. Also, existing literature pays little attention to and leaves out the male population when examining such relationship; therefore, this research will zoom in on the gender differences associated with body image and appearance.

Methods

Data

This research uses data from the Ministry of Gender Equality and Family (MOGEF). With five-year intervals, Korea Women's Development Institute under MOGEF designs a survey; Statistics Korea provides methodological assistance and conducts the survey on the field. The survey had been administered from August to September 2016.

Participants

7,399 people who were born earlier than the year 1997 have responded to the survey, and they are from 17 cities or provinces throughout Korea. Because the focus of this research is explicitly paid on young adults, anyone above 29 has been eliminated from the study. The remaining 917 responses is used for this analysis.

Table 1. Descriptive Statistics

	<i>N</i>	Mean	SD	Minim.	Maxim.
Gender	917	.54	.50	0	1
Height	917	168.24	8.23	150	194
Weight	917	62.86	13.18	38	110
BMI	917	2.05	.54	1	3
Diet	917	.23	.42	0	1
Education	917	2.44	.53	1	3
Marital Status (Single)	917	.86	.34	0	1
Health Condition	917	6.34	1.97	1	10
Employment Status	917	.54	.50	0	1
Men are treated unequally	917	1.35	.82	1	5
Women are treated unequally	917	2.10	1.11	1	5
Stress Level of the Past 2 wks	917	2.97	1.09	1	5
Nega. Emotion of the Past 2 wks	917	2.51	1.09	1	5
Discriminated for Appearance	917	.24	.43	0	1
<i>Valid N (Listwise)</i>	917				

Because female is coded as 1 and male as 0, 54% of this sample is female. The average height of the sample is 168.24 (SD = 8.23), and the average weight is 62.86 (SD = 13.18). The average Body Mass Index (BMI) of the participants is 2.05 (SD = .54)—BMI is the participants' weight (kilogram) divided by their height (meters squared)—participants' BMI is coded for below normal as 1, normal as 2, and higher than normal as 3. Therefore, most participants' BMI falls in the normal level.

The variable *diet* originally consisted of three categories: (1) I am on a diet to lose weight, (2) I am *not* on a diet, but I want to, and (3) I am *not* on a diet because I don't need to. However, the variable has been recoded as 1 being "on a diet" and 0 being "not on a diet" to better analyze the relationship with other variables. As illustrated in *table 1*, approximately 23% of the participants are on a diet.

The participants' education background is being measured by three separate categories: (1) below middle school, (2) high school graduate, and (3) college graduates and above. Looking at the average 2.44 (SD = .53), most participants are high school graduates or above. For participants' marital status, those who are unmarried, or single, are coded as 1, married people as 2, divorce or divorcee is 3, and those whose spouse deceased are 4. Only two people have answered divorced and one person answered his/her spouse had been deceased, these people have been merged into the *singles* category. Therefore, 86% of the respondents are singles, and only 13% of them are married.

Analysis

Table 2. How would you rate your general health?

Very Bad									Very Good
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

General health is included in this analysis because both physical and mental health may affect how people view their appearance. The participants’ health is 6.34 (SD = 1.97) out of the 10-point scale. This means that the general health of the patients is above average. For the participants’ employment status, the original question is as follows.

Table 3. Employment Type

	Types of Employment Status	
Employment Type	Unemployed	①
	Employed Stably	②
	Employed temporarily	③
	Paid on a daily basis	④
	Self-employed	⑤
	Family Business (Unpaid)	⑥

Though different, the answer ②, ③, ④ in **Table 3** seem to indicate employment, whereas the answer ① and ⑥ are not notably different. Therefore, ②, ③, and ④ have been combined to indicate employment and ① and ⑥ have been combined to indicate unemployment.

Table 4. What do you think about the gender inequality of our society?

Women are treated				Men are treated				
Very Unequally		Completely Equal			Very Unequally			
①	②	③	④	⑤	⑥	⑦	⑧	⑨

Participants’ perception about gender equality of Korean society was asked as illustrated in **Table 4**. However, since interpreting the answer to the question seemed inconducive, they were then converted as below.

Table 5. Gender Inequality for Women and Men

<i>In our society, women are treated</i>								
Very Unequally		Completely Equally			Very Unequally			
①	②	③	④	⑤	⑥	⑦	⑧	⑨
▽	▽	▽	▽	▽				
⑤	④	③	②	①				
<i>In our society, men are treated</i>								
Very Unequally		Completely Equally			Very Unequally			
①	②	③	④	⑤	⑥	⑦	⑧	⑨
		▽			▽	▽	▽	▽
		①			②	③	④	⑤

Now, what used to be a question illustrated in **Table 4** is now separated into two different variables: one about how men are treated unequally and the other about how women are treated unequally in our society.

Assuming that participants’ recent experience, especially negative ones, is highly associated with the participants’ way of viewing themselves, their stress levels of the past two weeks and negative emotions—melancholy, frustration, anxiety, and depression—experienced for the past two weeks have been asked. For both questions, a five-point scale is being used as (1) being *never experienced at all* and (5) being *experienced very often*. The results show that an average stress level is 2.97 (SD = 1.09) and an average negative emotion is 2.51 (SD = 1.09). Lastly, for the question asking whether they have been discriminated because of their appearance, 24% of the participants answered *yes*.

Results

Table 6. Variables for Gender Comparison

Compared to personality, wealth, and others, how important do you think appearance matters?

To men, when it comes to

	Very Important									Not Important
(1) Dating	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(2) Marriage	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(3) Career	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(4) Relationship	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

To women, when it comes to

	Very Important									Not Important
(1) Dating	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(2) Marriage	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(3) Career	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
(4) Relationship	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

For a reference, the above questions have been administered to both male and female participants. Therefore, how men and women understand what matters to men and how men and women perceive what matters to women can be examined. Next, to compare the mean differences in the questions in **Table 4** by gender, an independent sample *t*-test was conducted and the results are provided below.

Table 7. *t*-test of gender difference for appearance in different contexts

	Male (<i>n</i> = 424)	Female (<i>n</i> = 493)	Mean Difference	<i>t</i>	<i>p</i> -value
Men’s Appearance & Dating	Mean (SD) 6.63 (1.88)	6.08 (2.15)	.55	4.12	.00

Men’s Appearance & Marriage	Mean (SD)	5.96 (1.99)	5.60 (2.14)	.37	2.69	.01
Men’s Appearance & Career	Mean (SD)	6.66 (2.10)	6.31 (2.26)	.35	2.40	.02
Men’s Appearance & Interperso.	Mean (SD)	6.49 (2.23)	6.06 (2.35)	.43	2.81	.01
Women’s Appearance & Dating	Mean (SD)	7.34 (1.90)	7.07 (2.14)	.27	2.05	.04
Women’s Appearance & Marriage	Mean (SD)	6.87 (1.98)	6.79 (2.18)	.08	.59	.55
Women’s Appearance & Career	Mean (SD)	6.94 (2.10)	7.19 (2.11)	.25	1.83	.07
Women’s Appearance & Interperso.	Mean (SD)	6.81 (2.29)	6.67 (2.29)	.15	.96	.34
Discriminated by Appearance	Mean (SD)	.19 (.39)	.27 (.45)	-.08	-2.99	.00
Perceived Appearance	Mean (SD)	2.80 (.58)	2.73 (.60)	.07	1.82	.07
Perceived Body Image	Mean (SD)	3.03 (.81)	3.12 (.81)	-.09	-1.70	.09

Looking at **Table 7**, one can see that men and women perceive the importance of their appearance. About the importance of men’s appearance, male respondents themselves place more importance on their (male) appearance in a dating relationship, marriage, career-seeking, and interpersonal relationship, whereas female respondents think men’s appearance isn’t as important in each context. When it comes to the importance of women’s appearance, male respondents seemed to place a higher value in women’s appearance in dating relationship than female respondents did ($t = -2.05, p = .04$). Most importantly, females respondents had reported that they had been discriminated by appearance more so than male respondents did ($t = -.299, p < .01$).

Table 8. Dependent Variables (1) body & (2) appearance

	Very Skinny	Skinny	Average	Fat	Very Fat
What do you think about your body?	①	②	③	④	⑤
	Very Unsatisfied	Unsatisfied	Satisfied	Very Satisfied	
What do you think about your appearance?	①	②	③	④	

First, using *how participants perceive their appearance* as the dependent variable, the following variables have been included as an explanatory variable—BMI; general health; the stress level of the past two weeks; negative emotions experienced for the past two weeks; inequality for men; inequality for women; seriousness felt about men’s or women’s appearance being ridiculed on TV; deriding women on the websites like online community, portal, and social media. Next, using the same independent variables, *how participants perceive their body* was analyzed.

Table 9. Mass Media's Disparaging Portrayal of People's Appearance

How serious do you think are the following?	Not at all	Not Serious	Serious	Very Serious
1. Internet advertisement portraying sexual activities or a body part	①	②	③	④
2. Derisive portrayal of women's appearance to elicit laughter on TV	①	②	③	④
3. Derisive portrayal of men's appearance to elicit laughter on TV	①	②	③	④
4. Mocking women on online community, website, and social media	①	②	③	④

Table 10. Regression analysis of Self-perceived Appearance

	Unstandardized Coefficient		Standardized	<i>t</i>	<i>p</i> -value
	<i>B</i>	Standard Error	Beta		
Constant	2.69	.16		16.68	.00
BMI	-.13	.04	-.12	-3.72	.00
General Health	.06	.01	.19	5.29	.00
Stress of the Past 2 wks.	.07	.03	.13	2.49	.01
Negative Emotion of the past 2 wks.	-.07	.03	-.13	-2.61	.01
Men are treated unequally	-.04	.03	-.07	-1.45	.15
Women are treated unequally	-.08	.02	-.17	-3.25	.00
Derisive Portrayal of Women on TV	-.15	.06	-.20	-2.63	.01
Derisive Portrayal of Men on TV	.11	.05	.14	1.98	.048
Mocking women online	.09	.03	.12	2.70	.01

Dependent Variable: Q: What do you think about your appearance?

A regression model was fitted to predict how people evaluate their appearances. The intercept shows that the level of self-perceived appearance is approximately 2.69 ($p < .01$) when all the other variables are held constant. When people body mass index (BMI) increases by one point, the self-perceived appearance decreases by .13 ($p < .01$). When people's general health is one point higher, the self-perceived appearance increases by .06 ($p < .01$). When people's recent stress level increases by one unit, their perceived appearance increase by .07 ($p < .01$). When people's negative emotional state increases by one unit, the self-perceived appearance *decreases* by .07 ($p = .01$). Also, when people's opinion that women in our society are treated unequally increases by one unit, their perceived appearance decreases by .08 ($p < .01$). When people's concern about the derives portrayal of women on TV increases by one unit, their self-appearance *decreases* by .15 ($p = .01$). When people's concern about derisive portrayal of men on TV is problem increases by one unit, however, the self-perceived appearance increases by .11 ($p = .048$). Lastly, when people's concern about mocking women on the internet increase by one unit, their self-perceived appearance increases by .09 ($p = .01$).

Table 11. Regression analysis of Self-perceived Body Image

	Unstandardized Coefficient		Standardized	<i>t</i>	<i>p</i> -value
	<i>B</i>	Standard Error	Beta		
Constant	1.08	.19		5.58	.00
BMI	.80	.04	.53	18.59	.00
General Health	-.03	.01	-.07	-2.24	.03
Stress of the Past 2 wks.	.01	.03	.02	.40	.69
Negative Emotion of the past 2 wks.	.04	.03	.05	1.12	.26
Men are treated unequally	.02	.03	.02	.52	.60
Women are treated unequally	.09	.03	.14	3.09	.00
Derisive Portrayal of Women on TV	-.01	.07	-.01	-.21	.84
Derisive Portrayal of Men on TV	.13	.06	.13	2.05	.04
Mocking women online	-.02	.04	-.02	-.50	.62

Dependent Variable: Q: What do you think about your body image?

Lastly, another regression predicting people's self-perceived body image was fitted. The intercept shows that their body image is approximately 1.08 ($p < .01$) when all the other variables are held constant. And when their BMI increases by one unit, their body image increases by .80 ($p < .01$). Next, when people's general health increases by one unit, their perception about body image decreases by .03 ($p = .03$). Next, when people's opinion about the unequal treatment of women increases by one unit, their body image increases by .09 ($p < .01$). People's concern about a derisive portrayal of men on TV increases by one unit, their body images increases by .13 ($p = .04$).

Conclusions

Looking at the *t*-test, the gender disparity in the importance of appearance is clearly present: Men and women perceive their importance of appearance differently in a context in which they find themselves. More importantly, women feel that they are discriminated by appearance more than men do. One should delve into the reason why women are more discriminated by their look rather than their inner quality. And policymakers should use these findings to devise policies that would ensure that no women will find themselves at disadvantage in our society.

Next, the regression model predicting people's self-perceived appearance shows that their BMI, general health condition, stress or negative emotion experienced in the past two weeks explain the change of how people perceive their appearance. Interestingly enough, media's derisive portrayal of men or women explains how people evaluate their appearance. So this evidence must be the foundation of further research as to what specific factors in media are attributing to the phenomenon.

Lastly, another regression model predicting people's self-image shows that BMI And general health condition are clear indicators of how people interpret their body image. Though slightly different, media's derisive portrayal of men's appearance does explain the change in people's body image. This is a reason enough for the policymakers to manage the flow of mass media to minimize

contents that would encourage negative body image and appearance so that everyone can foster healthy self-image and live their life to the fullest.

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The Potential of Cinematic Language in Geography Education and the Relationship among Communication, Culture and Geography

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ABSTRACT: From the beginning of geographic thought, authors like Kant, Humboldt, and, Vidal de La Blache made reference to the necessity of the images in the construction of geographic thought. Nowadays, new interpretation of this correlation is worthwhile because of the intensity of images, and in this case, films that children and young people are exposed to daily, without necessarily understanding the geography behind the creation of these symbols and meanings. Due to this phenomenon, this research is based primarily on identifying the need to incorporate these languages into teaching, in a way that is not just illustrative. The need for this incorporation is to enable students to develop critical geographic thought around these constant images, while creating a closeness between the geographic content and the cultural life of students. The purposes of this practice were to provoke the student's to make the act of watching a movie an exercise of geographic thought. The research was carried out with an extensive bibliographical investigation to support the practical part of the project executed in two schools in the city of São Paulo. At the conclusion, the potentialities of the work with cinematic language in geography education were evident, as well as an analysis of the main problems of this interdisciplinary practice.

KEYWORDS: geographic thought, geographic education, cinematic language, interdisciplinary practices

Introduction

We live in an era of images, where our location, our culture, information and socialization are first conveyed by images. Children today are exposed to images, movies, and video games before they even go to school. Faced with this reality we can observe that young people are being educated primarily by images rather than by writing.

We asked ourselves questions like: What is the impact of this excessive consumption of images on students' lives? How are they absorbing this content? How does this affect school education? And how can school education use these resources as potentialities?. Faced with these questions, we developed an interdisciplinary didactic between cinematic language and geography education, as well as in relation to other disciplines. This practical work was developed during one year in two different schools. Always, seeking to observe the potential, problems and limits of this proposal in the school environment.

Our practical work was focused on to create the possibility for students to learn to "read" an image or a scene. To provide them the tools to reflect on the geographic thinking behind the construction of a film. To create the possibility so they can to become active thinkers of this language and not just passive consumers of such ideologies. What we bring here are the main observations made during this work. We seek to share all the potentialities, problems and limits presented in this research. Based on this premise, this research was mainly influenced by concepts of the humanities, such as geography, education, cinema and communication, with the intention of basing the research on interdisciplinary studies.

The relationship among Culture, Communication and Geography

Everything we think about, any immaterial idea conceived in the relationship between man and the environment, its relations of power, economy and politics, when it becomes material, characterized by space, location and territory, is geography. The culture in this case can be understood as the "Geography of Diversity," because it is the form of thoughts and habits of a certain population materialized in a piece of land, having influences from others, but having always been singular. It is not today that we think about the relationship between geography and culture. Authors like Richard Hartshorne and Carl Sauer, have

studied this relationship since the last century. What is important today is to rethink our reality, and especially the reality of school students regarding these concepts.

Currently, we live in a globalized reality. We do not have to travel to the other side of the world to know another culture. We can know them by our computers, cell phones, or simply turn on the television and access the cultures of the most remote civilizations in the world. What we mean is that according to the speed of communication available today, the way we are accustomed to learning and teaching about geography and culture, until the beginning of the 20th century, is no longer compatible anymore with the access that children and youth have today. What we mean is that it is inside the school where we can see the difference between the way knowledge was created, and how it is currently being incorporated by this new generation.

From this framework, our research began with a reflection of how communication impacts on the way young people are learning and appropriating their cultural concepts, and how our students can be passive in the face of the excess of images they are exposed to daily, while these concepts are not addressed in school.

In this context, for us, the relationship between culture, communication and geography is also within the school, in the need to renew the structure of education that has been standard in the school environment for decades, and that today distances our students, members of a new information age, who are excluded from this constriction of knowledge because they believe they “speak another language.” We believe that any knowledge, as well as geographic thought, is perceived in the way of your looking around, and can be in any kinds of communication languages.

The Potential of the Cinematic Language in Geography Education

The written text is always the most important reference, where one has the possibility to go back, to think, to reflect. But “we cannot fail to think that ourselves, in part, and a majority, are totally forming our intelligibility of the world from the images and sounds of the productions of cinema and television” (Almeida 2004, 8). Almeida refers to people who are immersed in the universe of mass communication, illiterate, semi-literate, that do not properly have a memory of writing and reading. “This actual closeness of images has a configuration very close to orality, which explains, in part, the fact that images are sometimes stronger than a text” (Almeida 2004, 9).

In this way, it is important not to see cinema, as an image, as a didactic or illustrative resource, but to see it as a cultural object, full of potentialities, and inherent in the lives of these young people and children. The author states “Watching movies, analyzing them, is the will to understand our mass society, practically illiterate and who does not have a memory of writing. A society that is educated by images and sounds, mainly by television” (Almeida 2004, 12).

In the last twenty years, geography teaching has undergone many transformations. In part, this process of renewal started from criticisms of traditional teaching based on the memorization of facts and concepts and the conduction of encyclopedic knowledge, merely descriptive and largely unrelated to reality. It is from this interaction between these images and narratives, singularities and multiplicities, that we find the great trump of cinematic language and its approximation with the lines of thought contained in geography. By instituting other senses of reality, cinema is pointing to other potential senses of orientation and spatial location of phenomena. Doreen Massey states that “Geography cinema allows us to better address the essential multiplicity of space” (Massey 2008, 111), this overcoming the tradition of the idea of limited linear evolution of the world to its unique extension of the world.

We try here to show students how geography is present in every form of human or natural relationship, whether social, political or economic. Geography already exists as long as it is part of the construction of the student's gaze. We work on making geography as present in the student's life as cinematic language and the language of imagery. The potential of cinema in the teaching of geography is the power to find it, to perceive it and to make it exist, simply by thinking it, in whatever reality, image or scene, whatever it may be.

Practices with Cinematic Language in Geography Education

After the theoretical research, two practices were performed to verify if the potentialities of the cinematic language in geography and interdisciplinary teaching are effective. These practices were both developed in public schools in the city of São Paulo, Brazil. It is not appropriate here to explain in detail each step taken within the school. It was a long research project carried out weekly during the course of a year, which generated extensive material. The purpose here is to share the methodology created during the implementation of these actions, which showed better results in working with cinematic language in teaching. The potentialities were found as well as their problems and limitations. We focus here on presenting a contribution to make this practice more present within the school environment, as well as the discussion of new possibilities in teaching between teachers and researchers around the area. The proposal of working in cinematic language to develop the contents of the disciplines is not related to using them in an illustrative way, but in a rather reflective way. The object in analysis can be implicit, explicit or even camouflaged in the film's plot.

The first practical aspect of the method developed was the use of objective scenes rather than an entire movie because each class lasts an average of only forty-five minutes. Using the scene allows teachers to address specific topics briefly, leaving free time for a conversation or activity wheel. Another reason is that the use of a brief scene draws more attention from the student about the subject than if the whole movie is presented. This strategy allows key elements to be perceived because they do not contain the entire narrative of the film, and it gives the teacher time to use other languages at work, in the same class.

In addition to observing the best development of the practice, it was noted that the best time to present the scene is at the beginning of the class. We suggest that the scene be shown without anticipated presentation or contextualization. From one year of practical experience, it has been observed that since the moment when the lights go out, the students' attention shifts, and a focus is created. Without knowing what it is, students begin to make approximations and comparisons about what is being shown. They seek to create understanding, even to formulate a line of reasoning about what is being watched.

After watching the scene, we realize that are not so productive when we continue with an explanation of the film or about its content relationship than when we continue by asking students questions. We propose a practice similar to the Socratic method, in which, through questions and answers, we lead students to find for themselves the relationship with the contents. This method allows students to perceive less explicit layers in the film, such as: Positioning the camera in choosing what is to be seen or not; if the scenery is natural or built; and if there are brands or companies sponsoring the production and what their interest is. In general, we seek to lead students to a reflection on the signs and meanings implicit in the film that in turn relate to the geographic or interdisciplinary concepts. This practice of letting students make connections through scenes creates a rapport between geographic thought and student life, enhances the knowledge brought by students to school and promotes dialogue among the class.

It is important to emphasize that this work makes the teacher play the important role of mediator and conductor of the class, giving focus to certain content to be worked on, and directing the discussion of the scene after it is shown. It is also important that the teacher encourages interest in the discussion in the students and makes the students feel that they have something to contribute to the class, until they develop their geographical thinking through the images. This role is essential for the potential of cinematic language to be effective during the practice.

As this practice is developed during class, concepts will increasingly become visible to students and close to their realities, making watching a movie or viewing an image an exercise in the student's geographic thinking. It has been seen, that once students are familiar, they themselves see the geography behind video games, advertisements and even television programs.

Analysis and Discussion

During the work, analyses and discussions were conducted on some topics such as the technical support of the school to work with films and aspects of the teaching career that impact on this type of practice as well as on teacher training.

Regarding technical support, none of the schools had a proper video room or materials like a television or projector to watch movies within the classrooms. The activities in both schools were held in the library. The room should be reserved in advance and shared as needed by all teachers. However, due to the need to change the classroom, about five to ten minutes per class is lost to make this transition, which becomes a barrier to achievement. Due to this scenario, it is up to us to reflect on the necessity of having multi-language equipment in all classrooms.

Our analysis of teacher career and training is also based on a study conducted by us prior to this research, which was applied to a questionnaire with twenty-six geography teachers from different schools in the state of São Paulo, Brazil. As an important result, we confirm that over ninety percent of teachers said they had not received preparation during their training to work with these media languages in class, as they do not believe they are able to perform these activities in a way that is not just illustrative. On the other hand, one hundred percent of respondents said they always use these imagery and film features in their classes. These data make us reflect on the need to incorporate these resources not only at school, but also at university, so that teachers feel in command of these tools for better student learning performance. With these aspects we have to point out the need for the support of continuing training for teachers who are already working, so that they can also create new possibilities equivalent to the reality of this new generation of students.

To conclude our analysis we focus on the school's role in providing this openness for the teacher, as well as having these activities as part of a monthly or annual planning by the school, so that teachers can dialogue with each other, share experiences and even promote interdisciplinary practices. Thus, we encourage collective and horizontal work within the school, between the principal and the teachers.

Conclusions

At the end of the practice, we reflected on how to analyze if the methods were really effective during the research. We think that the best form of analysis would be to develop a way of having the students themselves answer our questions about whether or not these activities were effective.

At the end of the first practice of six months, a qualitative questionnaire was administered to more than ninety students to obtain their personal answers about the activity. In the second practice of six months, we administered the questionnaires to more than two hundred students and changed them from qualitative to quantitative with multiple choice questions and answers. Moreover, a group activity was developed to evaluate the effectiveness of the exercise of "reading" images and scenes. In this activity, each class was asked to divide into six groups of an average of five students. Then they were asked to choose any subject from the course work, to be presented with a scene from a movie, and then to relate to the subject. This activity gives students the opportunity to bring scenes of their choice, shows their way of viewing content in images, creates incredible learning potential and develops "reading of images and scenes."

From all theoretical and practical research, as well as the collected data, we conclude that the potentialities of working with the cinematic language in the teaching of geography, as well as in the other disciplines, are innumerable. On the other hand, in order for these potentialities as well as many others to happen, it is extremely necessary that this work be guided by the meetings that define the new paths that school education is treading, as well as the role of the university and researchers in this discussion that both impacts and defines teacher education around the world.

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Hermeneutical Resemblance in Rudolf Bultmann and Thich Nhat Hanh

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ABSTRACT: Over the last several decades, academic theology in America has seen a resurgence of interest in the 20th century German-speaking theological movement known as “dialectical theology.” While primarily focusing on the theology of Swiss Reformed theologian, Karl Barth, there has also been a revival of curiosity in Barth’s academic rival, Rudolf Bultmann, who cultivated the controversial program of “demythologization.” Though the recovery of Bultmann’s work in English-speaking circles is historically valuable to our understanding of how modern theology progressed, the question still stands as to how it might aid our dialogue in an increasingly pluralistic world. Unpacking one such opportunity is the aim of this paper. Through dialogue with the Zen Buddhism of Thich Nhat Hanh, I show how different contours of Bultmann’s thought can aid us in understanding and approaching interreligious discourse through hermeneutical consistencies and resemblance. While this paper discusses several different aspects of Bultmann’s and Nhat Hanh’s religious thought, the consistencies and resemblance between the two individual thinkers are, no doubt, emblematic of greater *Familienähnlichkeit* between their respective faith traditions – a topic to be taken up at a later time.

KEYWORDS: Rudolf Bultmann, Thich Nhat Hanh, Demythologization, Zen Buddhism, Christianity, Dialectical Theology, Hermeneutics, Interreligious Dialogue

Introduction

Academic theology in America has seen a resurgence of interest in the 20th century German-speaking theological movement, “dialectical theology”, for the last several decades. This was caused, in large part, by the influx of noted Karl Barth scholars present in American academies and institutions, viz. Hans Frei (1956), Robert Jenson (1963), George Hunsinger (1991), Bruce McCormack (1997) et al. Alongside this continual unfurling of Barth’s legacy in America, not many others from the 20th century dialectical theology movement have received much notice, the least of these being biblical scholar and theologian (and Barth’s academic rival) Rudolf Bultmann.

Until recently, Bultmann’s theology in America was effectively considered dead-on-arrival. And, for that matter, the scant number of academic engagements with Bultmann typically aimed at continued disagreement. However, Bultmann’s theology has seen a revival of curiosity in American academic circles in recent years, due largely to the publication of David Congdon’s *The Mission of Demythologizing: Rudolf Bultmann’s Dialectical Theology* (Congdon 2015a). In this work, Congdon looks to overturn two generations of scholarship on Bultmann’s hermeneutical program, arguing that Barth, not Bultmann, was the one who went awry from the Dialectical School. Contrary to popular opinion, Congdon claims that Bultmann is the one who faithfully carried dialectical theology through to completion, not Barth.

In any case, the resurrection of Bultmann’s work in the academy posits the question of how we can incorporate his program into the modern world. In this paper, I argue that Bultmann can aid us in interreligious dialogue by helping us expose hermeneutical consistencies and resemblance between religious traditions. The extra-Christian tradition I approach here is that of Zen Buddhism, particularly as it is found in the writings of Vietnamese Buddhist Thich Nhat Hanh. The work of Nhat Hanh is a natural starting place for such interreligious dialogue, as Nhat Hanh has written extensively on the teachings of Jesus vis-à-vis the teachings of the Buddha.

I do as much in three parts. First, I outline Bultmann’s hermeneutical program of demythologizing, particularly three key elements which find parallels in the Buddhist thought of Thich Nhat Hanh: myth, kerygma, and nonobjectifiability. Second, I do similarly with the work of Nhat Hanh as I do with Bultmann, outlining three particular elements of his thought, viz. interbeing, engaged Buddhism, and nontheism. Last, I bring Bultmann and Nhat Hanh together, arguing for the

one-to-one hermeneutical resemblance which can be found between them, using the three components of thought from each, discussed in the sections prior, as merely a sample of the broader elements of *Familienähnlichkeit* which surely exist, both among the thought of the individual thinkers *and* their respective faith traditions, yet remain to be exposed.

Bultmannian Hermeneutics and *Entmythologisierung*

In 1941, Rudolf Bultmann published his essay “New Testament and Mythology”, which brings us our first exposure to Bultmann’s infamous program of *entmythologisierung* or “demythologization”. This program finds its root in the breakdown of ancient cosmology, viz. a geocentric, three-tiered universe with heaven above and hell below, etc. To be sure, though, demythologization is not merely the stripping away of the pre-scientific husk from the New Testament. It also begs the reinterpretation of such ancient theological motifs as redemption, eschatology, pre-existence, et al. Bultmann's claims regarding as much are worth quoting at length:

All of this is mythological talk, and the individual motifs may be easily traced to the contemporary mythology of Jewish apocalypticism and of the Gnostic myth of redemption. Insofar as it is mythological talk it is incredible to men and women today because for them the mythical world picture is a thing of the past. Therefore, contemporary Christian proclamation is faced with the question whether, when it demands with from men and women, it expects them to acknowledge this mythical world picture of the past. If this is impossible, it then has to face the question whether the New Testament proclamation has a truth that is independent of the mythical world picture, in which case it would be the task of theology to demythologize the Christian proclamation (Bultmann 1984, 2-3).

Though Bultmann formalized this work in an academic sense, he actually claims that this work began in the generation of disciples immediately following the death of Jesus. This reworking of the faith to fit the current landscape began when the long-awaited *parousia* never occurred, “partially with Paul, and radically with John” (Bultmann 1958, 32). Bultmann continues, “The decisive step was taken when Paul declared that the turning point from the old world to the new was not a matter of the future but did take place in the coming of Jesus Christ,” and “After Paul, John demythologized [sic] in a radical manner...For John the resurrection of Jesus, Pentecost, and the *parousia* of Jesus are one and the same event” (Bultmann 1958, 32-33).

This explanation of Bultmann’s “demythologization” requires a definition of three key components: 1) What exactly is myth? 2) What is the thing concealed under the cover of myth? and 3) How are we to understand a god that has been demythologized? In order to answer the second two questions, we must first address the definition and parameters of myth.

As mentioned above, though myth *can* be identified with primitive science, it cannot be identified with primitive science *as such*; primitive-scientific understandings of the world fall within the parameters of myth, but it also extends beyond this. For Bultmann (1958, 19), “Myths express the knowledge that man [sic] is not master of the world and of his life, that the world within which he lives is full of riddles and mysteries and that human life also is full of riddles and mysteries.”

So, according to Bultmann, myth was a way humanity spoke of itself, reflecting the full battery of human emotions and experiences, i.e. joys, fears, anxiety, hope, etc., in order to translate those emotions and feelings into a cohesive world picture (DE: *weltbild*). The key, however, is to acknowledge that myth is no longer an appropriate mode of understanding the world or the self. David Congdon (2015b, 108). comments on the category of myth, saying “Bultmann does not say that myth is false or that it is antithetical to faith; he says, in effect, that it is culturally *foreign*. Myth belongs to an alien time and place.”

For Bultmann, myth is not, like science, objective; it is subjective. It is existentially inclined insofar as one cannot abstract oneself from the myth, but rather one is always a part of it, being

directly affected by it. With Congdon (2015b, 106), “Unlike science, which seems to understand the totality of the cosmos, myth is ‘concerned with the grasping of what is individual and particular, what is meaningful for existence here and now.’” Because of this nature of myth which Bultmann points to here, Bultmann claimed that myth was a fitting vehicle for divine revelation. However, if divine revelation is not defined by or conflated with myth, then what is it?

To answer this question, we have to explain Bultmann's notion and use of *kerygma*. The word, taken from the Greek New Testament's κήρυγμα, meaning "proclamation", indicates "a connection between proclamation, revelation, and salvation in early Christianity" (Congdon 2015b, 71). What exactly the kerygma is the task of theology. However, it appears that, according to Bultmann, the kerygma of the Christian faith is a post-Easter phenomenon. This is so because there is a distinction between the message of Jesus and the message of *Jesus*. Put another way, there is a distinction between Jesus' apocalyptic message and the message of Jesus Christ crucified and resurrected *as such*. Bultmann (1955, 33) says it this way: "he who formerly had been the bearer of the message was drawn into it and became its essential content. The proclaimer became the proclaimed." The kerygma of the crucified and risen Christ is always, for Bultmann, a personal and direct address of the word of God to the hearer. The hearer experienced the content of the kerygma in the form of “dogmas” such as “Jesus is Lord”, et al. James F. Kay, in his excellent book on Bultmann's Christology, is worth quoting at length here:

Bultmann regards the dogmatic content of the kerygma as subordinate to the kerygma's function of direct address. In Bultmann's view, the kerygma demands “obedience to” or “faith in” and not — in the first instance — “discussion of.” Therefore, when Bultmann speaks of “the kerygma,” he typically means the Christian message of God's act in Christ. Granted that Paul formulates this message in theological statements, the vital point for Bultmann is that the message is proclaimed as a summons to decision (Kay 1994, 49).

The kerygma thus comes upon person in an event of faith; an event in which one must choose whether or not they will turn away from the old person and put on the new person. This event of faith is paradoxically both the faith we possess and must renew day-by-day, moment-by-moment, and also the faith that we *never* possess, but is given as a gift by God When we encounter God in the proclaimed word of the crucified and risen Christ. This faith which we identify paradoxically as both a historical event and a divine event is representative of the last principle of dialectical theology we will discuss here: nonobjectifiability.

At its most basic level, the nonobjectifiability of God is contingent upon the notion that “God is not an entity in the ontological inventory” (Hardwick 1996, 69). This is in line with the Dialectical School's christological emphasis, asserting that, as Christians, knowledge of God cannot be gleaned from any other source but the Christ event. Put another way, asserting God's nonobjectifiability is the most absolute and antithetical defense to natural theology; if God is not an entity in the ontological inventory, but is absolutely transcendent and wholly other, we can rule out pantheism, panentheism, monism, etc. *en masse*, along with the notion, derived from ancient cosmology (yet still circulating in various forms today), that God is some mythical construct in the sky.

Nonobjectifiability is the radical claim that God is never something at our disposal to intellectually grasp onto, manipulate or control. Rather, God and God's revelation via the Christ event is only available to us through *faith alone*. With Congdon (2015b, 52), “To say that God is nonobjectifiable is a way of saying that God cannot be *known according to the flesh*”. And if God cannot be objectified, but can only be identified paradoxically through the lens of faith, then we must conclude that looking to the Jesus of the bible tells us nothing of God.

Rather, our only source of divine revelation is the event of encounter we have with the risen Jesus through the proclamation of God's word. This event of encounter, thrust upon the human being caught in the trajectory of the proclamation of God's word, means that we can only ever speak of what God does, not what God is in Godself; to do as much would be to objectify God, therefore

making God a part of the ontological inventory. Congdon (2015b, 65) says this extremely well: “[Paradoxical identity] argues that God acts in history, but in a way that is accessible only to faith. Theology without objectification thus speaks of God’s revelatory action in history as an event that truly happens but that never becomes an observable part of the world. It is an event that must happen again and again, which we can never prove but can only proclaim anew.”

A short case study may be in order here to show how such an abstract concept often ends up working out in the lives of people-of-faith: Before going to seminary, I was a member of an evangelical-nondenominational church down the road from where I attended university in Missouri. One night, during the worship service, a particularly bad storm came through the city, triggering the tornado sirens. Being in the Midwest where tornadoes are relatively commonplace in the warm months, this frightened many people. So, the pastor stopped the service and prayed aloud with the congregation for the safety of the church and the city, recalling the stories of God stilling storms in the bible. Midway through the prayer, the tornado sirens ceased to wail and it was believed that, due to the prayers of the congregation, God rebuked the storm.

There are rational and natural reasons why the sirens might have snapped off at that very moment, whether it be because the weather service believed a tornado was no longer a possibility, or because the timer they were set on happened to go off at that moment. However, those who were present and active in the faithful act of prayer identify it with a divine event in which God was indeed at work in the world. This can never be verified or proved; it’s nothing that could ever be observable to the world or anyone outside the lens of faith, and yet, those praying found meaning and order in the event due to their belief that God heard their prayers and answered them. This is an example of how paradoxical identity and nonobjectifiability play out in the life of faith. Through an event, though having completely rational and natural explanations and without the ability of ever being verified or proved, an act of the divine is recognized.

Thus far, we have covered three key components of Bultmann’s hermeneutical program, viz. myth, kerygma, and nonobjectifiability. In what follows, I will similarly outline three key components of the Zen Buddhist thought of Thich Nhat Hanh, pulling from both secondary sources about Zen Buddhism and Nhat Hanh’s own works. Though similarities will no doubt arise in the mind of the reader as progress through Nhat Hanh’s thought is made, I will end by pointing out the hermeneutical resemblance between these two thinkers in their respective religious traditions.

Thich Nhat Hanh and the Contemporary Innovation of Zen

Thich Nhat Hanh, born in Vietnam in 1926, rose to popularity and fame due to his involvement in the Vietnam War. Nhat Hanh advocated what he called the Third Way, “siding with neither the North nor South Vietnamese side, but with *life*.” After the war, Nhat Hanh took up residence in France where he has “created and taught a form of Buddhist spirituality and social activism that has appealed to people all over the world” (King 2018, 480). Nhat Hanh’s Buddhism is a blend of traditional Buddhism tenets, as well as more innovative teachings which have been produced out of his life and thought. The first of these tenets belongs to both: interbeing.

Interbeing, at its most fundamental, is a way-of-seeing which asserts that there is no such thing as an “individual.” Rather, everything is ever interconnected and in relationship with everything else. Nhat Hanh, who actually established an Order of Interbeing in 1966, is worth quoting at length here:

When we look into the heart of a flower, we see clouds, sunshine, minerals, time, the earth, and everything else in the cosmos in it. Without clouds, there could be no rain, and there would be no flower. Without time, the flower could not bloom. In fact, the flower is made entirely of non-flower elements; it has no independent, individual existence. It “inter-is” with everything else in the universe (Nhat Hanh 2007, 213).

On the website of Nhat Hanh’s Order of Interbeing, it addresses interbeing thus: “Interbeing is not a theory; it is a reality that can be directly experienced by each of us at any moment in our daily

lives” (www.orderofinterbeing.com). And this “reality” is not only contained to the world of nature, but also extends to the realm of systems, religion, philosophy, etc. Nhat Hanh says as much about Buddhism and Christianity, respectively. We will come back to this in the next section.

The second tenet we will touch on here is that of “engaged Buddhism,” or the priority of praxis and ethical action in the Zen tradition. With King:

Engaged Buddhism is a contemporary form of Buddhism found throughout the Buddhist world...[It] may be defined as those forms of Buddhism that intentionally and nonviolently engage with the social, political, economic, and environmental issues of society and the world on the basis of and as an expression of Buddhist beliefs, values, concepts, world view, and practices (King 2018, 480).

This type of Buddhist spirituality goes against the popular understanding that Buddhism is about withdrawing from the world in order to achieve peace and mindfulness.

Nhat Hanh (2007, 214) defines mindfulness as “the energy to be here and to witness deeply everything that happens in the present moment, aware of what is going on within and without.” Mindfulness training has deep roots in the Zen Buddhist tradition and is closely tied to moral and ethical action. Christopher Queen (2018, 512-513) points out the danger of practicing mindfulness divorced from the expectation of ethical action in the world: “Mindfulness training in the absence of morality may blind practitioners to the social, institutional, economic, and tactical conditions that have precipitated or exacerbated the stress and suffering they have turned to meditation to escape.”

As is likely apparent by now, the emphasis in engaged Buddhism lies heavily on praxis and experience rather than dogmas. Though there are, indeed, tenets of Zen Buddhism and engaged Buddhism, these tenets must continually be cultivated, practiced, and experience. These tenets are the ways one may formulate and speak of the experiences one experiences through the practice and ethics of mindfulness.

Last, we will address the nontheistic tendencies of Zen Buddhism. Rita Gross (2014, 468) explains this well in her essay on Buddhism: “Because Buddhism is a non-theistic religion, its concepts of ultimate reality do not include the kind of deity familiar from most religions. Instead, one does find anthropomorphic representations of key Buddhist virtues, such as wisdom and compassion, but they have no independent, eternal existence.”

Nhat Hanh (1999) says as much when he states that “You cannot consider God as one of the things that operates in the realm of phenomena...God is not a being in the phenomenal world.” For Buddhism, there is indeed a category which operates similarly to the category of “God” in other religious traditions. However, this category is not occupied by a god *as such*, i.e. by a “theistically conceived Supreme Being.” Instead, “Zen Buddhism’s emphasis on attaining states of mind that subvert the subject-object structure of everyday rationality is particularly appealing to those who seek a ‘context of existential and cosmic meaning’ while retaining a suspicious stance toward any and all forms of supernatural mysticism” (Fuller 2017, 579-581). In other words, Buddhism allows its practitioners to create meaning in a seemingly meaningless world while disposing of any and all concerns of a metaphysically divine punisher or rewarder.

Above, we have briefly outlined three basic tenets of Zen Buddhism and Nhat Hanh’s particular brand of Zen Buddhism. In the next section, I will bring together one of the tenets of Nhat Hanh’s Buddhism and one of the tenets of Bultmann’s hermeneutical program and discuss their differences and, perhaps more importantly, their similarities. My hope is that this will not only bring into dialogue two major religious traditions on how they understand their faiths, but will also lend credibility to Bultmann’s program by showing that, despite religious, cultural, linguistic, et al. differences, the category for the divine in each’s thought functions relatively the same way.

Bultmann and Nhat Hanh in Conversation

In the above sections, I have approached the elements of both thinkers’ thought in the order I would like to address them here. Thus, the first element I discuss for Bultmann is that of *myth*, and the first

I discuss for Nhat Hanh is that of *interbeing*. This is, arguably, the easiest connection to make between the two thinkers. For Bultmann, myth is the objectifiable garments wrapped around the kerygma in order for the hearer to make sense of it in their world and current time-and-place in history.

Thus, Christianity was birthed out of a time-and-place in history which held to a notion of a three-tiered universe, angels and demons as explanations for sickness, divine reward and punishment as an explanation for the rich and the poor, etc. So, when the kerygma came upon the early church in the proclaimed word of Jesus Christ crucified and risen, they used these existing notions, and others, to tease out what exactly was going on within them kerygmatically. With this being so, one might say, along with Nhat Hanh, that Christianity is composed of completely non-Christian elements.

There is nothing distinctly “Christian” about these ancient methods of meaning-making in the face of human limitation and frailty. They are merely the then-current modes of thinking through the existential perplexities common to every human being. Nhat Hanh (2007, 11) extends his notion of interbeing to religion as well: “Just as a flower is made of only non-flower elements, Buddhism is made only of non-Buddhist elements...and Christianity is made of non-Christian elements...We have different roots, traditions, and ways of seeing, but we share the common qualities of love, understanding, and acceptance.” According to Bultmann’s program of demythologizing, we can already begin to see how Christianity and Buddhism are speaking about the same “other” or “divine,” only conveyed through different concepts and philosophical systems.

Second, with Bultmann, we discussed the question of what exactly is “clothed” by myth. The answer to that question is, of course, the kerygma. The kerygma is that which we encounter in the proclaimed word of Jesus Christ crucified and risen; the word which makes us known of the forgiveness of our past and opens us fully to the future. This kerygma is inherently actualistic in that it can never be *completely* objectified, but only formulated in the form of dogmas. However, for Bultmann, these dogmas which we express from a stance of faith, only serve to help us as we work to bring our lives into line with the kerygmatic event of encounter.

This finds a parallel in the nondogmatic, actualistic nature of Zen and its sub-tradition of engaged Buddhism. Just as in these Buddhist traditions, mindfulness is never something which can be demonstrated or objectified in an absolute way, but must be renewed in every moment of existence so as to adapt to every situation and circumstance anew, the kerygma functions the same way in Bultmann’s thought vis-à-vis the event of faith. Faith, ultimately, is never something that we own. It is never a thing we possess, but is an event which is thrust upon us. Our responsibility, though, is to be ever prepared for that event by renewing our belief in Jesus every moment.

Lastly, we addressed Bultmann’s and the Dialectical School’s notion of nonobjectifiability. We said that this notion begins upon the assertion that God is not a part of the ontological inventory. Not only is this the strongest antithesis to natural theology, but is also the ultimate separation of modern believers from ancient believers. Whereas our religious ancestors believed in a personal, relational deity who existed metaphysically in the sky, nonobjectifiability does away with any and all concepts of the like. No one can say as much today without objectifying God and resting on the laurels of ancient cosmology. Rather, God is wholly transcendent or wholly other in a way that we can never speak of God in Godself apart from God’s action in the world via the event of faith.

This opposition to classical theism is the same opposition present within Buddhism and its nontheistic tendencies. The category of the divine, where Christians place ‘God,’ is the same category where, for Buddhists, mindfulness exists. The divine, the “wholly other”, in this understanding, is that which affords meaning to and orders the life of the practitioner. One might even venture to claim that there have been very few true “atheists” or “nontheists” in the history of religious and philosophical thought because there are likely very few people who would readily admit that there is no objective meaning in life alongside the notion that there is also absolutely no way to *subjectively create* meaning in life. The theism that Nhat Hanh and Zen Buddhism are opposed to is the same theism that Bultmann and dialectical theology are opposed to. Both are

interested in subjectively creating meaning in a meaningless world; they both merely have, by accident of birth, been conditioned to do so through different linguistic, philosophical, and religious systems.

Conclusion

In such a time of religious ignorance, there is a need for compassionate and loving dialogue amongst different religious traditions. And with Nhat Hanh, we should be willing to say that “In a true dialogue, both sides are willing to change” (Nhat Hanh 2007, 9). Christians have much to learn from our Buddhist brothers and sisters. They are fellow travelers in the religious wilderness just like us. To assume they are wrong because they describe their encounters with the divine in a different way, using different scriptures and language, is to assume that they are not only less intelligent, but that they are less than human.

The work of Bultmann can help us at this juncture in history by helping us make sense of and affirm the religious traditions outside our own without robbing them of the truth and meaning they find in it. Religious pluralism need not be a problem if we merely affirm and love one another despite differences because our differences are not things to fear, but to celebrate. It seems only fitting to end with the words of Nhat Hanh on this very problem:

We don't want say the Buddhism is a kind of Christianity and Christianity is a kind of Buddhism. A mango cannot be an orange. I cannot accept the fact that a mango is an orange. They are two different things. We have to preserve differences. It is nice to have differences... But when you look deeply into the mango and into the orange, you see that although they are different, they are both fruit... At first you see the differences between the orange and the mango. But if you look a little deeper you discover many things in common (Nhat Hanh 1999, 17).

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The Banking Fragility Index Panorama in China

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ABSTRACT: The corresponding impact on china's banking system is becoming the focus issues of international economy and has become the major theoretical and practical issues for China to deal with the increasingly complex international economic situation. Since 2004 the formation mechanism reform started, China's banking system experienced a steady development and the supervision on banking fragility keeps pace with times to meet the requirement of operation. How to measure a bank's operational performance is not get to a conclusion in academic field. This paper aims to review the measurement of banking fragility index of Western and Eastern world and using data on Chinese banks to develop an index of banking fragility and subsequently examine the factors affecting the index. Industry analysis will be introduced in this paper. The academic debates on factors affecting banking fragility index are analyzed and this paper will choose a number of widely-used index for the regression test. The findings about the effective countermeasures to the banking fragility Chinese banks facing as well as the objectives of the financial reform are discussed. A conclusion presents the resulting implications for further research.

KEYWORDS: Banking, Fragility, China, Regression

Introduction

A stable bank fragility index is important to economy growth of a country. It can also lead to a new financial policy or an unexpected bank run. Since formation mechanism reform of China's banking system in 2004, it experienced a steady development of China's banking system. Especially after the 2008 worldwide financial crisis, compared with European and American national banks, China's banking system achieved a remarkable result. Chinese banks are still facing high risks which cannot be neglected. The pressure on the non-performing loans continued to grow worldwide. Under the conditions that the country's commercial banks are weak on financial strength, inadequate on capital, not perfect on operating mechanism, unreasonable on management models and shortage on talent pool, it is significant to study China's commercial banking system's fragility, determine their trend and give rationalized and feasible countermeasures and suggestions to enhance the stability of China's banking system. The subsequently developed bank monitoring policies and the corresponding impact on china's economy are becoming the focus issues of international economy, and also has become the major theoretical and practical issues for China to deal with the increasingly complex international economic situation which must be faced up to.

First, this paper will explore China's bank fragility index based on local research and Kaminsky (1998, 26-28)'s method using the bank's data from 2007 to 2018. Second, this paper will find what indicators affect the BFI in China. Third, this paper will explore whether China should actively promote the reform of financial environment mechanism while taking the initiative, in a controllable and gradual manner. In the meantime, it will also put forward countermeasures which China may take facing different situations and recommendations on the reform of the banking system policy.

China's current banking system

With the first Japanese bank opened in Beijing in 1980, the liberalization of Chinses banking system has started. At the end of 1990s, under the huge effect of Asian financial crisis, the ratio of China's non-performing loan has dramatically increased to 30%-40% of total loan. (Ran Li, Xiang Li, Wen Lei and Yiping Huang, 2015,72)

Although mainland China has survived from the 1997 Asian financial crisis, but not until 2006, The China Banking Regulatory Commission (CBRC) announced its approval for nine foreign-funded banks to start their preparatory work in China. (PwC financial report, 2016, 28) Meanwhile CBRC is committed to comply with the following regarding the foreign bank

restrictions cancellation, the RMB business and the foreign currency business of foreign banks: (a) all restrictions on the target customers to foreign banks in dealing foreign exchange business are supposed to be already cancelled; (b) all current unnecessary measures regarding the issuing licenses will be cancelled; (c) foreign invested financial leasing companies may, in accordance with the same conditions for Chinese financial leasing companies, provide financial leasing services. (Javier Serrado and Banco Sabadell 2003, 3)

Due to the rapidly growth of economy in China, good investment environment, there is a huge increase of foreign Banks in mainland China including their branches. Statistics show that foreign banks now account for about 1.26% of the total market share in China. These market shares are hold by 1013 foreign banks from 21 areas in the world. (The World Bank 2018, 6)

Foreign Banks are more competitive in capital strength, international network, management experience compared with Chinese commercial banks. Their significant advantages are risk management and risk control. In the wake of the Asian crisis a decade ago and even more recently, during the banking crises in Argentina and Turkey, policymakers have been making pro - active efforts to restructure their banking systems (Hoelscher and Ingves 2006, 13-15). There are following advantages of the entry of foreign banks: (a) It will improve local banks service standard. (b) It will deepen the recapitalization of the society. (c) Local banks can modify the remaining management method in order to reduce management risks. At the same time, foreign Bank's entry strengthens the competition between banks in the financial market. (Ghosh 2010, 24) It is obvious that the local banks has lack of capital, unsound management mechanism, unreasonable management mode compared with foreign banks, this will no doubt increases the overall risk of Chinese commercial Banks and increases their vulnerability, at last results in the decrease of the ability to resist risk.

On the other hand, as one of America's largest trading partner, the outbreak of the subprime crisis in the United States not only bring direct losses to China's commercial Banks which involved in foreign investment, but also brought huge influence to the export of China. The U.S. subprime mortgage crisis caused its domestic consumption sharply shrinking which directly scroll down China's export volume. Export income takes a crucial part in GDP of China. China's economy is almost an export-oriented economy; this makes a large impact on the country's macro economy. So, the U.S. subprime crisis made a negative impact on the the commercial banking system in China, to some extent, increased their vulnerability.

Methodology and Main Findings

The ratio of credit to GDP growth and the Chinese banking system fragility is significantly correlated, the inflation rate and current account/GDP ratio has weakly significant correlation with the fragility of the banking system, while the GDP growth rate, the fiscal deficit/GDP and the stock market price-earnings ratio have very low correlation with the fragility of the banking system (Han 2000, 33).

Liquidity factors are the main factors due to Ming Zheng (2003, 48-50)'s research, but its effectiveness was significantly decreased, while the effectiveness of credit risk and market risk does not decline, contrary show a rising trend since year 2005. She doesn't choose NPL ratio when constructing the model, she thinks that the source of the data does not accurately reflect the real situation of banks in China.

A non-linear (downward opening direction parabolic) relationship is found in Zhiqiang (2012, 91-94)'s paper between liquid assets and profitability and the strikingly different behaviour of liquid management of four major state-owned commercial banks and ten share-holding commercial banks. This study also found that four state-owned commercial banks and shareholding commercial banks have a completely different mobility management model, the state take responsibility of commercial banks' liquidity risk and insolvency risk and provide implicit guarantee, so the four major banks reduce liquid assets and configure more high-yield assets.

The main reasons of Asian crisis are Moral Hazard and Overinvestment suggested by Krugman (1998) as a New Keynesian economics and Ming Zheng (2003, 51-52). They believe that

government and financial institutions have such implicit transactions and will continue to do so to make prices stable. The government takes too much responsibility for banking system. The vulnerability of China's financial system is caused by state-controlled financial system and subsidies policy within the system as Yingli (2002, 14-15) argued.

Nonbank institutions' excessive debt in China are blamed to lead to banking system fragility. It brings forward that bad debt is the basic reason of Asian financial crisis and a surefire borrower credit risk identification system is very necessary not only for Asian bank but also for the whole world banking system.

Other argues that information asymmetry is the main reason of China's bank fragility and this reason takes more and more important place in China. Researches point out that the degree of openness and commercial bank fragility of the banking system; foreign banks entrance and the number of crises is both negatively correlated.

Analysis on the relevant data of the commercial banks from 1991-2000 shows that noting of the vulnerability of commercial banking system are due to the following factors: inflation rate, fixed asset investment growth rate, fiscal deficits, deposit and loan spreads, import growth rate, etc. Hongbo (2004, 8) in his paper proposes state-owned commercial banking system fragility are affected by macroeconomic factors more than microeconomic factors; the interest rate, growth rate, inflation rate is the most important reason of bank fragility. Wei (2005, 48-56) did her empirical research of the institutional analysis variables and achieved a good regression result, confirmed the main factor of the vulnerability of China's banking system is the supporting institutional factors.

Summarized above literature, the most common factors regarding to China's bank fragility are shown in below table 1.1.

Table 1.1 Micro and Macro Factors Regarding to China's Bank Fragility

Macro(4)				Micro(5)				
GDP growth rate	CP I	Capital account openness ratio	Changes in exchange rate	Capital Adequacy Ratio	NPL ratio	The average return on net assets	RMB deposit ratio	Foreign currency deposit ratio

This paper follows the Xiliang Liu, Xin Zeng (2011, 25-32)'s BFI equation in his research. A comprehensive BFI equation should clearly reflect the following three factors: liquidity, stability, profitability. Deposit ratio for both RMB and foreign currency, NPL ratio and ROE ratio, these indicators take on board the three major dimensions of banking operations: stability, liquidity and profitability. (Demirguc Kunt and Huizinga, 2004, 377, 380, 390-398)

To construct the BFI, we proceed as follows. For any year *i*, the index for the *i*th dimension, BFI_{*i*}, is given by the expression:

$$BFI_i = \left(\frac{RDCB_i - \mu_{rdcb}}{\sigma_{rdcb}}\right)^2 + \left(\frac{NPL_i - \mu_{npl}}{\sigma_{npl}}\right)^2 + \left(\frac{ROE_i - \mu_{roe}}{\sigma_{roe}}\right)^2 \quad (1)$$

Where RDBC represents RMB deposit ratio; μ represents the indicator's arithmetic mean; σ represents the indicator's Standard deviation. The significance of BFI is as follows: (a) the construction of BFI makes the above four indexes behave according to chi-square distribution. Based on the bank's time series data, we can describe the variation trend of BFI of the bank which reflects the variations of the bank's fragility. (b) When the surveyors limit the Index within a given confidence interval, we can figure out the range of values of BFI. If the actual value of BFI is beyond the range, the bank is in fragile state this year. (c) If we put the critical values of the above four indexes that are regulated by supervision department into the formula, we can calculate a value

of BFI. When the actual value of BFI is smaller than the set value, the bank is in stable situation this year according to the supervision standards; when the actual value is bigger than the set value, the bank is in fragile situation this year according to the supervision standards. (d) if we have enough quantity of the samples collected from the bank, the accuracy will improve when we use the Index to estimate the level of the bank's fragility. (e) We can further expand BFI by bringing into more indexes, such as macroeconomic index. Therefore, we can use the deviation degree of the actual value of BFI from the average historical data to estimate the level of the bank's fragility and the probability of calculating the level of fragility without relying on the sample data of bank failures or crisis. It also possesses early warning function and is suitable to China. The disadvantage is that the high accuracy of BFI requires a large amount of historical data of samples collected from the bank.

The data for the analysis is drawn from "China Financial Yearbook", "China Statistical Yearbook", China Economic Information Network statistics database, China Banking Regulatory Commission Annual Report, Thomson One Banker database and World Economic Outlook by IMF and CBRC annual report.

Table 1.2 Summary statistics of the whole industry data and generated BFI of China

	RDCB	NPL	ROE	BFI		RDCB	NPL	ROE	BFI
2007	0.7689	0.1175	0.1085	4.5337(1)	2013	0.6687	0.0482	0.1794	2.8098(0)
2008	0.7392	0.1100	0.0928	3.5200(1)	2014	0.6772	0.0176	0.1485	0.6164(0)
2009	0.7506	0.1065	0.1281	1.9360(0)	2015	0.6807	0.0126	0.1375	0.3800(0)
2010	0.7045	0.0958	0.1452	0.0606(0)	2016	0.6820	0.0100	0.1160	0.9350(0)
2011	0.6810	0.0750	0.1525	0.5824(0)	2017	0.6982	0.0095	0.1050	1.3419(0)
2012	0.7239	0.0635	0.1713	1.5947(0)	2018	0.6539	0.0097	0.1794	3.7729(1)

China's commercial banking system is fragile between 2007 and 2009, which is the period of the worldwide financial crisis. In 2007, affected by the RMB inflation as well as the outbreak of American financial crisis, banks in China face higher fragility (Dwight H. Perkins, 2018, 141). From 2018, due to the intense economic relationship with US, the BFI was increasing gradually and achieved the alarming line.

The RDCB in 1993 in China is 113%, it decreased to 80.3% till 2000 and drop to 60%-70% level. Banks have enough liquidity to offend the risks (Ran Li, Xiang Li, Wen Lei and Yiping Huan 2015, 75). Since 1999, the state council set up four financial asset management companies who will take charge of stripping off non-performing loans from financial institutions, according to CBRC 2011 annual report, as of to June 2010 total amount of stripped non-performing loans of financial institutions is 2.0389 trillion RMB, the non-performing loans of foreign currency is up to 33.35 billion RMB. But through the test with confidence level of 95%, the model shows that the NPL ratio is the primary issue that plagues China's banking fragility.

ROE is closely relative to the vulnerability of the bank, blind pursuit of profit and maximize profit exists in China's banking industry, thus management level may ignore the asset quality, resulting in the improvement of the non-performing loan ratio and increase in the vulnerability ratio of the bank.

Further statistic test on macroeconomic factors

We already generated BFI using 3 main significant microeconomic factors. To what extend the macroeconomic factors affect the index will be discussed in this chapter. We construct LS model to test the correlation between BFI and main macroeconomic factors. The dependent variable y is the BFI described earlier. Independent variables include 4 macroeconomic variables in the basic equation: x1: GDP; x2: CPI; x3: Capital account openness ratio; x4: changes in exchange rate. We standardized x1 to x4 by equation (2) and take ln for each serious (for adjusted y= y-minimum/maximum-minimum) gathered data are shown in below table1.3.

$$x_i = \left(\frac{x_i - \mu_{x_i}}{\sigma_{x_i}} \right)^2 \quad (2)$$

Table 1.3 Draft Data for BFI Regression

lny	lnx1	lnx2	lnx3	lnx4
0.693	0.401	0.483	0.693	0.040
0.573	0.348	0.161	0.302	0.693
0.354	0.271	0.007	0.058	0.145
0.000	0.197	0.090	0.013	0.002
0.110	0.116	0.123	0.187	0.185
0.295	0.028	0.061	0.330	0.005
0.479	0.000	0.188	0.099	0.192
0.117	0.013	0.465	0.036	0.390
0.069	0.112	0.001	0.000	0.000
0.179	0.325	0.123	0.012	0.010
0.252	0.497	0.238	0.006	0.063
0.604	0.693	0.693	0.272	0.169

In order to analysis to what extend the independent variables affect the BFI, we construct model:

$$y = \beta_1 + \beta_2 x_1 + \beta_3 x_2 + \beta_4 x_3 + \beta_5 x_4 + \mu$$

Here β_i is coefficient and μ is random variable. Regression results in R:

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.170690 -0.041930 -0.008011  0.011252  0.294436

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.05340    0.08074   0.661  0.5295
lnx1         0.34963    0.25533   1.369  0.2132
lnx2         0.04008    0.27526   0.146  0.8883
lnx3         0.68946    0.24706   2.791  0.0269 *
lnx4         0.28852    0.22981   1.255  0.2496
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1521 on 7 degrees of freedom
Multiple R-squared:  0.7234, Adjusted R-squared:  0.5654
F-statistic: 4.578 on 4 and 7 DF,  p-value: 0.03929
    
```

According to data in the table, the model estimated as:

$$Y = 0.05 + 0.35x_1 + 0.04x_2 + 0.69x_3 + 0.29x_4 + \mu$$

R-squared 0.7234

Adjusted R-squared 0.5654

The p value of each observation shown as below table 1.4:

Table 1.4 P Value Result

	X1	X2	X3	X4
P value	0.094	0.078	0.005	0.307

Given significance level $\alpha = 0.05$, The p value of X3 is smaller than α . Hence the coefficient on capital account openness ratio is positive and statistically significant. This suggests that greater changes in capital account openness ratio leads to an improvement in banking BFI. The magnitudes indicate: a 10% rise in changes in capital account openness ratio raises banking fragility by roughly 5%. The macro indicators have no remarkable effect on the fragility index of banks, but still should not be ignored. According to the model, macro indicators failed the statistical test, it may cause by that the financial economic transition period China is in which is not yet fully market-oriented. The current bank vulnerability more rely on microcosmic body. However, we still find through the regression model that the changes of exchange rate has obvious effect on BFI, this reminds us that at the same time, with the acceleration development of China's financial and economic marketization, we need to keep a close eye on the impact of macroeconomic factors.

Conclusion

Monitoring ultimate owner of lender takes an important role in maintaining China's financial market stability and reduces the vulnerability of the banking system for the short term is necessary. Eliminate the bank depositors caused by panic can make the economy in a stable level. At the same time we must see that compared with foreign advanced control network belonging to a more extensive management pattern, China's policy of ultimate owner remediation has the shadow of old policy. No matter in what kind of risk central bank would bail out, this made commercial banks ignore risks that already exist. The Moral Hazard thereby significantly increasing instability (Weiqun 2006, 28-31). What to do reasonably for central bank is that seize the best opportunity to rescue, at the same time avoid the transition of the ultimate owner from one firm to another or typically from parent company to is subsidiaries.

As for the Long-term strategy: Strengthening bank balance sheets. The government has borrowed heavily to recapitalize banks and take NPLs off their books. In 1998, it issued \$32 billion in bonds to recapitalize the banking sector. In 1999-2000, bonds were issued by four asset management companies (one for each SCB) to absorb approximately \$170 billion of bad loans. (Xuguang and Luo 2005, 25-30) Chinese commercial banks are now adopting balance sheet criteria that reflect international practices; for example, as recommended under the 1988 Basle Accord, risk-based capital ratios of 8% are being maintained, although there is concern among some analysts that the Basle criteria understate the riskiness of assets held. Loan-loss provisions are now to reflect asset quality, and since the beginning of 2001, they are gradually reaching levels of 100% compared to 1% of loan balances previously (Zhiqiang 2012, 93). Financial statement definitions are also gradually being brought in line with international standards.

Using commercial lending criteria. According to legislation and rules adopted in the mid-1990s, banks now must base lending on commercial criteria. At present, this policy is being adopted gradually throughout China. (Wei 2005, 51-54) To reduce risk exposure, loans must be made against collateral, banks must assess borrower creditworthiness, and loans to a single borrower must not exceed 10% of bank capital (Yu Kang, Ling Ling, Meng Luo, 2012, 10-11). To shield banks from political pressure, individuals and nonbank organizations may not interfere in bank operations. Commercial banks may not give unsecured loans to related parties or provide secured loans on preferential terms.

Improving globalization. More Chinese firms and banks are listing their shares, exposing them to market discipline. The top 100 firms listed in China's stock exchanges have some state ownership (Ran Li, Xiang Li, Wen Lei and Yiping Huan 2015, 88). The Bank of Shanghai welcomed three international shareholders, including the global banking giant Hong Kong and Shanghai Banking Corporation (HSBC) and the International Finance Corporation (IFC) under the World Bank, which hold 8 percent and 7 percent respectively of the Shanghai Bank's shares. In a recent development, an Australian bank has established a joint-venture with CCB, the largest provider of private housing loans in the country to process mortgages (Perkins, 2018, 148-153). Banks also are required to introduce governing boards and are to be audited by an approved accounting firm.

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Adoption History. From Ancient Societies to Contemporary Societies

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ABSTRACT: From the earliest times, the religious factor has said its word on several social systems. The social factor has been of great importance and relevance to the social construction of the communities as well as to the regulation of the various institutions I have chosen the ones that represent the interests of society. Among these institution is adoption, being one of the oldest law institutions. Adoption is a social phenomenon that has undergone changes that have been inevitable and a breakthrough in the turn of the century. This form of social protection of children, adoption, played a particularly important role in antiquity especially in the institutions of the Jews, the Assyrians, the Greeks, the Indians and the Romans, because the adopted person was perceived as the one to represent the perpetuation of the religious and political interests of the people, after the persons who approached the children died.

KEYWORDS: adoption, adrogation, family, the system of adoption, social protection

Introduction

It should be noted that in Ancient Greece, adoption was recognized as an institution of public law. Referring to the Indian people, the conditions, forms and effects of adoption were governed by the law, Manu. Manu, speaking of adoption, said: "Whose nature did not give him a son, he may adopt, that the ordinances of the ceremonies may not cease", that the begotten may be the brother's child. Adoption of the Indians in antiquity had a profound interest and cultic utility, that is, it was very important that the people do not quit disappearing, but that someone should be left behind to take care of the funeral ceremonies and the domineering cult.

In the Older Jews, the form of adoption was met by considering that the child of the deceased brother was like his own child, following the marriage of the levirate (Explicative Dictionary of the Romanian Language: levitating to the Jews and other ancient peoples that compelled the brother of a deceased to marry her widow with no child. The appropriate legal practice (with the widow of the deceased brother).

By questioning the primitive people, we can note that the adoption was accompanied by various ceremonies, which consist of a preterm birth, a leak to the chest, to the finger, or a mixture of the adopter's blood with the adopter, so that the acquisition a son to be as close and closer as possible.

In Muslims, adoption is of a particular nature, taking into account the tutelage with which it is confused. In the holy martyrdom of Muslims, the Qur'an says: "God gave man one heart; return your sons who are adoptive to their father, for he loves God. If you do not know the authors of their days, religion urges you to love them as brothers as your relatives" (Grigore 2009, 1). Currently, among Muslim countries, only Tunisia accepts adoption. The necessity and importance of adopting a law to regulate and establish the legal status of adoption arose from some quite tragic events in that country in the winter of 1955-1956, when a lot of poor children were on the street in the to die of hunger, without being able to find a necessary aphorism at the moment (Mihăilă 2010, 18).

In Roman Law, the end of marriage was intended to ensure that the head of the family descended to ensure the perpetuation of his name and to conceal after his death the administration of the goods. But if the head of the family had no descendants, it remained the only opportunity to create some "artificial" on the path of adoption, which established between him and another foreign person similar relations with those on which marriage produced between his parent and his descendants.

The importance of adopting the adoption of the Romanians

The essence and importance of the establishment of the Adoption in the Romanian Law constituted its political and religious interests. For the Romans it was very important that the name of their people be carried forward so that it never ceases. Thus, if someone died without having male children, one of the branches of the family salsa was also extinguished. During the very highest magistrate was the Consulate, which only the patricians could have. Through the adoption process, the plebeans were offered among the only means of assisting the Consulate, if adopted by the patricians, and the patricians could become the people's tribune if adopted by the plebeians. One important thing was that adoption provided and guaranteed succession to the throne of the country, when the emperors had no legitimate children. For example: Octaviano, Nero, Traian, Justinian, they were adopted (Mihăilă 2010, 19-20).

The adoption regulations of the Romanian legislation remain the most representative and important in the ancient era, deserving to be researched and analyzed, because the early Romanian legislation in the field of adoption, along with the traditions and customs of the other nations, could be a good example of the implication and significance of the religious in today's adoption system.

Adoption is a solemn act by which a Roman citizen wins the parental power over an alien juror (people submissive to others people). It is accomplished through a rather complicated procedure consisting of a separate sale to a third party, followed by an injured loss in favor of the adopter, which is reduced, in Justinian's time, to a simple statement made to the authorities before the adopter. Also, the express consent of the child was not required, it was sufficient to be present and not to oppose. The adopter acquires succession rights in his new family but continues to retain some funeral rights in the home family as well. The adoption/seniority act was viewed as a charity for a single child who came from a family who could not offer him a good shooter, but this is seen as a glamorous experience to be a parent.

Adoption in the old Romanian law

The establishment of admission continued to exist in the Middle Ages, especially by taking over the provisions of Roman law. In the former countries of Romania, a number of institutions and rules also concerned the legal condition of illegitimate and legitimate children. The one who has been told about the situation of the child born of marriage was the adopted child. For the admission process, there is no need for unpaired children from the marriage, but often this institution concerned children born out of wedlock. The terminology of the legal institution of the adoption was quite varied, meeting the term "adoption", along with the "adoption", "sentiment", "jokes", "child of soul", "body" .

In the old Romanian law, the choice was more related to humanitarian considerations / arguments, stemming from the necessity of the moral of ensuring and respecting the protection of the children left without family with relatives to care for them, being little conditional the affective solidarity of being between the child and his future parents, or the assurance of material and financial continuity of the family. Thus, these examples are presented above, the following information, dated February 13, 1664, in a letter of consent from Sina de Mare of Mihail Apafi, Matei Gergely, "adopted as a son, under certain conditions, for all his movable and buildings from the Odorhei chair, Ștefan Biro ... " (Mihăilă 2010, 18).

The frequency of adoption in moral needs is explained by the modest and simple condition of the peasant population of the Middle Ages, due to the low interest in securing and guaranteeing the continuity of the winning possession, which is why in the psychology and mentality of the Romanian population the adoption appeared as a condition/explaining both the tendency not to adopt and the retention of mercy towards the admitted child.

A very important aspect was that between the adopted and the adopter there was an age gap, which was not specific, which varied from one legal regime to another. Adoption assimilated or acquired it with very few explanations, the one adopted with the legitimate one. In the development and continuous evolution of the institution, two types of adoption are known, namely *adoption filialis* and *adoption fraternalis*.

1. *Adoptio Filialis* was the adoption for the realization of legal relationships of filiation (imitation naturae) and was the type of adoption known to us.

2. *Adoptio fraternalis* is the fraternal adoption with the main purpose of establishing and forming as a brother the adopted one, corresponding to some extent to an original institution of the old Romanian law, the adoption, which in fact consists in the fact that besides Individual twinning also met with twinning, as was the case with children who were twinning, forming the family group of children.

It should also be noted that the adoption of the soul was a real form of completeness of the filiation, which was more common in the Middle Ages, when the number of children was larger, but still possible not only in the churches of lacking heirs, but also for humanitarian reasons, which constituted and represented, one of the old features of a Romanian patriarchal family that distinguished it from that of the peoples.

In the communal system, the adoption is done with the consent of the parents ("to give up", "take heart", the child necessarily acquire the family name of the infetter, and have full rights with his family as his own children, without losing the dominant and upper class also uses preponderance in order to ensure the continuity of goods.

In the written law, snatching was considered "as taking someone as a son, outside marriage".

Enhancing the law fixes the rights of adoptive children that are the same as legitimate children. As a rule, the one who was born was a relative of families of children who were more or poor, but they could also be foreigners, but in rare cases. Parental power was exercised just as with legitimate children, and the obligations and duties of the children were also the same; for example, if there was only one heir, the duty to deal with and the needs of the soul of the deceased deceiver.

Similarly, as a structure and subsequent purpose with the adoption of Wallachia and Moldavia, the adoption is recorded in numerous Transylvanian feudal sources, such as the texts of laws, documents and acts that also specify some particular aspects of it.

The regulations regarding the adoption of the Romanian legislation remain the most representative and important ones of the ancient period, deserving to be investigated and analyzed in more depth, because they were also the basis of the early Romanian legislation in the field of adoption and, along with the traditions of the other ancient societies. It could also be a good example of the greater involvement and significance of the religious factor in today's adoption.

Adoption, which was reserved only to Roman citizens, as the only ones entitled to hold the paternal power within the Roman Empire, was of two types: the actual adoption and adoption (Grigore 2009). Is very important to mention the differents between adrogation and adoption.

The term of adrogation comes from ad and begging, after the three questions asked to the adrogant, the surrogate and the people, through which the adrogation is validated. By adultery, the new member entered the new family there he borrowed the name and god of the adoptive family. In the beginning, the approval of the Pontifical College and the approval of the people by a curated law were required for the execution of the abrogation. The addict was supposed to be 60 years old. Also, he had to be male, to be a parent, not to have children and no hope of having, to be sui juris (the person sui juris, in the Roman acceptance, is the independent person, who is not subject to anyone and self-mastery) and capable.

The actual adoption was a solemn act whereby a Roman citizen gained parental power over an alien juris person (persons subject to others). It was carried out through a complicated procedure, recorded in the Law of the XII Tables, and consisted of a complete sale to a third party, followed by *a jure cessio* in favor of the adopter, which was reduced, in the time of Justinian, to a simple declaration made before the authorities by the adopter. Also, the child's express consent was not required, it was enough to be present and not to oppose. The adoptee acquired inheritance rights in his new family, but continued to retain some inheritance rights in the family of origin (Grigore 2009, 1).

Conclusions

The importance of the institution of adoption has undergone many changes over the years and is also identified in many peoples. These peoples have tried to improve the adoption system and create a healthy society. Building a healthy and prosperous society is based on its basic institution - the family. The laws, laws and policies enforced throughout the centuries have demonstrated that adoption is an instrument used to complete the family and build societies (Irinescu 2009).

In conclusion adoption is a way that gives the child whose parents are unwilling or unable to care for him, or are not suitable for the roll of parents, the opportunity to live in a family environment, generates strong feeling and debate, being influenced ongoing social changes and also it is a big support for children for all life (Irinescu 2009, 20).

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Playground Safety Practices. Injury Prevention and Effective Investigation

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ABSTRACT: While technology and business patterns are evolving at a very high pace, new markets are developing, and so are consumer preferences and expectations. Over the past 30 years, entertainment industries have become sectors with immense profits and sustainable growth, the children segment being the greatest contender. However, the multitude of options in terms of attractions to choose from is not always accompanied by strict knowledge of operational standards, thus creating an increase in the risk of injury that children are subjected to during their play-time. Despite the fact that most playground equipment's are not properly certified or do not comply with the specific provisions, most cases remain inconclusive, due to lack of evidence arising from a knowledge gap that the authorities must cover. In case of playground accidents, the investigators need to be well aware and up to date with the regulations, not only to determine who to hold accountable, but also to be able to take the necessary control measures in order to reduce children play-related injuries.

KEYWORDS: accident, children, injuries, playground, safety

Introduction

The entertainment sector has been facing a perpetual transformation for the past decade, rapidly improving and developing the multitude of solutions made available to the consumer looking for diversity.

As far as children are concerned, this variety comes along with a number of reasons that prevail in the decisions of their parents or caretakers when they choose a form of entertainment on their behalf. By all means, the safety factor should always be a top priority.

Apart from all the benefits that playgrounds bring to the harmonious growth of our youth, they represent also the most frequent settings for accidents in case of those below 14 years of age, due to them being highly exposed to these types of locations they get in contact with - at schools, in parks, commercial centers, etc.

The most common circumstances in which related accidents occur are either falls from equipments, or injuries caused by moving elements and many times even physical contact between two or more kids.

But some factors causing these occurrences are determined by the nonobservance of legal provisions regarding the proper functioning of equipments, or the absence of information on the risks in usage.

Aspects concerning children playgrounds in public spaces (outdoor playgrounds)

The outdoor environment is the perfect place for children to put their energy to good use through activities such as running, jumping, sliding or pushing a swing; but many existing playgrounds should be removed and replaced, because children are not safe among rusty or weakened material that have not been improved or properly maintained.

However, the modernization tendency of recent years has brought forth a different perspective on the manner in which equipments are manufactured. If metal was used as predominant material, nowadays plastic, wood and rubber prevail, while the industrial pattern is constantly adapted and oriented towards improving children safety during playtime.

Aspects concerning children playgrounds in shopping centers (indoor playgrounds)

All entertainment demands in commercial spaces are currently met at maximum capacity. In every shopping mall, potential clients or visitors are also parents, who bring their younger ones to the existing

playgrounds and they hand over their care to trained employees upon payment of an entrance fee, while they continue their shopping activities.

The presented types of playgrounds are thus distinguished not only by the operational manner that they function in, but also by how the criminal liability is expanding from the administrator of the space, to those who are assigned supervision duties.

Nevertheless, all those responsible need to prevent any risk of injuries caused by accidents, through an in-depth knowledge of the risks in usage that each equipment might face and to avoid overcrowding in order to ensure that the play activities are carried out in complete safety.

On the other hand, failing to perform these tasks is not considered negligence in every circumstance, since it is neither necessary nor possible to supervise a particular child throughout the entire duration of his playtime. A supervisor might have within his range a slightly higher than average number of children that he cannot practically watch simultaneously over, especially since they can slip into smaller areas that full grown individuals cannot access, as most equipments restrict their use by people who pass a certain weight or height limit.

European safety standards

Due to the fact that they set the general safety requirements for playground equipments while considering the risk factor based on the available data, these standards described below have been adopted as local standards and apply to both outdoor and indoor equipments (but not to amusement parks that are part of an entirely different risk classification).

Their purpose is to prevent accidents with major or fatal complications, and at the same time to diminish the occasional consequences that will inevitably arise from children's focus on expanding their level of proficiency.

All these related play attractions have been defined as recreational equipments, exclusively operated by human weight or physical strength, intended for children's use, on a temporary or permanent playground (H.G. no 435/ 2010, Art. 2).

EN 1176 – Playground equipment and surfacing – is presented in 9 parts, as follows:

- EN 1176-1. General safety requirements and test methods (ASRO, SR EN 1176-1, 2009, 27).

This part provides information applicable to all the types of equipments falling under the standard.

Materials must meet certain requirements, be of superior quality and have protective covering in certain areas; proper structural integrity must be proven so that the construction is manufactured in optimum conditions and withstand the most unfavorable physical demands.

Various measures against material locking must be taken, as well as for remaining openings in the design of the equipments, so as not to risk blocking certain parts of the body while using the items, and specific calculations must be made for determining the impact zones and the minimum spaces of all these devices.

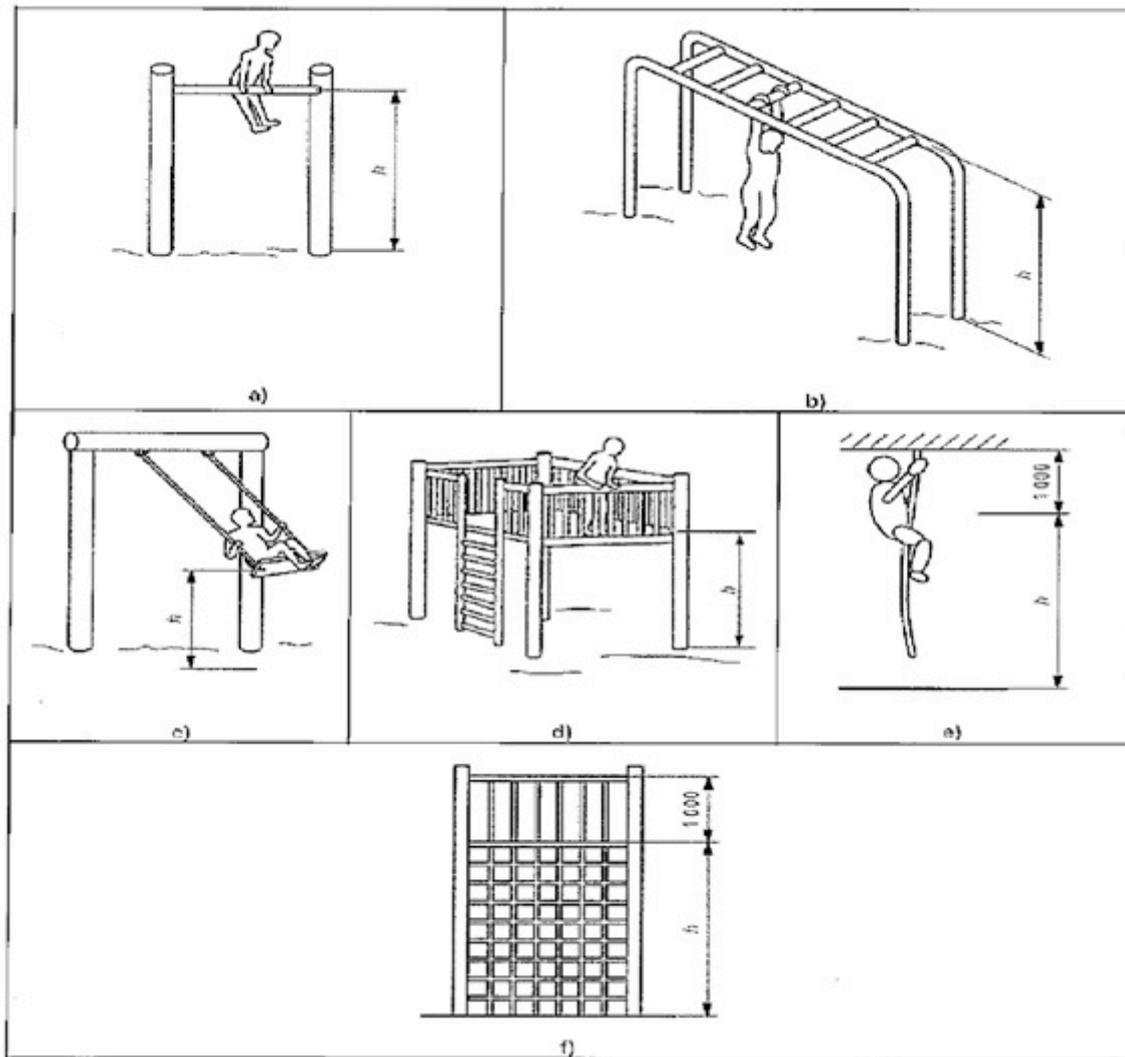


Figure 1. Examples of heights in free fall

Source: ASRO, SR EN 1176-1, 2009, 27

- EN 1176-2. Additional specific safety requirements and test methods for swings (ASRO, SR EN 1176-2, 2010).

This part of EN 1176 focuses on the additional safety requirements related specifically to swings, with their definition and examples of models, while providing information on free safety spaces from the ground or for the seat position, on stability, frames, suspension points, and so forth.

- EN 1176-3. Additional specific safety requirements and test methods for slides (ASRO, SR EN 1176-3, 2010).

Much like the part before it, this one also indicates further safety requirements related just to slides that are permanently installed, and does not apply to the types requiring the use of auxiliary equipments or that are installed on other kinds of surfaces (water or uphill).

An essential reference for this specific device, which also became an imperative in the local legislation - through Government Decision no. 435/2010 in Annex 1 at Article 14 - *Essential safety requirements* - is the prohibition of the use of metallic materials in the manufacturing of sliding surfaces.

- EN 1176-4. Additional specific safety requirements and test methods for cableways (ASRO, SR EN 1176-4, 2008).

In this case, the provisions apply to transportation used by children to move along a cable, under the force of gravity.

- EN 1176-5. Additional specific safety requirements and test methods for carousels (ASRO, SR EN 1176-5, 2009).

This situation raises the conditions for carousels having a diameter of more than 500 mm and do not apply to equipments that do not have rotation as primary function, or that are set in motion by an engine. These particular carousels have separate restrictions on heights and fall areas, impact areas, rotational speed for each type of defined item.

- EN 1176-6. Additional specific safety requirements and test methods for rocking equipment (ASRO, SR EN 1176-6, 2009).

The applicability is limited to seesaws or other types of related elements, that can be set in motion by their user and are generally defined by a rigid component that balances around a central support.

- EN 1176-7. Guidance on installation, inspection, maintenance and operation (ASRO, SR EN 1176-7, 2008).

The essential guidelines of this segment are the information on installation, control, maintenance and adequate operation of playground equipments, including auxiliary elements (gates, fences and other surfaces). Recommendations are also established on the inspections to be carried out in accordance with the manufacturer's generic and specific indications in order to preserve the safety of the play space.

- EN 1176-10. Additional specific safety requirements and test methods for fully enclosed play equipment (ASRO, SR EN 1176-10, 2008).

These enclosed play equipments are actually in or outside buildings with a separate entry and exit zone; guidance on escape routes is provided, as well as on accessibility for adults to assist children, visibility, fall and impact areas.

- EN 1176-11. Additional specific safety requirements and test methods for spatial network (used strictly for play and not for training purposes in sports activities) (ASRO, SR EN 1176-11, 2010).

In addition to all of these parts of standard EN 1176, which provides all general safety requirements for the defined play equipments, there is yet another essential factor in the injury risk mitigation, namely the importance of the materials to be used for all the impact areas, determined by the standard: EN 1177:2008. *Impact attenuating playground surfacing - Methods of test for determination of impact attenuation.*

In the configuration of an accident, there are a multitude of events and facts that contain various information coming from either the parties involved or witnesses, or arising from hard evidence such as the actual injuries, the final positions of the equipments, the type and size of damages, the placement of parts and loose objects.

Even if the most common cause of accidents is the fault of the users in the operation of the play equipments, in the rest of the situations, these causes can be divided into two main categories: technical and organizational issues. In the event of malfunction, the causes may also be a consequence of premeditated actions.

Technical issues are usually caused by the faulty performance or premature wear and tear of the equipments, inadequate quality of materials, technical maintenance procedures not being performed as per manufacturer's instructions, while the organizational ones are caused by the lack of appropriate security measures, negligence in the supervision process (in the case of employees from indoor playgrounds) and in the equipments operation and failure to meet the technical regulations.

Any conclusion about guilt should consider whether all the physical evidence can accurately indicate the circumstances of the accident, especially if all measures regarding the safety of the playground and the compliance of the equipments with the standards in force have been observed.

The situation at the scene of an accident is dynamic, sometimes rapidly changing, and evidence must be protected so as not to be destroyed or altered (Ionescu 2007, p. 28). Therefore, the investigator must promptly apply effective measures not only to preserve the evidence, but also to

prevent the occurrence of other similar incidents. The use of all equipments involved shall be restricted until the investigation is concluded and all deficiencies are remedied (Buzatu 2013, 27).

Conclusions

Over the past 30 years, entertainment industries have become sectors with immense profits and sustainable growth, the children segment being the greatest contender. However, the multitude of options in terms of attractions to choose from is not always accompanied by strict knowledge of operational standards, thus creating an increase in the risk of injury that children are subjected to during their play time.

Following a playground accident, it is essential to carry out a thorough investigation to determine the circumstance and cause of the injury and it may also involve an expert report, especially if there is a concern that the malfunction of the equipment or the playing surface has contributed to the event.

Acts of negligence that may result in accidents:

- Inappropriate maintenance of equipments and surfaces;
- Faulty equipment installation or unauthorized spare parts replacement - in conflict with the manufacturer's instructions; any new piece must comply with the same quality specifications as it was manufactured by, without compromising it by purchasing something similar but not appropriate, solely for budgetary reasons;
- The lack of instructions or poorly provided information on the risks that the children are subject to while using any equipment. If there are any restrictions in use, they must be displayed correctly for everyone to access.
- Deficient supervision during playtime – whether it is in a shopping mall where this responsibility is of a trained staff, or it is in an outdoor playground where the guardian must acknowledge all these potential risks and prevent such incidents.

Risk-taking is a major feature of the provisions and settings in which children spend their time playing. The developmental importance of play and risk is part of a controlled and stimulating learning environment, which should also tend towards a balance between the need to predict risks and the need to protect children from serious injuries.

Despite the fact that most playground equipments are not properly certified or do not comply with the specific requirements, most incidents remain inconclusive, due to lack of evidence arising from a knowledge gap that the authorities must cover. In case of playground accidents, the investigators need to be well aware and up to date with the regulations, not only to determine who to hold accountable, but also to be able to take the necessary control measures in order to reduce children play-related injuries and implement effective prevention strategies.

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Malpractice – The Phenomenon and the Relevant Advantages of Mediation in Criminal Cases

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ABSTRACT: Malpractice is a relatively newly recognized phenomenon, whose negative effects regard both the client (patient) and the professional. Nowadays, there is a widely held intention of the client incurring damages from a malpractice case in order to obtain damage-repairs that are higher than deserved, but also to cause a “bad-advertising” for the professional in default, especially in criminal cases. Mediation seems to be an instrument to provide the best solution for both parties involved: the client obtains a better repair than a Court-of-Law can decide upon, while the professional benefits from a more confidential analysis on his default; additionally, the Courts-of-Law are relieved from analyzing malpractice cases. The mediation procedure for medical malpractice cases can be regarded as an extrajudicial alternative, a “WIN-WIN” solution, by its nature, for the parties in conflict who have a possibility of reaching a mutually beneficial agreement. Whereas, according to Article 16 of the New Criminal Procedure Code par. 1 The criminal action cannot be put into motion and when it has been put into motion it can no longer be exercised if: g) the preliminary complaint was withdrawn in the case of offenses for which its withdrawal removes the criminal liability, the reconciliation occurred or a mediation agreement was concluded under the law. Therefore, a positive result of the mediation activity in criminal matters would lead to the suspension of criminal proceedings in the criminal investigation phase or the termination of the trial at the trial stage. In addition to this advantage, other benefits of the mediation procedure in criminal matters will be discussed in the present article.

KEYWORDS: criminal cases, injury, malpractice, mediation, phenomenon, win-win situation

Introduction

According to art. 60 (d) of Law no 192/2006 on mediation and the organization of the mediator profession, it results that the malpractice cases which are unfolding in the courts of law are subject to mediation. According to the regulation in force, the one who causes another to suffer through an unlawful action committed with guilt is obliged to fix it, and he is responsible for the slightest fault.

The object of the mediation is the conflict between the parties. To mediate means to intervene between hostile parties and to lead them to solving a conflict. The mediator is obliged to value and analyze carefully the object of the conflict, before accepting the case, deciding if that conflict is likely to be solved via mediation (Buzatu 2013, 10).

The procedure of mediation is meant to find amiable solutions for the litigations to be mediated. Once a reciprocal convenient solution was found, the parties will conclude an agreement. It can contain an acquiescence to the claims of the other party, a disagreement or, it can turn into a transaction (Constantinescu and Buzatu 2014, 394).

In its essence, mediation seeks to optimize the interdependence relationships between two or more parties that have become incompatible, regardless of their nature: social, inter-human, institutional (Mitroi 2010, 25). The mediation procedure for medical malpractice cases can be regarded as an extrajudicial alternative, a “WIN-WIN” solution, by its nature, for the parties in conflict who have a possibility of reaching a mutually beneficial agreement.

Mediation for medical malpractice cases

In the cases of medical malpractice, mediation represents for:

- **The victim** – following an agreement concluded between the two parties involved, the victim may receive the sum of money representing the compensation for: the entire injury caused by the physician or other medical staff to the patient; the cost for the medical care, for the temporary or permanent loss of work capacity, for the procreation capacity, the loss of bodily integrity and the suffering the injured party has to bear (Șanța 2013, 8).

- **The offender** - for him, a reconciliation agreement between the parties represents the chance to gain his / her right to freedom; stopping the criminal proceedings in the criminal investigation phase or the end of the trial in the trial phase and closing the case, with the advantage that the deed will not be mentioned in the criminal record.

In the other criminal cases, which are not susceptible to a preliminary complaint, an attenuating circumstance, which the court will take into account in individualizing the punishment, is the settlement of the civil aspect of the criminal trial through a mediation agreement with the victim; thus, the court may considerably lower the punishment, appreciating the offender's efforts to repair the damage and straighten it.

At the same time, it is possible to prevent damage not only to the image but also to the reputation that the doctor has in society and the professional and/or academic-scientific environment (Mitroi 2010, 21). He can learn a valuable lesson, getting to know straight from the patient, by listening to his story and learning about the latter's experiences with the consequences of his/her medical error/fault. The positive outcome of mediation can be a lesson for the physician, teaching him how to improve his inter-relationship with other patients, avoiding similar mistakes, and continuously improving his medical knowledge and from a practical point of view, by being able to make those constructive changes that become apparent after the mediation experience. Relieving the courts of the large number of pending cases, which hinder the effective implementation of justice - by resolving the conflicts through mediation, in a shorter time.

- **For both the victim and the offender:** avoiding a long period of time in which a trial may be extended in the courts of law.

Due to the fact that the role of establishing the guilt or innocence of a doctor falls to other competent bodies, mediation only seeks to support the dialogue between the injured party (or the patient) and the offender (the doctor) respectively, with a view to reaching a consensus on the amount and method of payment of the amount to be received by the victim (Șanța 2013, 43).

However, not all negotiations have a positive outcome for various reasons: the interaction may be deficient - from the patient side versus the doctor who had cause him a disability or suffering for life (Șanța 2013, 26) either because there are barriers in communication, or because there was an inappropriate management of emotions that had distorted the climate necessary for negotiation; or, the complexity of the negotiated issues may prevent the parties from understanding all the implications.

The mediator must always be preoccupied with the interest of the parties and show empathy towards their positions, by actively listening to obtain the information necessary to achieve the desired result and acting as a mentor in the mediation sessions. The mediator will provide the parties with all the necessary explanations regarding the mediation process, which in turn will express their own vision of the conflict, identifying mainly the legal facts and implications. In a second step, the mediator assists the parties in recognising their specific interests, in identifying and establishing options for reaching a reconciliation agreement. The mediator listens to the parties' position, primarily separate, in order to obtain additional information they do not want to share with the other party, then involving both, encouraging an open and direct dialogue to understand and analyze issues that concern them, as well as their priorities. At a final stage, it is intended that the parties reach an agreement providing for the conditions of compensation, in respect of which the mediator draws them in writing, taking the form of a transaction agreement.

An extremely important thing that emerges from art. 68 par. 1 of the Law no 192/2006, is that in the course of criminal proceedings, the mediator must give the parties the right to legal assistance, mentioning in the final minutes whether they were assisted by the lawyer or whether they have expressly renounced the assistance.

In general terms, the mediation procedure comprises the following steps:

- inviting the parties to mediation;
- informing the parties on the merits of the mediation procedure in settling the dispute and on the rights of the parties to the proceedings;

- attending the mediation session with all parties involved and drafting the mediation agreement following the agreement concluded between the parties.

During the prior information meeting on the mediation procedure, the parties will be informed of the following issues:

- Mediation as a method of solving conflicts.
- The principles of mediation (impartiality, neutrality, confidentiality, voluntary character).
- The rights and obligations of the parties involved.
- The rights and obligations of the mediator.
- The role of the mediator in the procedure.
- Advantages of mediation.

The advantages of mediation in medical malpractice cases

The main asset of mediation is that it allows the participation of a third party, unrelated to the conflict and impartial, which seeks to put the negotiator's positions on an equal footing, helping them identify the common interests they should retain, who will work to create a favorable environment for good communication and, if necessary, suggest options for settling the dispute. It can be easily stated that mediation is a form of assisted negotiation. Its result will be a negotiated agreement of the same value as the parties could have obtained on their own, being facilitated by the mediator's activity.

One of the advantages of mediation in malpractice is the low cost to the traditional way of settling disputes. Generally, the court fixes for the guilty parties an amount of money, totally inconsistent with the outcome of mediation, where the amount of covering for damages is much lower because all reconciliation techniques are applied by negotiation. Moreover, another adverse effect of following the traditional way of judging is that, because of its contradictory nature, the parties turn against each other and, in the case of a dispute between a doctor and a patient, this is a particularly unfortunate consequence (Tudor 2010, 54). This is due to the fact that the parties had at some point a trustworthy patient-doctor relationship, such relationship being affected during a trial in court.

Among the benefits of mediation in medical malpractice conflicts are: the patients' response to the urgent questions and concerns that have led them to bring their doctor to court for their liability (Şanta 2013, 88) allows physicians to clarify what has happened and to express regret in this respect, thereby creating an opportunity to re-establish social relations; and possibly improving patient care in the future by facilitating communication and understanding that could lead to the prevention of future scenarios of the type that initiated the initial processes.

The advantages of mediation and utility are regulated under Law no 192/2006 on mediation and the organization of the mediator profession. In the cases of malpractice reaching the criminal sphere, the mediation can only be done with the consent of the offender, respectively of the defendant, and with the consent of the victim, respectively of the injured person. If both parties agree on the commencement of the mediation procedures, they will resort to the signing of the mediation contract. From the provisions of art 67, par. 2 of Law no 192/2006 Section 2 Special provisions on mediation in criminal cases "Neither the injured party nor the perpetrator can be compelled to accept the mediation procedure" As an out-of-court procedure, mediation can be accessed at any stage of the criminal process. With regard to the follow-up actions to the injured party's prior complaint, the parties to a criminal conflict have the opportunity to conclude a settlement through a mediation agreement without the need to notify the criminal bodies, thus preventing the opening of a criminal trial.

It would be preferable that the authorized mediators contacted to mediate cases of malpractice should have legal and medical knowledge, as well as be familiarized with the terminology used by insurance companies for an easy analysis of the cause of malpractice to a speedy settlement of the case through the mediation procedure, as regulated by Law no 192/2006. In this way, they would have acquired techniques and procedures distinct from the rest of the mediators.

At any stage of mediation, the parties can exercise the principle of autonomy by deciding whether or not to proceed with the mediation procedure, choosing a particular solution proposed during the mediation session. However, the mediator is strictly forbidden to impose a certain solution. When the parties have reached an agreement to meet their interests, the mediator will note this in writing by drafting a mediation agreement and a report of closing the mediation procedure. In order to obtain the enforceable power that is needed, the mediation agreement, being an private signature document, must be submitted by the parties:

- to the court if a case is pending in this regard for the latter to issue a court order, or the notary public

From the content of art. 60 par. (1) of Law no 192/2006 it is shown that during any stage of the mediation activity, the parties to the conflict have the right to denounce the mediation contract, thus obliging the mediator to record this through a minutes report within 48 hours from the date of the notification, and to bring this to the attention of the prosecuting authorities.

Conclusions

Medical malpractice processes are extremely costly, unfair and unsatisfactory for each party involved. Ideally, mediation should take place before civil or criminal proceedings are initiated, or even before seeking legal aid so as to maximize a decrease in the total costs associated with medical malpractice disputes.

It would be ideal, to say the least, for the public health directorate to hire authorized mediators to deal with malpractice cases that would have the knowledge of jurists and medical practitioners for an easy analysis of the cause of malpractice that would lead to a speedy resolution of the case by the mediation procedure, as it is re-enforced under Law no 192/2006.

The mediation procedure for medical malpractice cases can be regarded as an extrajudicial alternative, a "WIN-WIN" solution, by its nature, for the parties in conflict who have a possibility of reaching a mutually beneficial agreement. Whereas, according to *Article 16 of the New Criminal Procedure Code par. 1* *The criminal action cannot be put into motion and when it has been put into motion it can no longer be exercised if: g) the preliminary complaint was withdrawn in the case of offenses for which its withdrawal removes the criminal liability, the reconciliation occurred or a mediation agreement was concluded under the law.* Therefore, a positive result of the mediation activity in criminal matters would lead to the suspension of criminal proceedings in the criminal investigation phase or the termination of the trial at the trial stage.

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“Spoken Portrait” - Head Description

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ABSTRACT: The description of the signs referred to in the Specialty literature and the "Spoken Portrait" Method, has the characteristics of the body in its entirety, the emphasis being placed on the anatomic features of the face, being covered in the description of the volume, shape, position and color of the observed parts, each element being appreciated in the report with other anatomical elements that make up the described ensemble. Descriptions differ depending on who performs them. In some cases, the description of an individual by the eyewitness may be incomplete or even erroneous because of objective or subjective circumstances that prevent good perception. As a person can be distinguished from another, in a Forensic Sciences and yet identified way, it is necessary to describe his anatomical characteristics according to scientific methods, using appropriate terminology and precise criteria for dimensioning. In this sense, the identification is carried out by means of specialized methods and techniques in the framework of criminal prosecution activities, carried out according to tactical rules specific to the hearing of the witnesses or victims of the offense.

KEYWORDS: color, figure, forensic identification, signs, spoken portrait

Introduction

The foundation of the portrait was established in the XV Century by Leonardo da Vinci, who systematized the organs of the human body, appreciating them to be diverse: straight, concave, convex. It indicates that the technique of describing the portrait is the way to retain and reproduce the profile of a human figure after being seen once (Lucard 1932, 119). Every person has a certain, objective, invariable individuality in its essence and easily identifiable. It must be borne in mind that man is constantly and continuously evolving his particular features. Body features can also allow for changes that are largely conditioned by man's aspiration, such as the port of beard, mustache, the development of corporeality, the change in hair color, etc. Diseases or trauma suffered by the human body, certain surgical interventions may give rise to changes that are distinctive signs of that person. And age gives rise to changes that relate to the dimensions of certain organs or parts of the body, except those that have a bone or cartilage structure. The identification of persons by the portrait method is based on the principles of forensic identification, which is based on the thesis of didactic materialism, according to which all the objects of the material world are identical by themselves, they are individual and their characteristics are not repeated (Engels 1966, 180).

In describing the signals of a person, a precise and unitary terminology must be used, in a logical sequence. The description of the signals is done from the front or from the frontal plane and from the profile or from the lateral plane. The features of the head and face hold the main place in the realization of the spoken portrait and will be completed with the description of the whole body and of the clothing (Buzatu 2013, 92).

Head description

In Forensic practice and theory, the main elements of the face are described according to their location, starting with those located in the upper area, continuing with the middle and the lower ones. The figure of a person is examined from profile or front and includes face areas, respectively:

- a. The frontal area, limited to the top of the hair insertion area and continuing to the root of the nose;
- b. The nasal area between the root of the nose and the base of the nose;
- c. The mouth area includes the face portion between the base of the nose and the chin tip.

Five areas, namely forehead, eyes, nose, mouth and chin, can be considered, but the description will not be limited to them. Each constituent element of the figure will be described separately with the characteristic or particular elements, respectively:

The hair

Hair on the head is described by: color, nature, thread direction, insertion and hair loss. The color of the hair is marked according to the variants of shades: black-blue, black, dark brown, light brown, blond-red, blonde-gold, gray blond, platinum, gray and white.

Depending on the nature of the hair, it is classified as: thick and slim hair, the right hair - medium as thread thickness, curly hair, slick hair, curly hair. The hair part is determined by the type of combing presented in various shapes: right-hand, left-hand, middle-right, short-cut, full-grained, completely knotless. The hairline direction depends on its length. As direction, the thread can be oriented straight, forward, backward, left or right. Hair density is appreciated as dense, medium, rare, and intermediate. The insertion of hair on a person's forehead can be: straight, convex or concave. Cheeks can be appreciated as: large, appropriate or small, indicating their frontal, parietal or occipital position. Also, the data on how to cut the hair in front of the ears, indicating whether or not they are preferred, what is the size and form of their completion.

Forehead

Forehead can be viewed both from the front and the profile, insisting on the height, width, contour, inclination and peculiarities. The height of the forehead is appreciated as tripartite: high, medium or small relative to the distance between the hair and the root of the nose. The middle form is considered to be the normal height of the forehead.

As regards the width of the forehead, the description is made after a tripartite classification: narrow, medium or wide, after the distance between the two temples. Leaning of the forehead is established by reporting the real inclination to an imaginary vertical plane that runs through the base and root of the nose. Depending on this imaginary plane, the forehead is considered to be vertical, bulging, prominent, oblique, or fugitive. To consider that the forehead position is normal, it should be slightly inclined. Among the peculiarities we can mention in the forehead description: the protrusion of the arches, the frontal sinus, the frontal bosses and the curved profile.

Arcades can be large, medium or large. Their size varies with the angle of inclination of the bone protrusion located above the nose, on the center of the forehead, and the frontal bones that also constitute bone protrusions are located in the lateral sides of the forehead.

They can be remarked as peculiarities: excessive lifting, ridding the forehead, deep grooves in the depth of it. As the constituent elements of the forehead are the arches and can be appreciated according to the size: large, medium, small and are reported by the degree of inclination of forehead.

Eyebrows

They are hairstyles placed above the eyes and are appreciated by their length, thickness, thickness, arc, direction, or position occupied by eyeball or color. In some cases, the eyebrows may be missing altogether, or they may be made up of a few splinters or may also be cosmetically tattooed. By length, the eyebrows can be long, medium or short, as well as thin, well-suited, very often quite stiff. Depending on the arc, they may be straight, arched upwards or downwards, serpentine, angular, and after the direction they are straight, oblique up or down. The distance between them can be: merged, close or distant. The hair color of the person concerned is taken into account when describing the color of the eyebrows, with the indication that capillary hair discolours faster. As peculiarities, the eyebrows may be lowered, overburdened, or exhibiting specific forms due to scars, depilation, or pins.

The eyes

They represent the organs of sight and are located in the orbital cavity at the level of the base. In the composition of the eyeball, the retina, a photoreceptor formation, elements of it that assure the projection of the light on the retina. The ocular bulb consists of three membranes: sclerotic, retina, choroid, cornea, aqueous humor, lens and glassy humor. From the visible parts we mention the pupil, iris and sclerotica or the white of the eyes. The eyelids have a protective role and therefore their eyes

are protected by them. The eyelids close the base of the orbit, delineate the palpal crack that opens during the operation of the visual apparatus and closes during sleep.

In making the portrait, the eyes are presented in shape, position, color, interocular space, eyelid peculiarities, genes, depth in orbit (Stancu 2010,174). Each individual has an iris characteristic pigmentation that cannot be easily recalled or appreciated, because in some opinions it is influenced by light. According to other opinions, this pigmentation remains stable in adults (Voinea 1999,10).

According to the orifice, the eyes can be described as righteous, with external or inner commands raised or lowered, by size they can be large, medium or small. Orbital placement is appreciated from the profile, so the eyes can be clogged in orbits, prominent or normal.

The iris, the colored strip around the pupil, is the one that defines the color of the eyes. The most common eye colors are: black, brown, blue, gray, green, and in some cases may be discolored. Among the peculiarities that are recorded as particular signs we can remember his eyes, the missing eye, the different color of the two eyes, the presence of cataracts, the opacity of the cornea, the total lack of color.

Also interested in eyelids, genes, eye orbits or interocular space. The eyelids are presented in length, breadth, description, and whether they are large, medium or small. The genes are described by orientation, length or length and can be: Straight, oriented up or down; long, suitable or short; frequent or rare. Orbits of eyes are valued in terms of their height and depth: high or low, hollow or full. Interaction space is appreciated according to the distance between the two eyes and may be small, very small, appropriate, large or very large.

Nose

It is the olfactory organ, with an important role in sketching human physiognomy as a dominant element in the composition of the face and which can be observed and retained after the size of the nasal pyramid after the contour line or base.

The first segment of the respiratory apparatus is formed by the nose, in the form of a downward-facing pyramid, somewhat limited by the cross-section of the eyebrows, and at the bottom of the upper lip region.

There are some exceptions that differ in some breeds, namely: the right nose is specific to the Greeks, the Romanian aquilla, the African Americans have a wider nose in the lower part of the nose, and the Europeans have a light nose. The nose is examined both from the front and the profile. The elements that play an important role in making the portrait are: the root of the nose, the contour line, the base of the nose, the height and width, the protrusion of the nasal pyramid and the possible particularities. Observation should be related to the position it has been assessed (Voinea 1999, 10).

The root of the nose represents the hollow between the eye and eyebrow arches, and is appreciated in terms of depth; according to this principle they meet: the root, the middle root or the small root. According to the frontal observation, the root of the nose may be wide, suitable or narrow. The nose of the nose begins from the deepest part of the nose root and ends at its base. It is generally seen from the profile and can take various forms such as rectilinear, aquiline, corrugated, concave, etc.

The base of the nose is described both in the aspect of the direction and the width of the nose, the latter being the width of the nose. The imaginary line that starts from the point of connection of the nostril with the human figure to the tip of the nose determines the direction of the base of the nose. The direction can be seen from the profile and can be horizontal, raised or lowered.

The height and width of the nose is observed and appreciated, looking individually in the profile, being also replicated by the vertical line joining the root of the nose with the base of the nose base with the naso-labial groove. Under the height, it may be large, medium or small, and broad, medium or narrow width.

The nostrils' conformity is noted with certain characteristics, without the use of gradations of size, appreciating them in the particularities of: glued, dilated, turned, tightened, raised or flattened on one side. The tip of the nose is noted as a peculiarity without the use of gradations such as: thin, thick, bilobed, deviated to the right, diverted to the left, etc.

The color of the nose generally has the same hue with the rest of the face, but not in all cases. Sometimes the color of the nose may be different, especially at the tip of the nose, which may appear under a red, red-brown, violet shade, indicating some skin diseases, a state of debilitating or even excessive drinking.

Among the peculiarities are scars, warts, excessive pore expansion, congenital or accidental malformations.

The mouth area

It includes the lower part of the face, from the subchannel groove to the top of the chin, including the mouth, lips, teeth and chin and forms the lower third of the human figure (Dragomir, Nițu and Boalbeș 2008, 243).

The mouth is examined from the front and from the profile, both as a general aspect and as a peculiarity. As a general aspect, the size and orientation of the corners are described. The size of the mouth is appreciated by three gradations such as: small, medium, large but there may also be intermediate variations between them. The mouths of the mouth and the comics can be lifted up, very high, horizontal or appropriate, lowered or very lowered. They may also experience a unilateral deviation to the right or to the left following a habit, congenital illness or malformation.

Lips malformations, considered as peculiarities, are: rabbit lip, scarring, elevation of the median lower lip, lower lip hanging. The teeth are positioned in the alveolar edge of the two maxillaries and are grouped as follows: 8 incisors, 4 canines, 8 premolars and 12 molars. They can be described in terms of size, distance, position, color, degree of wear and can be: long, outward, distant, missing, fake, dressed.

In general, the incisors are described, namely their shape, the distance between them, if they are out, the way the root is dressed by the gum, because they are discovered and can be sensed during speech or laughter. A number of abnormalities can be observed, some of them congenital: incisors discovered, distant, welded, inclined outward or inward, incisive; but also acquired abnormalities such as the absence of one or more incisors, horizontal fracture, wear, caries.

Chin

The beard is the lowest part of the human figure, it continues the face and gives it the form that characterizes it. It can be examined both from the front and from the profile of the inclination, height, width and its peculiarities. From the profile we can see a slanting or receding, vertical, preeminent chin. As peculiarities, we can remember the bilobate, elongated, double, prominent chub with chub (Ciopraga, Iacobuță 2001, 196).

Beard and mustaches are hair accessories located in the mouth, described in terms of shape, size, position or color. The beard is considered large when it encompasses the whole face, its hair being long, small or barby when the hair is short on the entire face. It may also appear as a beak, a bundle of yarn, located at the bottom of the chin. By shape, the beard may be a sailor, a collar, a beard full, etc. Musts can be large with corners raised or lowered, cut small on the lip, or small after the width of the nose, arched in the shape of the swallowtail, etc.

Ear

It is appreciated as one of the most informative organs of the face. It is of particular importance because of its position on the contour of the head, but also its shape, size or other morphological elements (Doroș 1996, 205). It is recorded that the ear has a double character, i.e. it is immutable in form, from birth to death and variable, in other words, two similar ears do not meet (Cârjan, and Chipier 2009, 187).

Head position is parallel to the cranial bone, but in some people the ears may be located at the top or bottom.

The outer ear pavilion consists of a set of cartilages, namely five ridges and three depressions. The characteristic elements are: helix, antihelix, tragus, antitragus, lobe or ear, conca or auditory aperture, digital depression and internal depression. They present various varieties of shape, position or proportions as will be briefly presented:

The helix, the ridge that surrounds the ear pavilion from the front to the rear; is composed of four parts: original, anterior, superior, inferior; may be large, medium or small.

Antihelix, the cartilage cartilage located inside the ear, parallel to the upper and posterior helix; may be complete, apparently only in the upper area or absent.

Tragus, protrusion from cartilage tissue positioned under the original helix that partially covers the auditory aperture; the volume is rated as high, medium or small; can be sharp, bifurcated or prominent.

Antitragus, prominence of the cartilage located in the lower part of the ear shell and can be described as: concave, convex, bulging, straight.

The lob or ear, the fleshy lower part of the ear pavilion, which has various shapes, sizes, and with respect to the contour of the free part of the lobe can be presented as square, scattered, angular, in the echery, etc.

Conca, the depression formed in the mouth of the auditory aperture, which is presented as a funnel and is appreciated being related to the other elements of the ear pavilion.

The digital depression is located behind the helix before and under the top helix.

The internal depression is located between the posterior upper helix and the earlobe's antihelix with an elongated shape (Doros 1996, 205).

As peculiarities can be mentioned the bifurcated tragus, the sharp ears in the upper part, the notched edge, the ears very close to the head etc.

Wrinkles are leather creases that can be caused by either aging or expression. They are described by depth, shape, number, and the area of the face where they are positioned. Wrinkles can be corrected through surgical procedures, women are most often used in such procedures, and this should be mentioned if it is noticeable (Popa 2011, 25).

Skin color or chromaticity peculiarities vary by race. The color varies from white to black and is essential for making the portrait spoken. It should be noted that some people will change the color of their skin by exposure to the sun, its discoloration, the use of make-up or make-up, aspect to be considered.

Conclusions

When a person's spoken portrait is drawn, the characterization of the signs will be made according to size, shape, position, and some and color.

Size is shown by comparison with the size of other parts of the body and will be noted with small, mediocre and great; when the detail is particularly small or very large it will be marked with very little or very large.

The shape is reproduced by the linear outer contour of the organ to be presented to fit into one of the geometric figures that is similar: round, oval, diamond, triangle, rectangle.

The color will be recorded for details that have this attribute, such as the skin, hair, eyes or other organs or parts of organs showing a particular coloring to the rest of the skin.

The position of a human body detail will be judged relative to the horizontal or vertical plane or neighboring areas, the notation being horizontal, vertical or oblique. When identifying a person's signals, certain factors that affect the accuracy of their observation and retention must be taken into account. The main factors responsible for this influence are the following: the distance from which it is viewed, the place where the person is located, the time when the observation is performed and the factors that may influence: day, night, atmospheric conditions, visibility, duration of observation, as well as its clothing, the ability to perceive and the appreciation of the observer.

The primordial assimilation of the principles of the portrait spoken by the police and their skillful application allow a visible and coherent description of the anatomical and functional signs of the different people.

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Humans beyond Earth

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ABSTRACT: Humans have been a wildly curious species for millennia. From traveling across unmapped oceans to the first lunar steps, mankind had the ambition to explore dangerous, uncharted destinations. In 1966, the NASA budget was 4.41% of the Federal budget. Fifty years later, NASA's budget was 0.50% of the Federal budget. While there is still strong interest in intermediate space, that's because it's in the comfort zone of commercial interests with profit motives. We as a species need to resist this sole motivation. Many companies and governments won't invest in a manned expedition to Mars since the profits would take decades to manifest (if there are any profits at all). However, recently a new breed of billionaires, including Elon Musk and Jeff Bezos, realized the importance of investing in a Mars mission because of the positive impact for humanity later. Making a habitable colony for humans on Mars will be extraordinarily difficult - Mars is a hostile environment, but over time, impossible journeys evolve from difficult challenges to success. A trip to Mars would represent a leap in our maturity, a revitalization of the human spirit that charges into the unknown to understand and use it. This paper will research the challenges of getting to Mars and why we should go there. Who knows, we may find life under the dunes of Mars and discover we aren't the only ones.

Keywords: mission to Mars, space exploration, NASA, NASA private partnerships, SpaceX, Falcon Heavy, commercialization of space, pros and cons of funding a manned mission to Mars, overcoming scientific challenges to space habitation, living conditions on Mars

Introduction

In April, 2019, the National Aeronautics and Space Administration (NASA) published a document outlining its vision for the road map of a manned mission to Mars. (NASA 2019). NASA reported that it's working with U.S. companies and international partners to "push the boundaries of human exploration forward to the Moon and on to Mars" (NASA 2019). NASA is working to establish a permanent human presence on the Moon within the next decade to uncover new scientific discoveries and lay the foundation for private companies to build a lunar economy (NASA 2019). The Mission to Mars is part of the revitalization and "second wind" of NASA's legacy—NASA has not had a manned space launch since the Atlantis Space Shuttle took off on July 8, 2011 (Chow 2011).

The path that led NASA to this point - History of Apollo and the drive

The 11th mission under the NASA Apollo program of the 1960's resulted in two men walking on the moon, a momentous achievement for humanity. It represented the first time humans were physically standing on another celestial body and both Neil Armstrong and Buzz Aldrin survived the experience to live a normal life back on Earth. 50 years ago in July, 1969, the United States proved that they had beaten its #1 rival—the Communist nuclear superpower the U.S.S.R—to the moon and in the immediate years following that day, the enormous expense of \$24 billion invested in the space program (\$100BN in current dollars) proved unsustainable for the overall US government's annual budget. Within 5 years, the US changed its priorities (The Editors of History.com, 2019).

The Russians had achieved great success in the first 8 years of space exploration starting in the mid-1950's, but its leadership could not be sustained and by the end of 1964, the Soviet Union had already lost the space race. Several years of technology failures occurred and with no strong export economy to support a military and space travel, the Soviets abandoned plans to send men to the moon by 1971 (Wilford 1989).

The decades since then were characterized by continued presence in space in the form of the Space Shuttle, Skylab, the International Space Station (ISS), Vikings 1 and 2 and deep space exploration probes. The enthusiasm from the public became ambivalent and complex after the catastrophes of the Space Shuttles Columbia and Challenger. But the US is ready to revitalize its space exploration designs.

Current plans to get to Mars and the obstacles they have to face

Of all of the publicly announced projects, the plans proposed by SpaceX - the privately held commercial enterprise led by entrepreneur Elon Musk—and NASA appear to be the most promising. The goal is to reach Mars in the next 15 years and to establish a habitable space for humans. The first step for NASA is their Artemis mission that will send humans to the moon again in the next 5 years to establish a permanent colony for humans, laying the foundation for a Mars mission (Davis 2019). There are a variety of reasons that having a presence on the moon will make interplanetary travel easier: 1) The knowledge of making the Moon habitable most probably will apply to future Mars colonization 2) Spacecraft bound to Mars could refuel at stations orbiting the Moon if the technology is sufficiently developed (Davis 2019).

Let's discuss the planned logistics concerning how the necessary resources and materials will get to the Moon. To deliver the resources allocated for infrastructure, NASA has been constructing the Space Launch System (SLS), the most powerful rocket the US has ever built (NASA SLS Fact Sheet, 2018).

SLS is an enormous collaborative industrial/technology project with more than 1,000 companies from across the U.S. working with all 10 NASA geographic centers supporting the development of what will become a rocket capable of transporting the heaviest payloads ever brought into space (NASA SLS Fact Sheet, 2018). The SLS Program at Marshall Space Flight Center in Huntsville, Alabama, works closely with the Orion Program, managed by NASA's Johnson Space Center in Houston, and the Exploration Ground Systems at Kennedy to coordinate testing for Artemis (Artemis is the mission name for the next Moon landing program, just as Apollo was the mission name in the 1960's), formerly known as Exploration Mission 1 (NASA SLS Fact Sheet, 2018).

As of May 29, 2019, NASA and Boeing engineers were working to assemble the large structural components of the core stage of the SLS (Editors, NASA Makes Progress Assembling Massive Space Launch System Rocket Stage). When this stage is finished, 4 out of the 5 essential components of the SLS will have been assembled (Editors, NASA Makes Progress Assembling Massive Space Launch System Rocket Stage). The final piece of the puzzle is adding four RS-25 engines, which will produce 2 million pounds of thrust for Artemis 1. When completed, SLS will enable astronauts to begin their journey to explore destinations first to the Moon, then Mars then maybe farther into the solar system by the turn of the 22nd Century (Editors, NASA Makes Progress Assembling Massive Space Launch System Rocket Stage).

NASA plans on combining the SLS thrusters with the Orion spaceship for future space missions, which will combine plans for habitats in addition to scientific studies. One of the first planned science missions for 2020 is BioSentinel, a very important monitoring program – the primary objective of BioSentinel is to develop a biosensor to detect and measure the impact of space radiation on living organisms over long durations beyond Low Earth Orbit (LEO) (NASA, BioSentinel Engineering Project, 2019).

NASA's New Spaceship

As part of the plans for the SLS construction and space habitation for humans, NASA is working with its aeronautics partners to design and develop a small spaceship that will serve as a home/office for astronauts will orbiting the Moon called the Gateway. (Nichols 2019).

The Gateway will have living quarters, laboratories for science and research, docking ports (like doors) for visiting spacecraft, and more. It will provide NASA and its partners access to more of the lunar surface than ever before, supporting both human and robotic missions. The Gateway will be built in stages with input from global space experts (NASA editors, 2018, Q&A about NASA's New Spaceship). The power and propulsion component will be provided by a private vendor, either SpaceX or Blue Origin (the large privately-owned commercial space start-up funded by Amazon entrepreneur Jeff Bezos), estimated for 2022. Large parts of the Gateway will be sent on multiple rockets for automatic assembly in space, requiring 6 launches compared to the 34 for when the Space Shuttle was built. Some parts may be sent on SpaceX or Blue Origin rockets, but NASA's SLS rocket will deliver most. Orion will transport the parts hundreds of thousands of miles to Gateway. The Gateway is forecasted to be completed by 2026 (Nichols 2019).

Astronauts will visit the Gateway at least once per year, but they won't stay year-round like crew aboard the International Space Station. The Gateway is much smaller than the ISS. Its interior is about the size of a studio apartment (whereas the space station is larger than a six-bedroom house) and designed for only 4 astronauts. Once docked, astronauts can live and work aboard the spaceship for up to three months at a time, conduct science experiments, and take trips to the surface of the Moon. (Nichols 2019, Real Clear Science)

A shining example of NASA's rejuvenated grand vision—reminiscent of the 1960's spirit of exploration—was unveiled on April 7, 2017, when NASA officially presented its plans for the Deep Space Transport (DST), which is effectively a miniaturized space station meant to travel to Mars and back, with a crew of four, for a duration of at least 1000 days. When this announcement was made, space travel expert Jason Davis wrote that, hardly anyone noticed (Davis 2017. NASA unveiled new plans for getting humans to Mars, and hardly anyone noticed). But “that's probably okay with (NASA Director Bill) Gerstenmaier. Wary of being buffeted by political winds, NASA treads lightly these days—at least publicly. Advisory Council meetings aren't really promoted, and the agency isn't exactly shouting the plan from the rooftops” (Davis 2017). Seven months later, President Trump had a ceremony in the Oval Office where he signed a directive ordering NASA to work on more Space exploration, including a manned mission to Mars (Tillet 2017).

NASA has viewed human missions to Mars as the agency's long-range goal, but senior management, backed by earlier guidance from the administration, strongly favors sending astronauts back to the moon first to gain experience and test the technologies needed to eventually reach the red planet. Ironically, as we write this paper, President Trump tweeted on June 7, 2019, "For all of the money we are spending, NASA should NOT be talking about going to the Moon - We did that 50 years ago." “They should be focused on the much bigger things we are doing, including Mars (of which the Moon is a part), Defense and Science!” the president tweeted (Harwood 2019, CBS News). Does the President understand the scientific and logistical reasoning behind NASA's plans?

Expert Appraisal on whether NASA's Plans are achievable, based on the budget

A report issued on April 17, 2019, ordered by Congress as part of NASA's 2017 Budget authorization for a Mars-mission by 2033 and its related costs (such as the SLS, Orion and the associated costs with supporting those projects), determined that the objectives are impossible to achieve. The report estimated that the total price for everything listed will add up to more than \$120 billions of dollars through NASA's fiscal year 2037 (Link, Crane, Zuckerman, et al, 2019).

The report was prepared under NASA contract by the Science and Technology Policy Institute (STPI). In addition to estimating the higher costs, the STPI stated that given the forecasted budget and commensurate resources, it's not feasible to have a manned Mars mission by the target date of 2033 without significant cost overruns. The conclusion was based on the incremental changes in funding that would be necessary from both the government and from the privately-owned commercial enterprises (Link, Crane, Zuckerman, et al. 2019).

The Role of SpaceX in space exploration budgeting

SpaceX is a private company founded by billionaire entrepreneur Elon Musk, going by a business model to make everything in the space industry cheaper, thereby reducing the cost of space travel and logistics. According to a Time magazine report, SpaceX manufactures 80% of the parts needed to launch its Falcon Heavy rockets cutting a lot of the cost of manufacturing (Kluger 2017).

Elon Musk is quoted as saying that the rocket industry overcharged customers because of the cost plus system, lack of competition and because the manufacturers reused nothing (Chalkin 2012). To further reduce the cost of launches, SpaceX makes their rockets reusable by having the spent fuselage, empty of fuel, re-land at their facility after a successful mission. SpaceX uses this business model disrupt the space industry landscape with quoting customers very low prices to launch satellites. Their closest Nasa counterpart, the Space Shuttle, cost \$450 million dollars per launch for 27 metric tons to low earth orbit, the Falcon 9 cost \$50 million per launch for 13 metric tons in low earth orbit. The Falcon 9 costs \$3,846 per ton in orbit while the Space Shuttle's costs were \$16,666

per ton in orbit, meaning the Falcon was less than a fourth of the price. Published reports state no competitor, even the Chinese, can quote as low as SpaceX (Chalkin 2012).

Comparisons of the two organizations SpaceX and NASA

It's hard to compare the two organizations directly because they don't share the same history, structure, management style or future plans. The Space Shuttle had a 27,500kg payload capacity or 60,600 pounds while the Falcon Heavy has a payload capacity of 62,800 kgs or 140,000 lbs (Dodd 2018).

However, SpaceX plans to use three reusable boosters to launch payloads and each booster has 30,000 kgs or 66,000 lbs of thrust (Dodd 2018). The reusable boosters will most likely be SpaceX's published usable payload to orbit (Dodd 2018). To begin an analysis of the cost of the Space Shuttle compared to Falcon Heavy, one must consider that the second Space Shuttle was built with the safety of the astronauts in mind, especially when the lessons of the Columbia catastrophe was assessed. In the end, the refurbished Space Shuttles ended up being very expensive (Dodd 2018).

Professional subject matter experts calculate the total all-in (every cost included) to be 210 billion dollars. There were 135 Space Shuttle missions, so the average cost was over \$1 billion. However, NASA charged customers \$450 million to take something up on the Space Shuttle. SpaceX is charging \$90 million dollars for payload launches. This makes SpaceX five times cheaper (Dodd 2018). NASA's next generation project SLS is based on the Space Shuttle technologies. Fuel engines and massive rocket boosters are also reused tech from the Space Shuttle (Berger 2019).

The Pros and Cons Concerning Mars Colonization

Though a manned mission to Mars would be a huge technological leap in human progress, many say that our main focus should be on the earth and current problems, namely global warming, reformation of the political structure, social problems and more in that vein. In fact, some writers lament that those enthusiastic about planning and funding a trip to Mars are met with incredulous reactions, as many people don't understand how anyone could deem it a priority and meritable idea to pay for a safe manned mission to Mars (Stratford 2010).

Here are some arguments against Mars colonization as summarized by the Guardian newspaper of the United Kingdom. 1) Man will contaminate Mars with earthly human microbes. The famous space physicist Carl Sagan said "if there's life on Mars, I believe we should do nothing with Mars. Mars then belongs to the Martians, even if the Martians are only microbes ... the preservation of that life must, I think, supersede any other possible use of Mars." 2) Robots are better than humans. Robots have several inherent advantages. They are much cheaper than humans because they don't require a vast support infrastructure to provide things like water, food and breathable air. They are immune to the risks of cosmic radiation and other dangers inherent to space travel. And they won't get bored. 3) Spend the money on fixing Earth first. Although some people are motivated by Elon Musk, who says "we need a back-up planet", most Americans believe that the hundreds of billions of dollars in spend are not necessary (Barmaal 2018).

In a Pew survey, a majority of US adults—72% believed that NASA should remain a world leader in space exploration (Pew Research 2018). However, 62% still believe that the billions—if not trillions—of dollars needed to colonise Mars could, for example, be better spent investing in renewable forms of energy to address climate change or strengthening our planetary defences against asteroid collisions (Pew Research 2018). Even with in the pro-human colonization group, many debate whether Mars is the best choice. Some candidates for this are logical, our Moon, simulations of planets on earth, while others are more leaning to the side of science fiction. A prime example of this would be Titan, a moon of Saturn that has an atmosphere that's thicker than Earth's, with about a tenth of the gravity, and abundant with surface ice. Many argue that this environment lends itself more to humans than Mars could (Understand it All 2017 Four Alternatives for Colonizing Mars).

Ideas and criticisms of Mars bound technology

Getting to Mars and eventually permanently living on the planet will require new technology, most never used, let alone tested; everything will be experimental and newly introduced. Supporting humans for

extended periods of time will be difficult given the situations and difficulties they will face (Sharp 2017). For example, to comfortably live on the Martian surface, astronauts require radiation protection given that the Martian atmosphere is a 1/1000th of the density of Earth's, without this, astronauts would be constantly exposed to radiation (Staff Writers, MarsOne, 2014). In addition to protection from harmful radiation, their habitats need to be strong enough to withstand Martian dust storms, potential accidents and other hazards to durability, all while holding atmospheric pressure. After all the supplies have been sent to Mars in preparation for the manned mission, tests must be conducted to ensure the astronauts are not endangered on their seven month journey to Mars (Ornes 2018).

Providing the power for the long space voyage is a capsule made by the European Space Agency in Bremen, Germany. The capsule is the service module for the Orion spacecraft and, once out of Earth's atmosphere, it will extend solar panels stretching 19 meters across to power the vehicle (NASA.org editors, 2015, *The Journey to Mars: Bridging the Technology Gap*). Inside the Orion module, arranged like a dense 3D puzzle, are the wires, cables, devices and materials needed to support human beings as they voyage into deep space, including fuel, air, and water. Sitting atop the service module and measuring 3.3 m in height, will be the crew module, the astronauts' home for their long journey. This is cutting-edge science fiction now science fact technology (Ornes 2018).

The trip itself is arduous beyond comprehension and it's hard to imagine any human wanting to do it. According to NASA's plans, the space explorers will leave Earth perched on a powerful rocket and potentially rendezvous with a crewed space station called the Deep Space Gateway near the Moon – a kind of launchpad for missions to the Moon, asteroids and Mars (NASA.org. 2015). After a few days preparing at the DSG, the crew would board a spacecraft that shuttles people to deep space and back.

For six months or more, the crew will travel—sealed in a box the size of a small motor home, and with a view of Earth receding to a tiny pinprick of light—until they reach Mars and begin to orbit the red planet. Then, they'll move to yet another vehicle, parked in Mars' orbit, and plunge through the planet's thin atmosphere, landing near pre-built habitations, possibly 3D printed out of ice or regolith. They'll stay for 18 months, conducting geological research and maintaining the habitat, then head home (NASA.org. 2015).

NASA passed the latest Mars mission test - NASA's Mars Helicopter has proven its off-world mettle

On March 29, 2019, NASA successfully tested a model of the Mars Helicopter under simulated Mars weather conditions, according to NASA scientists (Wall 2019). The 4-lb. (1.8 kilograms) aircraft, a technology model that will be included in the next Mars rover in July 2020, aced its first-ever test flight under Red Planet conditions, agency officials announced Thursday (March 28) (Wall, 2019).

“Gearing up for that first flight on Mars, we have logged over 75 minutes of flying time with an engineering model, which was a close approximation of our helicopter,” Mars Helicopter project manager MiMi Aung, of NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, said in a statement (Wall 2019).

The theoretical benefits from exploring

If a manned mission to Mars is executed, and successful, the technologies and researched for/on Mars can be beneficial to general space explorations and may find applications on Earth. This has happened before in the form of SkyLab and the ISS - since the original 15 nations signed the International Space Station agreement in 1984, 68 nations have participated in ISS activities in some capacity. This international cooperation produces beneficial results for developing economies (NASA 2013). NASA staff extensively researched the question of what positive outcomes would result from space exploration—ranging from cancer treatments, water recycling systems, agricultural innovation, alloys, tele-communications, and many more advancements (NASA 2013).

From Mars the most obvious examples of scientific benefits we could reap would be: advanced hydroponics, efficient recycling methods, lightweight and strong materials, robotics, material sciences, and insight into how cellular life evolved (NASA 2013). Mars could also be a major

resource of materials or technological goods if travel between the two becomes common place. The colonization of Mars, could single handedly kickstart humanities passion of exploration. The coverage of Martian life and development will undoubtedly inspire many to pursue many scientific fields in the hopes to be apart of something larger than themselves. A prime example of this is the climax of the Apollo program, where from 1961, physics PHD graduates increased by 200% by the end of the program.

We would also gain insightful sociological and psychological knowledge from the data and behaviors from the isolated colonists. How would they react to a new alien environment? Would they learn to be more politically autonomous or rather lend control to NASA, U.N or their origin country? Lastly, as we expand our influence on Mars, there is a small possibility of finding signs of life, whether it be through finding imprints of plants, or detecting a large amount of organic chemicals, this will fundamentally change our perspective of the universe and ourselves.

Conclusion

With all these benefits cited from the operation and the promising technology giving us the theoretical capability, we still have to hurdle over the actual execution of the manned mission to Mars. It will be a difficult endeavor—as all things are at the scale of space travel—but the benefits and knowledge learned from the Artemis, Orion, SLS, Gateway, BioSentinel and Deep Space programs will lead humans out of earth and into unclaimed lands. Mars, is however only the beginning, and a fitting start to unify humans behind the idea that we are not alone.

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Offer Development for Clients Aged 55-70 in the Sector of Spa Enterprises

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ABSTRACT: In recent years, as a result of lifestyle changes, attracting more attention to health and living comfort, demographic changes and growing expenditure on preventive health care, the market offer reflecting expectations of senior citizens has been rapidly developing in Europe. The aging population, however, at the same time wealthy and aware of civilization threats, expect a different approach to meeting their needs. The comprehensive offer is supposed to include relaxation and leisure, comfort and safety of the destination, various forms of activities in free time, adequate medical care, physiotherapy, beauty treatment and a proper diet. In Germany, Austria, the Czech Republic or Poland the offer of spa enterprises, i.e. companies offering preventive health care services based on natural resources is currently subject to intensive modernization. The purpose of the study is to determine the directions of changes in the market offer ensuring meeting the needs of senior citizens in an optimal way. The research was based on interviews with chief executive officers, the observations made by the author – a manager herself and the analysis of the collected empirical material. As a result of the conducted research, new expectations of customers aged 55-70 were identified. They refer to the individualisation of health care during therapeutic stays, based on the offer developed taking into account due respect for the environment and targeted at a specific health problem. Such approach requires implementing significant changes in business models of the analysed enterprises.

KEYWORDS: offer for clients in health care, health and care management article, formatting, guidelines

Introduction

In recent years, as a result of lifestyle changes, attracting more attention to health and living comfort, demographic changes and growing expenditure on preventive health care, the market offer reflecting expectations of senior citizens has been rapidly developing in Europe. Aging of population in majority of nations along with other changes regarding mature population such as socio-demographics, health status and travel behavioral patterns is one of primary reasons for the development of appealing tourism target group that can be referred to as the senior tourists segment, which is nowadays a part of the global tourism and travel industry (Patterson 2006; Schroder & Widmann 2007, 3-17; Nimrod & Rotem 2010, 65-78). The aging population, however, at the same time wealthy and aware of civilization threats, expect a different approach to meeting their needs. The comprehensive offer is supposed to include relaxation and leisure, comfort and safety of the destination, various forms of activities in free time, adequate medical care, physiotherapy, beauty treatment and a proper diet.

Spa and therapeutic treatment offered in health resorts remains the essential component of health care system in Poland. It is an organized activity consisting in the provision of health care services covering spa treatment or spa rehabilitation and carried out in a health resort by the spa health care enterprises or outside a health resort in hospitals and sanatoriums located in e.g. adequately arranged underground mining tunnels, using natural conditions such as: medicinal properties of natural raw materials (e.g. therapeutic mud, thermal spring water, brine, crystalline salt), healing properties of the climate and the microclimate, supported by the appropriate physiotherapy treatment (Act of 28 July 2005).

In the course of spa treatment patients carry out comprehensive treatment programmes including primarily: balneotherapy, kinesiotherapy, physiotherapy, health education, pharmacotherapy and dietary treatment.

Poland has 45 statutory health resorts (and 1 health resort arranged in an underground mining tunnel) located throughout the country – fig. 1.

Fig. 1 Spa health care enterprises in Polen



Spa health care enterprises offer approximately 44.000 beds (of which approx. 35.000 are provided in spa sanatoriums and approx. 8.000 in spa hospitals). In addition, spa municipalities (an administrative area which was granted the Health Resort statute) offer a well-developed tourist base (hotels, guest houses, B&B accommodation) providing the total of approx. 80.000 beds as the potential accommodation facilities for the spa health care outpatient treatment.

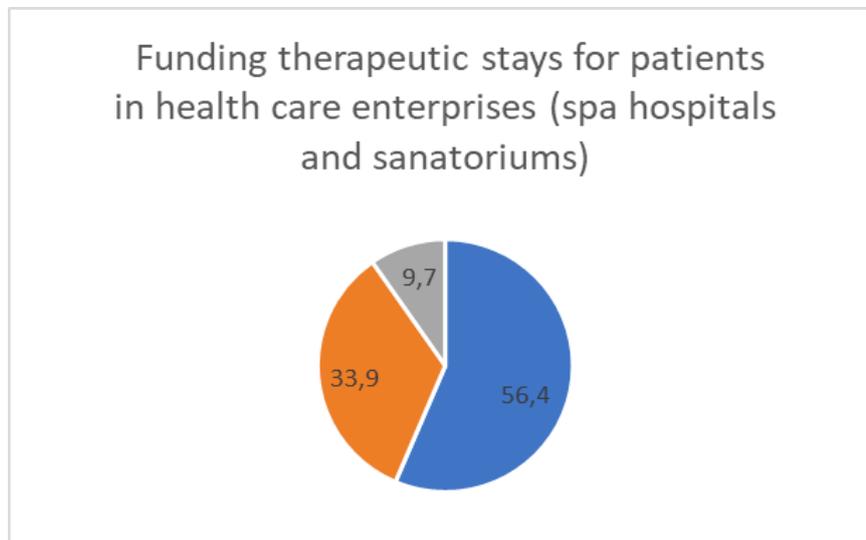
Demographic analyses show a steady upward tendency in the number of dependent population. According to the demographic forecast (“The map of health needs related to hospital treatment for Poland”, 2016 edition) by 2029 a significant increase in the share of people aged 65 and older will be recorded in the population structure of Poland: the number of people aged 65 and over will amount to 8.5 million and will constitute 23% of the total population against 15.3 % in 2014. In 2020 the old-age dependency ratio is expected to reach the proportion of 605 dependent individuals per every thousand working age persons, whereas in 2029 - 690 people, which indicates an increasing burden of dependent population on working age people. An increase in average life expectancy results in higher morbidity and disability and thus in the growing number of dependent people.

Spa treatment allowing the application of balneophysiotherapy in chronic diseases, preventive activities, convalescence after hospital conservative or surgical treatment as well as fast and effective rehabilitation is funded by the state National Health Fund (NFZ - government administration agenda). Funding is reduced from year to year, e.g. in 2009 it amounted to 1.39% of NFZ budget, whereas in 2017 to 0.88% of the budget. The demand for this type of services is so high that clients decide to fund their treatment stays from their own resources. The reasons for such situation are as follows:

- limited funding of the services by NFZ and a long waiting period for both sanatorium and hospital stays,
- increasing average life expectancy in Poland,
- increasing incidence of civilization diseases,
- increasing care for an individual health condition and general psychophysical fitness (dynamic lifestyle change).

Figure 2 presents the funding structure of spa treatment stays and shows that 56.4% of all therapeutic stays in spa health care enterprises are funded by the National Health Fund and 33.9% by individual clients, referred to as commercial or full-paid clients.

Fig. 2 Funding therapeutic stays for patients in health care enterprises
(spa hospital and sanatoriums)



The share of full-paid clients imposes on healthcare entities taking market approach to spa treatment. As it appears from the research carried out by the author (interviews with Presidents of spa health care enterprises and the author's own managerial experience) clients/patients using therapeutic stay offers expect, from healthcare entities, such a range of services which:

- improves their well-being and reduces the burden of everyday life associated with their lost health and fitness,
- reduces morbidity and premature mortality resulting from: cardiovascular diseases, including heart attacks and strokes, malignant tumours and chronic respiratory diseases,
- reduces the consequences of injuries resulting from accidents, mainly through effective rehabilitation,
- reduces the negative effects of chronic diseases affecting the osteoarticular system,
- prevents obesity and diabetes.

Case study of X spa health care enterprise

The described spa enterprise represents a health care entity located in the area of Cieplice Health Resort (CHR), which carries out spa treatment based on natural resources, including thermal spring water.

Cieplice Health Resort, one of the oldest in Poland, was established in 1281, at the foot of the Karkonosze Mountains at an altitude of 350 m above sea level. For more than seven centuries, owing to its picturesque location, favourable climatic conditions and unique thermal resources of spring waters, CHR has been continuing the traditions of balneotherapy.

Throughout history the curative qualities of Cieplice spring waters have been appreciated by important and famous personalities, who took advantage of their benefits. Cieplice were visited by the recognized and holding high positions personalities, e.g. the Radziwiłł family, Primate Radziejowski, Johann W. Goethe, Prussian King Frederick William III, Hugo Kołłątaj, Izabella Czartoryska and many others, whereas the most important guest in Cieplice was, beyond any doubt, the Queen Marysieńka Sobieska accompanied by her court. Spring water deposits in Cieplice are the hottest deposits in Poland, low-mineralized, fluoride-silicon, thermal (their temperature ranges from 37 to 87 degrees Celsius).

They are used in treating the following diseases:

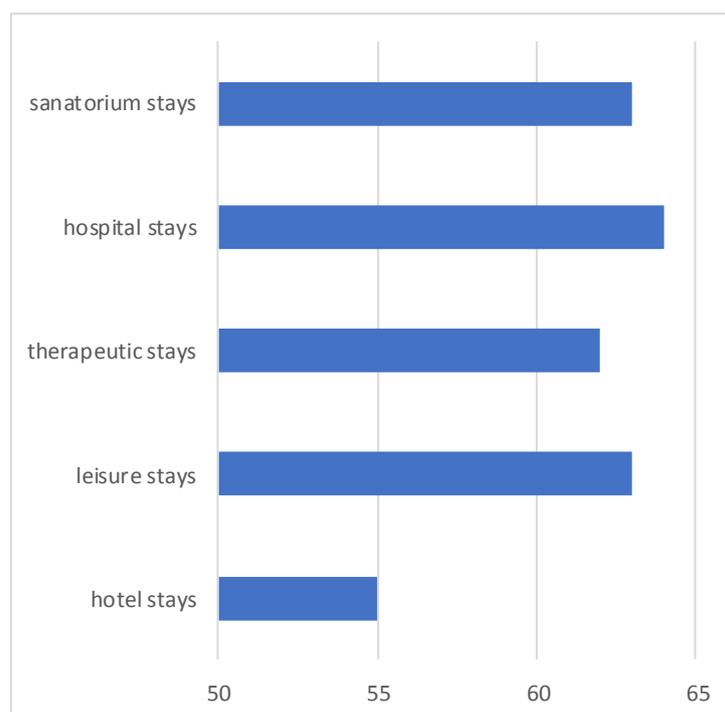
- **locomotor system organs** (rheumatology, orthopaedics, neurology, osteoporosis),
- **urinary system** (urology, nephrology),
- **ophthalmology.**

“Cieplice Health Resort”, as the only one in Poland, offers balneotherapy in the treatment of eye diseases. The basis of X enterprise business activity is spa treatment offer. It means treating patients in the hospital, in the spa sanatorium and the rehabilitation centre providing over 300 rooms for the patients.

The company serves 12,000 patients annually. The spa hospital is available for patients who have recently gone through treatment in a hospital, a clinic and the patients under the care of a specialist clinic. The spa sanatorium is intended for the chronically ill visitors with less severe ailments. The treatment costs of a patient staying in a hospital or in a spa sanatorium are partly funded by the National Health Fund. The spa sanatorium is also available for patients without a referral, within the framework of a full-paid spa stay.

The share of commercial (full-paid) clients in their total number amounts to 37%. Every year 12 thousand patients staying in the health resort are served by 250 people employed in the enterprise. The graph shows age median of patients staying there for therapeutic reasons.

Figure 3 Age median of patients in X spa enterprise



In the studied enterprise, the age median of patients (fig. 3) choosing treatment stays ranges from 62 to 64 years of age, depending on the type of selected stay. The data analysis of the studied enterprise shows a slight upward trend in the age median from year to year. The primary data indicate that the age median shows a growing tendency.

In the near future, hotels will be forced to increase the numbers of the hotel staff for the provision of elderly care, not so much at the desk, baggage delivery, and registration of transfer upon arrival and departure from the hotel, but for the provision of geriatric care, ensuring the longevity of this age group population (Nikitina, Vorontsova 2015, 846-847). Many years of experience in patient service allows a spa health care enterprise to define the framework of individual components included in the offer (Fig. 4).

Fig. 4 The framework of individual components included in the offer



Adjusting the offer to the specificity of 55+ clients requires introducing modifications in the selected areas. It is worth noting more frequent stays of people aged over 75, which forces radical changes in customer service. Table 1 presents the areas of required changes, identified during interviews, along with the proposals for implementing specific solutions.

Table 1. Areas requiring changes in the offer for patients aged 55-70

Example column 1	Example column 2	Example column 3
Employee	Infrastructure	Processes
New jobs: Patient's assistant Geriatrician Balneologist Paramedic capable of handling seniors and helping during therapeutic treatments Nutritionist Animators of additional activities (e.g. Nordic walking)	Rehabilitation equipment meeting the requirements and needs of seniors: handles in bathtubs, walk-in bathtubs with a side entry door, exoskeletons, devices working with multimedia applications	Extending the activity time Individualized service with continuous monitoring Frequent repetition of the same activities Visualization of tasks and sound amplification of the instructions during treatment
Requirements for employees	Requirements for infrastructure	Requirements for processes
Additional skills including: ability to listen, patience, empathy	Easy to use, intuitive control panel	Permanent contact with the front office staff, paramedics and nurses through paging systems
Trainings in the approach to seniors, including how to communicate, understand individual needs and gain trust	Easy access to treatment facilities: stairs, platforms, handrails. Supporting the treatment using natural resources and technical infrastructure, advanced medical equipment	Mobile applications facilitating communication with employees through personal smartphones

Areas requiring changes in the offer for patients aged 55-70		
Employee	Infrastructure	Processes
New jobs: Patient's assistant Geriatrician Balneologist Paramedic capable of handling seniors and helping during therapeutic treatments Nutritionist Animators of additional activities (e.g. Nordic walking)	Rehabilitation equipment meeting the requirements and needs of seniors: handles in bathtubs, walk-in bathtubs with a side entry door, exoskeletons, devices working with multimedia applications	Extending the activity time Individualized service with continuous monitoring Frequent repetition of the same activities Visualization of tasks and sound amplification of the instructions during treatment
Requirements for employees	Requirements for infrastructure	Requirements for processes
Additional skills including: ability to listen, patience, empathy	Easy to use, intuitive control panel	Permanent contact with the front office staff, paramedics and nurses through paging systems
Trainings in the approach to seniors, including how to communicate, understand individual needs and gain trust	Easy access to treatment facilities: stairs, platforms, handrails. Supporting the treatment using natural resources and technical infrastructure, advanced medical equipment	Mobile applications facilitating communication with employees through personal smartphones

Table 2. shows a model presentation of the customer service process as the subject of the offer dedicated to patients aged 55-70. The table highlights the identified areas of necessary changes.

Table 2. Patient care process

Who/department	Activities	Comments
Front office	A visit in the front office, a preliminary interview about favourite TV shows, the way of spending free time in order to enter these expectations in the smartphone.	The patient receives a smartphone with an application reminding him/her about the treatment sessions and suggested leisure time activities using voice and image. The application will help to move around on the site. The alternative is to provide a paper version of the building plan to be used until smartphone applications are ready.
Patient's assistant	Assistance to the room using a smartphone or a map.	
Nutritionist	Specifying the proper diet and the place of having meals (table number).	
Nurse	Interview and setting the time of medical appointment.	
Physician	Medical consultation and treatment ordination.	
Treatment planner	Treatment planning.	

Patient's assistant	The assistant informs about the treatment plan for the entire stay and assists the patient to the first meal.	
	First meeting with the patients after the first meal regarding the organization of their stay. The second meeting on the next day about extra activities: culture, sport, trips.	

Conclusion

In the author's opinion, the proposed directions of changes in the offer addressed to senior citizens require a new model to be developed for running the discussed business. A new one, because the guidelines for its development and functioning question the traditional methods for achieving business efficiency. In the new business model, social objectives are combined with economic goals, often forcing the management to change the priorities of operation. The service offered to seniors cannot be based on economic criteria only because it requires, among others:

- more time devoted to performing planned activities,
- repeating them,
- additional rehabilitation facilities or their modification,
- more employees assigned to assist patients,
- as well as completely new jobs and the corresponding competencies.

Future research should focus on the identification of assessment criteria for the efficiency of new business models dedicated to 55+ clients. In addition to economic assessment criteria, such as EBIT, RevPar, ADR, non-financial factors should also be examined, e.g. related to improving patients' well-being.

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