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Editor: **Dr. Mimouna Zitouni**

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Relationship of Age to Trust, Commitment, and Learning in International Joint Ventures

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ABSTRACT: Strategic alliances between multinational organizations have been prevalent for more than half a century. These alliances are costly to enter and yet, have a history of failure. International Joint Ventures (IJVs), which is a type of strategic alliance, has been an important mode of entry for companies aiming to operate in foreign markets. However, companies have been guarded of forming an IJV due to their high failure rate. Despite their shortcomings, joint ventures are valuable for several reasons, including sharing resources, gaining access to potentially closed markets, and learning complementary skills from the venture partner. However, the age of the alliance (or venture) is an important element in assessing whether the partners achieve their goals. This study looks at the relationship between the age of the joint venture, trust, commitment, and learning effectiveness in Indian international joint ventures. Results show that age of the joint venture is positively related to trust between partners, commitment to the venture, and learning that takes place as a result of the venture.

KEYWORDS: International Joint Ventures, Trust, Commitment, Learning, Age

1. Introduction

Globalization of the business environment has been increasing for the last two decades. This is caused partly by the rapid integration of the economies of industrialized nations and the globalization of products, markets, consumer tastes, and lifestyles.

Organizations in developed and developing countries have realized that the pursuit of global markets was a necessary condition for business success. Establishing partnerships with firms from other nations was part of the push for globalization. Researchers and practitioners have suggested that the development of such partnerships is a key to success in the global marketplace. These partnerships, which can take various forms, are commonly known as strategic alliances and can range from licensing agreements to fully blown joint ventures.

Williamson (1975, 25) explained strategic alliances through his transaction cost approach. He contended that strategic alliances lie on a continuum between the free market (informal cooperative ventures) and the hierarchy (mergers and acquisitions) method of conducting business. Since we consider joint ventures to be a type of strategic alliance, they could also be considered to be in the middle of this continuum. Another interpretation of strategic alliances places them on a continuum where contractual agreements lie on one end, representing low control and low resource commitment, and joint ventures on the other end, representing high control and high resource commitment (Hill et al. 1990, 117).

Due to their lack of stability and tendency to fail, joint venture decisions have to be carefully considered and well thought-out (Berquist et al. 1995, 14). Firms that enter into joint ventures often focus on the benefits that the venture will provide without considering costs involved in the formation and maintenance of the venture. Despite the clear identification of the potential benefits, the costs incurred are often both substantial and difficult to predict (Morris and Hergert 1987, 15). Even with the high rate of failures for joint ventures, firms choose to enter into such alliances to gain access to world markets. In fact, that job satisfaction ranks higher in joint venture managers than in wholly owned subsidiary managers (Medina 1996, 23).

Researchers as well as practitioners have conducted research in the area of IJVs in hopes of discovering relationships and linkages, which will facilitate successful interfirm and international joint ventures. An important area of research in IJVs has been the motive for IJV formation (Harrigan 1985, 8; Kogut 1988, 319). Kogut suggested that organizations enter into IJVs because of transaction cost economies (contractual agreements are cost effective as opposed to internalizing transactions), strategic intention of the firm to gain a competitive advantage over others in the market, or the intent to learn from other organizations in the environment. This study will focus on the relationship between age, trust, commitment, and learning effectiveness. In order to discuss the various issues involved in IJVs, it is necessary to define an international joint venture. An international joint venture (IJV), for the purpose of this study, is defined as a

separate legal organizational entity representing the partial holdings of two or more parent firms in which the headquarters of at least one is located outside the country of operation of the joint venture. This entity is subject to the joint control of its parent firms each of which is economically and legally independent of the other (Shenkar and Zeira 1987, 549).

Researchers (Beamish 1994, 60; Cullen et al. 1995, 91; Varadarajan and Cunningham 1995, 282) have identified important variables to be examined in the field of strategic alliances, more importantly, international joint ventures. Among the important topics of discussion are learning, trust, and commitment.

2. Organizational Learning

Organizational learning is “a process in which members of an organization detect errors or anomalies and correct it by restructuring organizational theory of action, embedding the results of their inquiry in organizational maps and images” (Argyris 1977, 116). Other definitions of organizational learning are:

The capacity or processes within an organization to maintain or improve performance based on experience (Nevis et al. 1995, 73)

Organizational Learning means the process of improving actions through better knowledge and understanding. (Fiol and Lyles 1985, 803)

Organizational Learning is a process by which knowledge about action outcome relationships between the organization and the environment is developed (Daft and Weick 1984, 285).

Researchers (Senge 1990, 70; Pedler et al. 1991, 31; Garvin 1993, 78) agree that today’s business environment offers dramatic changes for businesses which necessitates learning. From the above definitions of learning it can be inferred that knowledge can improve performance.

2.1 Role of Organizational Learning in IJVS

IJVs are formed for various reasons. Among the most common reasons for formation is the organizational learning approach (Kogut 1988, 319) which stated that firms form IJVs to acquire knowledge. Lyles (1988, 56) stated that firms form joint ventures

primarily to learn. In her case study, Lyles (1988, 64) identified three important issues that pertain to organizational learning in joint ventures:

1. learning that occurs within the JV parent firm
2. the process by which the learning occurs
3. what the firm learns

Hamel (1991, 83) agreed with Lyles' (1988, 56) assessment that learning was the primary focus of firms forming strategic alliances. Learning may not be the primary objective of firms in every cooperative arrangement (Westney 1988, 79). Learning can, however, become an indispensable mechanism for cooperative strategies. Firms that enter into cross-border alliances or cross-industry alliances need to acquire knowledge from its environment or from other organizations in the environment in order to be successful in that environment (Westney 1988, 84).

Organizational learning theory posits that prior learning facilitates the learning and application of new and related knowledge (Cohen and Levinthal 1994, 227). With respect to IJVs, firms have to learn how to manage the alliance and perform in a foreign market with a partner from another culture. Barkema et al's (1997, 426) study found that experience with domestic joint ventures and with international wholly owned subsidiaries contributed to the longevity of the joint venture. In their study, Barkema et al. (1997, 430) also found that prior experience with IJVs did not contribute to the longevity of the venture. This finding could be a result of firms in their sample experiencing problems with prior IJVs. In another study conducted by Zeira et al. (1997, 259), the authors asserted that joint ventures in related parent industries were less effective than joint ventures in unrelated parent industries. Similar to Barkema et al's (1997, 426) study, Zeira et al's (1997, 259) study also found that prior experience with IJVs did not seem to positively affect performance of the IJVs.

A study conducted by Inkpen and Beamish (1997, 177) found that bargaining power of firms, knowledge of firms, and the instability of the joint venture are closely related to each other. The authors state that as the level of local knowledge of the foreign partner increases, the bargaining power shifts to the foreign partner. Inkpen and Beamish (1997, 185) warn local firms in IJVs to safeguard their interests by constantly upgrading the knowledge that the local partner provides to the joint venture. On the other hand, it is important for the foreign partner to understand the local environment in order to have substantial bargaining power. Inkpen (1995, 103) also stated that learning in IJVs leads to better performance in the long run. March (1991, 71) agreed

with Inkpen's assessment and further posited that knowledge gained through learning increases the competitive advantage of firms.

This study utilizes Kogut (1988, 319) and Fiol and Lyles' (1985, 803) definition of organizational learning as the process of improving organization actions through knowledge transfer and increased understanding of the environment. Lyles (1988, 56) asserted that learning itself consists of changes in the state of knowledge, which makes organizations more effective in dealing with the uncertainties in the environment, thus improving performance (Hedberg, 1981, 84).

3. Organizational Trust

Current trends in the workforce and the structuring of organizations makes it even more important to understand trust and trustworthy behavior (Elahee 1999, 19). The level of trust in organizations affects its structure and processes and reduces transaction costs (Bromiley and Cummings 1995, 235). Jamieson and O'Mara (1991, 154) projected that 25% of the workforce will be minority based in the late 90s as opposed to 17% in the late 80s. This trend makes it essential for workers to develop mutual trust in order to function effectively with each other. The same logic can be applied to IJVs, where two cultures (national and corporate) merge to achieve a common goal. Given their differences, it is important to develop the trust necessary to ensure survival of the venture. Etzioni (1988, 63) suggested that trust plays a crucial role in all market transactions and should be considered a fundamental element of the social fabric.

According to Powell (1990), trust functions as a "remarkably efficient lubricant to economic exchange (that) reduces complex realities far more quickly and economically than prediction, authority, or bargaining" (p. 305). Mayer et al. (1995) defined trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 711). Two interesting observations can be made from this definition of trust. First, the vulnerability of the trustor comes from the fact that there is something important to be lost by the trustor. And second, the vulnerability causes the trustor to be willing to accept some risk. Gilbert and Tang (1998) stated that organizational trust is "a feeling of confidence and support in an employer...it is the belief that an employer will be straightforward and will follow through on commitments." (p. 326) For the purpose of this study Mayer et al's (1995, 709) definition will be more useful in understanding

the role of trust in IJVs. Mayer et al. (1995, 709) stated that “irrespective of ability to control” the actions will be performed by the trustee. IJVs are organizational structures that do not always have an even control mechanism. Very often one party to the venture exercises more control over the other. In such cases it is important to establish trust, especially for the party with less control.

4. Organizational Commitment

Nelson and Quick (1997) define organizational commitment as “the strength of an individual’s identification with an organization” (p. 109). Mowday et al. (1982, 106) discussed the existence of individual commitment to the organization. Commitment also exists at the organizational level, which refers to the commitment one organization feels towards another during strategic alliances, joint ventures, and other contractual agreements between organizations (Beamish, 1994, 60; Beamish and Banks, 1987, 1). Cullen et al. (1995) commented that in joint ventures “commitment reflects the actions and values of key decisionmakers regarding the continuation of the relationship, acceptance of the joint goals and values of the partnership, and the willingness to invest resources in the relationship” (p. 92). Initially, Meyer et al. (1990, 710) proposed two types of organizational commitment, affective and continuance. Meyer and Allen (1991, 61) introduced a third type of organizational commitment, normative commitment. Affective commitment refers to an individual’s desire to remain with the organization because of their beliefs in the goals and values of the organization. Individuals who feel affective commitment are willing to put forth the effort to enhance the success of the organization and are loyal to the organization (Nelson and Quick 1997, 265). There is also a strong desire to remain a part of the organization because of their loyalty to the organization. Japanese employees who were offered lifetime employment most likely felt affective commitment towards their organizations.

Continuance commitment, on the other hand, refers to commitment that is based on the fact that an individual cannot afford to leave the organization (Meyer and Allen 1991, 65). Individuals invest time, effort, and other resources while working for organizations and sometimes feel that by quitting the organization they will lose the investment. This mentality describes continuance commitment to the organization. Meyer et al. (1990) differentiated between affective and continuance commitment by stating that “employees with a strong affective commitment remain with the organization because they want to, whereas those with strong continuance commitment remain because they need to” (p. 710).

5. Trust and Commitment in IJVs

Business and cultural differences between IJV partners often create conflict. It is therefore important for working relationships to be based on trust (Beamish 1994, 60; Madhok 1995, 117). Joint ventures require management and organization processes to create trust and the capacity to collaborate as they are considered to be inherently unstable (Cullen et.al. 1995, 91). Trust and commitment are both necessary for success of an IJV. Madhok (1995, 117) stated that trust has to be built over a period of time and can be time-consuming and expensive. Parkhe (1993) posited that trust is “the behavioral lubricant that reduces friction between two parties” (p. 302) and Cullen et al. (1995, 92) stated that commitment is crucial for successful IJV relationships. Cullen et al. (1995, 95) found that the greater the strategic importance of the IJV to its parent company, the greater the perceived IJV economic performance, and the more satisfaction a partner reports with the IJV relationship, the more committed that partner is to the IJV. Typically, IJVs have a less balanced equity structure as compared to domestic joint ventures (Llaneza and Garcia-Canal 1998, 49) and Zeira et al. (1997, 259) found that unequal equity joint ventures in Hungary were effective due to the patience of both the partners in managing their problems. Partner commitment is an important factor in influencing inter-party conflicts in joint ventures (Julian 2008, 6). Tichy (1988, 1) suggested that senior executives must be involved in designing management processes that facilitate effective joint strategy formulation, create structural linkages, provide day-to-day coordination and communication, and establish a win-win climate. These processes will go a long way in establishing a climate of trust in the organization, which will improve the stability of the IJV.

Several researchers (Beamish and Banks 1987, 1; Buckely and Casson 1988, 32; Williams and Lilley 1993, 233; Madhok 1995, 117; Arino et al. 1997, 19) have asserted that trust is important for the effective functioning of IJVs. Beamish and Banks (1987, 1) maintained that viewing IJVs as ownership-centered entities erode the potentiality of the venture. Building effective social relations in the IJV proves to be a far more profitable option to both partners (Beamish 1985, 3). Creating and maintaining trust can lead to better performance (Gill and Butler 1996, 81) and ensure the long-term survival of the venture (Buono 1990, 28). Newburry and Zeira (1997, 87) confirmed that the issue of trust was more important to the functioning of the equity international joint ventures (EIJVs) than the international acquisitions (IAs) or international greenfield investments (IGIs). Trust, not pure markets or hierarchical relations, is crucial in sustaining relationships (Jarillo 1990, 31).

Chen and Boggs (1998, 111) found that trust is positively related to the prospect of long term cooperation. The authors also confirmed that cultural similarity and age of the joint venture was strongly related to trust and long term cooperation. Culturally similar joint ventures seemed to portray a higher level of trust towards the partner than culturally distant joint ventures. Madhok (1995) stated that “commitment develops through interaction, and results in a trust-based relationship that more closely resembles an internalized mode than a contractual one” (p. 125). Cullen et al. (1995, 91) examined partner commitment in IJVs and found that several factors were responsible for the increase in partner commitment. These factors were satisfaction with the venture (positive), perceived performance (positive) of the venture, and conflict (negative) in the venture. It can be seen from the above discussion that partner trust and commitment are important for the success of the joint venture. In fact, trust and commitment transcend cultural boundaries as was evidenced in a study on Confucian values in joint ventures (Zutshi 2006, 160). The authors found that Singaporean joint ventures in China and India were influenced by the Confucian values of trust and commitment between partners.

In summary, trust and commitment are crucial for the successful survival of IJVs. Commitment to the joint venture, either behavioral or attitudinal, results in higher learning in IJVs (Harrigan, 1985, 123). Schaan and Beamish (1988, 165) asserted that commitment to the organizational goals is a key variable related to IJV success. No matter how mutually beneficial and logical the venture initially seems, without commitment the IJV will fail to reach its goals (Abdul-Rahman et al., 2014, 370). However, learning in an IJV is more than just a function of trust and commitment. Research has shown that most joint ventures tend to fail within the first three years of operation. Because of their high failure rate, longevity of the IJV would suggest that the goals of the partners are being achieved and thus we can hypothesize that IJVs with longer duration have higher learning success. It can also be hypothesized that trust and commitment in IJVs will depend on the age of the IJV. Meschi (1997, 211) found that culturally (both national and organizational) similar organizations tend to survive longer as IJVs than other organizations. Hence, we propose that:

H₁: Age of the IJV and learning effectiveness are positively related.

H₂: Age of the IJV is positively related to the partner commitment.

H₃: Age of the IJV is positively related to trust between the joint ventures.

6. Survey instruments

6.1 Learning Effectiveness Questionnaire

This study will use an adaptation of Si's (1996, 58) instrument of learning effectiveness that has 6 goals to measure learning effectiveness. The Cronbach's Coefficient for the original scale was 0.75 (Si, 1996, 58).

6.2 Trust Questionnaire

Cummings and Bromiley (1996, 84) developed the trust questionnaire which consists of 12 items to be rated from 1 (strongly agree) to 6 (strongly disagree) and is known as the Organizational Trust Inventory – Short Form (OTI-SF). The authors also developed a long form which consists of 62 items, but, according to the authors, the short form is reliable and valid in measuring organizational trust (see Cummings and Bromiley 1996, 89).

6.3 Commitment Questionnaire

The commitment instrument was developed by Cullen et al. (1995, 91) in order to assess partner commitment in Japanese IJVs. This is an 8 item instrument, adapted by Cullen et al. (1995, 91) from Mowday and Steers (1979, 224). Cullen et al. (1995, 91) has established reliability and validity for this questionnaire (Cronbach's Coefficient of 0.86).

6.4 Age of the IJV

Age of the IJV will be assessed by asking the respondents the month and year of the IJV formation and subtracting the answer from the year the study is conducted. For example, if a respondent replies that the IJV was formed in 1970, then the age of the IJV will be $1980-1970=120$ months (assuming the study is conducted in 1980).

7. Sample Characteristics and Data Collection

Data was collected from Indian top management officials in Indian IJVs. A multi-item questionnaire was mailed to CEO's of IJVs in India. Of the 1000 questionnaires mailed, 139 were returned for a response rate of 13.9 percent. Of the 139, 133 were usable for a net response rate of 13.3 percent. The questionnaires were mailed in two waves. Each wave consisted of 500 questionnaires equally divided among Asian IJVs

and non-Asian IJVs. Of the 500 questionnaires sent in the first wave, 65 were returned (60 usable), whereas 74 were returned from the second wave (73 were usable). Non-response analysis was also conducted to ensure that the study did not suffer from non-response error. Separate t-tests for the means were conducted for the instruments. No significant differences were found between the waves at the 0.05 significance level.

8. Results and Discussion

The following table (Table 1) displays the descriptive statistics with respect to the collected data.

Table 1 – Descriptive Statistics

Variable	Mean	Std. Dev.	Minimum	Maximum
Age (in months)	123.53	50.52	42	265
Trust	2.82	0.95	1.00	5.38
Commitment	2.78	0.97	1.00	5.33
Learning Effectiveness	3.94=	1.23	1.50	6.00

Note. N=133.

After data collection and coding the data, a correlation analysis provided the relationship between the criterion variable – learning effectiveness and the predictors – trust, commitment, and age of the IJV.

Table 2 – Pearson Product-Moment Correlation

	Age	Trust	Commit.	Learning
Age	1.000	-0.103	-0.180*	0.297***
Trust		1.000	0.657***	-0.379***
Commit.			1.000	-0.378***
Learning				1.000

Note. N=133. * $p < .05$. ** $p < .01$. *** $p < .001$.

Learning effectiveness is related to trust, commitment, and age of the IJV at the 0.001 level. The relationship between trust and commitment and learning effectiveness is positive despite the direction suggested by Table 2. The negative direction of the

relationships is due to the response categories on the questionnaire (for example, a low score on trust suggests trust between the partners, whereas a low score on learning denotes low level of learning effectiveness). Therefore, a low score on trust, commitment, should relate to a high score on learning effectiveness (learning does/did take place). The above findings (correlation results) support H_1 and H_2 . There is also a strong positive relationship between trust and commitment, significant at the 0.001 level. Age of the IJV is related to commitment, but not to trust. Age is also related to learning effectiveness.

As the joint ventures grew in age, there seemed to be more learning. One respondent stated that people on both sides of the IJV need to have *“the patience to understand that two cultures cannot make a success of the JV overnight”*. The average age of a joint venture in this study was 10 years, which suggested that these joint ventures have been successful in maintaining their good relations. This finding is evidenced by the relationship between commitment and age of the IJV, which suggests that as the joint ventures become mature, the commitment to the IJV increases. This finding supports other research (Cullen et al., 1995, 91; Madhok 1995, 117) that commitment is important for the survival of the joint venture. A surprising non-finding was the relationship between trust and age of the IJV. This non-finding refutes Chen and Boggs' (1998, 111) study where trust and long term cooperation were related positively. However, the non-finding of the relationship between trust and age of the IJV is probably specific to this sample, since literature has consistently shown a positive relationship between trust and longevity.

9. Conclusion

International Joint Ventures are risky ventures due to their high rate of failure. It is the responsibility of both partners to make an effort to make the IJV a success. After the IJV is formed, efforts should be made to create an atmosphere of trust by open lines of communication in order to ensure successful operation of the IJV. One of the respondents commented that *“frequent exchange of staff between both partners may contribute to learning in IJVs.”* This may increase the commitment between the partners and increase the longevity of the IJV, which results in greater learning between partners. This study shows that once an IJV gets over the hurdle of being in operation for the first few years, the chances of success increase. With longevity also comes increasing commitments on both sides, which necessitate the survival of the IJV. Duration of joint ventures is also inversely related to structural changes by ownership. In other

words, joint ventures that stay operational for longer periods of time experience less changes to their structure even if they are low-performing (Song and Peng 2015, 171). This shows that parent owners of longer-duration joint venture display higher levels of patience when it comes to making sudden operational changes to the venture.

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The Opening of the Stock Market of Angola and the Challenges for Companies at the Level of the Financial Reporting System and Corporate Governance

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ABSTRACT: This research aims to analyze the main requirements in terms of financial reporting and corporate governance mechanisms established by the Capital Market Commission (CMC) of Angola to companies operating on the capital market of Angola. Using a qualitative investigation approach, we conclude that, overall, Angola is providing itself with a legal framework that is in convergence with the major orientations of the international organizations, regarding the requirements made to entities operating in the capital market, in terms of governance and oversight of those corporations, of their financial reporting process. However, there is an urgent need for the CMC of Angola to orient or even advocate the mandatory adoption of the IASB's international accounting standards for entities operating (or intending to operate) in the capital market of Angola. At the Corporate Governance level, we found a fair convergence of the principles and recommendations of the CMC regarding the OECD Corporate Governance principles.

KEYWORDS: Corporate Governance; Financial Reporting; Capital Market; Angola

Introduction

The increasing globalization of the Angolan economy, with the resulting increase in competition, as well as the high external financing needs associated with the large industrial and infrastructure projects, recommends the adoption of models of

organization maximizing business increased competitive efficiency of enterprises, as well as strengthening the external credibility of the Angolan economy and business organizations (Bom 2014). On the other hand, the startup of the capital market in Angola in December 2014, with the opening of Stock Exchange and Debt Values of Angola, and the opening of the stock exchange on 15 November 2016, which initially will only Transact public debt securities, and forecast for brief from the beginning of the acceptance of stock trading, impose the adoption, by the Angolan companies, of good practices of Corporate Governance (Bom 2014).

Like in many developing countries, it is, therefore, necessary build a proper legal framework, sensitize civil society and Angolans business groups and implement Corporate Governance processes tailored to the ambitions of economic and social development of Angola (Fan & Wong 2005; Bom 2014). In addition to the participating entities of the capital markets of emerging countries is essential to enhance the quality of financial reporting of these entities by establishing greater demands in terms of accounting and financial reporting standards (including the increased disclosure of accounting and financial information) through the placing of financial statements to external audits (Fan and Wong 2005). Ball (2006) notes that the adoption of international accounting standards and financial reporting in emerging countries is a very important step to enhance the quality of financial reporting of companies based there. Then, this study aims to analyze the system level requirements of financial reporting and Corporate Governance mechanisms established by the Capital Market Commission of Angola to companies wishing to place their shares to trading on the Stock Exchange and Debt Values of Angola.

Methodology

In methodological terms, this study is an investigation of a qualitative character. The qualitative approach emerged as an alternative to positivist paradigm, to the extent that this sometimes proves ineffective to analyze and study the subjectivity related to the behaviors and activities of persons and organizations (Sousa & Baptista, 2011; Lee & Humphrey, 2006). Interpretive researchers strive to provide a thorough understanding of the environment in which to experience the problems studied, considering the perspective of one who lives (Paiva et al. 2011).

The research conducted in this study consisted of an exploratory research, adopting the methodology of case study, qualitative in nature, since it tries to understand, in addition of the phenomenon studied, the situation in which this was developed (Charoux,

2006). To achieve the general objective of the study was used the bibliographical research and documentary research.

The bibliographical research was used to support the theory study, being based essentially on consultation of books and articles published in scientific journals, dealing with the implementation and development of capital markets in emerging countries. The documentary research was used as the data collection instrument.

The largest part of the collection of the documentation was made available on the website of the Capital Markets Commission (CMC), Stock Exchange and Debt Values of Angola, the Order of Accountants and Experts Accountants of Angola, international bodies linked to capital markets and the Accounting, among other sources, where they met relevant data for the continuation of the present research.

Case study

Requirements at the level of Governance and Oversight Structures Listed companies quoted on a Stock Exchange of Debt and Values of Angola and the Corporate Governance Code of Angola

In Angola existed the Commercial Companies Code (CCC) (hard law), which forces business companies by quotas and open fulfil-liability with the requirements related to the practices of Corporate Governance, with the opening of the capital market, such a code was insufficient and something screw up with regard to some international practices of Corporate Governance suggested and required the entities with securities quoted.¹ Thus, the CCC was the target of changes (by modifying and revoking some legal provisions were in force) and was even introduced the Securities Code of Angola (supported in part by the CCC)². Thus, were established the legal provisions necessary for the effective compliance with the internationally accepted Corporate Governance practices and to be followed by entities wishing to place securities to official listing to Stock Exchange and Debt Values of Angola.

So, in addition to the provisions described in the Commercial Companies Code (CCC), the entities that intend to place securities to trading in Stock Exchange and Debt Values of Angola must also comply with Security Code. In addition, the entities with securities listed on Stock Exchange and Debt Values of Angola, the Security

1 Law No. 1/04 of 13 February - the commercial companies code. Such international practices were recommended by the Organisation for Economic Co-operation and Development (OECD) and by IOSCO.

2 Law 22/15, of 31 August – the Securities Code, which repealed the law n° 12/05, of 23 September that initially established the Securities Law.

Code provides for the existence of a Board of Directors composed of odd number, at least three members.³ On supervision of listed company, the Security Code predicts the existence of a fiscal Council shall be composed of independent members, on which it is required that at least one Member is an expert accountant or accountant.⁴ The Table 1 contains a summary of the structural model of governance and surveillance of open societies in Angola.

Table 1: Structure of governance and surveillance of Listed Companies in Angola

Company governance	Supervision of the company
<ul style="list-style-type: none"> ✦ The management of listed company is exercised by a Board of directors consisting of odd number, of at least 3 members.⁵ ✦ May be appointed or elected people don't shareholders to the Board of Directors.⁶ ✦ The security provided by the administrators of listed company (which may be by an insurance contract in favors of the holders of damages) may not be less than the kz: 30,000,000.00.⁷ ✦ The Board of listed company has the function of establishing and maintaining internal control systems, considering the size of the company and the nature of your activity.⁸ 	<ul style="list-style-type: none"> ✦ The ruling on open society must be exercised by the Supervisory Board.⁹ ✦ The Supervisory Board shall consist of most independent members, and must include obligatory, a member that is an expert accountant or accountant.¹⁰ ✦ Is considered independent person not associated with any group of interests of the company and is not in any circumstances likely to affect the exemption of your opinion, in particular, being holder or act in the name or on behalf of holders with higher participation or equal to 5% and be re-elected for more than two terms, continuously or interspersed.¹¹

Source: Own Elaboration (based on SC and CCC)

3 Expression that replaced the term previously named by "public society" (article 3, 136 and 112, paragraph 1 (a), b), c), (d) and e) of the Securities Law).

4 Article 137, paragraph s 1 and 2.

5 Article 136 No. 1, the Security Code. In open societies can be agreed in the contract a single administrator, when the number of members is reduced to two, social capital is equal to or less than the US \$50,000.00 (equivalent in local currency) and if it is determined by law (article 315 No. 2, CCC)

6 Article 136 No. 2, Security Code (SC).

7 Article 136 No. 3, Security Code (SC).

8 Article 135°, Security Code.

9 Article 137 paragraph 1 of SC. In open societies can be agreed in the contract a single administrator, when the number of members is reduced to two, social capital is equal to or less than the US \$50,000.00 (equivalent in local currency) and if it is determined by law (315 No. 2, CCC).

10 Article 137 No. 2, Security Code.

11 Article 137 No. 3, Security Code.

In addition to updating the Commercial Code and the creation of the Security Code (hard law), the opening of the capital market spurred the creation of the Center for Corporate Governance of Angola (CCGA). The CCGA's mission is to reflect collectively, influence and stimulate the business agents to adhere to values and principles of Corporate Governance (CCGA, 2013). This letter was inspired by the Organisation for Economic Co-operation and Development (OECD) Corporate Governance Principles, considering that this document and its principles have been regarded as well accepted and suitable to the countries in transition and emerging countries (OECD, 2004; OECD, 2015).

Relatively listed companies, the CMC of Angola launched an Annotated Guide of Good Practices of Corporate Governance, non-mandatory, internationally recognized, where are laid down several principles that will help companies in capital markets the capturing more investments (CMC, 2015). Both the Letter of Corporate Governance of the CCGA as the Annotated Guide of Good Practice of Corporate Governance of CMC follow the Comply or Explain principle adopted by the OECD Principles of Corporate Governance, in which listed companies adopts the principles, or if it does not do explains why non-compliance (CCGA, 2013; CMC, 2015; OECD, 2004; OECD, 2015). The Table 2 presents a summary comparison of the code of Corporate Governance of the Capital Market Commission (soft law) with the OECD (requirements and recommendations) so we can gauge the convergent points.

Table 2: Corporate Governance OECD versus Annotated Guide of Good Practice of Corporate Governance of CMC

Principles of Corporate Governance of the OECD (soft law)	Recommendations of the CMC (soft law)
<p>1 – Base that ensures an effective Corporate governance structure - the promotion of fair and transparent markets and efficient resource allocation should be consistent with the rule of law, an effective supervision and enforcement support.</p>	<p>The Annotated Guide of good practice of the CMC recommends procedures that ensure solid structures of Corporate Governance based on the CCC and SC of Angola, whereas the OECD principles (recommendations Nos. 30 to 43).</p>

<p>2 – Rights and the equal treatment of shareholders and key functions of heritage – the structure of Corporate Governance can protect and facilitate exercise of the right of shareholders and ensure the equal treatment of shareholders, including minority and foreign partners.</p>	<p>Companies must treat your shareholders an equal and equidistant manner with respect to their interests. In this way, the information should be treated in a manner reserved ensuring no privileged access of same by partners with any qualified participation in society (recommendations Nos. 13, 14).</p>
<p>3 – Institutional investors, the stock market and other intermediaries – States that there must be solid economic incentives in the entire chain of investment, with focus on institutional investors.</p>	<p>No information related to institutional investors, but investors as a whole and in the dissemination of information Optics (recommendation No. 14).</p>
<p>4 – The role of stakeholders in Corporate Governance – Recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs and financially solid companies.</p>	<p>In preparing the annual report on Corporate Governance should be disclosed information about the relationship between the company and its stakeholders (recommendation 3 (b)).</p>

Source: Own Elaboration (Based on OECD and CMC)

Table 2: Corporate Governance OECD versus Annotated Guide of Good Practice of Corporate Governance of CMC (Continuation)

<p>5 – Disclosure and transparency – Ensure the timely and accurate dissemination of information on all relevant matters relating to the company, including financial and operational performance, the goals of the entity, information about majority shareholdings in the capital of society, information on related parties, risk factors, compensation, members of the governance of the society.</p>	<p>In conjunction with the Executive Management, the Board of Directors is responsible for the proper execution of the model of Government in force in society, and to ensure that, in respect of their specific characteristics, such as your size, complexity, nature of the risks inherent to the main business and other relevant factors, are fulfilled the recommendations of corporate governance of CMC (recommendation No. 1).</p>
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<p>6 – The responsibilities of the Board of Directors – it is up to the administrative review of the corporate strategy, make the selection and setting the compensation of managers, oversee the large corporate acquisitions and divestments, and ensure the integrity of the entity's financial reporting system.</p>	<p>The Board of directors should answer to the General Assembly for compliance with the best practices in government business and, if applicable, to the sectoral regulators, in respect for the comply or explain principle (recommendation 2).</p>
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Source: Own Elaboration (Based on OECD and CMC)

Analyzing the information in table 2, the Annotated Guide of good practice of Corporate Governance of CMC does not specify the institutional base which ensures a good Corporate Governance structure, but best practices internationally for the best capital markets (CMC, 2015). Thus, in the case of Angola, that institutional quality assurance Corporate Governance structure, is provided for in Security Code (hard law), which addressed the tasks of the supervisory body of the capital market and related to the supervision and direct supervision of open societies.

The biggest difference that denotes when comparing the principles of Corporate Governance of the OECD with the Annotated Guide of Good Practice of Corporate Governance of CMC, reflects the level of reference to institutional investors: while the OECD States that there should be incentives solid economic investment chain, with focus on institutional investors, CMC only refers to investors in a universal sense, and in the perspective of disclosure of information.

The Annotated Guide of Good Practice of Corporate Governance of CMC should serve as a basis for the preparation of the report of the Government open societies, and this document includes the assessment to the host (or not) of the recommendations set out in the guide of the CMC. Article 17, paragraph 3, of Regulation No 06/16, 07 June, predicts that open societies should explain, effectively, with due justification and rationale, indicating examples of practices that are widely suitable for both government entities, or supervision or other appropriate reason with a reputation of not welcoming the recommendations referred to in the Annotated Guide of Good Practices of Corporate Governance, thereby demonstrating the adequacy of the alternative solution adopted the principles of good Corporate Governance practices.

Requirements at the level of the accounting system and Financial Reporting Open companies listed on Stock Exchange of Debt and Values of Angola

The General Accounting Plan of Angola was inspired based on international accounting standards of the International Accounting Standard Board (IASB), however, currently shows up in the face of the evolution suffered by misfit international accounting standards, becoming imperative that your review with a view to bringing international practices of the IASB (Landu 2014). Caliatu and Soares (2015) that, considering the increasing development of the country and the increased private investment and foreign, Angola is too late to adjust their accounting standards to international standards, and that should be created an independent body of the Ministry of finance, to work on this adjustment, involving accounting professionals, associations and bodies that directly or indirectly relate to the story.

Barroso (2014) states that the international accounting harmonization becomes a necessity for the development of capital markets, and that the absence of such harmonization has consequences such as increased capital costs for businesses, the biggest firms in difficulty be credible to investors and lenders, and the fact that listed companies in international capital markets suffer costs due to recast their accounts. Barroso (2014) adds that the harmonization of accounting systems in relation to the international standard presents obstacles related to the culture and history of each country, with the powers and size of the bodies, but that presents benefits related to the expansion of international transactions, with increased transparency, comparability and understandability of the financial statements submitted by the companies, and with the facilitation of decision-making by international investors and other stakeholders.

Conclusion

In relation to Angola, in general, concluded that the country is to establish a legal framework that shows in convergence with the main guidelines of the international organizations with regard to the requirements of Government and corporate surveillance and of the process of financial reporting, appropriate for entities operating in the capital markets. However, there is the urgent need of the Capital Market Commission guide or even recommending the mandatory adoption of international accounting standards of the IASB to entities that operate or want to operate on the Stock Exchange and Debt Values of Angola. In terms of Corporate Governance, a thorough convergence of principles and recommendations of the Committee on capital markets about the principles of Corporate Governance of the OECD.

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Legislation

- Presidential Decree No. 22/12, January 30 – Legal Regime amending Decree No. 09/05, of 18 March, creates the Capital Markets Commission and approves the Organic Statute.
- Commercial Companies Code (CCC) (30th Ed.). Coimbra: ALMEDINA EDITIONS, n. a. Act No. 1/04 of 13 February - approves the Legal Regime of Commercial Societies.
- Law No. 12/05 of 23 September – approve the legal status of securities.
- Law No. 22/15 of 31 August-legal framework of securities. Law No. 6/12 of 18 January- Approves the legal framework of Private Associations.
- Regulation n° 6/16, of 7 June, Capital Markets Commission (CMC) - issuers of securities.

Selecting Sustainable Development Criteria for Effective Watershed Governance: Study Area of Kashafrud Watershed

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ABSTRACT: In recent years, inappropriate governance within the watersheds have caused to qualitative and quantitative degradation of water resources and unbalanced allocation of resources amongst the beneficiaries. Therefore, one of the most important challenges for stakeholders is the selection of final sustainable development criteria, which affects the planning and management for water supply scenarios and leads to effective watershed governance. Selection of final criteria depends on the stakeholders' preferences and the decision-making risk attitudes. The risk attitudes related to the importance of viewpoints associated with stakeholders' number within the watershed. This paper has developed a comprehensive approach based on the risk analysis to calculate the group weights and the group consensus measurements of criteria, which leads to selecting final decision-making criteria. Accordingly, in the first step, the initial criteria are determined by the group of DMs. In the second step, the group criteria weights have been calculated and in the third step, the group consensus measurements of criteria have been measured in several risk attitudes using the Hybrid Weighted Averaging (HWA) operator and the distance-based group consensus method. Finally, the most important criteria have been selected from the initial criteria based on the group consensus measurements, compared with an acceptable threshold level. This approach has been developed for the Kashafrud watershed, to select the final sustainable criteria in 2040. The results showed that the number of the final criteria depends on the risk attitudes of decision-making. Development of this method is recommended for watershed governance in the world.

KEYWORDS: Sustainable Development Criteria, Effective Watershed Governance, Group Consensus, Risk Analysis, Hybrid Weighted Averaging Operator

1. Introduction

In recent decades, sustainable supply of water resources for several demands have changed into one of the most important problems among stakeholders and beneficiaries within the watersheds (GWP 2004, 7-23). To solve this problem and achieve an effective watershed governance, several water supply scenarios should satisfy the sustainable development criteria. Indeed, the water resources scenarios should be evaluated with respect to the sustainable development criteria for selecting the most desirable scenario (Yue 2011, 1926-1936). Therefore, one of the most important challenges for stakeholders and beneficiaries, named decision-makers (DMs), is the selection of final sustainable development criteria. The selection of final criteria affects the planning and management for water supply scenarios.

Over recent years, the complexities of the sustainable development criteria associated with the socio-economic, environmental, and water resources objectives, have been increased within the watersheds (Javidi Sabbaghian et al. 2016, 260-272). Therefore, by using the group decision-making (GDM) process, all DMs can collaborate on each phase of the process to achieve a group consensus for selecting the best solution for water supply (Nejadhashemi et al. 2009, 1-8). One of the most important phases of the GDM process is the selection of final sustainable development criteria from the initial criteria. The selection of final sustainable criteria depends on the DMs' preferences and the group decision-making risk attitudes.

In the risk-based GDM problems, DMs have different viewpoints, preferences and levels of influence. In addition, the group of DMs may have several risk attitudes, which affect the final results of the decision-making for the watershed (Mianabadi et al. 2014, 1359-1372). The decision-making risk attitudes for selecting final criteria, are expressed by some linguistic statements such as "selecting the final criteria based on considering all DMs' preferences" in the completely risk-averse viewpoint, "selecting the final criteria based on considering at least one of DMs' preferences" in the completely risk-prone standpoint, and the other linguistic statements and the corresponding risk attitudes. Therefore, it is essential to use a consensus-based GDM methodology, which considers the risk assessment and its effects on the selection of the final criteria for the watershed implementation plan.

In general, some of the GDM methodologies have been developed for selecting the final sustainable development criteria. The differences between these methods are associated with their strategies for the selecting phase. (Aravossis et al. 2003, 1433-1443), proposed a trial approach for selecting the final criteria based on the Analytic Hierarchy Process (AHP) methodology. (Yu and Lai 2011, 307-315) used a method for selecting a subset of several criteria, which includes all sets of criteria.

In the watershed management context, some of the GDM methods have been applied for selecting the final sustainable criteria for effective watershed management. (Ardakanian and Zarghami 2004), provided a hierarchy tree of sustainable criteria for Iran water supply projects based on the sustainable development criteria from the other watersheds in the 15 countries. (Karamouz et al. 2008), evaluated the sustainable criteria for water supply development scenarios by using value management approach. (Javidi Sabbaghian et al. 2015; Javidi Sabbaghian et al. 2016), selected the final sustainable criteria for Mashhad watershed, by using the group consensus measurements among DMs.

Many of these studies have not considered the risk attitudes of the selecting phase. The last two papers have considered the risk analysis in selecting final criteria, while ignored the DMs' power weights in the criteria weighting and consensus measuring steps.

In this paper, a comprehensive approach is applied for selecting the final sustainable development criteria for effective watershed governance, in which the main sustainable objectives are considered limitations of the existing methods are resolved. Correspondingly, in the first step of the selecting phase, the initial criteria are determined by the group of DMs. In the second step, the group weights of the initial criteria are calculated in several risk attitudes using the Hybrid Weighted Averaging (HWA) operator (Xu and Da 2003, 953-969). Finally, in the third step of the selecting phase, the group consensus measurements of criteria are measured in several risk cases using the distance-based group consensus method (Zarghami and Szidarovszky 2010, 2239-2248) in this triple-stepped method, the criteria importance, DMs' power weights and the risk attitudes are considered in the selecting phase, simultaneously. Finally, the most important criteria are selected from the initial criteria based on the group consensus measurements, compared with an acceptable threshold level. The proposed selecting methodology has been developed for the Kashafrud watershed in Iran, to select the final sustainable development criteria in 2040.

This paper is organized as follows: Section 2 introduces the risk-based GDM method and the corresponding diagram. In Section 3 the proposed methodology in the is illustrated. In Section 4 the proposed method is applied for the watershed

governance, and the results are obtained, and the final sustainable development criteria are determined in the several risk cases. Finally, Section 5 describes the conclusions.

2. Risk-based criteria selection process

In the criteria selection process, the proposed risk-based GDM algorithm features the three important steps, including: recognition, group weighting, and group consensus measuring. The steps of this algorithm are presented in the proposed diagram in Fig. 1:

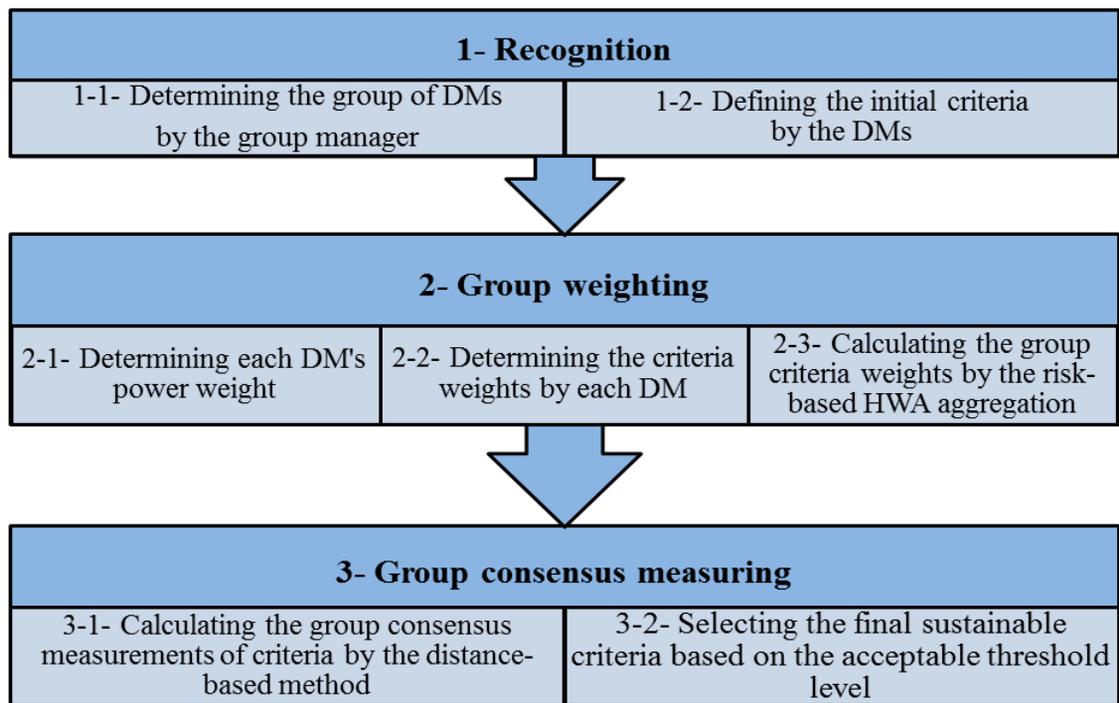


Fig. 1 The proposed diagram for the risk-based criteria selection process

3. Methodology

3.1. Recognition step

In Step 1, the group of DMs are determined by the group manager, and the initial criteria are defined by the group of DMs based on the sustainable development objectives, including social, economic, environmental, and water resources sustainability within

the watershed. In this step, n represents the number of initial criteria $C = \{C_1, \dots, C_i, \dots, C_n\}$; and p represents the watershed DMs $DM = \{DM_1, \dots, DM_k, \dots, DM_p\}$. $\lambda = (\lambda_1, \dots, \lambda_p)^T$ is the DMs' power weights vector, where $\lambda_k \geq 0$, $\sum \lambda_k = 1$; and $w^{(k)} = (w_1^{(k)}, \dots, w_n^{(k)})^T$ is the criteria weights vector in k^{th} DM's viewpoint, where $w_i^{(k)} \geq 0$, $\sum w_i^{(k)} = 1$.

3.2. Group weighting step

In Step 2, the weights of the initial predefined criteria are determined. In decision-making problems, there are several methods for determining criteria weights (Pomerol and Romero 2000, 75-104; Aras et al. 2004, 1383-1392; Chatzimouratidis and Pilavachi 2009, 778-787). In this study, each DM determines the degree of criteria importance by one of the linguistic members from the set of $S = \{\text{None, Very low, Low, Slightly low, Medium, Slightly high, High, Very high, Perfect}\}$ (Herrera et al. 1996, 175-190). Also, the DMs' power weights are assigned by the group manager in order to consider their influence in the decision-making, using the linguistic members form the set of S .

The linguistic criteria weights and the linguistic DMs' power weights are fuzzified by using the trapezoidal-triangular fuzzy number, which is one of the most commonly used fuzzy membership functions (Ross 2009, 89-111).

After fuzzification, the weights are defuzzified by using the method of centroid, which is one of the most reliable defuzzification methods, (Zekai 2010, 50-75). The linguistic variables, the related fuzzy numbers, and the corresponding defuzzified values are presented in Table 1:

Table 1. The linguistic variables and the defuzzified values

Linguistic Variable	Fuzzy number (interval value)	Defuzzified value
None (N)	(0.00, 0.00, 0.00, 0.01)	0.001
Very low (VL)	(0.00, 0.00, 0.00, 0.20)	0.063
Low (L)	(0.00, 0.10, 0.00, 0.20)	0.106
Slightly low (SL)	(0.20, 0.20, 0.20, 0.20)	0.200
Medium (M)	(0.50, 0.50, 0.20, 0.20)	0.500
Slightly high (SH)	(0.80, 0.80, 0.20, 0.20)	0.800
High (H)	(0.90, 1.00, 0.20, 0.00)	0.894
Very high (VH)	(1.00, 1.00, 0.20, 0.00)	0.937
Perfect (P)	(1.00, 1.00, 0.01, 0.00)	1.000

Therefore, the fuzzified weights of the initial criteria in each DM's viewpoint are determined ($w_i^{(k)}, i=1, \dots, n ; k=1, \dots, p$), which $w_i^{(k)}$ is the i^{th} criterion weight in k^{th} DM's viewpoint. In addition, the fuzzified power weights of DMs are determined ($\lambda, k=1, \dots, p$), that λ_k is the power weight of the k^{th} DM.

In the risk-based GDM process, the group of DMs usually has several risk attitudes. In this paper, the risk attitudes for the proposed risk-based criteria selection process are expressed by some linguistic statements such as “selecting the final criteria based on considering all DMs' preferences” in the completely risk-averse viewpoint, “selecting the final criteria based on considering at least one of DMs' preferences” in the completely risk-prone standpoint. In addition, the other risk attitudes including “most of, many of, half of, some of, and few of” are applied between these two limits of risk attitudes. Therefore, the risk-taking degree of θ was introduced to describe the various risk attitudes (Liu and Han 2008, 77-97). The several risk attitudes, equivalent linguistic statements, and the corresponding values of the risk-taking degree are presented in Table 2 (Zarghami and Szidarovszky 2011, 10-30):

Table 2. Risk attitudes and corresponding risk-taking degrees

Risk attitude	Equivalent linguistic statement	Risk-taking degree (θ)
Completely risk-averse	Considering all DMs' preferences	0.001
Risk-averse	Considering most of DMs' preferences	0.091
Fairly risk-averse	Considering many of DMs' preferences	0.333
Risk neutral	Considering half of DMs' preferences	0.500
Fairly risk-prone	Considering some of DMs' preferences	0.667
Risk-prone	Considering few of DMs' preferences	0.909
Completely risk-prone	Considering at least one of DMs' preferences	0.999

Regarding Step 2, the initial criteria weights should be aggregated for calculating the group criteria weights based on the risk analysis. The risk attitude of decision-making, is determined by the group manager and the group of DMs.

In the risk assessment literature, for each risk attitude, a corresponding order weights vector of $v=(v_1, \dots, v_p)^T$ is determined, where $v_k \geq 0, \sum v_k = 1$. The order weights are frequently calculated for several cases of risk attitudes and the corresponding risk-taking degrees of θ by using (Zadeh 1983, 149-184; Yager 1996, 49-73):

$$v_k = (k/p)^{(1/\theta)-1} - (k-1/p)^{(1/\theta)-1}, k=1, \dots, p \tag{1}$$

The order weights are applied in aggregation process to calculate the group criteria weights in several risk attitudes. Accordingly, by using a p -dimensional mapping function of $F: I^p \rightarrow J$, the DMs' viewpoints about each criteria weight are aggregated to calculate the corresponding group criteria weight. In this mapping function, I denote the set of DMs' opinions related to each criteria weight, and J represents the corresponding group weight.

Therefore, based on the risk-based HWA operator, the DMs' viewpoints about each criteria weight are aggregated to calculate the group weight of that corresponding criteria in several risk cases by using (2) (Xu and Da 2003, 953-969):

$$w_i^{(G)} = \sum_{k=1} v_k \cdot b_k = \sum_{k=1} \{(k/p)^{(1/\theta)-1} - (k-1/p)^{(1/\theta)-1}\} \cdot b_k, \quad i=1, \dots, n; k=1, \dots, p \quad (2)$$

where $v = (v_1, \dots, v_p)^T$ is the order weights vector related to the p DMs, where $v_k \geq 0$, $\sum v_k = 1$. b_k is the k^{th} largest value of the vector of $(p\lambda_1 w_i^{(1)}, \dots, p\lambda_p w_i^{(p)})$ associated with the criteria weights matrix; and p is the balancing coefficient. Finally, $w_i^{(G)}$ is the group weight of the i^{th} criterion. In (2), the group weights of the initial criteria can be calculated for several types of risk attitudes.

3.3. Group Consensus measuring step

The consensus measuring is one of the most important steps in GDM process, in which the level of agreement among the group of DMs is determined for each decision-making variable, including each scenario or criterion. Therefore, in the risk-based criteria selection process regarding as Step 3, the consensus measurement for each criterion should be measured in order to calculate its consensus measurement.

Recently, several methods have proposed for determining the consensus measurement (Fairhurst and Rahman 2000, 39-46; Chiclana et al. 2013, 110-123; Wang et al. 2014, 28-30; Bouzarour-Amokrane et al. 2015, 1759-1772). Some of these methods calculate the consensus measurement based on the distances between the DMs' individual viewpoints and the group overall opinion. In this paper, the distance-based method is applied for calculating the difference between each DM's viewpoint related to each criterion weight and the group weight for that corresponding criterion.

In the distance-based method, the power parameter of p is applied to express how strongly each difference is emphasized. The case $p=1$ describes the simple average; the case $p=2$ implies a simple squared weighting, while in the case $p=\text{infinity}$, the largest deviation among DMs is considered (Bender and Simonovic 2000, 35-44).

In this study, a weighted distance-based method is applied to determine the consensus measurement for each criterion based on the risk analysis by using the power parameter of $p=2$. In this method, for several risk attitudes, DMs' individual viewpoints associated with each criterion weight ($w_i^{(k)}, i=1, \dots, n; k=1, \dots, p$), is compared with the group weight for that corresponding criterion ($w_i^{(G)}, i=1, \dots, n$). Therefore, the consensus measurement for each criterion is calculated based on the weighted mean deviation by using under several risk cases (3):

$$Cons.^{(G)}(w_i) = 1 - \left\{ \sum_{k=1}^p \lambda_k \cdot |w_i^{(G)} - w_i^{(k)}|^2 \right\}^{(1/2)}, i=1, \dots, n; k=1, \dots, p \quad (3)$$

where $\lambda_k, k=1, \dots, p$ is the k^{th} DM's power weight; $w_i^{(k)}$ and $w_i^{(G)}$ are the k^{th} DM's viewpoint and group standpoint related to the i^{th} criterion weight, respectively, and $Cons.^{(G)}(w_i)$ is the group consensus measurement for the i^{th} criterion.

According to (3), we consider that the smaller distances between DMs' individual viewpoints and the group overall opinion associated with each criterion, leads to stronger agreement and consequently greater group consensus measurement for that criterion.

Finally, the group consensus measurements of the initial criteria are obtained under several risk attitudes. The initial criteria, which the corresponding consensus measurements are greater than the Acceptable Threshold Level (ATL) and satisfy the condition of $Cons.^{(G)}(w_i) \geq ATL$, are selected in the final set of sustainable development criteria within the watershed. This selection process can be implemented depending on the risk attitude of decision-making.

4. Application and results

4.1. Study area

This study has been performed based on the proposed methodology for effective governance of Kashafrud watershed, which is located in northeastern Iran in the longitude of $58^\circ 20'$ up to $60^\circ 08'$ and latitude of $35^\circ 40'$ up to $36^\circ 03'$ (Fig. 2) (Tooss Ab Co. 2007)[29]. The Kashafrud watershed is one of the largest and most densely populated watersheds in the country.

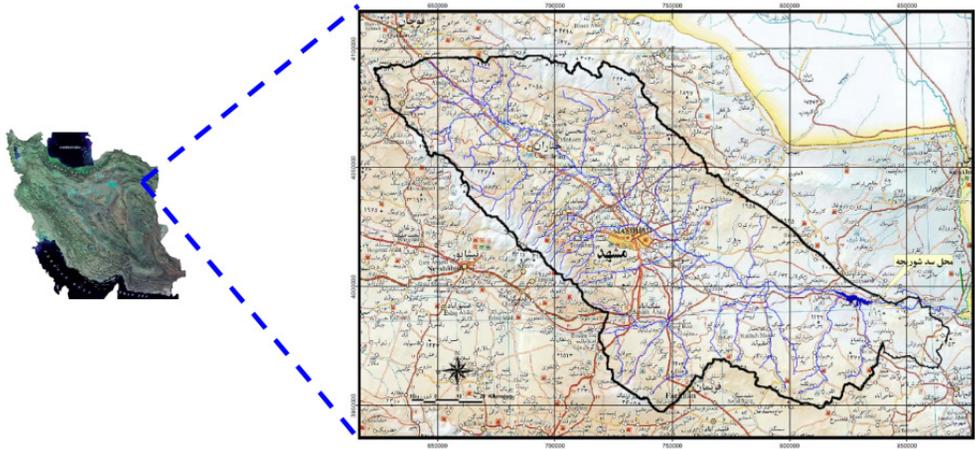


Fig. 2 Location of Kashafrud Watershed in Iran

This watershed has a total area of 16500 Km² with the mean annual precipitation of less than 250 mm (Tooss Ab Co. 2013). This watershed has been selected for this study, due to one of its most important challenges is the evaluation of water supply scenarios with respect to the sustainable development criteria in 2040. Therefore, choosing the most preferable criteria by using the consensus among the several beneficiaries and stakeholders is so important for effective planning and governance within the watershed. Selection of the most preferable criteria depends on the DMs' preferences and risk attitudes.

4.2. Recognition step in the study area

In Step 1 of the proposed risk-based process, the group manager and also group of DMs have been determined. The state regional water company is the group manager within the watershed. The stakeholders, that have the important role in the group decision-making within the watershed, are included:

The state agricultural organization; The state water and wastewater company; The urban water and wastewater company; The rural water and wastewater company; The state industrial township company; The state environmental protection agency; and the representative of the people.

In addition, based on the value engineering management, and also considering the social sustainability, economic sustainability, environmental sustainability, and water resources sustainability objectives within the watershed, the DMs firstly have selected the following 26 initial criteria, represented in Table 3:

Table 3. The initial sustainable criteria for Kashafrud watershed

Objective	Criterion	Criterion No.
Water resources sustainability	Water stress	C ₁
	Groundwater dependency	C ₂
	Irrigation efficiency	C ₃
	Adjustable protentional of Surface Water Resources	C ₄
	Development of groundwater	C ₅
	Supply percentage for agricultural water demand	C ₆
	Supply percentage for drinking water demand	C ₇
	Supply percentage for Industrial water demand	C ₈
	Supply percentage for Environmental water demand	C ₉
	Renewable water resources per capita	C ₁₀
	Drinking consumption per capita	C ₁₁
	Industrial consumption per capita	C ₁₂
	Reliability for water supply	C ₁₃
	Balancing between use of surface water & groundwater resources	C ₁₄
	Groundwater unsustainability	C ₁₅
	Surface water dependency on other watersheds	C ₁₆
Environmental sustainability	Refined sewerage ratio	C ₁₇
	Environmental supply	C ₁₈
Economic sustainability	Unmeasured water in Drinking Water Sector	C ₁₉
	Agricultural water productivity	C ₂₀
	Benefit per cost ratio	C ₂₁
Social sustainability	Variety of financial resources	C ₂₂
	Public participation in water supply	C ₂₃
	Conflict resolution among stakeholders	C ₂₄
	Creating job opportunities	C ₂₅
	Social equity	C ₂₆

4.3. Group weighting step on the study area

In Step 2, firstly the DMs’ power weights have been assigned by the group manager, using the linguistic variables. Also, the importance degrees of the 26 initial predefined criteria are determined by the 8 DMs within the Kashafrud watershed. Table 4, represents the linguistic power weights of DMs and the initial criteria degree of importance:

Table 4. Importance degrees of criteria and DMs' power weights

		C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉	C ₁₀	C ₁₁	C ₁₂	C ₁₃
DM ₁	P	P	VH	VH	SL	VH	H	H	H	H	H	SH	SH	VH
DM ₂	H	P	P	P	M	VL	P	SL	SL	H	SH	L	M	P
DM ₃	M	P	P	P	M	VH	H	SH	SH	SH	SH	H	M	SH
DM ₄	VH	P	SH	P	SL	H	P	SH	VH	SH	VH	VH	H	P
DM ₅	SL	P	P	H	L	P	P	L	L	VL	H	SH	SL	VH
DM ₆	M	VH	VH	VH	M	N	VH	SL	VL	SL	VH	L	VH	VH
DM ₇	SL	P	SH	H	H	H	H	SH	H	SH	H	VH	H	VH
DM ₈	SH	P	P	H	L	M	VH	SH	H	SH	VH	H	H	SH
		C ₁₄	C ₁₅	C ₁₆	C ₁₇	C ₁₈	C ₁₉	C ₂₀	C ₂₁	C ₂₂	C ₂₃	C ₂₄	C ₂₅	C ₂₆
DM ₁	P	VH	P	SH	H	H	H	VH	H	VH	H	SH	SH	VH
DM ₂	H	P	P	M	P	H	L	P	P	VH	VH	H	VH	P
DM ₃	M	VH	H	SH	SH	SH	P	P	H	VH	VH	VH	SH	VH
DM ₄	VH	P	VH	H	VH	H	H	P	VH	VH	VH	VH	H	VH
DM ₅	SL	H	P	L	L	L	M	M	H	H	VH	H	SH	VH
DM ₆	M	SL	VH	M	VH	VH	L	VH	VH	SH	VH	M	M	VH
DM ₇	SL	H	P	SH	H	H	SH	H	M	SH	H	SH	M	M
DM ₈	SH	H	P	M	H	SH	VL	VH	H	SH	SH	H	M	H

After that the linguistic variables have been fuzzified and defuzzified, and the initial criteria weights and the DMs' power weights have been determined. In the risk-based aggregation process, the group criteria weights have been calculated by using the HWA operator in several risk attitudes. The group criteria weights have been presented in Fig. 3 for several risk attitudes:

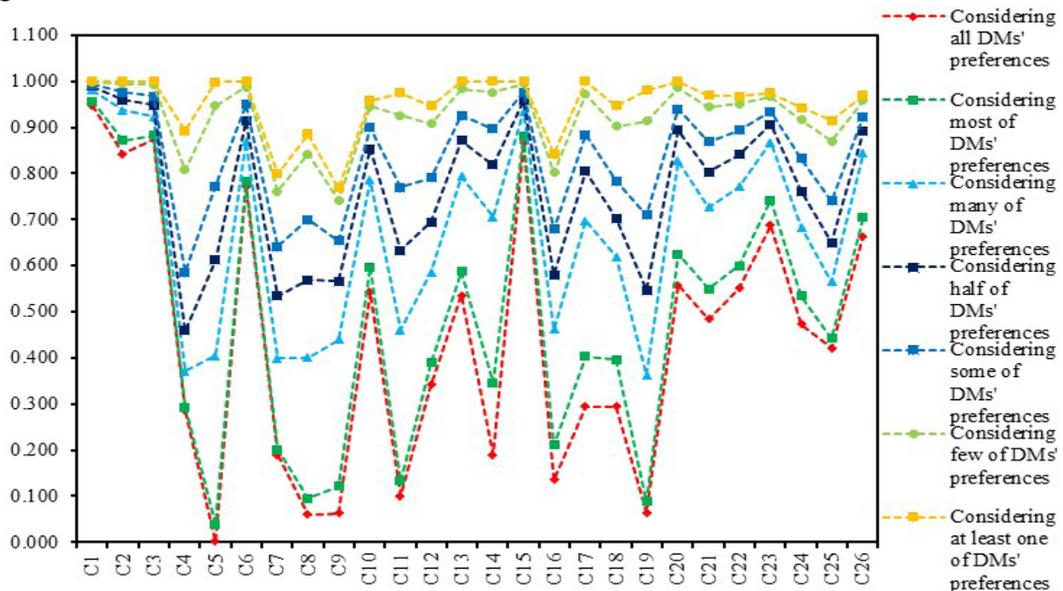


Fig. 3 Group criteria weights in several cases of risk attitudes

According to the results of Fig. 3, the group criteria weights have been increased from the completely risk-averse viewpoint “considering all DMs’ preferences”, into the completely risk-prone standpoint “considering at least one of DMs’ preferences”. It is due to the fact that in the in the completely risk-averse (completely pessimistic) viewpoint DMs tend to emphasize on negative properties of decision-making, while in the completely risk-prone (completely optimistic) standpoint DMs tend to focus on positive properties of decision-making. Furthermore, considering all DMs’ preferences within the watershed is the most difficult decision-making case, which caused to the smaller group weights for criteria. While considering at least one DM’s preferences within the watershed is the easiest decision-making case, which caused to the greater group weights for criteria.

4.4. Group consensus measuring step in the study area

In Step 3, the group consensus measurements of criteria have been calculated in several risk attitudes by using the distance-based method. The results have been presented for the four cases of risk-averse viewpoints in Fig. 4:

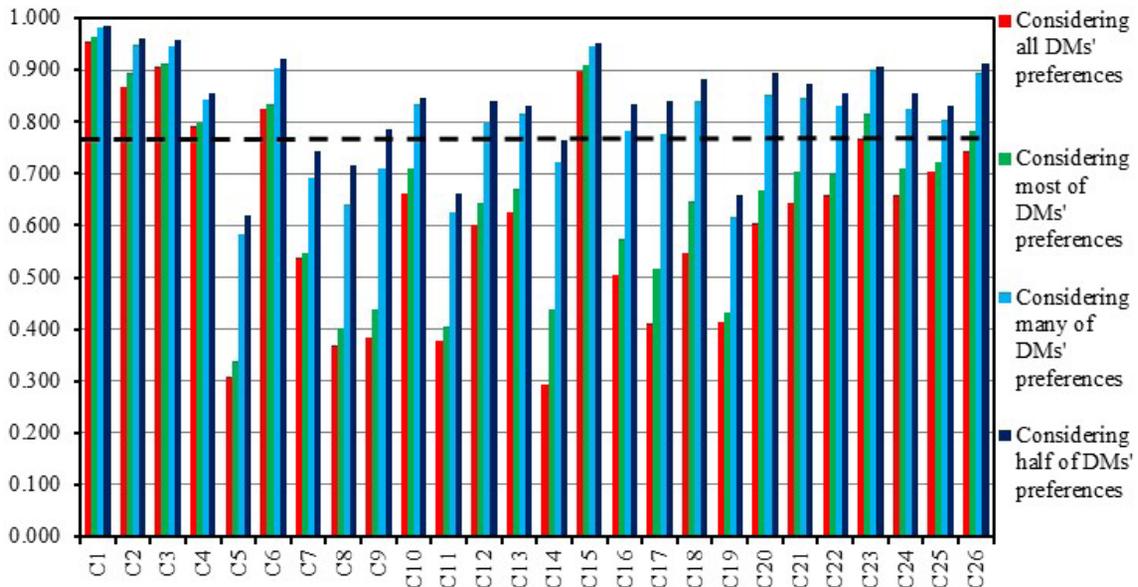


Fig. 4 Group consensus measurements of criteria in several risk cases

As represented in the results of Fig. 4, from the completely risk-averse viewpoint “considering all DMs’ preferences”, into the neutral risk standpoint “considering half of DMs’ preferences”, the group consensus measurement of each criteria has been

increased. It means that in the completely risk-averse viewpoint, in order to consider all DMs' preferences, achieving an agreement is more difficult and consequently the consensus measurements for scenarios are smaller.

To determine the final sustainable development criteria, the group manager has selected a TLA index by the linguistic variable of "High" (equivalent to 0.767), which represented by a dashed line in Fig. 4. Concerning the group consensus measurement values of the criteria presented in Fig. 4, the criteria which have the values above the dashed line are selected as the final criteria. The final selected sustainable development criteria within the Kashafrud watershed have been determined for the four risk cases in Table 5:

Table 5. Final selected criteria in several risk cases

Case 1: Considering all DMs' preferences
The final criteria C_1, C_2, C_3, C_4, C_6 and C_{15} have been selected (6 criteria).
Case 2: Considering most of DMs' preferences
The final criteria $C_1, C_2, C_3, C_4, C_6, C_{15}, C_{23}$ and C_{26} have been selected (8 criteria).
Case 3: Considering many of DMs' preferences
The final criteria $C_1, C_2, C_3, C_4, C_6, C_{10}, C_{12}, C_{13}, C_{15}, C_{16}, C_{17}, C_{18}, C_{20}, C_{21}, C_{22}, C_{23}, C_{24}, C_{25}$ and C_{26} have been selected (19 criteria).
Case 4: Considering half of DMs' preferences
The final criteria $C_1, C_2, C_3, C_4, C_6, C_9, C_{10}, C_{12}, C_{13}, C_{15}, C_{16}, C_{17}, C_{18}, C_{20}, C_{21}, C_{22}, C_{23}, C_{24}, C_{25}$ and C_{26} have been selected (20 criteria).

In this study, the group of DMs have proposed the risk case 3, which consider many of DMs' preferences in selecting the final sustainable criteria within the watershed. Finally, the selected sustainable development criteria have been represented in Table 6:

Table 6. The final sustainable development criteria for watershed

Objective	Criterion	Criterion No.
Water resources sustainability	Water stress	C ₁
	Groundwater dependency	C ₂
	Irrigation efficiency	C ₃
	Adjustable protentional of Surface Water Resources	C ₄
	Supply percentage for agricultural water demand	C ₆
	Renewable water resources per capita	C ₁₀
	Industrial consumption per capita	C ₁₂
	Reliability for water supply	C ₁₃
	Groundwater unsustainability	C ₁₅
Environmental sustainability	Surface water dependency on other watersheds	C ₁₆
	Refined sewerage ratio	C ₁₇
Economic sustainability	Environmental supply	C ₁₈
	Agricultural water productivity	C ₂₀
	Benefit per cost ratio	C ₂₁
Social sustainability	Variety of financial resources	C ₂₂
	Public participation in water supply	C ₂₃
	Conflict resolution among stakeholders	C ₂₄
	Creating job opportunities	C ₂₅
	Social equity	C ₂₆

5. Conclusion

In real-world group decision-making, there are various stakeholders and beneficiaries with several preferences, viewpoints and risk attitudes to select the most favorable sustainable criteria. This paper demonstrated a mathematical approach to determine the final sustainable criteria, considering socio-economic, environmental and water resources objectives based on a risk-based group decision-making. Therefore, the distance-based HWA methodology has been applied for calculating the group criteria weights and group consensus measurements.

In this paper, we utilized the HWA aggregation operator to calculate the group criteria weights, for which the importance degrees of criteria, the DMs' power weights, and

the risk attitudes of the DMs have been considered, simultaneously. Moreover, in the group consensus measuring, the DMs' weights and the decision-making risk attitudes have been considered to determine the consensus measurements for criteria. The final selected sustainable development criteria were determined based on the group consensus measurements comparing with the acceptable threshold level.

The proposed methodology has been developed on the real study area of Kashafrud watershed, in which the final sustainable criteria were selected based on the group consensus among DMs in several risk attitudes.

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Churn Forecasting Model for South African Pre-Paid Service Providers

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ABSTRACT: Telecommunication companies globally confront with rising problems of customer agitations. Inadequacy of telecoms' rendered services, delivered products and many other causes, result to the difficult moments telecoms face. These problems have further degenerated to customers leaving from one network provider to the other, in quest for improved satisfaction. Churn is the term used to describe this customers' resultant movement, due to agitation caused by inadequate operations. The Republic of South Africa (RSA) telecoms presently face this social problem called churn. To understand what causes customer churn, deep studies on varied literature on customer churn revealed the reasons behind this movement, i.e. churn factors. A developed customer experience questionnaire from these studied factors identified the main churn causing factors in RSA telecoms. This questionnaire eased the obtaining of data-records from respondents in South Africa, used in creating varied datasets. Using the varied datasets, a Bayesian networks' model developed detected and evaluated churn likelihood in these different telecoms. This model proved to have more predicting potentials and relevance in our present days. Three factors revealed to impact more on customer churn in South Africa, by way of the

predictions carried out by the derived model. These factors are: *Friends & Family Deals on Networks (FFD)*, *Customer Care Service (CCS)*, and *Offers & Promotions (OP)*.

KEYWORDS: Churn, Data Mining, Decision Support System, Customer Relationship Management, Bayesian Networks, DAG, Pre-paid Service, RBNlearn.

1. Realizing Influential Churn Factors and Suitable Churn Model

In tackling churn problems, numerous attempts have been made to achieve some appropriate insights toward the churn concepts. In general, it is discovered that research in this field has been made with one of the following aims (Daly 2011, 2-5):

- Finding the influential factors on customer churn
- Building models for customer churn prediction; these two aims specifically give directions in resolving churn problems according to Daly (2011).

1.2. Introduction

The telecoms' market is one of the fastest rising service provider sectors (GSMA 2016, 15). As stated by Nadim (2012), a fierce competition is being witnessed at present amongst major providers of telecom products and services in South Africa. This rivalry is with known pre-paid providers: Vodacom, MTN, Cell C, Telkom Mobile and Virgin Mobil (Nadim 2012, 1-5). This has caused churning of valuable customers among the network providers. Churn - or customer leaving a provider - is a major problem that many in the various industries would be delighted to solve (Shaun 2014, 1-8). However, it is extremely tough for telecom managers to keep retention magnitudes up (Amulya 2013, 7-9). The cost of adding a new subscriber is higher than retention cost of existing customers (Constantinou 2014, 6-7). It is therefore understandable why telecommunication companies find it paramount to keep old customers, along with acquiring new ones. Pre-paid customers are the major focus here as they make up greater percentage of customers' population in telecoms. These are also more prone to churn since there are no contracts binding them to specific service providers. Pre-paid option is steadily taking a larger share of gross advertisement in South Africa (Deloitte 2011, 7). As studied, monetary investment and growth of any telecom can be influenced negatively by high pre-paid customer churn (Molapo 2011, 4). There is, therefore, a necessity for understanding why telecoms' customers churn, and need for robust churn predicting mechanisms, to reduce churn with pre-paid customers in RSA. Importantly, being able to predict customers who intend to churn is a major key to telecoms' profitability (Constantinou 2014, 5).

1.3. Literature Review

Bayesian theorem helps to reason about likelihood of hypothesis, given specific evidence (Conrady 2015, 5). When we have the evidence, our belief is restructured in the probability of the hypothesis taking place (Conrady 2015, 7). Numerous variables may be available as evidence, with these variables influencing our belief (Conrady 2015, 8). According to Conrady (2015), Bayesian networks (BN) use the opportunity of independency amongst specific variables around the problem realm, in building graphical structures called Directed Acyclic Graphs (DAGs), thereby reducing the number of dependencies needed when inference for a certain reasoning is to be achieved. A directed line from the “causing” node to that which is being “affected”, is what direct causal dependencies signify, and this is clearly demonstrated by Bayesian networks structures (Conrady 2015, 10).

A collection of conditional probability tables (CPTs) is another crucial feature of the Bayesian networks (Conrady 2015, 11). What we have as the prior probabilities before any inference is derived or query is invoked are the initial probabilities (Conrady 2015, 8). According to Conrady (2015), the invocation of these values gives rise to conditional probabilities. These new values produce the posterior probabilities for every variable, when we have each of those variables’ parents in the query (Conrady 2015, 9). Representing dependencies and independencies among certain variables within a given domain is performed reliably through constructing a Bayesian networks’ model (Conrady 2015, 16). It is also easy to understand the interactions among variables and dependencies, since they are modeled in graphical form through Bayesian networks (Cofino 2002, 4).

Datta et al. (2001) created a model to predict churn for a mobile service subdivision by using decision tree and genetic algorithm. Unlike genetic algorithm, Bayesian networks use decision theory for risk examinations, and select in respective circumstance actions that boost the anticipated values in a less ambiguous way (Daly 2011, 16). Pendharkar (2009) designed two models with a Genetic Algorithm based Neural Network. Just like Bayesian networks, the structure of a Neural Network is a weighted directed acyclic graph. The creation of these two network types begins with a collection of primary edge weights and lingers until realizing the ideal weights. In contrast to Neural Network, a Bayesian networks’ model is robust in that it can accommodate minor amendments in the model, and these amendments do not upset the operations of the entire system (Daly 2011, 19). Different from Neural Network model parameters appearing regularly to those using them as a “black box”, every parameter in Bayesian networks’ model has clear semantic descriptions (Daly 2011, 25). Hence,

a justified reason for Bayesian networks' use in this research. Wei and Chui (2002) developed a new model for customer churn prediction in a telecommunication service industry, using classification analysis technique. Significantly, the Bayesian networks' technique appropriated in this research can be used for resolving discriminative tasks (i.e. classification), and regression difficulties (i.e. configuration difficulties and forecasting) (Wamukeke 2014, 4). Generalized Additive Neural Networks (GANN) was suggested as a technique which can be used to build model, to predict customer churn in the RSA telecom industries (De Waal 2008, 3). However, GANN's models have pitfalls still associated with Neural network.

1.4. Methodology

The European Society for Opinion and Market Research (ESOMAR) rules were applied and their objectives upheld while meeting with the various telecom customers for customer-experience-data. These rules were applied to the questionnaire developed through literature studies. The questionnaire was used in gathering customer-experience-data, and other information relating to customer relationship management. The principal objective of Esomar's rules is to protect the data and information released to the researchers by any organization, participant or respondent (e.g. pre-paid users), importantly during the survey (ESOMAR 2014, 2). The questionnaire (SurveyMonkey online and paper types) made, were completed by pre-paid customers of MTN, Vodacom, Cell C, Telkom Mobile and Virgin Mobile, since these are major pre-paid providers in South Africa (UNICEF 2012, 48). Making use of the questionnaire, a 313-sample size data was derived from respondents, which ensured a confidence level of 95%, using a confidence interval of 6 (Moore 2013, 15). The resulting outcomes from the questionnaire were very relevant for the derivation of the data used in building and evaluating the Bayesian networks' models in this study. These outcomes were specifically used to obtain the models' nodes, structures, and to derive conditional probabilities. However, the conditional probabilities will not be fully discussed in this study. Data derived from this questionnaire was helpful in querying the applicable models, as this also served as test data.

From literature reviews, a total of thirteen factors were identified to be related to pre-paid customer churn in South Africa. A variable "*Believe will leave network (BWN)*," was added as a variable to complement this list. This was included in the questionnaire to test the derived models. The BWN is referred to as the target variable in the developed network structures; with this serving in the networks' queries (Yap 2008, 22). These factors are as outlined, with abbreviations accorded to them as shown in Table 1.1.

Table 1.1: Variables included as influential churn factors

	Variables	Abbreviation
1	Voice Signal Strong	VSS
2	Data Strong Strength	DSS
3	Calls Not Dropping	CND
4	Low Cost for Calls	LCC
5	Low Cost for Data	LCD
6	Accurate Charge	AC
7	Pre-paid Plan	PP
8	Friends & Family Deals on Network	FFD
9	Customer Care Service	CCS
10	Duration Stayed with Network	ND
11	Roaming Service	RS
12	Offers & Promotion	OP
13	Age Group	AG
14	Believe will leave Network	BWN

The specific factors that cause pre-paid customer churn for similar case studies may vary (Yap 2008, 25). A generated Bayesian networks' model derived from this data, represents a probabilistic model for predicting future churn for pre-paid customers. The BN parameters utilized were obtained by means of learning from data. To create records for the BN parameter learning, the collected questionnaire data were extracted and processed. The following pre-processing, processing, and extraction steps were performed on the raw data for each customer record and period (Przytula 2012, 3):

1. The variables e.g. *Voice Signal Strong (VSS)*, *Call Not being Dropped (CND)*, *Believe will Leave Network (BWN)*, and so on were determined.
2. The states-values of all the variables were conceived. This means that specific states-values were associated with each variable. For example, the value of "Strongly Agree" or its associated numeric value of 5 is a typical value.
3. All the period-customer records for which one or more independent or dependent variables' states-values could not be featured were dropped from the dataset.

On completing these steps, record sets were obtained with one record (for customers who had not previously churned), and record (for customers who had previously churned) for each respondent, having the states-values for the different variables associated with these respondents. These records were then eventually transferred into Excel spreadsheets.

Foremost of the objectives of the Bayesian method is to model the posterior conditional probability distribution of outcomes (often causal) variable(s), after observing new evidence. Bayesian networks may be constructed either manually or automatically with the knowledge of the underlying area of study, from a large dataset using several applicable development tools (Horny 2014, 14). The Bayesian networks' construction was kicked-off with learning from data, such as that found in pre-paid customer records. Consider the table in Figure 3.1 as sample data-records, shown on a spreadsheet. Each row of the table corresponds to an individual, and what is known about his pre-paid experience or satisfaction. One can use such dataset to learn the network parameters given its structure or learn both the structure and its parameters (Daly 2011, 32). More importantly, learning either the structure or parameters becomes less stressful when the dataset is complete (Daly 2011, 36). This completeness implies that all nodes and their states-values are present in each data-record. Hence, complete data-record sets are important for accurately deriving directed acyclic graph, which a Bayesian networks' model denotes.

Figure 1.1 shows the randomised 313 data-records. The randomisation possible through R support in conducting records' sorting. This allowed each record smooth chance for the learning procedures. The randomisation did not change the data-records' content, but had placed each record in a different position in the 313 data-records.

Figure 1.1: A view of the pre-paid customer records (A segment)

1	Gender	Age Groups	Network on Presently VS	CND	DSS	LCC	LCD	AC	PP	OP	FFN	RS	CCS	BWN
2	Female	31-43	Vodacom	Agree	Agree	Disagree	Disagree	Disagree	Disagree	Disagree	Strongly Agree	Agree	Disagree	Disagree
3	Male	18-30	Vodacom	Agree	Agree	Disagree	Disagree	Strongly Agree	Disagree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
4	Female	44-56	Telkom Mobile	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
5	Female	44-56	Vodacom	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Strongly Disagree
6	Female	18-30	Cell C	Agree	Disagree	Disagree	Strongly Agree	Strongly Agree	Agree	Agree	Strongly Agree	Disagree	Strongly Agree	Strongly Agree
7	Female	31-43	Vodacom	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Strongly Disagree
8	Female	18-30	Vodacom	Strongly Agree	Disagree	Disagree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Disagree
9	Female	44-56	MTN	Agree	Agree	Agree	Agree	Disagree	Disagree	Disagree	Agree	Disagree	Agree	Strongly Disagree
10	Female	44-56	Vodacom	Strongly Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
11	Male	57-69	Vodacom	Agree	Strongly Agree	Agree	Disagree	Disagree	Disagree	Disagree	Agree	Agree	Agree	Agree
12	Female	18-30	Cell C	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Agree	Strongly Agree
13	Female	57-69	MTN	Disagree	Disagree	Agree	Agree	Agree	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree
14	Female	31-43	Vodacom	Agree	Agree	Agree	Disagree	Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Disagree
15	Female	18-30	Cell C	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Disagree	Strongly Agree	Strongly Disagree
16	Female	18-30	MTN	Strongly Agree	Agree	Disagree	Disagree	Disagree	Disagree	Disagree	Agree	Agree	Strongly Agree	Disagree
17	Male	57-69	Telkom Mobile	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Disagree
18	Male	18-30	Vodacom	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree
19	Female	18-30	Vodacom	Agree	Agree	Agree	Strongly Agree	Disagree	Disagree	Agree	Strongly Agree	Strongly Agree	Disagree	Strongly Disagree
20	Female	57-69	Vodacom	Agree	Disagree	Disagree	Disagree	Disagree	Disagree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Disagree
21	Female	31-43	MTN	Disagree	Agree	Agree	Agree	Disagree	Agree	Agree	Agree	Agree	Agree	Strongly Disagree
22	Female	57-69	Vodacom	Agree	Agree	Agree	Disagree	Disagree	Agree	Disagree	Strongly Disagree	Strongly Disagree	Strongly Agree	Disagree
23	Male	18-30	Vodacom	Agree	Disagree	Disagree	Strongly Disagree	Strongly Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Strongly Agree
24	Male	44-56	Cell C	Agree	Agree	Agree	Agree	Disagree	Agree	Agree	Disagree	Agree	Agree	Disagree
25	Female	57-69	Cell C	Strongly Disagree	Disagree	Agree	Agree	Strongly Agree	Strongly Agree	Disagree	Strongly Agree	Strongly Disagree	Disagree	Disagree
26	Female	18-30	Vodacom	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Strongly Disagree
27	Male	57-69	Cell C	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
28	Male	18-30	Vodacom	Agree	Agree	Disagree	Disagree	Agree	Disagree	Agree	Strongly Agree	Agree	Disagree	Disagree
29	Female	44-56	Vodacom	Agree	Agree	Agree	Disagree	Disagree	Disagree	Agree	Agree	Strongly Disagree	Agree	Strongly Disagree
30	Male	31-43	Vodacom	Strongly Disagree	Disagree	Disagree	Agree	Agree	Agree	Disagree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
31	Male	18-30	Vodacom	Agree	Agree	Agree	Disagree	Strongly Disagree	Disagree	Disagree	Agree	Disagree	Agree	Strongly Disagree
32	Male	57-69	MTN	Agree	Agree	Agree	Strongly Agree	Disagree	Agree	Agree	Strongly Agree	Disagree	Agree	Strongly Disagree
33	Male	18-30	Vodacom	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Disagree	Strongly Disagree
34	Female	18-30	MTN	Agree	Agree	Agree	Strongly Agree	Agree	Agree	Agree	Strongly Agree	Disagree	Strongly Agree	Strongly Disagree
35	Female	18-30	Vodacom	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Strongly Agree	Disagree	Disagree	Disagree	Disagree
36	Female	44-56	MTN	Disagree	Agree	Agree	Disagree	Disagree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Disagree
37	Female	31-43	Vodacom	Strongly Agree	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Disagree
38	Male	57-69	Telkom Mobile	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Disagree
39	Female	18-30	MTN	Agree	Agree	Strongly Agree	Disagree	Disagree	Agree	Strongly Agree	Disagree	Strongly Agree	Disagree	Disagree
40	Male	44-56	Vodacom	Agree	Disagree	Agree	Disagree	Disagree	Disagree	Agree	Agree	Disagree	Agree	Disagree

Figure 1.2 shows the randomised dataset's data-values recorded in numeric values. The BN model development can only be carried out with numeric data-values with BNLearn package. Hence, data-values *Strongly Agree*, *Agree*, *Neutral*, *Disagree* and *Strongly Disagree* were modified to 5.0, 4.0, 3.0, 2.0 and 1.0 respectively.

Figure 1.2: A view of randomized & coded data-records (A segment)

	A	B	C	D	E	F	G	H	I	
1	RNDM NO	RSPNDT	Age Groups	Satisfied with: Voice S	Calls not being dropped	Data Signal Strength	Low Cost for Calls	Low Cost for Data	Accurate Charge	Prepaid P
2	0.98808	1	2.0	4.0	4.0	3.0	2.0	2.0	3.0	
3	0.37146	288	2.0	5.0	4.0	2.0	5.0	2.0	4.0	
4	0.73941	47	3.0	5.0	4.0	5.0	5.0	5.0	5.0	
5	0.73633	119	4.0	4.0	2.0	2.0	2.0	2.0	4.0	
6	0.54242	43	2.0	4.0	4.0	3.0	5.0	5.0	5.0	
7	0.85629	109	1.0	5.0	4.0	4.0	5.0	4.0	5.0	
8	0.54862	236	1.0	5.0	4.0	4.0	4.0	4.0	5.0	
9	0.28607	27	1.0	4.0	4.0	2.0	3.0	4.0	2.0	
10	0.13307	260	3.0	5.0	5.0	4.0	4.0	5.0	5.0	
11	0.52526	254	2.0	4.0	4.0	4.0	2.0	2.0	2.0	
12	0.30465	54	2.0	4.0	4.0	4.0	3.0	2.0	2.0	
13	0.91582	251	1.0	4.0	5.0	5.0	5.0	2.0	4.0	
14	0.27432	112	4.0	2.0	2.0	4.0	4.0	4.0	2.0	
15	0.52169	131	4.0	4.0	4.0	4.0	5.0	2.0	4.0	
16	0.34241	128	1.0	4.0	4.0	4.0	2.0	2.0	2.0	
17	0.80116	142	1.0	4.0	4.0	2.0	4.0	2.0	2.0	
18	0.71017	185	1.0	5.0	4.0	5.0	5.0	5.0	4.0	
19	0.75701	114	1.0	4.0	4.0	4.0	4.0	4.0	4.0	
20	0.12456	199	1.0	4.0	4.0	5.0	2.0	4.0	5.0	
21	0.44047	191	2.0	4.0	4.0	4.0	1.0	1.0	1.0	
22	0.26258	108	1.0	4.0	4.0	4.0	4.0	2.0	2.0	
23	0.40484	259	1.0	2.0	2.0	5.0	4.0	4.0	2.0	
24	0.05346	133	2.0	4.0	4.0	4.0	5.0	4.0	4.0	
25	0.16967	63	4.0	3.0	2.0	4.0	4.0	3.0	4.0	
26	0.34053	268	1.0	4.0	4.0	2.0	2.0	2.0	2.0	
27	0.68455	137	4.0	5.0	4.0	5.0	5.0	5.0	5.0	
28	0.30479	100	3.0	3.0	4.0	5.0	2.0	1.0	3.0	
29	0.834	44	4.0	4.0	5.0	5.0	5.0	5.0	3.0	
30	0.70523	200	1.0	2.0	4.0	5.0	2.0	1.0	2.0	
31	0.1299	189	2.0	5.0	4.0	4.0	2.0	2.0	2.0	
32	0.753	32	1.0	4.0	4.0	5.0	5.0	5.0	4.0	
33	0.71408	221	4.0	4.0	4.0	4.0	2.0	2.0	2.0	
34	0.10643	303	1.0	4.0	5.0	5.0	5.0	5.0	4.0	

1.4.1. Generating Directed Acyclic Graphs with Varied Learning Datasets

As suggested by Lucas (2004), putting up a directed acyclic graph (DAG) that represents a Bayesian networks (BN) model should primarily begin from visualizing and recognizing applicable nodes (random variables), and the operational dependencies existing amongst these nodes. To start this development, a likert scale was firstly used with the option: *Strongly Agree*, *Agree*, *Neutral*, *Disagree*, and *Strongly Disagree*, to measure respondents' attitudes to each particular question or statement in the survey questionnaire (SSC 2001, 2).

To make the usage of the data-values for the Bayesian networks' construction more relevant, Likert scale was used. Number 5 coded the *Strongly Agree* response, 1 coded the *Strongly Disagree* response. This means that the data-value's weight was made to decrease as one moves from 5 to 1. By using this method, the decision adopted a semi-continuous range of values for the variables, recorded as numbers (1-5) rather than alphanumeric values (*Disagree*, etc.). This choice resulted in conditional densities derived, rather than conditional probabilities, as would have been the case otherwise. For the *Age-Group* and *Duration on Network* variables, the coding scheme used was from 1 - 4, since there are four values in each of these variables. Hence, the *Age-Group* variables were represented: 18-30 as 1, 31-43 as 2, 44-56 as 3, and 57-69 represented 4. Similarly, the *Duration on Network* variables were denoted: *Less than 6 months* as 1, *Between six months and one year* as 2, *Between one year and two years* as 3, and *More than two years* as 4.

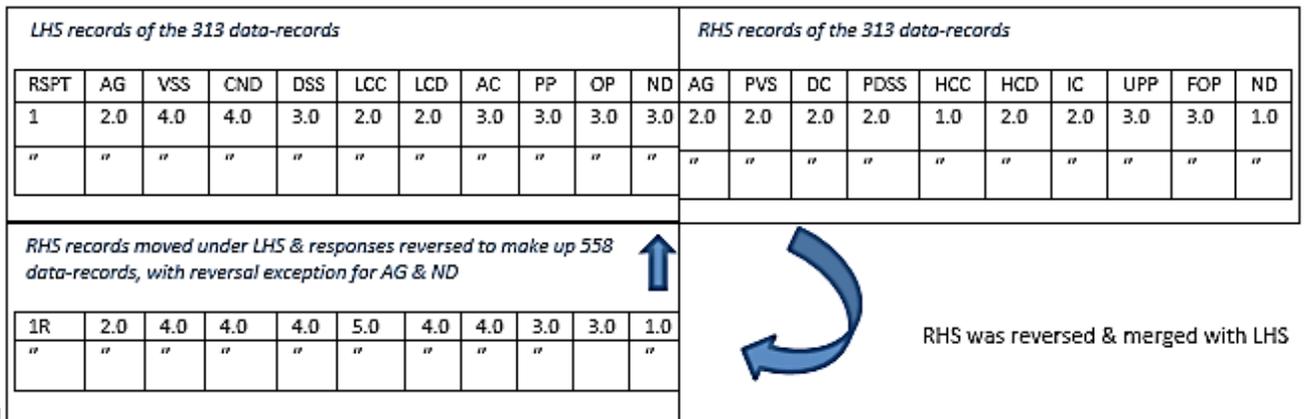
A decision on collected data fragment to be used for building these models was enforced, since not the whole dataset from the survey was to be involved in putting up these diverse models (Daly 2011, 38). A preliminary dataset of 313 data-records derived from the questionnaire was made to have each record numbered. A specific numbering scheme was used to ensure that records obtained from previous churn customers could be identified. The numbers were not used in the models' creation and queries but helped to understand some trends in performance. A new randomized 558 data-records was created from the 313 data-record through post-fixing the records with R. This new data creation also included records on the right-hand-side (RHS) of the 313 data-records, for the pre-paid customers who had left the network previously (Figure 1.3), been moved to the bottom of the same 313 data-records. The users' responses in this moved data-records (i.e. 245 data-records of leavers – Figure 1.3) were reversed to normal, except for the column users' responses under *Age-Group* and *Network Duration*. This derivation scheme of the new 558 data-records is as pictured in Figure 1.4.

Figure 1.3 shows a subset of the records of churned prepaid customers of the various networks, as revealed through the questionnaire for the derivation of customer-experience-data. The reasons they left providers are also clearly stated there-in. This subset was obtained from the last questions on the developed questionnaire, captured as the right-hand side of each row (record) of the spreadsheet, originally in columns V to AF.

Figure 1.3: View of dataset of customers who had left some providers previously (a segment)

	I left because of: Poor Voice Signal	Dropped Calls	Poor Data Signal Strength	High Cost for Calls	High Cost for Data	Inaccurate Charge	Unsatisfactory Prepaid Plan	Few Offers & Promo	
1	Disagree	Disagree	Disagree	Strongly Disagree	Disagree	Disagree	Neutral	Neutral	St
2	Agree	Neutral	Disagree	Strongly Agree	Disagree	Neutral	Agree	Disagree	St
3	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	St
4	Neutral	Neutral	Agree	Strongly Agree	Disagree	Disagree	Agree	Agree	A
5	Disagree	Neutral	Disagree	Neutral	Neutral	Disagree	Neutral	Agree	St
6	Agree	Agree	Neutral	Agree	Agree	Strongly Agree	Strongly Agree	Agree	St
7	Agree	Agree	Agree	Neutral	Agree	Strongly Agree	Disagree	Agree	A
8	Agree	Agree	Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	St
9	Neutral	Neutral	Agree	Neutral	Neutral	Neutral	Agree	Disagree	D
10	Neutral	Neutral	Agree	Neutral	Neutral	Neutral	Agree	Disagree	D
11	Neutral	Neutral	Strongly Agree	Agree	Disagree	Disagree	Neutral	Disagree	St
12	Disagree	Disagree	Agree	Agree	Agree	Neutral	Neutral	Disagree	A
13	Disagree	Disagree	Disagree	Disagree	Disagree	Neutral	Disagree	Disagree	D
14	Strongly Disagree	Disagree	Strongly Agree	Strongly Disagree	Strongly Disagree	Strongly Disagree	Neutral	Strongly Disagree	St
15	Strongly Disagree	Strongly Disagree	Strongly Disagree	Neutral	Disagree	Disagree	Disagree	Disagree	D
16	Disagree	Disagree	Disagree	Disagree	Disagree	Neutral	Disagree	Agree	D
17	Neutral	Neutral	Neutral	Agree	Agree	Neutral	Neutral	Agree	St
18	Neutral	Agree	Strongly Agree	Neutral	Disagree	Neutral	Agree	Agree	St
19	Disagree	Disagree	Disagree	Strongly Agree	Agree	Strongly Agree	Neutral	Agree	St
20	Agree	Agree	Neutral	Disagree	Strongly Disagree	Disagree	Agree	Disagree	St
21	Neutral	Neutral	Neutral	Disagree	Disagree	Disagree	Agree	Neutral	St
22	Strongly Disagree	Disagree	Strongly Disagree	Strongly Disagree	Strongly Agree	Strongly Agree	Agree	Strongly Disagree	St
23	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Neutral	Agree	A
24	Strongly Agree	Disagree	Strongly Agree	Neutral	Strongly Disagree	Disagree	Strongly Agree	Neutral	St
25	Disagree	Disagree	Disagree	Disagree	Disagree	Disagree	Neutral	Agree	A
26	Disagree	Disagree	Neutral	Strongly Agree	Strongly Agree	Neutral	Agree	Agree	N
27	Agree	Agree	Agree	Agree	Agree	Agree	Agree	Agree	D
28	Disagree	Neutral	Agree	Strongly Disagree	Strongly Agree	Strongly Agree	Agree	Neutral	N
29	Disagree	Neutral	Agree	Strongly Disagree	Strongly Agree	Strongly Agree	Agree	Neutral	N

Figure 1.4: Creating new dataset from the preliminary 313 data-records



Therefore, there were 3 different groups of records in these new 558 data-records: one, records from customers who had never churned. Secondly, the records from customers who had churned, also indicating their current status at their respective new networks,

as well as their belief that they would leave. Thirdly a group of records for customers who had churned previously, and their rating of the aspects that caused them to churn from those previous providers. Eventually, three different learning sets and three test sets were constructed using this new dataset – 558 data-records, to determine aspects that may influence the performance of a derived churn prediction model. It should be remembered the *Roaming Service* variable was not included in the learning or test datasets created, since survey respondents did not understand its meaning. However, the preliminary 313 data-records, the new 558 data-records, the learning sets, and test sets derived from the 558 data-records, are not all fully shown in this study due to limited space. More importantly, absolute care was taken to avoid learning and test sets’ data overlap, to ensure high model accuracy (Rajaraman, 2014, 351).

Table 1.2: Summary of the varied learning and test datasets created

Datasets	Approach for datasets’ creation	Total Records formed
<i>Learning set 1 (LS1)</i>	Top 85 records LHS + Top 85 records RHS of 558-record dataset.	170
<i>Learning set 2 (LS2)</i>	Records in rows 2 – 383 in the 558-record dataset formed this.	381
<i>Learning set 3 (LS3)</i>	Records in rows 243 – 314 was combined with records in rows 2 – 86 in the 558-record dataset.	157
<i>Test set 1 (TS1)</i>	Next 85 records LHS + Top 85 records RHS of 558-record dataset.	170
<i>Test set 2 (TS2)</i>	86 data-records, from rows 385 – 470.	86
<i>Test set 3 (TS3)</i>	Rows 87 – 163 records, combined with row 385 – 470 records in the 55-record dataset.	163

Each dataset obtained was saved in MS Excel .csv format, enabling data use in the R environment (Hojsgaard 2016, 8) during models’ generation, running of diverse queries and model testing. More importantly, BNlearn *Mixed Max-Min Hill-Climbing* (mmhc)

algorithms in R was involved in generating various models, using the methodically created learning sets (Scutari 2016, 50). Each respective learning set was mined or fed into the R console, by means of applicable BNlearn commands and functions (Scutari 2016, 62). This last step led to the creation of nodes, dependencies and structures for three distinct models, representing DAGs. Afterward, an ideal model was chosen among these models, to carry out pre-paid churn prediction.

However, each lettered-oval-shape in any resultant Bayesian networks' structure stands for model node (a churn factor). The directed arrows in the structure represent the relationships between two or more factors or nodes in such network; these arrows signify dependencies. The arrow ends always point from the parents' node or independent variables to the dependent nodes in these associations. All three models eventually created have been observed to have these in common:

1. They were all created using 13 variables, with the variable RS not included in the learning and test sets, since respondents did not have a clear understanding of what this is all about during the survey.
2. The models all have BWN nodes (i.e. our target nodes) connected to one or more nodes, which is very important for queries and outcomes (Yap 2008, 18)

Train-then-test processes were conducted repeatedly in ensuring that the learning and testing processes were all well executed (El-Habi 2014, 5). In querying and testing models, each learning set generating BN model was loaded into the R environment using the BNlearn `cpquery` function `mydata<-read.csv()`. The corresponding test set was loaded in the R environment using `cpquery function testset<-read.csv()`, and made to run with learning set, which represented the model to be verified. The learning set nodes were also aligned with the test set nodes with the `cpquery function testnodes<-c()`. BWN_pred values were the outcome of each test conducted when this combination run with the `cpquery function qrylist2`. The BWN_pred values are so important, since these were used to compare the BWN values, to determine the strength of each model the learning set represented. Therefore, with this comparison, consistency was established if the predicted BWN (i.e. BWN_pred), was "consistent" with customer perceived BWN values, or actual churn values. This comparison verified the accuracy of the three models. The records of customers known to have churned were considered to be best suited for testing whether a given model could indeed predict churn, since they held accurate information about customers who had left providers. However, for the test datasets,

the customer's own belief of whether he may churn, as captured in the node BWN, was also used as an indication of probable churn.

The performance of each model derived was expressed in percentage as follows with this formula:

$$\frac{\text{Total Number of Records with Consistent Values in Test Dataset TS}}{\text{Total Number of Records in Test Dataset TS}} * 100\%$$

This formula tells us that a model's performance is calculated as percentage, in ratio of the total number of records with consistent values in a test dataset, to the total number of records in the same test dataset. Summary of evaluation of the derived models' performance is presented in the next section. This highlights the comparison observed on outcomes derived for each test on the three models.

2. The Outcome of the realized Churn Predicting Model

2.2. Questionnaire

Telecom markets in RSA have experienced churn in past few years, with subscribers switching communication service providers (CSP) in that period, as indicated by this study survey on pre-paid customers. The numbers of respondents still believed to be loyal to their CSPs are at the same time large. This study data were analyzed by statistical means, using tables and graphs (ACAPS 2012, 4). From the statistics gathered, it was observed that many network providers have been badly affected by this phenomenon called churn, as illustrated in Figure 2.4 showing the percentage of customers who left providers due to some unfavorable factors. Our sample data revealed that 78.27% of the respondents' population in South Africa churned from their previous providers due to diverse reasons (factors). These statistics can help the badly and less affected providers intensify constructive efforts, which will, in turn, reduce churn with them. Figure 2.1, Figure 2.2 and Figure 2.3 show customer count by gender, age-groups and customer-network. Figure 2.2 shows that most of the respondents who fell into the age-group 18-30 (52.74%), were the most active users of the pre-paid network option. Figure 2.6 shows that many of the respondents were 78% satisfied with their current network providers (*Strongly Disagree* and *Disagree*), indicating that they did not believe that they will leave their current network providers.

Figure 2.1: Customer Count by Gender

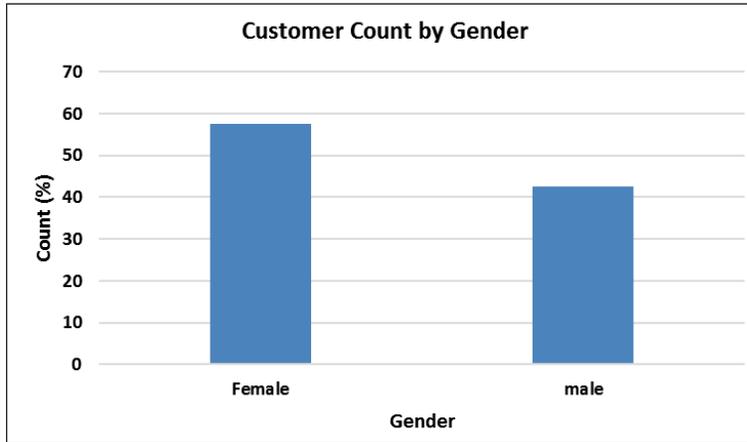


Figure 2.2: Active pre-paid customers by Age-Group

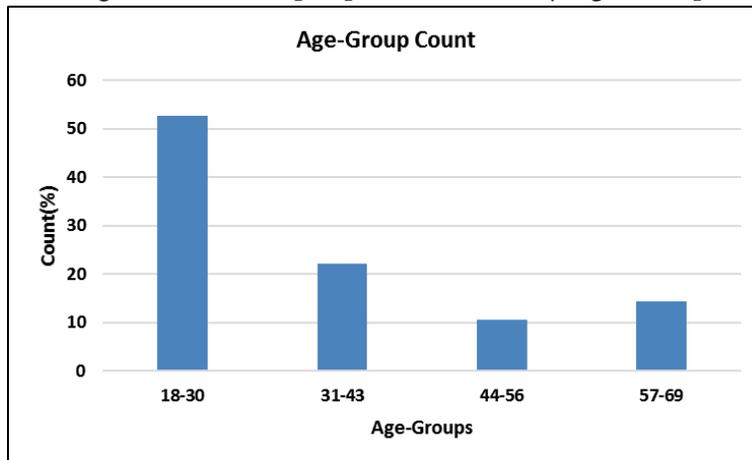


Figure 2.3: Pre-paid networks customers' population represented in this study

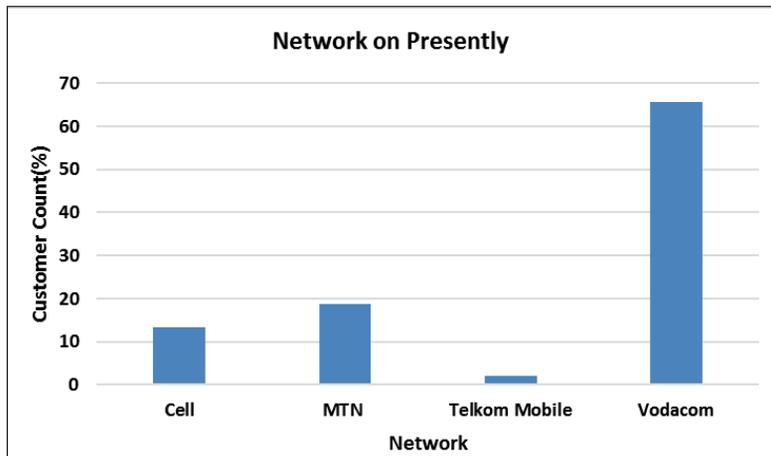


Figure 2.4: Churned customers

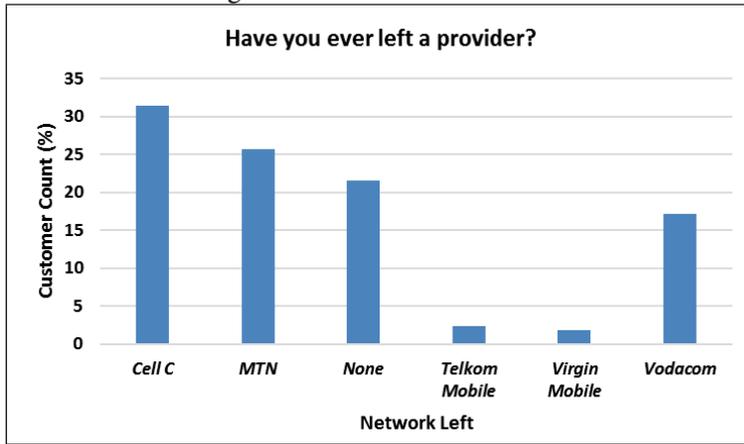


Figure 2.5: Duration Customers had endured before Churning

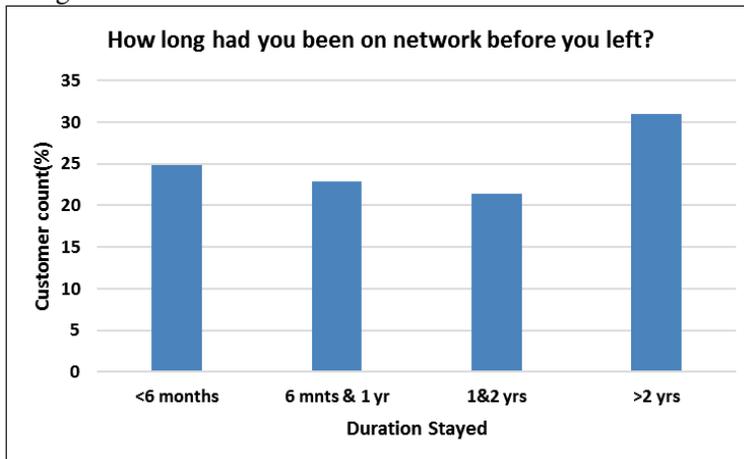
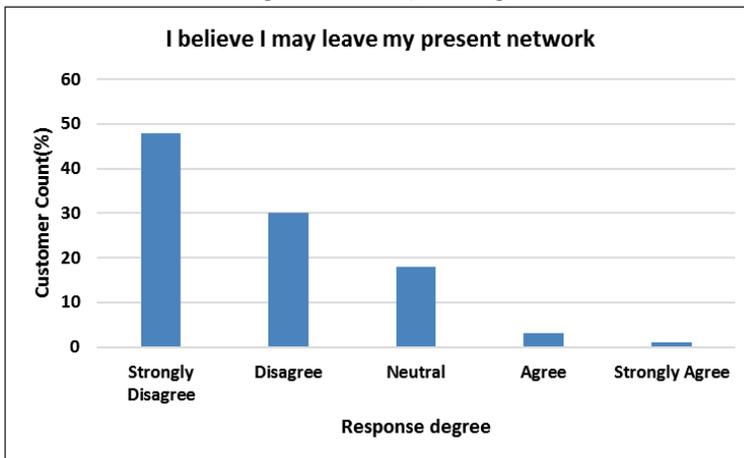


Figure 2.6: Impending churn



2.3. Predictions

Three distinct models were derived from our learning sets, as depicted in Figure 2.7, Figure 2.8, and in Figure 2.9. Table 2.1 shows the comparison amongst the models, which also indicates the results of using different test datasets on models. The results of using the varied test sets helped to determine the best possible candidate of the models.

2.3.1. The Derived Models

The realization of the models represented by Figure 2.7 to Figure 2.9 is the fundamental of this research. The key difference in each model is made visible by the varied connectivity of the model's nodes to one another. However, this diversity gave directions in choosing the ideal model for actual churn prediction. Again, the non-overlapping of datasets helped assured the accuracy, reliability, and credibility of our resultant models.

Figure 2.7: Model derived from learning set 1 (LS1)

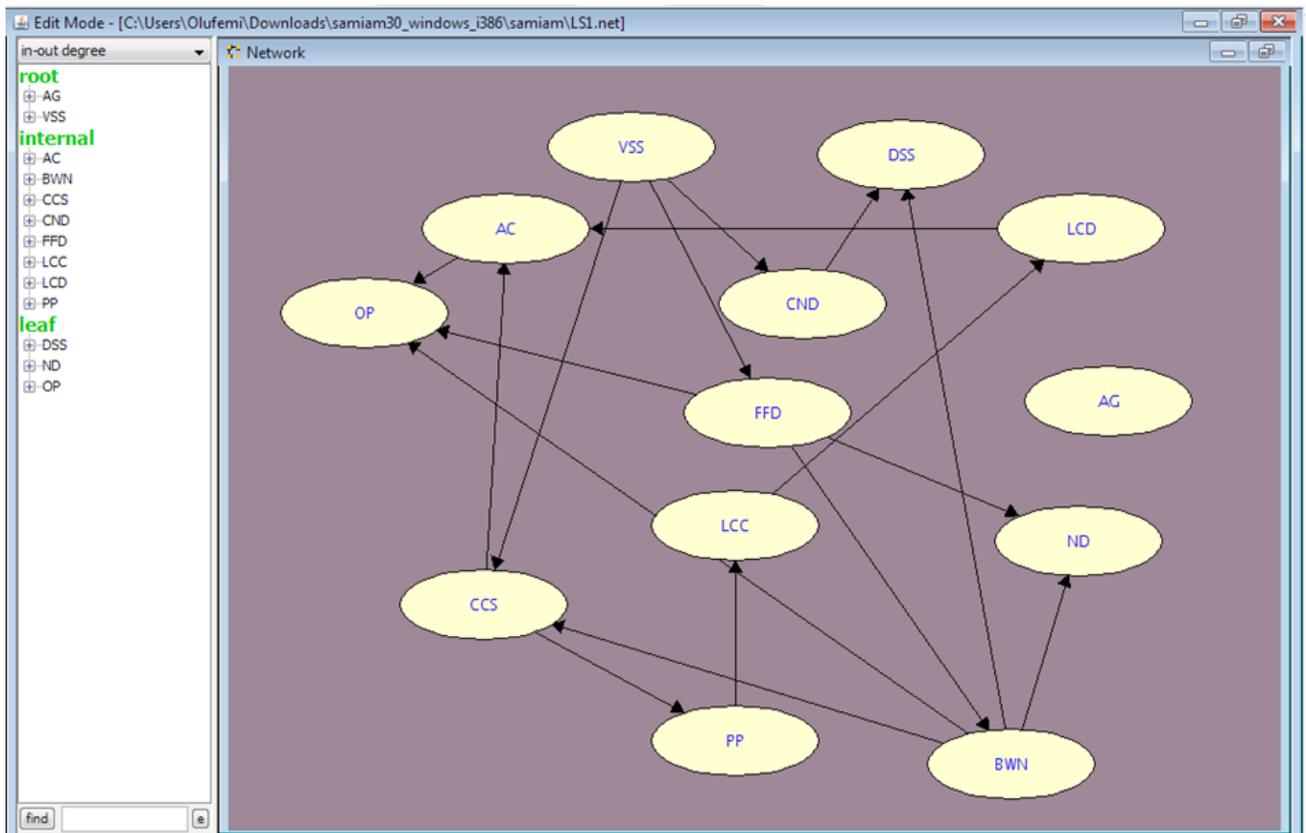


Figure 2.8: Model derived from learning set 2 (LS2)

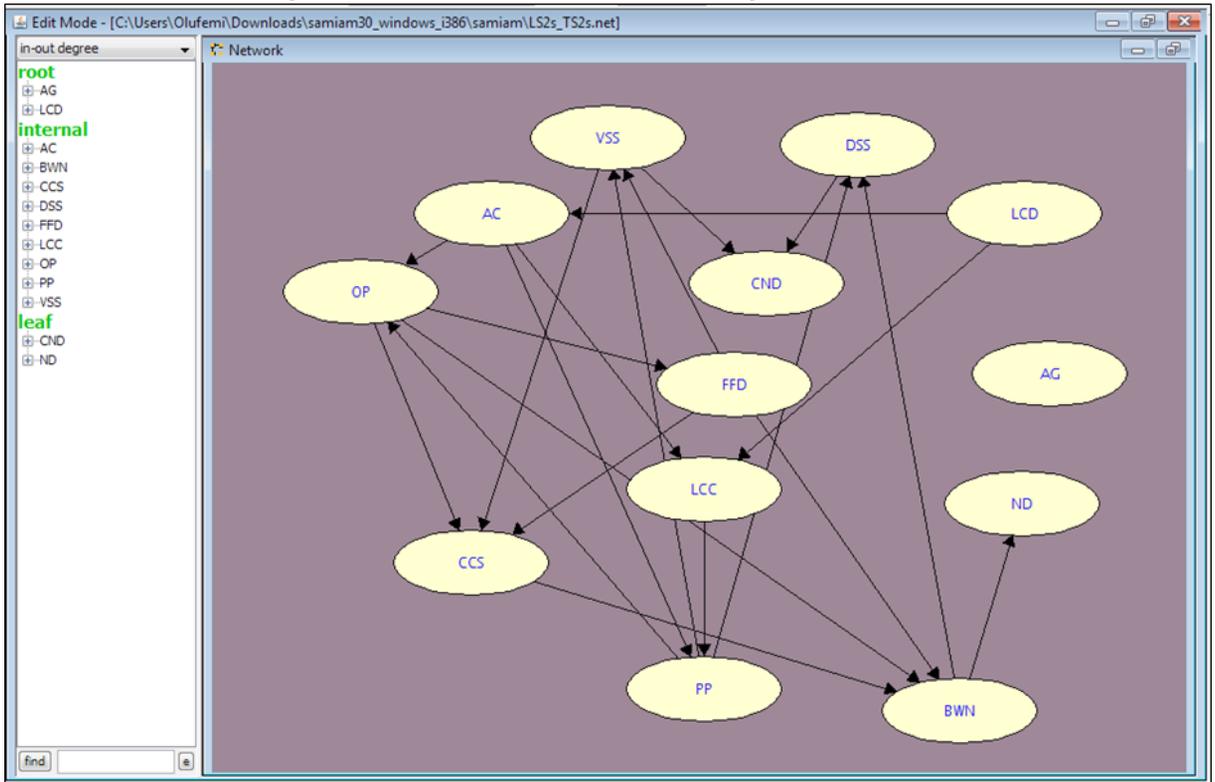
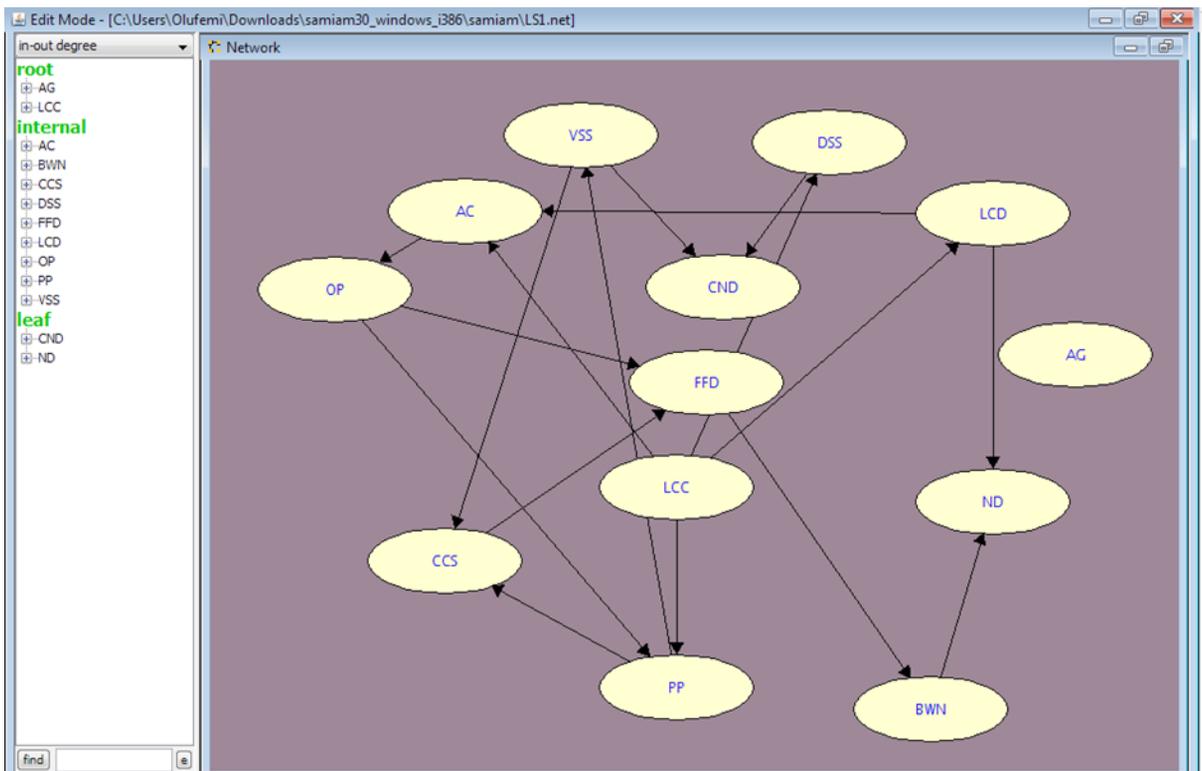


Figure 2.9: Model derived from learning set 3 (LS3)



2.3.2. Comparison of the Learning Sets & Models Generated

A challenging task in predictive modelling is finding the proper datasets for building conforming predictive models (Scutari 2016, 74). The use of only high-quality datasets was ensured during the data analysis, learning, and evaluation procedures (Gartner 2011, 9). The approach adopted in this study was using one preliminary dataset, but with different variations of the use of the dataset, for the generation of varied models. When comparing the different models, the target variable BWN was an important determinant in the choice of ideal model, since this is a key indicator of whether the customer will leave a pre-paid network. Table 2.1 gives highlights on comparisons of learning sets and models derived from these datasets.

Table 2.1: Models' Assessment Table

<i>Model</i>	<i>No. of Data-records involved in learning</i>	<i>No. of Nodes' Participation in learning</i>	<i>No. of Nodes' Connections to one another</i>	<i>Appropriate Node Connections to the target variable node BWN</i>
<i>Figure 2.7 Learning Set 1 (LS1)</i>	170	13	17	1 (FFD)
<i>Figure 2.8 Learning Set 2 (LS 2)</i>	381	13	21	3 (FFD, OP, CSS)
<i>Figure 2.9 Learning Set 3 (LS 3)</i>	157	13	17	1 (FFD)

The node BWN in the model shown in Figure 2.8, is a direct descendant or child of FFD, OP and CSS nodes. More importantly, the BWN node in Figure 2.8 has more direct connections of other nodes to it than in Figure 2.7 and Figure 2.9. Consequently, this implies that these nodes connected to BWN in Figure 2.8, representing churn factors are the most pressing - affecting the pre-paid customers. It should also be noted that Figure 2.8 has the highest number of connections of nodes to one another in its network - 21. Hence on these grounds, Figure 2.8 may well serve as the ideal model, most suitable for churn prediction in this study.

2.3.3. Models' Performance Evaluation

Table 2.2: Summary of Performance Evaluation for LS1, LS2 & LS3 Models

<i>Model Query and Test Performed using BNlearn on (LS +TS)</i>	<i>Number of Records in Learning Set(LS)</i>	<i>Number of records in Test Set</i>	<i>Number of Nodes in Test Set apart from BWN</i>	<i>Customer BWN = Predicted BWN</i>	<i>Accuracy Of Model Assessment in (%)</i>
LS1 + TS1	170	170	12	130 Ok, 41 Inconst.	68.5
LS2 + TS2	381	86	12	73 Ok, 13 Inconst.	84.88
LS2 + TS1	381	170	12	97 Ok, 73 Inconst.	57.06
LS3 + TS3	157	163	12	78 Ok, 85 Inconst.	47.85
LS2+TS2R	381	86	3	74 Ok, 22 Inconst.	74.42
LS2+TS3	381	163	12	Ok 127, 36 Inconst.	77.91

NB: *Inconst. in table means Inconsistence*

From Table 2.2, we can also deduce that the best model turned out to be Figure 2.8, derived from LS2, which was tested correspondingly with TS1, TS2, TS2R and TS3. With test set TS2, it established the highest performance evaluation – 84.88%. This performance value qualifies it as an ideal model, since it originated from the ideal learning set LS2. Following the Bayesian paradigm, using also a reduced test set containing only the direct parents of the target node BWN (FFD, CSS, OP) on LS2, a good performance was still obtained in terms of predicting churn (74.42%). The model generated from LS2 was also tested further, using a test dataset TS3 that contained mixed high and low values of BWN. This test similarly yielded satisfactory result, although in this scenario there was data overlap between learning and test datasets. This data overlap therefore does not make TS3 absolutely fit for testing on LS2.

Conclusions

To be more relevant and profitable in this highly competitive telecom market, network providers need to predict intending churning customers more precisely and promptly. They need to also take proactive actions to retain valuable customers. In

this research, we have offered a different technique for building predictive models for pre-paid customers' churn prediction. Many prediction models and churn detection techniques have been presented to date. However, more robust models are required to predict churn by pre-paid telecoms, considering the extreme social effects of churn. In this study, a Bayesian networks model is introduced to predict churn in telecoms. This model is easy to implement, and all the parameters are routinely calculated. Results indicate that in comparison to other related models in relevant comparable literature, the Bayesian networks' models are effective ways to solving problem as pre-paid customer churn in South African telecoms, where the aim is to detect and curb churn as much as possible (Constantinou 2014, 5). The most fascinating attribute of Bayesian networks is the part it plays in validating causation (Darwiche 2010, 7). BNlearn package in R software was utilized in this work, in putting up the required Bayesian networks models, since it was found reliable for data manipulation and graphical model development (Venables 2016, 75).

In summary, dataset LS2 produced the best model – ideal model (Figure 2.8), with performance above 80%. This model's reliability was made possible, principally following the principles guiding the creation of the varied learning sets and the corresponding test sets. *Friends & Family Deals on network*, *Customer Care Service*, and *Offers & Promotions* (i.e. FFD, CCS and OP) may be considered the most crucial churn promoting factors in SA telecoms. Hence, FFD, CSS and OP may be accorded more prominence by the telecoms in RSA in formulating strategies that may enhance customer satisfactions. If meeting with customers' satisfaction is telecoms' goal, they will similarly maximize profit in return as they predict better the reactions of their customers to the much-needed services they provide daily. Consequently, it is believed that the model's improvement in the future lies more with the availability of more refined and increased quantity of customer-experience-data. In conclusion, conducting further studies on building more enriched predictive models, using more polished and plentiful churn datasets collected directly from telecoms is in conception.

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A Comparative Assessment of Sustainable Economic Development among the G20 Countries

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ABSTRACT: The world leaders now aim at establishing an overall development scenario rather than only considering the Gross Domestic Product (GDP) a true reflection of countries well being. This paper aims to depict the recent initiation to evaluate the efficiency of a nation in converting GDP growth to well being in terms of Sustainable Economic Development Assessment scores (SEDA). SEDA measures sustainable development with the help of three broad dimensions namely Economic, sustainability and Environment. The three broad parameters are then subdivided into ten individual dimensions or sub parameters of true development namely Income, Economic Stability, Employment, Health, Education, Infrastructure, Income Inequality, Governance, Civil Society and Environment. This paper aims to compare the G20 nations in terms of their sustainable development present and progress scores. Data of 2016 has been compiled and trend analysis to compute their expected and actual scores and growth of scores have been depicted. Top four countries (G20) in terms of SEDA scores include Australia, Canada, the United States of America and the United Kingdom respectively. Moreover, the nineteen countries and the European Union have been ranked in terms of their individual dimension scores and further compared with the world median only in order to compare amongst them and to analyze their overall position in the world. Nevertheless, Analysis of variance is applied to the data to conclude that there is a significant difference in variance of individual dimension scores and individual country scores amongst the G20 countries of the world.

KEYWORDS: Sustainable Development, Gross Domestic Product, Growth, Income, Economic Stability, Employment, Health, and Environment.

1. Introduction

The major concern of different countries of the world is and has always been centric to the growth and development of their economy. From the evolution of the mankind growth has been the key issue of discussion and improvement has always been number one in the list of desirables of a nation. However the major concerns regarding increase and improvement of growth started from the mid twentieth century and distributed countries into different tiers establishing the super powers of the world in terms of prosperity and growth. The United States of America emerged as the strongest country with intense consumerism, manufacturing and strong Gross Domestic Product. The United Kingdom and different countries of the European Union also deserve special mention in improvement of economic growth in order to emerge powerful. Parts of South and East Asia started their robust growth process and their economies got a considerable push with fast growth, investments and trade. However the episode of economies targeting growth is somewhat not completely but partially over because now the economies are keenly looking forward to human Development. A countries growth, however, has failed to indicate the general development of the nations people and hence the world leaders are looking forward to human development as a whole.

1.1. Brief Background of G20 nations

Before going into details of discussion about the measurement indices and comparison of well being of a country we would like to discuss about the G20 nations to provide a base of assessments in the study. After the second world war and the worlds initiation to develop global organizations like the Bretton Woods, International Monetary Fund, the World bank or the World Trade Centre, the G20 found its path after the G8 and was established as an international forum for the governments of central bank governors of the following twenty nations namely: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States of America, European Union.

We have taken twenty-eight countries which comes under the European Union in our category excluding the countries which belong to the G20 category namely France, Germany, Italy and the United Kingdom. Hence twenty four countries namely Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland,

Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

This forum of nineteen individual nations and the European Union (EU) was founded in 1999 in order to discuss and promote international financial stability. These countries are accounted for eighty five percent of the Gross World's product, more than sixty six percent of the world's population and about eighty percent of the worlds trade. After the summit in 2008 the world leaders decided to replace the G8 with the G20 as the worlds top wealthiest group of nations.

Table 1: Gross Domestic product-GDP (in Billion USD), GDP per capita in USD and Population of G20 nations

Countries	GDP in Billion USD (2016)	GDP Per Capita in USD (2016)	Population (2016)
Argentina	872.8	21924	4,29,80,026
Australia	1584.6	43929.9	23490736
Brazil	1872	15,838	20,60,77,898
Canada	1823.3	44057	35540419
China	36928.2	13206	1,36,42,70,000
France	2060.9	38847	66206930
Germany	2736.4	45802	8,08,89,505
India	106439.8	5700.7	1295291543
Indonesia	8568115.6	10517	25,44,54,778
Italy	1535.3	34706.3	61336387
Japan	495986.2	36426.3	12,71,31,800
Mexico	13765	17107.9	125385833
Russia	12873.7	25635.9	14,38,19,569
Saudi Arabia	2431.9	51925.4	30886545
South Africa	3008.6	13046.2	5,40,01,953
South Korea	1426540.3	34335.7	50423955
Turkey	126.1	19199.5	7,59,32,348
United Kingdom	1687.8	39762	64510376
United States	16281.9	54629.5	31,88,57,056
EU	18408.8	32244	50,88,88,000

Source: Compiled from BCG Analysis

1.2. Background of Sustainable Economic Development Assessment (SEDA)

Wealth to Well being- The world leaders now aim at establishing an overall development scenario rather than only considering the Gross Domestic Product (GDP) a true reflection of a countries well being. In this context Sustainable Economic Development Assessment scores (SEDA) measures sustainable development with the help of three broad dimensions namely Economic, sustainability and Environment. The three broad parameters are then subdivided into ten individual dimensions or sub parameters of true development namely Income, Economic Stability, Employment, Health, Education, Infrastructure, Income Inequality, Governance, Civil Society and Environment.

This framework launched in 2012, lately established by The Boston Consulting Group, is a mechanism to evaluate the efficiency of countries in transforming Gross Domestic Product growth to 'well-being' of nations people. Without a doubt there is a strong connection between a countries growth of wealth creation and its development or well being and general prosperity. SEDA cogitates functioning by investigating three fundamental elements that are constituted by ten dimensions as pointers of overall well-being and SEDA does it for almost 163 countries in the world who are in turn also compared with their peers.

The three fundamental elements are:

1. Economics
2. Investments
3. Sustainability

The ten dimensions constituting the heads of these three fundamental elements are GDP per capita, Economic stability, Infrastructure, education, employment, income, health, inequality, governance, civil society and impact on the environment. SEDA associates progress in Gross Domestic Product per capita with erstwhile variables to find out a coefficient of transformation of Gross Domestic Product wealth into overall well-being. The element of Economics includes Income (Wealth), Economic Stability (Inflation and Instability of GDP) and Employment (Employment and Unemployment levels). The element of Investment includes Health (Approach to health care, mortality and morbidity rates), Education (education equality and access to education) and Infrastructure (water, sanitation, transportation and communication). The element of Sustainability includes Income Inequality (Income disparities), Governance (quality of government, civic freedom, accountability and stability), Environment (quality of environment) and Civil Society (Gender equality and bonds among individuals) (Mukherjee and Ahuja 2017).

Figure 1: Ten Dimensions of SEDA

Source: Compiled from BCG Analysis

The figure demonstrates the ten dimensions of sustainable economic development calculated to understand the transformation of each country from wealth to well being. The first dimension income includes wealth that is GDP per capita and Economic stability includes inflation and volatility of GDP growth. Employment includes employment and unemployment levels whereas income inequality includes income disparities across the population. The civil society parameters includes the intra and inter bond in the society, civil activism and equality in gender whereas governance includes the quality of government with efficacy and accountability incorporating civic and economic freedom. Educational quality and access constitutes to an important dimension and health includes its each and access and mortality rates of the people. The quality of environment policies and improvement along with water and transportation is also given equal weightage (Mukherjee and Ahuja 2017).

2. Review of available literature and Theoretical framework

Bhattari (2017) has done a detailed analysis on Economic Growth and development in India and other SAARC countries. The momentum of growth has been identified and analyzed by following and studying the trends of the economies fiscal and monetary scenario, trade, income distribution and education respectively. The study puts forward the development and growth criteria's in economies to be systematic and scientific analysis of potential and correct linkage between all the sectors moreover including regions and nations as well. Further he concluded by saying that being steady, stable and their readiness to march single minded in the path of growth will bring about the good level of growth and development in SAARC nations and India as well. Mukherjee and Ahuja (2017) in their research paper aim to depict the recent initiation

to evaluate the efficiency of a nation in converting GDP growth to well being in terms of Sustainable Economic Development Assessment scores (SEDA). A good SEDA progress score backs up India’s position in the world as one of the leading Economy and our country has shown a significant improvement in various parameters measured by the BCG to establish sustainable development. The paper also aims to compare the BRICS nations in terms of their sustainable development scores and also affirms Russia and Brazil to top the list. However India and China top in terms of progress scores giving a huge hope of amendment in converting wealth into well being so far. The authors have compiled and performed trend analysis for data of 2016 to compute their expected and actual scores and growth of scores.

3. Objective of The Study

- a) To compare between the indices of wellness between the G20 countries and also compare between their progress scores calculated in the year 2016.
- b) To evaluate the difference in variance of individual dimension scores and individual country scores amongst the G20 countries of the world.

4. Data and Interpretations

4.1. Current level and Progress SEDA scores

The sustainable economic development scores calculated by the Boston Consultants Group has been compiled for the current study. The nineteen individual countries and twenty eight European countries (including the four G-20 EU countries) Current level scores and progress scores has been plotted.

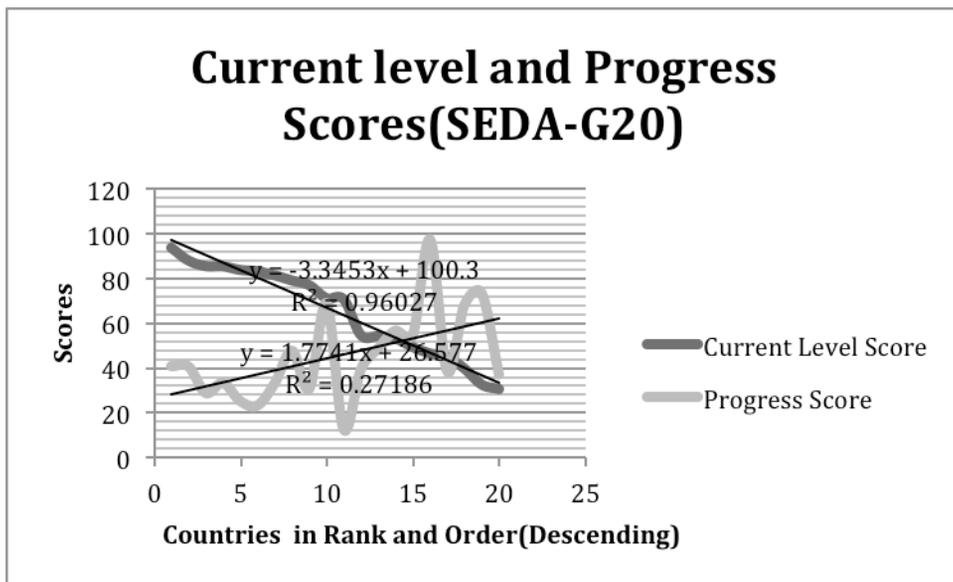
Table 2: SEDA Current Level Scores and Progress Scores of G20 countries

Countries	Current Level Score	Progress Score	Countries (EU)	Current Level Score	Progress Score
Germany	93.6	40.9	Austria	92.7	33.5
Australia	87.9	40.9	Netherlands	95	39
United Kingdom	85.4	29.1	Finland	94.9	23.1
Canada	85.3	33.6	Denmark	91.3	25
United States	83.7	25.5	Belgium	90	39.3

France	83.1	23.6	Sweden	89.6	23.8
Japan	81.3	33.5	Luxemburg	87.4	38.2
South Korea	79	47.9	Ireland	85.8	24.4
EU(Average)	76.9	31	Slovenia	79.3	28.3
Saudi Arabia	71.1	69	Estonia	78.8	37.9
Italy	70.6	12.9	Czech Republic	78.4	34
Russia	54.6	39.7	Spain	76	23.4
Argentina	54.1	49	Portugal	75.5	29.2
Turkey	53.1	56.9	Poland	74	67
Brazil	49.3	54.9	Lithuania	72	39
China	46.5	97.5	Slovakia	71.5	38.8
Mexico	45	38.8	Hungary	71.4	19
Indonesia	39.7	68.4	Malta	69.9	29.4
India	32.6	73.6	Latvia	68	23.7
South Africa	30.6	37.4	Cyprus	67.6	12.2
			Greece	62.6	0
			Croatia	61.3	37.9
			Bulgaria	57.3	34.2
			Romania	55.9	43.9

Source: Compiled from BCG Analysis

Fig 2: Current Level Scores and Progress Scores of SEDA of G20 countries



Source: Compiled from BCG Analysis

The progress has been calculated from 2004 to 2016 respectively. It can be noticed that the countries having a low current level Sustainable Economic Development score has a high progress score of SEDA. The top five ranking countries in terms of Sustainable Economic Development Assessment are Germany (Score-93.6), Australia (Score-87.9), United Kingdom (85.4), Canada (85.3), and the United States (Score-83.7). Some of the lowest scores of improvement or progress have been registered by United Kingdom, United States, and Italy. However, the countries among G20 with lowest SEDA scores are South Africa (Score-30.6), India (Score-32.6), Indonesia (Score-39.7), Mexico (Score-45) and China (46.5). Nevertheless these are few countries who have also recorded high progress scores namely China with a progress score of 97.5, India with 73.6 and Indonesia with 68.4. This can eventually mean that there is an ample scope of improvement for these countries.

Table 3: SEDA Individual Dimension Scores of G20 Countries

Countries	In- come	Eco- nom- ic Sta- bility	Em- ploy- ment	Hea lth	Ed- uca- tion	Infra- struc- ture	In- come Equa- lity	Civil Soci- ety	Go- ver- nan- ce	En- vir- onm- ent
Argenti- na	42.9	61.9	50.4	84.8	58.5	60	40.5	64.5	35.8	66.6
Australia	87.1	100	75.5	88.4	77.3	83.5	58	85.4	92.5	69.3
Brazil	30.6	85.6	61.3	75.9	45.5	57.3	15.3	56.5	50.3	80.3
Canada	87.3	92.8	74.3	84.5	60.3	85.2	61	92.7	93.3	67
China	25.3	63.4	65.5	83.8	66.1	68.4	41.1	61.5	23.1	17.6
France	76.8	92.8	54.1	91.8	72.5	91.7	62.4	82.7	79.4	75.3
Germany	90.8	88.5	78.3	96.4	85.2	91.3	69.5	86.2	91.6	77.4
India	10.3	78.6	33.4	52.3	25.9	45.7	60.5	44.8	44.9	12.5
Indo- nesia	19.9	86.8	42.5	59.6	29.9	52.4	56.5	54	38	47.7
Italy	68.5	93.3	32.9	87.8	57.2	79.6	57.5	77.7	62	64
Japan	72	76.6	86.6	96.1	60.2	94.7	64.7	79.1	84.9	57.1
Mexico	33.2	91.5	57.9	75.5	33.2	60.2	26.7	50.8	39.1	60.6
Russia	50.3	64.3	74.2	87.6	58.1	67.5	42.2	60.8	20.8	64.4
Saudi Arabia	100	78	48.7	75.7	77.6	82.1	62.7	47.6	32.7	66

South Africa	25	75.7	19.6	19	24.5	63.2	0	51.7	53.5	58.7
South Korea	67.8	94.7	70.1	100	91.1	87.3	55.7	73	68.2	34.9
Turkey	37.4	76	26.8	74.7	75	68.4	45.6	55	37.4	49.8
United Kingdom	78.7	92.9	72.6	84.9	78	88.9	63.7	81.7	86.7	75.7
United States of America	100	81	75.6	81.3	66.4	87.1	43.4	87.5	80.7	69.9
EU(Average)	66.5	77.4	53.4	88.6	73.2	82	66.4	80.2	76.1	67.6

Source: Compiled from BCG Analysis

Sustainable Economic Development certainly involves some important parameters, which are essential for a nation to take care and improve in order to establish as a developed nation. The first major dimension is Economics that involves sub dimensions like Income, employment and Economic Stability. Different countries of the G20 under consideration have different scores in parameters of Economics. Countries like Saudi Arabia and United States (USA) have a perfect 100 and Australia and Germany have very high scores for income. Australia has a perfect 100 score for Economic Stability followed by countries like Canada, U.K, South Korea, France and Mexico, which have a very high score in this subdivision. None of the G20 countries have a perfect 100 for employment but Japan has the highest comparative score among the rest. The second main dimension is Investment with sub dimensions like Health, Education and Infrastructure. South Korea has a perfect 100 score among the others in Health whereas France, Germany and Japan have very high scores in this dimension. South Korea has the highest score in education followed by Germany where the other countries have a lot of scope of improvement. France, Germany, Japan, U.K and USA have good scores for infrastructure development. The third major dimension of development is Sustainability, which involves sub dimensions like income inequality, Civil Society, Governance and Environment. High levels of income inequality are present in countries with high incomes as well like France, Germany, and European Union. Canada and USA has a good level of civil society whereas Turkey and Russia needs to improve the most in this front. China and India have poor scores for environment whereas Brazil and Germany are the best among the rest. China and Russia need to improve in case of Governance where countries like Australia, Germany, UK, and USA are amongst the ones scoring good points in Governance.

4.2. Comparison of G20 countries with the World Median

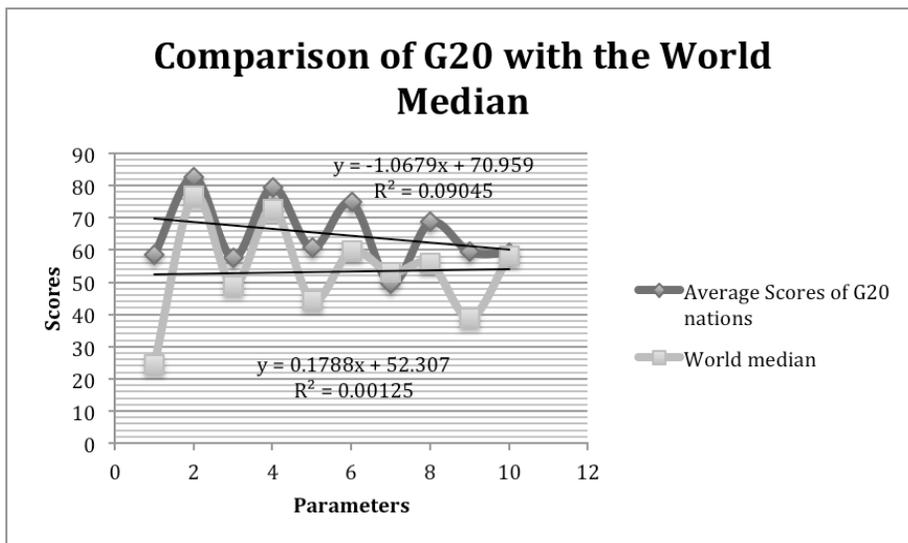
The average scores of all individual parameters of chosen countries are taken and compared with the world median.

Table 4: Comparison of G20 countries parameters with the world median

Parameters	Average Scores of G20 nations	World median	Deviation
Income	58.52	24.6	33.92
Economic Stability	82.59	76.7	5.89
Employment	57.685	48.9	8.785
Health	79.435	72.6	6.835
Education	60.785	44.4	16.385
Infrastructure	74.825	59.7	15.125
Income Equality	49.67	53	-3.33
Civil Society	68.67	55.8	12.87
Governance	59.55	39	20.55
Environment	59.12	58.2	0.92

Source: Compiled from BCG Analysis

Fig 3: Comparison of G20 countries parameters with the world median



Source: Calculated from the available data in SEDA BCG

When it comes to comparison with the world median the average scores of parameters or dimensions of all the G20 countries are more than all the dimension scores of the world as a whole.

4.3. Difference in Mean Scores

To compare between the individual dimension and parameter scores of the G20 countries we have used the G20 median scores and thus performed the two-sample t test in order to evaluate the differences in the means of the chosen countries and the G20 median score. In order to understand their differences we have formulated a general Null Hypothesis.

Null Hypothesis (1):

H_{01} : There is no significant difference in mean scores of individual G20 Nations (EU Average) in comparison with its G20 peers (G20 Median).

Alternative Hypothesis (1):

H_{11} : There is no significant difference in mean scores of individual G20 Nations (EU Average) in comparison with its G20 peers (G20 Median)

**Table 5: t-Test: Two Sample Assuming Equal Variances-
A comparison of chosen nations with G20 Median**

Countries	Means	T Stat	P Value	T Critical	Accept/ Reject Null Hypothesis	Decision
Argentina	56.59	1.39	0.178	2.1	Accept	No Significant Difference
Australia	81.7	3.31	.003	2.1	Reject	Significant Difference
Brazil	55.86	1.13	0.27	2.1	Accept	No Significant Difference
Canada	79.84	2.81	0.01	2.1	Reject	Significant Difference
China	51.58	1.62	0.12	2.1	Accept	No Significant Difference
France	77.95	2.49	0.022	2.1	Reject	Significant Difference
Germany	85.52	4.8	0.0001	2.1	Reject	Significant Difference
India	40.89	3.16	0.005	2.1	Reject	Significant Difference
Indonesia	48.73	2.3	0.02	2.1	Reject	Significant Difference

Italy	68.05	0.51	0.61	2.1	Accept	No Significant Difference
Japan	77.2	2.26	0.03	2.1	Reject	Significant Difference
Mexico	52.87	1.6	0.12	2.1	Accept	No Significant Difference
Russia	59.02	0.84	0.41	2.1	Accept	No Significant Difference
Saudi Arabia	67.11	0.34	0.73	2.1	Accept	No Significant Difference
South Africa	39.09	3.01	0.007	2.1	Reject	Significant Difference
South Korea	74.28	1.34	0.19	2.1	Accept	No Significant Difference
Turkey	54.61	1.5	0.14	2.1	Accept	No Significant Difference
United Kingdom	80.38	3.58	0.002	2.1	Reject	Significant Difference
United States	77.29	2.13	0.04	2.1	Reject	Significant Difference
EU	73.14	1.8	0.08	2.1	Accept	No Significant Difference

Source: Calculated from the available data in Table 3

The table has been calculated with the help of the available data and eminently the nations, which have comparatively very, high and very low scores in comparison to their own G20 peer nations have showed significant difference which has been proven with the help of performing the t test for two samples. Hypothesis taken is assumed for individual nineteen nations and EU (EU average) and is valid for all. The hypothesis that there is no significant difference is accepted in case of Brazil, Argentina, China, Italy, Mexico, Russia, Saudi Arabia, South Korea, Turkey and EU. The other countries either belong to the top or bottom list with respect to sustainable economic development assessment scores. Hence in case of Australia, Canada, France, Germany, U.K, USA, India, Japan, South Africa, Indonesia, the null hypothesis that is there is no significant difference is rejected and thus we have to accept the H_{11} (Alternative Hypothesis), there is a significant difference in scores of nations when they are compared with the total average or median Peer score.

4.4. Analysis of variance

To evaluate and analyze whether there is a significant difference in variance of individual dimension scores and individual country scores amongst the G20 countries of the world we have formulated our next Null Hypothesis.

Null Hypothesis (2 & 3):

H_{02} : There is no significant difference in variance of individual dimension (Parameter) scores amongst the G20 countries

H_{03} : There is no significant difference in individual country scores amongst the G20 countries

Alternative Hypothesis (2 & 3):

H_{12} : There is a significant difference in variance of individual dimension (Parameter) scores amongst the G20 countries.

H_{13} : There is a significant difference in individual country scores amongst the G20 countries

To put the hypothesis in test we have applied the Analysis of Variance two way in order to evaluate our assumptions.

Table 6: Analysis Of Variance (ANOVA)

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Countries	39328.51	19	2069.92	10.91	7.54048E-21	1.65
Individual Dimensions (Parameters)	20805.13	9	2311.68	12.18	8.66476E-15	1.93
Error	32445.43	171	189.74			
Total	92579.08	199				

Source: Calculated from Table 3

The F value is 10.91 and 12.18 in case of countries and dimensions which is more than the F critical values (1.65 and 1.93) respectively hence the analysis compels us to reject both second and third null hypothesis that there is no significant difference in variance of individual dimensions or parameters and individual country scores amongst the G20 nations of the world. Hence we accept the alternative hypothesis that there is a considerable significant difference in both the individual dimension and country scores.

Conclusions

It is true that the world leaders are trying to replace GDP growth with Sustainable Economic Development of countries and eminently countries with top growth are behind in terms of human development. The categories of dimensions like economic, investment and sustainability involved by the Boston Consultant group are very important parameters for countries overall human development. The factors like income, education, and health are quintessential for a country and its people whereas parameters like environment, civil society and Governance must be a global concern and indeed it is. Our study has not been able to cover the entire global scenario as the major concern was to compare between the well being of the G20 nations but we have honestly tried to put up a true picture of the top countries that contribute to a great extent to the world. Countries with very significant GDP's like India and China have a poor Sustainable development score and have enormous scope to improve.

The superpowers of the world especially the United States of America has good SEDA score when comes to comparison with the other G20 peers it has taken the fifth position but there is again a lot of scope of enhancement being the largest and the strongest economy of the world. In the Global assessment of countries it only has been able to grab the nineteenth or twentieth position. In our study, we have seen few countries have differed from the general score of parameters when compares with their peers as a whole, while other countries have not shown any significant difference in mean scores. When it comes to comparison with the world median the average G20 countries scores are definitely high than the world median with respect to all the development parameters. In the study we have also been able to evaluate that there is a significant difference in analysis of variance when it comes to individual country scores or the individual dimension scores of all the countries together.

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Flipping the Script for Skilled Immigrant Women: What Suggestions Might Critical Social Work Offer?

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ABSTRACT: Research on skilled immigrant women revealed that they are losing their professional skills and career identity due to lack of employment and underemployment, postmigration. These negative outcomes in employment are reported as key factors in the economic instability they face in host countries. On the other hand, reports indicate that economic growth for host countries have increased through skilled immigration. In fact, countries such as Canada, United States, Australia and others, continue to revise their immigration policies to attract more highly skilled immigrants, due to reported benefits. So how are skilled immigrant women in particular, coping with the negative impact of skilled migration that is more favourable for host countries? More importantly, what suggestions for changes and action might critical social work offer to transform current disproportionate outcomes?

This paper provides a brief discussion on the reported labour market outcomes for skilled immigrant women in Canada. It includes a critical assessment of the challenges they face to re-enter the labour market in Canada and argue that the current outcomes are direct manifestations of discriminatory practices, beyond the scope of the labour market alone. The paper highlights reported economic benefits of skilled migration for host countries such as Canada, and raise questions about possible systemic actors in the substandard results for skilled immigrant women. The paper draws on a critical social work perspective to discuss alternatives to improving outcomes for skilled immigrant women and concludes with suggestions for changes in the current social and employment prospects for skilled immigrant women.

KEYWORDS: skilled immigrant women, critical social work, economic migration

1. Introduction

This paper provides a brief discussion on the reported labour market outcomes for skilled immigrant women in Canada. It includes a critical assessment of the challenges they face to re-enter the labour market in Canada and argue that the current outcomes are direct manifestations of discriminatory practices, beyond the scope of the labour market alone. The paper highlights reported economic benefits of skilled migration for host countries such as Canada, and raise questions about possible systemic actors in the substandard results for skilled immigrant women. The paper draws on a critical social work perspective to discuss alternatives to improving outcomes for skilled immigrant women and concludes with suggestions for changes in the current social and employment prospects for skilled immigrant women.

Individuals who gain entry to Canada as skilled workers secure permanent residence under the Federal Skilled Worker Program (FSWP) administered through the Canadian Immigration and Refugee Protection Act (IRPA). Successful applicants require a minimum score of sixty-seven out of a total of one hundred allocated points to be eligible for the program. The assessment of skills for allocation of the accumulated points, is based on education at the college or university level or the completion of a skilled trade, ability to speak French or English, work experience, age, ability to adapt to Canada and pre-arranged employment in Canada. Immigrants who enter Canada as skilled workers are expected to settle faster and make greater contributions to the Canadian economy (Phythian, Walters and Anisef 2009, 365).

The increasing demands on immigration to supplement population and economic growth for developed countries such as Canada, placed skilled migration squarely at the forefront of public policy and socioeconomic discussions (Adsera and Chiswick 2007, 496). The issue gathered further traction in the literature, as a result of the reported struggles that skilled immigrants in particular, continue to face to re-enter labour markets. The ambiguous nature of their skills, make them ideal immigrants for admission to Canada on one hand but not enough to re-enter their professions once they arrive in Canada. The barriers that skilled immigrant women face are reported to be high on this list of ambiguity. Considering that in 2013 alone, women make up approximately 40.9% of the applicants admitted to Canada as economic class migrants, the number of women impacted is significant (Hudon 2015, 5). A critical discussion of some of these issues will add to the demand for change.

Hick and Pozzuto believe that there is no single understanding of critical social work, however, the general consensus is that a better social world is achievable through changes to the current relations in society (2005, ix). Woodward pointed to the theoretical basis of critical social work that aligns with confronting social injustice in areas of race, gender and ethnicity as examples of sites to contest (Woodward 2013, 137). Despite the numerous and different perspectives of critical social work, the quest to achieve social justice for individuals and collectives, remain at the core of these approaches (Campbell and Baikie 2012, 67). The concern with issues such as oppression, domination, discrimination, power structures, social injustice, inclusion and exclusion and other forms of social inequities, also remain at the core of understanding of critical social work. The key outcome is to create effective responses from a critical lens, to tackle issues that negatively impact groups and individuals in society.

Regardless of the approach however, critical social work is synonymous with critical reflective thinking as a way to critiquing unjust social, economic, ideological and structural systems in society. As Hick and Pozzuto pointed out, “critical social work does offer an analysis of the social context that includes an identification of oppressive elements and potential paths for their elimination” (Hick and Pozzuto 2005, x). The intent is to create change that will foster social justice. By shedding light on the current circumstances that impact skilled immigrant women in Canada, systemic change can become a closer a reality (Pozzuto 2000, 32). The issues of oppression need to be at the centre of the critique so that efforts for fundamental and systemic change can be initiated.

2. Skilled immigrant women and Canadian labor market

Schellenberg and Feng reported that despite the increase in the number of immigrants in Canada with university degrees, their transition to the Canadian labour market has been quite difficult (Schellenberg and Feng 2005, 49). The lack of recognition of their credentials and lack of “Canadian experience” impedes their access to comparable employment after they migrate. Similarly, Ikura attributed the under-utilization of the labour market potential of skilled immigrants to the lack of recognition of their credentials despite their higher levels of education (Ikura 2007, 17). Khan pointed out the lack of access to social and economic capital as one of the many challenges that skilled immigrants face to enter Canadian labour market (Khan 2007, 64). These noted struggles are prevalent for many skilled immigrants and Canada is lagging behind with comprehensive measures to address these known issues.

Reports on labour market re-entry for skilled immigrant women in Canada showed similar challenges faced by skilled immigrant groups. In addition, the loss of acknowledgement of their skills in the labour markets, force many to accept care work and domestic work. This is despite them having the training, work experience and skills to qualify for higher skilled employment (Man 2004, 135 and Raghuram and Kofman 2004, 95). This erosion of the strides that some women have made in securing qualifications and skills beyond the gendered categories of the domestic realm, raises many questions about the gendered setbacks of migration for skilled immigrant women. Iredale pointed out that for women to be able to participate in the skilled migration category in the first place, gendered considerations must be present within education systems of migrating countries (Iredale 2005, 157). In which case, the current struggles that skilled immigrant women face to enter the Canadian labour market, is unravelling the gains that were made towards gender parity in previous countries. For a developed country such as Canada, these erosions should be condemned and every effort should be made to increase measures for gender parity rather than eroding them.

Re-entry to regulated fields such as dentistry, law, medicine and engineering for skilled immigrants in general proved to be especially challenging and expensive, with limited opportunities for re-entry. Many skilled immigrants do not realize that the assessment of skills for the Canadian immigration points-based process prior to migration, is independent of the occupational licensing process of assessment that is required to re-enter regulated professions postmigration. For many, the realization that they cannot re-enter their (regulated) professions in Canada, happens only after they have migrated. Zietsma found that in 2006, it was less likely for immigrants who belonged to regulated professions prior to migration to be working in a regulated profession after migration to Canada (Zietsma 2010, 19). The study found that immigrants who managed to re-enter regulated professions, lagged well behind their Canadian counterparts in these professions. This is the case for up to as long as 10 years after they have been living in Canada. In addition, skilled immigrant women who are in traditionally male dominated occupations that are regulated face even greater challenges. Iredale pointed to overt forms of discrimination and gender bias in skilled employment fields such as engineering, that deliberately screens out female jobseekers even after they manage to get an interview for vacant positions (Iredale 2005, 164). She further noted that even when women secured employment positions in certain fields, they are overlooked for promotions and other forms of recognition of their skills and contributions. Since hiring decisions are made by employers, biases

towards women and skilled immigrant women in particular, in certain professions can certainly go undetected.

The focus on the re-entry of skilled immigrant women into professions considered male dominated, takes away from the broader conversation of the priority given to male dominated professions in skilled migration. Mollard and Umar called attention to the ideological construction of competencies in current migration conceptualizations considered as skilled, that focus on stereotypically male dominated occupations. They pointed out that many feminist scholars take exception to these stereotypical definitions that exclude occupations in the social production sector, which are usually linked to 'women's work' (Mollard and Umar 2012,13-14). This exclusion further renders immigrant women as casual labourers who can only compete in informal sectors of employment. The authors call for the definition of skills beyond the current gendered constructs, to allow for deeper understanding of the issues related to non-recognition and loss of skills.

Mollard and Umar pointed to findings from Creese and Wiebe's 2009 study, that revealed a lack of acknowledgement of educational credentials attained in Africa, among Canadian employers and professional regulatory bodies (Mollard and Umar 2012, 24). Creese and Weibe further put forth that the lack of recognition of credentials should be considered as part of the process of gendered deskilling, that associates unskilled labour as synonymous with Black or African immigrants (Creese and Weibe 2009, 69). Similarly, Mollard and Umar found that the deskilling of skilled immigrant women in Canada, is not as a result of labour market requirements alone; instead, issues of gender, nationality and systemic racism are key factors in the deskilling process (Mollard and Umar 2012, 24). Bernhardt called attention to racial discrimination as a perpetual feature within the Canadian workforce that creates economic consequences of poverty for racialized individuals (Bernhardt 2015, 3-4).

Furthermore, Canada's history of ethnic and racial bias is part of a legacy that is evident in Canada's preference for European immigrants over immigrants from non-white source countries. In fact, Elabor-Idemudia highlighted recent practice in Canadian immigration system, where Blacks from Africa and the Caribbean were not considered suitable immigrants to enter Canada (Elabor-Idemudia 1999, 38). She pointed out that immigrants were excluded based on their ethnicity, for economic reasons and the belief that they could not withstand the Canadian weather (38). Despite changes to immigration policies to allow lessen restrictions on entry for immigrants from these regions, the foundation of racialized power structures in Canada remains unchanged. As a result, issues of race and racism still plague the settlement, integration and access to employment for racialized immigrants in Canada. The struggles that skilled

immigrant women from non-white source countries encounter are reported to be plagued by these encounters as well. The issues of discrimination extend well beyond the Canadian labour market and into the wider Canadian society.

3. Economic benefits of skilled migration for Canada

Bannerjee reported on the dramatic increase in the demand for highly skilled workers in Canada as a response to the growth of the “knowledge economy” (Bannerjee 2009, 482). Canada is also considered to attract higher skilled immigrants than the U.S., primarily because of its FSWP points-based system selection program (Aydemir 2011, 454- 461 and Clarke and Skuterud 2014, 1). The anticipated benefits of attracting highly skilled immigrants include the replenishing of an aging Canadian population and the filling of highly skilled positions (Bannerjee 2009, 482). Immigrants with higher levels of skills are also considered to adjust more quickly to the labour market, thus meeting skill demands and contributing to the Canadian economy faster (Aydemir 2011,452). Overall, a key feature of skilled immigration for host countries including Canada, is the enhanced economic potential and integration of skilled immigrants, for faster economic contributions over longer periods.

Clarke and Skuterud stated that research in both the U.S. and Europe points to higher levels of innovation and productivity among immigrants than natives, especially in areas of Science, Technology, Engineering, and Mathematics (STEM) fields (Clarke and Skuterud 2014, 1). Despite the customary male dominated professions highlighted above, the exceptional skills and talent that immigrants provide is beneficial in any sector. The higher levels of education that skilled immigrants possess, provides an advantage to not only local economy but even if by perception alone, on the global platform as well. In addition, despite the economic challenges that skilled immigrants encounter in the Canadian labour market, they are less likely to seek certain government (financial) benefits, due to conditions and terms of their migration. The reported benefits for host countries are not on par with reported outcomes for skilled immigrants. However, Canada continues to capitalize on the available and steady source of immigrant and skilled immigrant labour.

Despite its preference for European immigrants, Canada touts itself as one of the most culturally diverse countries that offers immigrants a smoother transition into culturally diverse communities (Reitz 2012, 521). Canada also boasts a multicultural policy that recognizes minority culture in Canada that many critics believe creates silos of difference to separate immigrants from Canadians. Both Australia and Europe

have drawn on Canada's example of multiculturalism and Canada continues to promote multiculturalism as a key component of its national identity. Reitz pointed out that the actual effect of Canada's multicultural policies on immigrants' integration is not clear, however there is minimal indication that it may be attributed to higher citizenship achievement rate (Reitz 2012, 530). The current issues of racism and sexism that skilled immigrant women and skilled immigrant groups face, are at odds with this image of Canada. Nevertheless, Canada considers a multicultural society as one of its key attributes that allows skilled immigrants to feel more like they are a part of Canadian society.

4. Critical perspective and possible alternatives

The inequitable, sexist and prejudicial relationship that Canada currently has with skilled immigrant women, is a social justice issue. Chatterjee noted Sakamoto's argument that the expectation that professional immigrants should possess "Canadian experience" is a human rights violation (Chatterjee 2015, 366). In addition, their ability to be competitive in the Canadian labour market is undermined by systemic barriers, many of which are based on their ethnicity and where they acquired their credentials. Danso pointed out that it is "...discriminatory, oppressive and unjust" to deny the access of an individual to employment opportunities on grounds that are not related to their abilities or sector in which they were trained (Danso 2009, 539). Inroads that skilled immigrant women have made are being eroded and their means to move beyond feminized roles are being compromised. Canada fervently recruits skilled immigrants to build its economic and social structures but is yet to address the discriminatory, racist and sexist barriers that they encounter. Instead, Canada is keen on refining immigration programs to attract even higher skilled immigrants, even though reports indicate that many who are already in Canada are not faring well. Chatterjee aptly pointed out that the traditional focus of social work on immigrants, looks at the challenges that individuals and families encounter in the settlement and migration process, their resilience and the navigation of systemic barriers in the labour market (Chatterjee 2015, 364). The focus on professional immigrants in the labour market for social work she pointed out, is fairly new (364). In addition, the new focus is similar to existing scholarly and policy attention that attends to professional immigrants as "... self-deficient subjects" who require policy and program interventions (Chatterjee 2015, 364). She further pointed out that the opportunity is ripe for critical engagement of these issues to move attention beyond structural interventions and deflections of exploitation, accumulation of capital and immigrants as deficient (364).

A critical social work perspective provides focus on changes to the current oppression and discrimination that skilled immigrant women face in the Canadian labour market. The concern is with addressing the social injustice that create the issue in the first place, rather than just the problems it created. As a discipline, social work can spearhead scholarship to call out the racist, sexist and ethnic forms of discrimination that skilled immigrants face that are at the root of these issues. By leading the charge to develop a deeper understanding of the injustices that skilled immigrant women face, it will move attention towards creating a society that is more equitable and just. The dynamics of power and the current social relationship are intertwined to produce the barriers that skilled immigrant women encounter. The social reality for racialized immigrants (and minority groups) that is constructed in a settler colony such as Canada, needs to be called out and addressed.

5. Conclusion

Discussions on the issues of oppression and discrimination that skilled immigrant women face focus on the challenges that they encounter within the Canadian labour market. The professional-paraprofessional focus distracts attention from the social rights that is being taken away from skilled immigrant women. Canada needs only to look to a similar points-based immigration program in Australia that is more transparent and include regulatory bodies in the pre-immigration assessment process, for more effective outcomes for skilled immigrants. If the issue is indeed about the recognition of skills and credentials, then the structural fix should be undertaken with the vigour that is afforded to the ongoing revisions of the Canadian points-based program to select suitable skilled immigrants.

This paper by no means provide a comprehensive assessment of the different aspects of the issues that impact the experiences of skilled immigrant women in Canada. However, it makes clear that Canada has taken great steps to attract highest caliber of skilled immigrants but has fallen short in doing the same to recognize their social rights. It makes it clear that it is crucial for social work to challenge the issues that skilled immigrant women currently face, without normalizing or individualizing their skills as the root cause of the issue. The systemic issues of race, racism, sexism and other discriminatory factors that shape their current experiences need to be the primary focus. Canada needs to be held accountable for its role to provide a socially just and equitable society for skilled immigrants and skilled immigrant women.

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Organizational Leadership Designed at Ensuring Employee Commitment

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ABSTRACT: Every organization wants and need employees that perform at their best in each and every aspect of their work. This, in terms, leads to an increase in organizational efficiency and to the development of competitive advantages in relationship with other competitors. But how can organizations develop a working environment in which employees give their full commitment to organizational strategic goals? What are the cultural elements that drive people to develop the necessary beliefs and behaviors in order to fully commit to an organization? In what manner does the leadership of an organization contribute to the increase of individual commitment? The main objective of this article is to identify and analyze possible correlations between certain elements of transformational leadership and employee commitment. One of the main challenges that companies face in present times is the constant shift in the business environment that requires a high level of flexibility and adaptation. Given the fact that employees are the company's front line by coming in contact with customers, it is paramount that their behavior and commitment is focused on providing the highest value for the market. For this reason, managers need to fully understand how to motivate individuals in order to become completely involved in their work and in offering their contribution to organizational success. The findings presented in the paper can help managers and leaders in their efforts to retain employees and to increase their involvement in the long-term sustainable development of the organization in which they work.

KEYWORDS: Leadership, organizational change, creativity, strategy, competitive advantage

1. Introduction

The 21st century saw a shift in leadership and organizational culture towards results and customers, rather than internal processes and procedures. Also, organizations found themselves in a position to quickly adapt to environmental changes, to take higher risks and on focus in increasing their innovation. When referring to employees, everyone needs to solve problems and everyone needs to be an active part of the strategic thinking and leading process. Also, knowledge workers and project-based employment have created multiple interdependencies between individuals and changed the manner in which performance systems are designed. As a consequence, everyone needs to be a leader, to coach others and delegate responsibility, to encourage teamwork and team rewards, to do the right thing and to take appropriate risks (Hiebert and Klatt 2001, 2).

We are living in a new creative age, where businesses need to adapt to constant changes and where creative and innovative employees are not the exception but rather a necessity in order to gain and maintain competitive advantages. Here leaders and managers play a crucial role, not only in attracting creative individuals that have an out – of – the box thinking, but rather in creating and fostering a culture that encourages people to use their abilities in order to find the most efficient solutions to problems according to the particularities of each situation. We need to agree that a solution that has work well enough before will become useless if the same problem arises again, simply due to the fact that the environment changed drastically.

The use of social media in advertising or the increase in e-commerce and secure e – payment have made it possible for companies to access a virtually global market. But this opportunity generated many organizational problems, like understanding the differences between what customers want in different markets and how to increase the speed in which an organization offers for sale a product or service. This is where leadership plays a crucial role in ensuring that each and every employee will work together towards a common purpose and become committed to organizational long term success. It was discovered that employee commitment (Hiebert and Klatt, 2001) occurs in working environments that sustain motivation, teamwork and accountability. These kinds of working environments are characterized by a high degree of inclusion, where individuals are recognized for their work, are involved and accepted, by a control influenced by great personal responsibility and by affection, respect and support from other members in the group.

2. Some theoretical considerations on leadership and organizational change

According to the European Foundation for Quality Management (EFQM) the leaders of an organization must create clarity and unity of purpose within the organization and to help establish an environment in which people can excel. In an organization, leaders do the right things and managers do the things right (Morden 2007, 331). According to Warren Bennis and Robert Thomas's leadership model (2002), leaders are shaped by individual factors and organizational environment, along with experience. As a consequence certain key competencies leadership form, like adaptive capacity, engaging others by creating shared meaning, voice and integrity. Leaders have shown excellent attention in noticing opportunities or changes in the business environment and to proactively seize the opportunities. Also, they show great creativity and willingness to constantly learn. By using their self-confidence and emotional intelligence, along with empathy for others, leaders are able to form and communicate purpose for other. This motivates individuals to actively use their abilities and competencies in order to be a part of the organization's success and development.

Kouzes and Posner (2002) analyzed over 75.000 responses from individuals and compiled a list of leadership skills: ambitious, broad-minded, caring, co-operative, competent, courageous, dependable, determined, fair-minded, forward-looking, honest, imaginative, independent, inspiring, intelligence, loyal, mature, self-controlled, straightforward, and supportive.

When it comes to long-term sustainable organizational development, leadership is a key issue in developing and focusing individual interest towards core values, culture and ideology. But in order to ensure the success of new strategies, leaders need to conduct changes within their organization and to synchronize organizational objectives with the ones of employees. Although managing cultural change is not an easy task, it is not entirely impossible to get people involved in new strategic objectives or even in new strategic directions. There are many factors influencing the change process, but the most important is the strength of the current culture and the size of the proposed change (Hannagan 2002, 157).

Edgar Schein (2004) describes culture as: *A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems.*

For organizations, culture represents the “way we do things around here” (Morden 2004) and has a crucial influence over managers and their leadership style. By protecting the organization’s ideology and values, the culture is protected on long term and communicated at every level. Also, a major outcome of organizational culture is the expectation of commitment and loyalty from employees (Morden 2007, 385). Components of culture, such as prevailing values systems, expected standards of behavior or the perception of strategic, managerial and operational necessity contribute to the expectations that individuals will likely develop a common sense of commitment and loyalty towards the organization’s strategic aims and that they will work as a team to ensure the success of these aims. Equally, the process of internal promotion to higher organizational levels may be formulated and implemented based on the history of each individual within the organization and also on their past involvement in shaping, guarding and promoting the values, objectives and strategy of the organization. Thus, one key aspect of the promotion process becomes the involvement and commitment of individuals (Boca *et al.* 2016).

Ensuring the employee commitment implies shifting responsibility from managers to each individual within the organization. This does not mean that managers run from their specific responsibilities, but rather sharing responsibility with others. Managers and leaders need to plan in advance and organize people and activities in such a manner in which the strategic goals of the planning process are successfully met. A key element in ensuring this success is to actively implicate employees in the strategic process, mainly those that are in the front line of an organization. These individuals can be a valuable source of competitive advantage by flexibly and rapidly respond and adapt to changes in customers’ behavior and needs. Empowerment offer individuals meaning and purpose in their work, letting them to choose how to do their work and to set their own personal objectives. By letting them to take control over their work, leaders show employees that their work have a great impact over the organization and that the outcomes of their work actively contribute to the overall success. Not last, empowering individuals and letting them to organize their work, can lead to an efficient use of their personal skills and capabilities, while boosting their self-confidence (Clutterbuck 1995; Thomas and Velthaus 1990).

Studies performed by Louis Carter (2005) have revealed that employees are more authentic and have a greater desire to be a part of an organization that anticipates learning opportunities and, in some organizations, individuals consider that creativity and innovation in everyday activities need to become a necessary requirement. Innovation needs to be modeled by leaders throughout the organization, some companies even design their programs around their leaders’ behavior and values

in order to ensure maximum support. The best practice systems in organizational leadership orientated towards the constant development of individuals are designed and implemented with a full understanding of the particularities of organizational culture and of the social system. Also, everybody in the organization, starting with its leaders show an uncontested belief in these programs and practices, and participate in a constant assessment of the programs especially from a financial point of view, given the fact that the ultimate objective is to create a leadership model that increases profitability and actively participate to achieving the organization's strategic objective.

Managers need to set, as a strategic objective, a full commitment from employees towards organizational success and development. In order to achieve this commitment they should transmit a clear vision that is backed up by a clear strategy and strategic goals and also to coach, mentor and support people to achieve their best, without expecting people to get it right every time. Also, work should be organized in projects and teams, in order to get people to communicate and solve problems together, but increasing the chances to get the best decisions and actions to implement these decisions. Even more, by working in teams, a high level of individual participation is ensured while allowing people to decide how to do their work. Generating commitment from employees is not a one-time action, but rather a long-term constant investment with the purpose of creating and sustaining a high level of energy and passion that people bring to work.

To achieve this managers need to design and support an organizational culture in which commitment becomes more than an obligation becomes a magnet for people that perform efficient in such an environment and which are able to promote such environment to others. The first step is to create trust within the organizations without trust commitment simply cannot exist. Trust resides in how individuals think that others will protect and act in their best interest. In a trusted environment, you truly believe that your colleagues and/or managers will work in your best interest and you can count on them to do what's right, whether you are there to see it or not (Church & Oliver 2006, Hahn *et al.*, 2012). Trust becomes even more important when people face ambiguity or uncertainty, thus becoming vulnerable. When certain events cause distress for employees they become distracted from work and start worrying for their personal future. This is the moment when trust is most valuable, by freeing individuals from such worries and channeling their full energy and commitment to work. Organizations require employees to invest their time, expertise, talent and energy into efficient organizational development, but in order to achieve this people need to know that they are doing a wise decision. When trust is present, employees do not feel the need to protect themselves and are confident that others, including the

management, will protect them and thus will channel all their efforts and capabilities toward the organization's best interest (Macey *et al.* 2009, 46-48).

Based on Schein's model (2004), in order to create a culture in which employees are fully committed to the strategic organizational goals, managers must pay attention to, monitor and measure the degree in which the entire organization values or devalues individuals. The human capital can be valued by showing concern and support for their health or even personal problems, or by emphasizing the importance of loyalty and of the fact that employees are not just a simple resource that can be disposed of overnight. Secondly, managers need to allocate resources in such a manner in which employees increase their commitment, by designing their jobs in accordance with their skills and abilities, by offering them training, by formulating specific goals and by offering positive feedback and reward for their accomplishments. Finally, the work systems and procedures need to be designed together with house affected then and need to ensure the fair treatment of everyone within the organization.

As stated before, ensuring employee commitment is a continuous process that needs to be supported and updated on a constant basis. The mechanism behind supporting a culture of employee commitment requires a relatively flat organizational design in which individuals can be empowered and involved in the future of the organization. Risk taking, creativity and innovative thinking should also be encouraged and rewarded, while communication between individuals regarding their involvement and purpose within the organization is crucial in order to create a sense of belonging.

3. Empirical research

The purpose of this article is to analyze, in an empirical manner, the relationships and correlations between organizational leadership and how it influences employee commitment. In order to achieve this, a questionnaire – based research was conducted on over 200 employees and managers, followed by a statistical analysis of the answers that was conducted using specialized software, namely IBM SPSS Statistics. The items in the research questionnaire are related, on one hand, to certain leadership characteristics within the organizations, such as the empowerment of employees, offering support in order to meet specific goals, communication or the support of employee innovative and creative thinking and, on the other hand, are focused on how committed employees are in their work.

Following the results of the statistical analysis it was observed that relevant correlations (the statistical significance coefficient needs to be smaller than 0,01 or 0,05 , dependent

on the situation) were obtained between understanding and visualizing the end results of one's work and their efficiency and goal orientated behavior. More specifically, the individuals that were part of this study stated that when they understand and are able to see the end result of their activities, they feel more ambitious about their work (the value of the Pearson's linear correlation is 0,431 and the value of the significance coefficient is 0) and have a clear desire to increase their efficiency in order to gain the most results (the value of the Pearson's linear correlation is 0,404 and the value of the significance coefficient is 0). Another interesting conclusion of the research was that visualizing the results of one's work motivates that person to start working immediately and to be the best in meeting their responsibilities (the value of the Pearson's linear correlation is 0,395 and the value of the significance coefficient is 0).

One of the key aspects of this present research was to observe and analyze links between the managers' support for employees and the efficiency and results of employees. The findings have shown that support in overcoming one's limits from managers leads to a higher commitment from employees (the value of the Pearson's linear correlation is 0,403 and the value of the significance coefficient is 0) and also leads to an increase in individual ambition and perseverance, respondents declaring that reaching the set goal becomes paramount when the leaders show high implication and support and that failure will only motivate them to work harder (the value of the Pearson's linear correlation is 0,428 and the value of the significance coefficient is 0).

The interesting part of the research was to discover that a clear communication, understanding and visualization of organizational objectives by employees leads to an increase in ambition, will to success and overall commitment, all of these leading to a general increase in group efficiency. Managers have declared that working teams became more efficient when characterized by a high level of ambition (the value of the Pearson's linear correlation is 0,442 and the value of the significance coefficient is 0), getting maximum result from a particular situation (the value of the Pearson's linear correlation is 0,472 and the value of the significance coefficient is 0) and finishing a task, without exception, no matter the difficulties (the value of the Pearson's linear correlation is 0,485 and the value of the significance coefficient is 0).

Conclusion

This article set out to offer a better understanding of the connections between some characteristics of organizational leadership and their influences on employee commitment. As it can be seen in the first part of this article, researchers suggested that employee commitment can be achieved by empowering employees and making them

a part of the strategic process, especially when it comes to the formulation of strategic objectives. It is true that an increase in employee commitment has the potential to lead to more loyal employees which become fully involved in organizational development and success and ultimately generate more profit. For this reason, managers need to know exactly what are the main elements that have the potential to lead to high commitment from employees.

A key conclusion of the research is that employees become more committed to organizational objectives when they better understand and visualize those objectives. In other words, managers need to make sure that individuals know exactly their destination before they begin to organize the process of getting there. Also, individuals need to understand what are the implications of the result that they will obtain in ensuring the future organizational development. When achieving all of the above, individuals better understand their role and importance within the organization and become more ambitious and focused on getting results no matter the difficulties.

Also, the managers' support plays a crucial role in employee commitment. Individuals need to know that they are not alone in the organization and that they can depend on others to find and implement the best solution to the problems faced in their journey to obtain the desired results. A high support also leads to an increase in perseverance from employees, thus failure is not a valid option. Difficulties in performing one's responsibilities are used as a powerful motivation element and empowering individuals forces them to think creatively to find the most efficient solution.

From a theoretical point of view, this article offers a better understanding of how certain particularities of organizational leadership influence employee commitment and even organizational development. But, the main objective is for this article to be used as a practical tool by managers in order to increase employee commitment and active involvement in the organization. Every manager, every leader needs to know that they can depend on their team on the road to success, but loyalty and involvement are not elements to be taken for granted and ensuring employee commitment is a constant process. Thus, organizations need to create a culture in which employees are treated, not as mere resource, but rather as decisive factors in formulating and implementing the competitive strategy that will generate increase value in relation with the competition.

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The Immediate Demand for an Efficient Protection of Witnesses of Justice in Albania

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ABSTRACT: In spite of the abundant information regarding Albania's struggle from transition towards the integration into the European Union, envisioning common international justice affairs still remains insufficient and it seems that any close connection to the international criminal courts and tribunals has been largely ignored. This paper gives a picture of the alleged 'internationalisation' of the witness protection legislation and touches two aspects: *firstly*, the issues of the current legal framework in relation to procedural and non-procedural witness protective measures and challenges to ensure their effectiveness and *secondly*, the incorporation of new provisions in the domestic laws related to the best practices on support and assistance for witnesses at international and regional levels. In order to comprehend Albania's compliance with the Rome Statute of the International Criminal Court and other European legal instruments, an analysis of official documents was carried out, and a range of interviews were performed with staff of the International Criminal Court, the Courts of Serious Crimes and a District Court in Albania. This study draws conclusions and develops a set of recommendations on the steps that Albania has to take in relation to providing adequate protection and assistance in support of witnesses testifying in serious crimes cases.

KEYWORDS: witness protective measures, international criminal court, judicial effectiveness and efficiency, process of familiarization.

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1. Introduction

There is a special judicial and public awareness of the criminal proceedings involving individuals who are accused for committing serious crimes especially homicides, organized crime, corruption, and trafficking in Albania. The novel dimension of witnesses testifying in organized crime, trafficking and terrorism cases has created a climate of serious intimidation, thereby limiting the State's capacity to provide adequate protective normative measures. As Albania is a State Party to the most relevant international legal instruments concerning the protection and intimidation of witnesses, Albanian authorities shall take appropriate measures to effectively protect witnesses from potential retaliation or intimidation, and to enhance international cooperation in this area. This obligation is also in line with Council of Europe (CoE) Recommendation (2005)⁹ on the protection of witnesses and collaborators of justice which States that governments of Council's member states be guided, when formulating their internal legislation and reviewing their criminal policy and practice, by the principles and measures appended to the Recommendation. It also recommends that States should ensure that all these principles and measures are publicized and distributed to all interested bodies, such as judicial organs, investigating and prosecuting authorities, bar associations, and relevant social institutions (ECtHR - European Court of Human Rights, *R.R and others v. Hungary* 2013, § 20). The Criminal Code regulates this matter in the Article 312(a) which reads:

"Intimidation or other violent acts to a person to secure false declarations or testimony, expertise or translation or to reject carrying out their obligation to the criminal prosecution bodies and the court is punished with a prison term of one up to four years."

The scope of the Albanian criminal procedure legislation, pursuant to Article 1 of the Code of Criminal Procedure (CCP) is to guarantee fair, equal and due legal proceedings, in order to protect the freedoms and lawful rights and interests of citizens, to contribute to the strengthening of the legal order and the implementation of the Constitution and other domestic legislation (Unified Criminal Judicial Practice 1999-2015, 346). Thus, pursuant to the Preamble and Article 15 of the Albanian Constitution, the protection of fundamental human rights, freedom and dignity, and the participation in criminal proceedings has a *constitutional dimension* as it stands at the basis of the entire juridical order. The legal framework which guarantees the protection of witnesses of serious crimes is as following:

1. The Constitution of the Republic of Albania;
2. UN Convention against Transnational Organized Crime and the Good Practices for the Protection of Witnesses in Criminal Proceedings, Involving Organized Crime and the Protocols among which the Protocol to prevent, Suppress and Punish Trafficking in Persons, Specially Women and Children;
3. United Nations Convention against Corruption, 31 October 2003, UNTS 2349, 41;
4. The Rome Statute of the International Criminal Court (Article 68);
5. European Convention of Human Rights and its Protocols;
6. European Convention on Mutual Assistance in Criminal Matters and its Protocol (1959);
7. Council of Europe Criminal Law Convention on Corruption (1999) (Article 22);
8. Recommendation (97) 13 on intimidation of witnesses and rights of the defence (1997);
9. Recommendation (2001) 11 concerning guiding principles on the fight against organised crime;
10. Recommendation (2005) 9 on protection of witnesses and collaborators of justice;
11. Code of Criminal Procedure of the Republic of Albania;
12. Criminal Code of the Republic of Albania;
13. Law No. 10173 dated 22.10.2009, "Protection of Witnesses and Collaborators of Justice" amended by Law 32/2017 dated 30.03.2017 and came into force on 1.08.2017;
14. Law No. 9110 dated 24 July 2003, "On the Organisation and Functioning of the Courts for Serious Crimes";
15. Law No. 97/2016, "On the Organising and Functioning of the Prosecution Office in the Republic of Albania";
16. Law No. 8677, dated 2.11.2000, "On the Organisation and Operation of Judicial Police";
17. Law No. 10193 dated 03.12.2009, "On the Jurisdictional Relations with Foreign Authorities in Criminal Matters";
18. Law No. 192, dated 03.12.2009, "On Preventing and Clamping down on Organised Crime, trafficking and Corruption through preventive measures against Assets" the so-called "Anti-Mafia" Law (Article 37(2)(b));
19. Law No. 37/2017, "Code of Criminal Justice for Children"(Article 18);
20. Law No. 95/2016, "On the Organisation and Functioning of Institutions for Combating Corruption and Organised Crime".

The question which arises is whether the existing legal framework provides adequate normative witness protection and whether the procedural and non-procedural measures are effectively and efficiently applied and implemented by the competent institutions. Another issue is whether witnesses with dual status (victims-witnesses) are protected from any recurrence of trauma or re-traumatization before, during and after their testimony in the proceedings. How does the court address cases of witness intimidation, fear of revenge against the witness and his or her family; and what are the legal consequences of refusal to testify and false testimony? In answering these questions, the analysis is limited to the provisions of the CCP, Law No. 10173 dated 22.10.2009, "Protection of Witnesses and Collaborators of Justice" (Law on witness protection) and the Law No. 95/2016, "On the Organisation and Functioning of Institutions for Combating Corruption and Organised Crime".

Despite the 2017 judicial reform, the amendments incorporated in the CCP aiming to improve the status and the legal position of the victims in the criminal process, and other participants such as witnesses, remain mostly unknown and unprotected by the law in force. The importance of witness testimony in criminal proceedings is substantial to the fact finding process. There is no doubt that witness testimony represents one of the most important sources of evidence in the Albanian judicial system. Thus, as all the more discussed in the parliamentary debate concerning the drafting of the 2009 Law on witness protection, the physical protection of witnesses contains an essential element for the functioning of the justice system (Punime te Kuvendit, Legjislatura e 18-te no.3 2009, 754). Hence, in addition to the *imperative obligation* to ensure fair, true and public testimony in compliance with the rights of the accused, the law should also provide for the obligation upon the judiciary to take precautionary measures for witnesses in case of any intimidation, threat or attempted murder by the perpetrators or persons related to them (Article 79(c) Criminal Code).

In the ECtHR case *R.R and others v. Hungary* (Application no. 19400/11, 2013, §28-29) the Court noted that "*the first sentence of Article 2 para. 1 [of the Convention] enjoins the State not only to refrain from the intentional and unlawful taking of life, but also to take appropriate steps to safeguard the lives of those within its jurisdiction*". It further stressed that "*the State's obligation in this respect extends beyond its primary duty to secure the right to life by putting in place effective criminal-law provisions to deter the commission of offences*" against the person protected by the enforcement authorities. In the instant case, the applicants submitted that their exclusion from the Witness Protection Program entailed the risk that criminal elements might take vengeance on them due to their role as collaborator of justice. Despite the level of life threat, the authorities terminated the protection program. Thus, the Court found a violation of

Article 2 of the Convention which implies the positive obligation on the authorities to take preventive operational measures to protect witnesses and collaborators of justice whose lives are at risk from the criminal acts of another individual.

Even though the witnesses are not considered as 'a party' to the proceedings, unless they have a dual status of victim-witness, their important role and rights should be clearly established and implemented by the judicial bodies to protect their interest as truth-tellers. In both the ECtHR cases of *Doorson v. Netherlands* (§ 70) and *Van Mechelen v. Netherlands* (§ 53), the Court took into account the importance of intimidated witnesses as an important category. It noted the following:

"It is true that Article 6 does not explicitly require the interests of witnesses to be taken into consideration. However, their life, liberty or security of person may be at stake, as may interests coming generally within the ambit of Article 8 of the Convention. Such interests of witnesses and victims are in principle protected by other, substantive provisions of the Convention, which imply that Contracting States should organise their criminal proceedings in such a way that those interests are not unjustifiably imperilled. Against this background, principles of fair trial also require that in appropriate cases the interests of the defence are balanced against those of witnesses or victims called upon to testify."

Mindful that there is no definition of the terms 'witness' and 'testimony' in the CCP, this legal loophole certainly 'gives leave' to potential misinterpretation of these terms. However, Article 155 of the CCP provides that everyone has the right to testify, except for those with mental or physical disabilities. Other categories excluded from testifying are provided in Article 156. Meanwhile, the Law on the "Protection of Witnesses and justice collaborators" first adopted in 2004 and further reviewed and promulgated in 2009, amended in 2011 and recently in 2017 has a comprehensible definition for "justice witness" meaning "a person, who, in the capacity of witness or aggrieved person, declares or testifies about facts and circumstances that constitute evidence in a criminal proceeding, and who is in a situation of danger, because of these declarations or testimony".

The Albanian law on witness protection provides the protection of life and health only to certain categories of persons such as the witnesses and collaborators of justice, their relatives and other persons close to them; and to "aggrieved persons" i.e. victims who testify as witnesses (UNODC Country Review Report on Albania 2016, 6). The Article 3 of the Law on Witness Protection fails to address the new amendment of the term "aggrieved person" with the term of "victim" in line with Article 284 of Law 35/2017. As a consequence, the 2017 amendments failed in terms of:

1. providing *direct* protection to experts who testify, to their relatives or other persons close them;
2. expanding its scope to crimes or offences committed intentionally, namely: active corruption of persons exercising public functions, active corruption of foreign public employees, active trading in influence, active corruption in the private sector, assault to an official on duty, threatening a public official on duty, assaulting family members of a person acting in exercise of his State duty, and threat to a judge.

Witness protection is being provided mainly in cases related to organized crime, drug trafficking and prostitution but no corruption related cases (UNODC, *Country Review Report of Albania*, 2016:83-84). In such circumstances, the relevant authorities should take the appropriate measures to extend the scope of the protection which can be provided to all the aforementioned offences to experts, their relatives and other persons close to them (UNODC, *Country Review Report of Albania*, 2016:83-152). Meanwhile, the purpose of the law is very comprehensive as its aim is to regulate the special, temporary and extraordinary measures, the manner and procedures of the protection of witnesses and justice collaborators, as well as the organization, functioning, competences and relationships between the institutions charged with proposing, assessing, approving and implementing the protection program. One of the Judges of the Court of Serious Crimes noted that Albanian law on witness protection and the Statute of the Courts for Serious Crimes contain provisions for a high standard of protection for witnesses with the aim to ensure that victims can participate in proceedings and witnesses testify freely and truthfully without fear of retribution or suffering of further harm.

The criminal legal provisions dictate the procedure of the questioning of the witnesses when they come to testify in criminal proceedings in a manner that aims to assist somehow the witnesses. The Courts for Serious Crimes and the Courts of Appeal for Serious Crimes in particular have the discretion to determine the cross-examination in accordance with the legislation on the protection of witnesses collaborators, thus diverging from the general principle that all evidence must be produced in the accused person's presence during a public hearing with a view to allow adversarial argument (*Kostovski v. The Netherlands* 1989, § 41). For instance, cross-examination and the reading of witness previous statements (in order to help the witness refresh his or her memory), can be performed in the presence of the accused and the Defence counsel (Kramberg 2017, 501). In such cases, there will be no visual contact between the witness and the accused or in other cases the identity of the witness will not disclose to the accused and the Defence counsel in accordance with the Article 8 of the Law No. 9110.

Some of the witness legal responsibilities are envisaged in the CCP such as compellability of appearance before the Court, the observation of Court's orders, and the requirement of answering truthfully to the questions addressed to him or her, except for self-incriminating facts (Article 157 of the CCP), kinship relations, facts related to professional secret (Article 159 CCP), and State secret (Article 160 of the CCP). In accordance with Article 165 of the CCP, a witness is liable for false testimony or refusal to testify when during the questioning he or she makes contradictory or incomplete statements or statements which are in contrast with the evidence, or refuses to testify. After the warning of the Court to charge the witness of criminal liability for false testimony, the Prosecutor can proceed with the case pursuant to Article 307 of the Criminal Code which reads:

“Refusing to answer questions concerning knowledge of a criminal offence or its perpetrator, constitutes criminal contravention and is punishable by a fine or up to one year of imprisonment. When the refusal to testify is made for purposes of profit or any other interest given or promised, it is punishable by imprisonment from one up to four years.”

This provision is not applicable to witnesses exempted by law to give information or who are enrolled in the protection program.

The District Court in Shkodra does not have any case where the Judges applied sanctions against witnesses for refusing to testify and there is no indication why sanctions do not apply. In an international context, a close analysis of the definition of the provision on false testimony and a comparison to Article 70 of the Rome Statute of the International Criminal Court namely *“Offences against the Administration of Justice”*, shows that Article 312 of the Albanian Criminal Code is very vague and does not clearly address proper legal terms such as ‘corruptly influencing a witness’, ‘obstructing or interfering with the attendance or testimony of a witness’, ‘retaliating against a witness for giving testimony’ or ‘destroying, tampering with or interfering with the collection of evidence’.

2. The Application of Procedural Measures In the Code of Criminal Procedure

Effective prosecutions related to organized crime, corruption or trafficking depend on the willingness of the witnesses to come testify. Indeed, testifying in such criminal proceedings cases is an act of courage in an insecure environment, however, fear of

reprisals, intimidation and life threatening acts require careful consideration from the Judges, the Prosecutors, and the Defence.

In terms of legal provision, witness protection is guaranteed through procedural and non-procedural measures. Procedural measures are provided in Articles 165(a) and 361(b) of the CCP and Article 8 of the Law No. 9110 on the Organisation and Functioning of the Courts for Serious Crimes. The Court, upon the request of the Prosecutor and when the witness protection program is not applicable, decides on the application of protective measures for a witness in cases where giving testimony might put him or her, or his or her family members at serious risk for his or her life or health. The determination on the application of procedural measures is made when specific elements are met such as:

- a. The nature of the crime (organized crime, trafficking, terrorism, corruption);
- b. The type of witness-victim (child, victim of sexual assault, co-defendant etc.);
- c. The relationship with the defendant (relative, defendant's subordinate in a criminal organization);
- d. The degree of fear and stress of the witness;
- e. The Importance of the testimony (UNDOC 2008, 32).

Therefore, the confidential request of the Prosecutor shall be substantially reasoned on the use of one or more of the special questioning techniques and shall be submitted to the Presiding Judge of the panel in a closed envelope, with the note: "*Confidential: witness with hidden identity*" (Article 165(a)(2) of the CCP). Additionally, the Prosecutor shall insert also the sealed envelope containing the full identity of the witness with hidden identity. This provision entitles only the Presiding Judge to know the real identity of the witness with hidden identity in order to verify the capacity and incompatibility with the witness role. Following this assessment, the envelope with the real identity of the witness with hidden identity shall be returned to the Prosecutor. The Prosecutor's request is assessed in closed session and followed by a reasoned decision within forty-eight hours following the request. If the Court rejects the request, the Prosecutor may appeal the Court's decision within forty-eight hours from the notification of the decision. The Court of Appeals examines the Prosecutor's complaint in closed session and decides on the complaint within forty-eight hours. The Court of Appeals' decision is subject to appeal. If the request is accepted the Court decides on the pseudonym of the witness and the procedures for hiding the identity, notification, appearance and participation in the proceedings.

To resolve the question as to whether hidden identity or anonymity should be allowed or not, the rationale should consider that the law is not an exact science. The law accommodates general rules but also some exceptions. It is not possible to have only one formula and give the same interpretation to every case. For that reason, the courts should interpret the protective measures on a case-by-case basis and the use of anonymity should be considered as an exception to the rule (Betancourt, 2010). The justification for undisclosed identity requires the Court to verify whether the reasons invoked for witness's fear are convincing and genuine. The ECtHR case-law established that to be granted protective measures such as anonymity, the witnesses have to be in a real danger, and the threat must be real (*Kostovski v. Netherlands* 1989, 19).

During the investigation, the questioning of the person with a hidden identity and the assignment of the pseudonym shall be done by the Prosecutor, while the documents or statements shall be signed by his or her ascribed pseudonym. In addition, the witness shall participate in all stages of the proceeding only with the pseudonym ascribed by the Court. Pursuant to the rules referred to in Article 361(b) of the CCP, the questioning of the collaborators of justice, infiltrated or undercover persons, protected witnesses and witnesses with hidden identity is conducted under special measures for their protection, which are determined by the court, *ex officio* or upon the request of the parties. When technical means are available, the court may determine that the questioning is conducted at distance, within the country or abroad, through telephonic or audio-visual connections. In the Article 58(b)(c) of this Code, the sexually abused victim and the victim of human trafficking shall also be entitled to request to be heard during the trial through audio-visual tools. The use of communications technology as provided for in the Articles 361 and 361(a) of the CCP, and Article 12(d) of the Law on witness protection is in compliance with international instruments and enables the views and concerns of victims to be presented and considered at appropriate stages of criminal proceedings. Pursuant to Article 361(7) of the CCP, the procedure requires that a person authorized by the Court shall remain at the witness's location, certify his or her identity in order to ensure the correct process of questioning and of the implementation of protective measures.

Apart from the hidden identity, the Court shall also order appropriate measures for the voice and face distortion. If the recognition of identity or the examination of the person is indispensable, the Court orders the summoning of the person, or his forced accompaniment for the fulfillment of this act. Consequently, the Court orders necessary measures to be taken to avoid the appearance of the face of the person whose identity is modified. The right and obligation to order protective measures for the witnesses and the active role of the Judges to control the cross-examination when

the questions asked may reveal the witness identity, are related to Judges' exercise of their judicial discretion. During the cross-examination, the Judge(s) take(s) an active role by intervening when they consider such intervention would serve the interest of protecting the witness and the interest of justice.

Furthermore, the CCP provides that vulnerable persons such as the victims of the sexual criminal offences, trafficking or other domestic violence offences, upon their request, may be questioned as witnesses through audio and audio-visual tools. In such cases, when requested by the parties, the Court may decide to proceed with the hearing in closed session when it deems necessary to protect the witnesses in accordance with Article 340 of the CCP. Disclosing confidential and classified information to the public and media might endanger seriously the life, physical integrity, the liberty and health of persons protected by the Law on witness protection (Article 313(b) of the Criminal Code). Thus, the Criminal Code sanctions such disclosure with fine or imprisonment up to three years and when the offence has caused the death as a consequence, it is punishable by imprisonment up to ten years. Further, the Criminal Code sets out consequences for disclosing secret data related to the identity, collaboration or protection process, or location of witnesses and justice collaborators, who benefit special protection. Disclosing a secret that resulted in death, serious injury or serious danger to life and health of witnesses or justice collaborators, their family members or police officers in charge of their protection, is punishable by imprisonment from three up to eight years.

3. Witness Protection Program and the Application of Non-Procedural Protective Measures

In relation to the non-procedural protective measures, the framework of protection programs includes: change of identity; change of residence; furnishing false documents; temporary protection of identity, data and documents; giving testimony under another identity and administration with special means for voice and image distortion, and other forms set according to law, in compliance with Article 361(a) of the CCP; physical and technical protection, in the place where the protected person resides, as well as during his movements; social rehabilitation; provision of financial assistance; professional retraining; and provision of advice and specialised legal assistance.

The measures envisaged above are applicable without prejudice to the rights of the defendant. Establishing procedures for the physical protection of witnesses, relocating them and limiting the disclosure of information concerning their identity is a State

responsibility. As a protective measure of last resort, Albania has signed relocation agreements with 20 European countries, pursuant to article 27 of the Law on the protection of witnesses (UNODC, *Country Review Report of Albania* 2016, 86).

The Law on Witness Protection establishes two bodies responsible for the preparation, assessment, approval and implementation of the protection program for justice witnesses and justice collaborators:

- a) the Commission for the Assessment of the Protection Program for Justice Witnesses and Justice Collaborators (the Commission) and,
- b) the Directorate for the Protection of Witnesses and Justice Collaborators (the Directorate).

The Commission is responsible for assessing and approving the proposals of the Directorate for admission into the protection program, concrete protection measures, interruption and the conclusion of the program (Article 9(1) of the Law on Witness Protection). The Commission is also responsible for the appeal procedures for the complaints regarding the variation of a particular protection measure (Article 26 of the Law on Witness Protection). The Commission is chaired by the Deputy Minister of the Interior who covers issues of public order, and is composed of four other members such as a judge proposed by the High Council of Judiciary in the capacity of deputy chairman; a prosecutor proposed by the Prosecutor General, a judicial police officer proposed by the Director General of the State Police and the Director of the Directorate.

The Directorate for the Protection of Witnesses and Justice Collaborator is a special central structure of the State Police, within the Department for Investigation of Crimes, at the State Police Directorate General. The substantial personnel changes have been reported to be “*disruptive to an overall performance of any established unit*” (*Witness Protection IPA II 2014-2020*, 4). Even though the Directorate manages its own budget, activities and operational information very confidentially, its self-financing remains a major problem and as such would need a substantial amount of work within current legislation. The Directorate has duties and special competences regarding the preparation of proposals for the acceptance into a protection program, the following up of the implementation and on the application of special and auxiliary protective measures. In addition to the conduct of psychological and physical assessment of the conditions of the person proposed to be admitted to a protection program, an assessment of the situation of danger has to be performed so that the commission is able to evaluate whether the person is suitable for admission into the protection program.

In specific and urgent cases, upon the request of the proceeding prosecutor, the Directorate decides on the immediate implementation of “*temporary protection*

measures” pursuant to Article 18 of the Law on Witness Protection. The temporary protection measures are established in compliance with the situation of danger, and in such forms that guarantee, temporarily and preliminarily, the necessary level of protection. For this purpose, the Directorate and the protected person sign a temporary protection agreement. The Prosecutor General or the Chief Special Prosecutor should submit the proposal for acceptance of the person into the protection program within 30 days from the date of the start of implementation of the temporary measures. The Directorate is also responsible for the administration of the database related to its activities and the progress of the protection program. Periodic reports, mainly statistics, are made available to the Commission every six months. There is no legal provision obliging the Directorate to disclose information, whether in a summary or reduced manner, to other state institutions, media or the public.

In addition to the common non-procedural measures and the temporary protection measures, Article 22 of the above law provides also “*extraordinary protection measures*”. It is the responsibility of the State Police, pre-trial detention institutions or institutions of the execution of criminal decisions to order and implement such measures according to the level of the situation of danger for witnesses, justice collaborators and related persons.

One of the characteristic of protection programs is that they are implemented for an indefinite time period. The CoE Resolution 2038 (2015) and Recommendation 2063 (2015) on Witness protection as an indispensable tool in the fight against organized crime and terrorism in Europe reaffirm that witnesses who stand up for truth and justice must be guaranteed reliable and durable protection, in particular legal and psychological support and robust physical protection before, during and after the trial. However, protective measures can be extended throughout the phases of the criminal proceedings, as well as after its completion depending on:

- ✦ the existence of the situation of danger;
- ✦ the suitability of the protected person in relation to the special protection measure applied;
- ✦ the implementation of the obligations provided in the protection agreement by the protected person.

Meanwhile, the protection measures can be interrupted by the Commission in the following circumstances:

- a) if during the investigation and trial of the criminal case, it is proven that the witness or justice collaborator is giving false testimony;
- b) if the protected person commits an intentional criminal offence;

- c) if the protected person is involved in a criminal activity and he didn't declare it while under the protection program;
- d) if the witness, justice collaborator or other protected persons do not respect the obligations mentioned in the protection agreement and/ or the conditions of collaboration with justice;
- e) if an authority of another State seeks the termination of the protection program implemented in its territory.

The termination of the protection program occurs when the situation of danger no longer exist or the protected person has died, or at the written request of the protected person or his or her guardian. Pursuant to CoE Resolution 2038 (2015, 9), any decision to terminate a witness protection measure or program should be taken "*only after a comprehensive examination of the existing threats to the life of the protected persons*". Following the end of the protection program, the protected person may choose to keep his or her new identity, if he or she has been given one, or to take back his or her true identity. Financial assistance is provided to the protected person or his/her dependent family members in case the person under a protection program is killed or physically injured to the degree that becomes incapable of working because of the failure of protection measures implemented.

4. Challenges to Ensure Effectiveness of the Witness Protection Program

The success of witness protection in Albania is largely dependent on political, cultural and proper investigative practices. The lack of availability and effectiveness of judicial protection, the expediency of the investigative and judicial process, but also the cooperation with the witness himself or herself are reasons of concern. The Albanian justice system is not yet at the point where investigative and judicial functions are perfectly operating. District Courts, in particular, face greater obstacles regarding protective support and assistance services for witnesses than other European or Balkan countries. This is mainly due to the limited professional and financial capacities to provide protection, despite the fact that Article 37(2)(a) and (b) of the Anti-Mafia Law (2016) established a special fund for the prevention of criminality which is meant to serve for the development of witness protection programs and assistance to the victims of organized crime.

While the Judicial System's perception (including the Judges, the Prosecution, and the Defence) towards the importance of witnesses in the process of truth-finding is considerable, it is not satisfactory yet. Notwithstanding the participation of victims-witnesses in criminal proceedings, the confrontation with the accused and the process of narrating their personal experience as victims or eyewitnesses might cause painful memories during the testimony. Still, the Judges prefer to be guided by the principle of the primary consideration of the rights of the accused (the cross-examination and public trial) than granting protective measures to the witnesses.

Lack of adequate legal provisions addressing witnesses' needs, limited public information on the role and purpose of witness testimony, the deficiency of assessing a substantial danger of threat or intimidation in a small country when "everyone knows everyone" and the delay in the length of criminal proceedings for various reasons (lack of addresses, refusal to testify for fear of reprisals, intimidation or revenge) are a serious indicator of the incapability of relevant judicial bodies.

Another reason of the failing witness protection is that the Court of Serious Crimes case-law experiences problems where protected witnesses abused or violated the security measures granted by the Court. For instance, the Court ordered procedural protective measures for witness X, on the credible existence of a real risk of threat related to his testimony. Despite the fact that the police were ordered to guard him within the house for an unlimited time, the witness was secretly leaving his house to meet with persons. As a consequence, the Court considered that indeed the protection of a witness is its concern, but the safety is the witness' responsibility. Such an obligation (to protect the witnesses) must be interpreted in a way which does not impose an impossible or disproportionate burden on the authorities to protect the life of a witness (ECtHR *R.R and others v. Hungary* 2013, § 29).

Therefore, protected witnesses have to cooperate fully with the Court and a future Witness Protection Unit (WPU) in order to conduct a complete risk-assessment and to minimize security threats. Witness confidence in addressing their needs and concerns to a WPU contributes to their feeling secure at all stages of the proceedings. As a care provider with professional staff and friendly and supportive attitude, the WPU has a particular value in the outcome of a fair trial and the wellbeing of a witness.

The 2016 EU Commission Report on Albania noted that the implementation of basic procedural rights in practice, such as the right to information, access to legal aid and specific safeguards for victims-witnesses of crime is ineffective and the competent authorities need to increase the level of protection provided in the existing legislation (EU Albania Progress Report, 2016:67). Despite the 2017 justice system reform, there are no legal provisions in place which ensure fully witnesses and victims' right to access

assistance and support services including procedural, emotional and psychological support, in proportion to their needs. Moreover, the Report noted that on access to justice, *“the State Commission for Legal Aid has not yet developed effective mechanisms for outreach and access to its services, including at regional level. The vast majority of cases involving vulnerable groups are still handled by civil society organisations, with donor support”* (EU-Albania Progress Report 2016, 67).

In relation to EU integration, Albania is part of the witness protection Balkan network. Witness Protection in the Fight against Serious Crime and Terrorism (WINPRO) and Witness Protection in the Fight against Organised Crime and Corruption (WINPRO II) have identified numerous problems in the Western Balkans such as deficiencies in techniques, training and procedures; disparities between the legal arrangements of the various jurisdictions, inadequate national and cross-border cooperation between the relevant witness protection units, and financial sustainability of protection programs (IPA II 2014-2020 Multi Country Witness Protection, 3). Some significant solutions to minimize these problems would be the mutual recognition and the unification of protective measures. Also, exchange of information with other international law enforcement agencies would encourage witnesses of crime to come forward to denounce and report criminal acts since they feel assured that their lives and livelihood are duly protected and secured throughout the country, the region and abroad.

Considering that Albanian witness protection aims to adhere to the best practices or standards developed by the UN, ICC and EU, it is a precondition to perform a correct detailed examination of how to improve legislation and practical support measures for the protection of victims and witnesses, with due regard to the real needs of protected witnesses. Additionally, the application of special comprehensive and comprehensible protection measures on the basis of social, cultural, political, ethnic, or religious backgrounds of witnesses following the example of EU (Directive 2011/99/EU, 2011) would be of help. In addition, the lack of a special Unit within the Albanian Court to provide support and assistance to the witnesses and victims will be discussed below.

5. The Benefits of the Process of Familiarisation in Albanian Courts

The assessment as to whether a court has been successful in delivering justice depends on *firstly* its ability to procure the testimony of witnesses, and *secondly* its ability to protect witnesses. William Reisman, Stegfried Wiessner and Andrew Willard (2007) have argued that in order to attain a clarified world public order and human dignity, the

law should at all times serve the human beings. This means that the State authorities should establish the proper bodies in order to interpret, apply and implement appropriately the witness protective measures. As already mentioned, the efficiency of ICC prosecutions depends greatly on the fulfillment by States Parties of requests or ICC witness protection orders (Oosterveld, Perry, and McManus 2001, 808).

The duty to cooperate with the ICC imposed on Albania as a State Party in terms of witness protection and support can be understood not only as a general commitment to cooperate, but also an obligation to amend its domestic laws to permit cooperation with the Court. Hence, it is necessary for Albania to learn from the witness protection and assistance experience of international tribunals, in particular, the ICC and reflect on steps that should be taken in this respect. Although international courts and tribunal mostly deal with the international context of witness testimony and protective measures, the national practice should be in consistency with international development in case there is a domestic legislative gap in this respect. International and national courts do not operate in isolation from the larger international legal system (Fauchald and Nollkoemper, 2014). Hence, domestic legislation and policies should develop witness supportive services in accordance with the common practice of ICC, ICTY or SCSL (Best-Practice Recommendations for the Protection and support of witnesses – Special Court for Sierra Leone – An evaluation of the witness and victims section 2008, 13-14). Therefore, witnesses testifying in national courts should benefit from practices before international tribunals in terms of:

1. being made familiar with the statement they have given;
2. an explanation of the legal process and what will take place in the courtroom;
3. an explanation of the questioning process, and how witnesses should respond to different types of questions, and
4. familiarisation with the courtroom and most importantly to their rights and responsibilities.

In this context, Albania's compliance with the Rome Statute requires, alike successful cooperation agreements between the ICC and countries such as Canada, UK, Switzerland or Belgium which have created a new law on the implementation of the Rome Statute, to amend its existing legislation in order to fulfill its obligations under Article 93(1)(j) of the Rome Statute or Court's orders:

1. for the physical protection of witness, and
2. for the protection of the witnesses during the evidentiary and testimonial phases of ICC proceedings.

Revisiting the existing law may lead to amendments including the eligibility for protection of ICC witnesses in Albania, relocation, accommodation, change of identity, familiarization, the use of video-link, financial support to ensure the security for persons receiving protection, facilitate persons' re-establishment or assistance to become self-sufficient. The best solution to cope with such an issue is to try to seek a balance; as Koskeniemi (1990, 19) correctly stated that "*balancing seems inevitable in order to reach a decision*". For instance, for determining whether witnesses qualify for assistance because of their fear or distress about testifying, the UK's courts are required to take into account, *inter alia*, the nature and alleged circumstances of the proceedings, and the social, cultural, ethnic, or religious backgrounds of witnesses (Oosterveld, Perry, and McManus 2001, 816). This balancing approach by the UK's courts may serve as an inspiration to Albania and would, therefore, provide some criteria or characteristics for the eligibility of witnesses for protection and assistance.

In terms of support and assistance, to date, the Albanian witness protection law does not provide clear support and the relevant assistance components. The process of familiarization is inexistent for both victims and witnesses in the legal framework or practical aspect. There is no protocol or policy which includes informing the victims or witnesses on their rights, responsibilities, confidentiality, support and trial's procedure when they arrive in the Court to testify. The process of *familiarization* is one particular form of support for witnesses who come to testify before a court. The establishment of a WPU would make it possible that this process would be under its responsibility, in consultation with the Office of the Attorney General. This practice would include as follows:

- a. Assisting the witnesses to understand fully the court proceedings and the roles that they and the participants play in them,
- b. Reassuring the witness about his or her role in proceedings before the Court;
- c. Ensuring that the witness clearly understands he or she is under a strict legal obligation to tell the truth when testifying;
- d. Explaining to the witness the process of examination first by the Prosecution and subsequently by the Defence;
- e. Discussing matters that are related to the security and safety of the witness in order to determine the necessity of applications for protective measures before the Court; and,
- f. Making arrangements with the Prosecution in order to provide the witness with an opportunity to acquaint himself or herself with the Prosecution's Trial Lawyer and others who may examine the witness in Court.

Even though the WPU might not address all the needs of victims and witnesses, its creation would definitely improve the victims and witnesses participation in criminal proceedings and it would positively influence the successful outcome of a trial. It is of essential concern that apart from the Courts of Serious Crimes where there is a separate room for witnesses, other District Courts lack logistic and operational strategies to ensure safety for the witnesses. Further, the Court should *proprio motu*, in coordination with the Office of the Attorney General and the Registry, establish “A Victim/Witness Information Form” in order to provide operational and support for the victims and witnesses for instance: psychological, physical protection and medical needs.

The fact that trials are frequently delayed for extended periods of time, especially when carried out in the absence of defendants or as accelerated trials, and that no measures are taken to protect witnesses from threats or intimidation when they come to Court is another challenge. Obviously, in serious crime related cases, there is a high potential of risk that intimidation and stigmatisation start the moment witnesses appear before the Court. Hence, the practice of familiarisation can be considered very profitable for the Courts in Albania. Bearing in mind that the application of witness preparation is mostly limited in the ICC, witness preparation in the Albanian courts is a common practice, justified sometimes by the parties as a process of *re-examining the witness’s evidence to enable more accurate, complete and efficient testimony* (Ambos 2009, 599-614). The Article 361(4) of the CCP allows the Court to help the witnesses refresh their memory by reading previous statements; however, sometimes the parties rehearse and interfere with the witness’s testimony. In many cases, the testimony was declared inadmissible and rejected by the Judges in the Courts of Serious Crimes. The adoption of a familiarisation process in the Albanian courts should not include witness preparation for they are both distinguishable; the first aims to familiarise the witness with the rights, responsibilities, support and assistance services, while the latter aims to prepare a witness to trial, coaching and correcting their statements or stories. To conclude, the establishment of neutral Witness Protection Unit within the Registry of District Courts and the Courts of Serious Crimes aiming to carry out the practice of witness familiarisation from the moment the witness arrives at the Court to give oral testimony (*The Prosecutor v. Dominic Ongwen*, ICC-02/04-01/15-504, § 10 and 24), would ensure that the (vulnerable) witnesses can testify in a secure manner and also take into consideration their privacy, dignity and well-being. It should be emphasised that it is the Judges who owe independent obligations towards witnesses and when needed would order special measures to protect their well-being without making witness preparation a general rule. This is because witnesses are perfectly capable of: (i) reviewing prior statements; (ii) confirming their accuracy or explaining

any inaccuracies when testifying, and (iii) asking questions on the process of testifying and what to expect in court. Therefore, the Judges should take a more active stand in order to avoid any witness interference (*Ongwen*, ICC-02/04-01/15-504, § 16).

6. Conclusions

Despite the committed work of many organs and sections of the Court for Serious Crimes and District Courts, the Albanian judicial system continues to struggle in a number of areas related to organised crime, human trafficking and corruption. It also faces new challenges which have arisen with the triggering of the Courts protection mandate. While the amended Witness Protection Law and related by-laws or policies represent a significant step forward, much remains to be done to ensure the security of other witnesses and increase the credibility of witness testimonies in Albania (OSCE, 2006).

In my view, it is of importance to reconsider the role that the witnesses play before any criminal court by: *firstly*, clearly defining what a witness's role and position is in the legal instruments of a Court and *secondly*, providing adequate protection by maximizing the consideration of harm and intimidation. Unlocking witnesses' rights in international and national tribunals is a first step towards adequate procedural and non-procedural protection. To achieve this, States should invest in outreach activities to educate their citizens on the basis of respect for life, rule of law and justice. Every court should invest in the familiarization process to assist the witnesses so that they can fully understand their rights and responsibilities and feel secure and confident before the court.

Misperceptions of the role of witnesses in the Albanian courts, the lack of a witness support unit and lack of information related to witness protective measure in criminal proceedings have led to lots of cases of intimidation and refusal to testify. Therefore, one of the effective solutions is the timely and accurate information on the protection measures and support services in order to adequately manage the witnesses' expectations but also sanction them in case of infringing the protection measures.

Furthermore, Albania's integration process requires the government to be responsible, by including the main stakeholders and the national public opinion in a straightforward debate with respect to the ICC. It also implies the responsibility for Albania to keep itself updated of the development of witness protection programs. The necessity of political will at the national level for national complementarity programs is very important towards exploring responses to new challenges connected to Albanian

criminal issues. The challenge remains the shaping and implementing of national prosecutions for organized crime and the need to raise awareness for an efficient and functional national Witness Protection Program.

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ICT Awareness among Faculty Members of The Public Sector Women Universities of Pakistan

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ABSTRACT: Information and communications technologies (ICTs) have been included as an essential part of teaching-learning process by a large body of learning institutions around the world. As a developing country, the use of ICTs in Pakistan is a new beginning and it will take time to be more developed. Women are the important part of society and they have to work efficiently side by side with men for having a developed society. So that, the main goal of our study is to check the awareness, attitude and competence level of using ICTs of faculty members of women universities of Pakistan. The analysis is based on Primary source of data collected from survey. Our target was the female faculty members of Public Sector Women Universities of Pakistan. Findings show that faculty members have positive attitude towards computers but unfortunately, they have a low competence level of using ICTs. Most of the respondents have never attended any training on ICTs. It is suggested to arrange trainings regarding ICTs for them to have a competent faculty to shape the future of the country.

KEYWORDS: Information and communication technologies (ICTs), Public Sector Universities, Female Faculty, Pakistan, Awareness, Attitude towards ICTs, Low competence level

1. Introduction

ICTs have a major impact in the context of university, organization, teaching and learning methods. Use of information and communication technologies in higher education has been promoted by a variety of stakeholders for at least two decades. Increasing reliance on technology is modifying student-teacher interaction with the passage of time (Gilmore and Halcomb 2004).

Information technology (Haag, Cummings, and Dawkins 1998) is defined as a “set of tools that can help provide the right people with the right information at the right time”. The use of ICT in teacher education has received a great attention for quality learning and teaching (Wee and Zaitun 2006). ICTs have been included as an essential part of teaching learning process by a large body of learning institutions around the world (Juang, Liu, and Chan 2008; Friedman et al. 2009). Because of the emergence of new technologies and new challenges to education, students-teacher education has passed through rapid development and transformation (Moon 2004) that resulted in the reorganization and restructuring of teaching methodology to prepare the students for future challenges by educational institutions (Auerswald and Magambo 2006).

If compared with other countries of the world Pakistan is ranked as 145th in the use of ICTs. The use of ICTs in Pakistan is a new beginning and it will take time to be more developed. There are many other factor affecting the awareness and attitude of a person towards ICTs. Most important factor is “Socio-cultural aspect” which is the most dominant factor especially for females in Pakistan. Women are the important part of society and they have to work efficiently side by side with men for having a developed society. Therefore to play a major role in the development of country, women should have a better understanding and competence level of using ICTs.

1.1. Problem of the statement and research questions

Given the importance of teachers’ awareness of ICTs, the purpose of this study is therefore to determine the awareness of faculty members of public sector women universities of Pakistan. More specifically, the study investigated the following research questions;

1. What are the attitudes of faculty members toward ICTs in Public Sector Women universities of Pakistan?
2. What are the teacher’s perceptions of;
 - a. Impact of ICTs on Education?

- b. Cultural relevance of computers to Pakistan's society and education?
- c. Their level of computer competence?

The study focused mainly on female faculty members of the public sector women universities of Pakistan.

2. Literature Review

Ntshakala (2016) designed a theoretical model of the factors influencing the awareness perceived of ICTs by the school teachers of physical education (PE). From one of the provinces of South Africa, 73 teachers were selected for survey. The Technology Adoption Model (TAM) was presented with the main factors which were having more effect on perceived awareness. Those factors include demographics, performance expectancy, social influence and computer attitude. As this study basically focused on the ICTs awareness of PE school teachers and did not cover the higher education faculty.

Kerckaert, Vanderlinde, and van Braak (2015) proposed a study based on the role of ICTs in early childhood education. They presented two types of ICTs use was being made in preschools. It was further examined that the first use i.e. "supporting basis ICTs use and skills" were more frequent than the second use i.e. "supporting content and individual learning needs". It is clear that the study only questioned preschool teachers but not higher education faculty.

Shin (2015) described two studies and examined the pre-service English teachers' awareness regarding three main issues i.e. digital literacy, fair use of digital material and e-safety. The participants of the first study prepared reading and listening lessons by using online material and then evaluated in terms of digital literacy and fair use. While in the second study, the participants prepared writing lessons by online network services and evaluated in terms of e-safety. The whole study concluded that most of the time pre-service teachers do not considered these issues while preparing class activities. Awareness of participants of critical, ethical and safe use of IT was also raised by evaluation activities.

Adu, Emunemu, and Oshati (2014) examined the role and need of information and communication technology (ICT) and higher education in sustainable development in Nigeria. The findings of the study show that the effective ICT policies and facilities of high technology would promote sustainable development. The development and adequate maintenance of infrastructure in learning institutions can also promote

sustainable development. It was also discovered that the promotion of government policies and operational procedures can also be a great contribution.

Thanuskodi (2013) investigated the usage of ICT among students of rural areas in Tamil Nadu India. By having survey through the questionnaire, it was indicated that more than half of the total participants got the training of internet skills from their college. It was also shown that majority of the students, about 56.53%, were using internet weekly and 73.91% respondents were using the internet to search the literature.

Rahim Sajid (2013) explored the major barriers to the integration of ICTs at secondary level learning in Pakistan especially in Punjab. The study mainly focused on education stakeholders i.e. school administrators, ICT coordinators, teachers and students. They showed positive attitude towards ICTs implications and also confirmed the benefits of ICT for overall improvement of education sector in secondary level.

Majoka, Fazal, and Khan (2013) explored the implementation of ICTs in education teachers training institutions in two provinces of Pakistan i.e. Khyber Pakhtunkhwa and Punjab. Findings revealed that in a few classrooms, different activities/ experiences as suggested in the unit were properly implemented but not in others like shortage of electric power supply, lack of ICTs tools and low level of skills in ICTs application.

Beena and Mathur (2012) highlighted different impacts of ICT on existing teacher training institutions of education and explored potential future developments in India. They argued the role of ICT in the transformation of teaching and learning process and to explore the awareness of teacher educators about the use of ICTs for effective teaching and learning process.

Bhuasiri et al. (2012) identified multiple critical factors that influence the success of e-learning systems from the literature and compared the relative importance among two stakeholder groups in developing countries i.e. ICT experts and faculty. Findings illustrated the importance of curriculum design for learning performance. Technology awareness, motivation, and changing learners' behaviour are prerequisites for successful e-learning implementations.

Safdar et al. (2012) examined the theoretical approaches of educated people about the role of ICTs in the development of education sector of Pakistan. About 91.7% of the respondents signify information technology as vital for educational development. The findings suggested organizing and publicizing a valuable campaign for the awareness of the people about the advantages of ICTs for the development.

Kaka and Pd (2008) talked about the role of Information and communication technology ICT in education sectors. They discussed some modern facts of education

about ICTs i.e. rapid increase of ICT, its influence, the presence of multimedia games and online games by internet and the less attention in implementation of ICT in education. The author discussed that the teacher should be aware of the social change in their teaching activities. They should be the agent of change from the classical method into the modern one.

Youssef and Dahmani (2008) discussed the impact of ICT on student performance in higher education. The basic purpose of their research was to examine the relationship between the usage of ICT and its impact on student performance in higher education sector. They argued on three different aspects in order to explain the lack of empirical evidence. According to them, ICT equipment and the use rate of them are growing fastly in European Union. But the adoption of complementary organizational designs is very slow and it varies from one institution to another.

Albirini (2006) discussed the new technology initiative in Syrian education. His study explored the attitudes of high school English as Foreign Language (EFL) teachers in Syria toward ICT. He investigated the relationship between computer attitudes and five independent variables i.e. Computer Attributes, Cultural perceptions, Computer competence, Computer access and Personal characteristics. One of the main barriers to technology implementation perceived by the teachers in this study was discovered as the mismatch between ICT and the existing curricula and the class-time frame. Other barrier reported in this study was teachers' low level of access to the facilities of computers.

Hennessy, Ruthven, and Brindley (2005) examined how secondary teachers of the core subjects of English, Mathematics and Science have begun to integrate information and communication technology (ICT) into mainstream classroom practice in English schools. The findings indicated that subject practices are in a considerable state of flux as they begin to adapt and develop in response to a new cultural tool. While there is little evidence of the transformation of certain fundamental aspects of subject cultures (goals, curricula), the impact here is severely constrained by nationally prescribed curriculum and assessment frameworks.

3. Research Methodology

In order to solve the research problems and to collect the required data the questionnaires were distributed among all faculty members of the selected universities. The target population for this study comprised of 1047 faculty members of selected women universities of Pakistan. Stratified random sampling technique was chosen to select a more representative sample.

On the first stage, all women universities were divided into strata. From each stratum, by proportional allocation i.e. $n_h = \frac{n.N_h}{N}$ the number of universities from each province was selected (Table 1).

Table 1. Selected universities by proportional allocation

Province	Universities	No. of Selected Universities
Punjab	8	2
Sindh	2	1
Balochistan	1	1
KPK	3	1
AJK	1	1

The sample size from each university was determined by the following formula proposed by Naing, Winn, and Rusli (2006) for finite population,

$$n = \frac{NZ^2P(1-P)}{d^2(N-1)+Z^2P(1-P)} \dots\dots\dots\text{Eq. 1}$$

Where n is the sample size, Z is the confidence level, P is the estimated proportion, d is the precision or acceptable margin of error and N is the population size. The value of n was calculated using the following parameters: Z=1.96, P=0.15, d=0.05 and N.

Table 2. Selected sample size from each university

Province	Selected Universities	Population size (N)	Sample Size (n)	Responses
Punjab	The Women University, Multan	209	80	80
	Lahore College for Women University, Lahore (Jhang Campus)	52	37	27
Sindh	Peoples University of Medical and Health Sciences for Women, Nawabshah	176	75	64
Balochistan	Sardar Bahadur Khan Women University, Quetta	350	91	73
Khyber Pakhtunkhwa	Shaheed Benazir Bhutto Women University, Peshawar	170	74	57
Azad Jammu & Kashmir	Women University of Azad Jammu & Kashmir, Bagh	90	53	41
Total		1047	410	342

Primary data was collected by means questionnaires. The questionnaire was adapted by Ntshakala (2016); Albirini (2006) and modified according to the context and objectives under consideration. All five sets of questionnaires had closed questions. The questionnaire used a Likert-type rating scale with the following categories: strongly disagree / disagree / neutral/ agree and strongly agree with numerical ratings from 1 to 5. Cronbach's alpha was used to test the reliability of the questionnaire and it was about 0.883 which was sufficient for analysis.

4. Empirical findings and data analysis

4.1. Demographics

Table 3 shows the descriptive statistics of the demographic measures of the participants which shows that the respondents of this study are predominantly females (84%) because we have selected our target population the women universities of Pakistan.

Table 3. Socio-demographic characteristics of the sample

Gender	Frequency	Percentage
Male	54	15.8%
Female	288	84.2%
Province		
Punjab	107	31.3%
Sindh	64	18.7%
Balochistan	73	21.3%
KPK	57	16.7%
AJK	41	12.0%
Age Group		
Less than 30	182	53.2%
30 – 40	121	35.4%
41 – 50	24	7.0%
Above 50	15	4.4%
Highest Level of Education		
Masters	132	38.6%
M.Phil	166	48.5%
Phd	42	12.3%
Post Doc	2	.6%

Designation		
Associate Professor	3	.9%
Assistant Professor	60	17.5%
Lecturer	235	68.7%
Intern	44	12.9%
Teaching Experience (years)		
0 – 5	252	73.7%
6 – 10	50	14.6%
11 – 15	18	5.3%
16 – 20	10	2.9%
Above 20	12	3.5%
Computer Usage		
None	2	.6%
Daily	297	86.8%
Weekly	34	9.9%
Monthly	9	2.6%

4.2. Attitude towards computers

Table 4 shows that the respondents of this survey have a positive attitude towards computers. Figure 1 also providing a quick view of the responses according to which we can say that most of the respondents are ready to learn more about computers. Most of them respond that computer motivates their students to do more study and it saves a lot of time and effort. Some other thinks that computers are fast and efficient means of getting information. Mostly respondents have neutral response on the statement that the computers do more good than harm because in their perception it is based on the situation. Figure 2 depicts the overall attitude of the faculty members which shows that on the average respondents have positive attitude towards computers.

Table 4. Descriptive statistics of attitude of faculty members towards computers

Sec B	Statement	SD	D	N	A	SA
		f	f	f	f	f
B1	Using computers allows me to be creative	18	18	36	137	133
B2	Working with computers do not isolate from other people.	31	83	65	116	47

B3	Using Computers saves a lot of time and effort	24	25	32	134	127
B4	Computers would motivate students to do more study	20	33	59	144	86
B5	Computers are a fast and efficient means of getting information	22	8	15	120	177
B6	Computers can enhance students learning	16	13	32	150	130
B7	Computers do more good than harm	21	22	91	134	74
B8	I would rather do things by hand than with a computer	38	84	88	73	59
B9	I would like to learn more about computers	20	3	7	35	134
Total		210	210	289	425	1043

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA=Strongly Agree

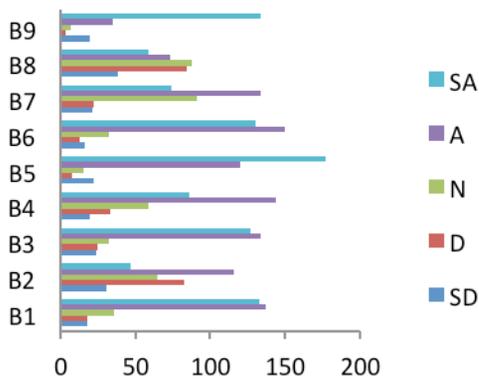


Figure 1. Attitudes of Faculty Members Towards Computers

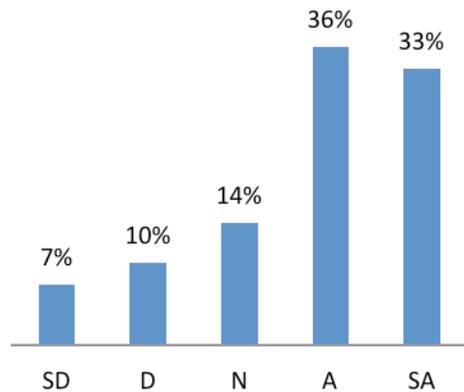


Figure 2. Overall Attitude of Faculty Members towards Computers

4.3. Impact of ICT on Education

Table 5 summarizes the perception of faculty members about the impact of ICT on education. The results of frequencies show that in their perception there is positive impact of ICT on education. Figure 3 also showing a quick depiction of the results from which we can see that the perceived impact of ICT on education is positive. Most of the faculty members think that it is important to use the computers in education as it improves the quality of learning but there is not enough time in class to use computers. Figure 4 shows that the overall perception of faculty members about the impact of ICT in education sector is positive.

Table 5. Descriptive statistics of perception of faculty members about impact of ICT on education

Section C	Statement	SD	D	N	A	SA
		f	f	f	f	f
C1	Teaching with computers offers real advantages over traditional methods of instruction	13	20	44	145	119
C2	Computer technology improve the quality of students' learning	16	11	41	156	118
C3	Using computer technology in the classroom would make the learning more interesting	15	10	27	150	137
C4	Computer use fits well into my curriculum goals	13	32	51	161	85
C5	Class time is enough for computer use	27	62	77	114	62
C6	Computer use suits my students learning preferences and their level of computer knowledge	16	29	69	167	61
C7	I have no difficulty in understanding the basic functions of computers	16	35	38	150	103
C8	Students need to know how to use computers for their future jobs	21	23	26	146	126
C9	Students prefer learning from teachers rather than computers	26	7	18	34	59
	Total	163	229	391	1223	870

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA=Strongly Agree

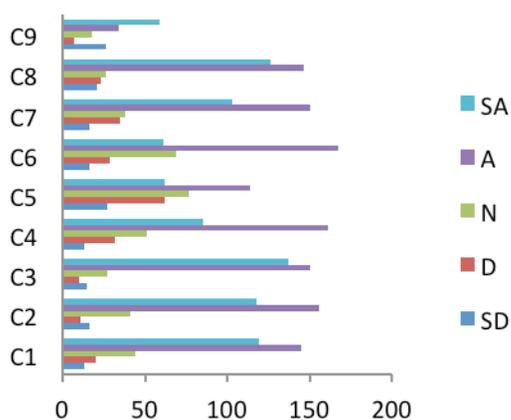


Figure 3. Perception of Faculty Members about Impact of ICT on Education



Figure 4. Overall Perception of Faculty Members about Impact of ICT on Education

4.4. Social influence

Table 6 shows that the respondents of this survey were receiving a low level of influence from other people with regards to the use ICTs. It also shows that the use of ICTs would hinder the generation from learning their traditions so other social issues that need to be addressed before implementing computers in education. Most of the respondents think that computers are making our lives easier but computers also affecting our relationships. Many participants agreed that the computers do not dehumanized the society.

Figure 5 and 6 also depicts the overall perception of the faculty members about the impact of ICTs of our social life which is found to be positive.

Table 6. Descriptive statistics of perception of faculty members about the impact of ICT on social life

Section D	Statement	SD	D	N	A	SA
		f	f	f	f	f
D1	Using computers would not hinder our generations from learning their traditions	27	53	98	126	37
D2	There are other social issues that need to be addressed before implementing computers in education	10	44	85	139	64
D3	The increased proliferation of computers will make our lives easier	7	39	70	171	55
D4	Computers do not dehumanize society	21	69	109	104	39
D5	Working with computers does not diminish people relationships with one other	35	90	70	123	24
D6	Computers do not encourage unethical practices	27	96	94	89	36
Total		127	391	526	752	255

SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA=Strongly Agree

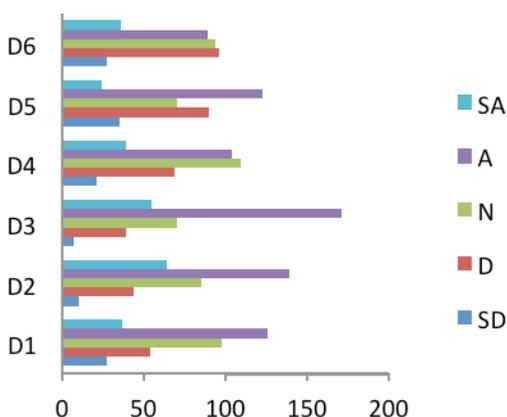


Figure 5. Perception of Faculty Members about Impact of ICT on Social Life

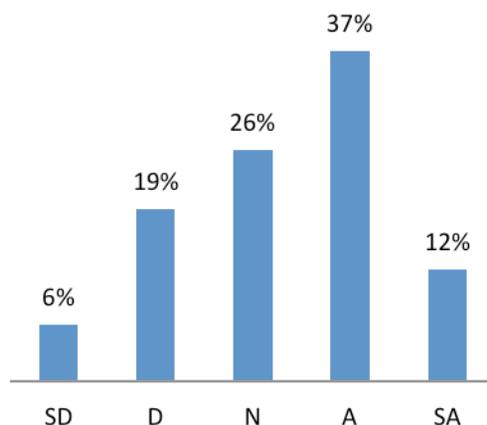


Figure 6. Overall Perception of Faculty Members about Impact of ICT on Social Life

4.5. Competence level

Table 7 shows the competence level of the faculty members of Pakistan. The result shows that competence level of the faculty members is somehow at low level. Because most of the respondents could not install a software, most of them have not even idea of blogging, cannot remove viruses from their computers and most of them are not using the research profiling and referencing softwares which are most important in education and research. It is also found that they are familiar and able to operate MS Office, using search engines and electronic mails and using the internet.

Figure 7 and 8 also showing the results of competence level of faculty members of using ICTs. This shows that most of the respondents are at low level of using ICTs.

Table 7. Descriptive statistics of ICT competence level of faculty members

Section E	Statement	V.L	L	M	H	V.H
		f	f	f	f	f
E1	Install new software on a computer	39	56	91	80	76
E2	Operate a word processing, spreadsheet Presentation Software(e.g. Word, excel, p. point)	11	31	72	125	103
E3	Blogging	43	115	119	37	28
E4	Search Engines (Google, yahoo etc.)	10	13	62	117	140
E5	Select and evaluate educational software(i.e. EndNote, Latex, SPSS)	60	133	77	39	33

E6	Electronic Mails (Gmail, webmail, outlook etc.)	17	18	54	131	122
E7	Managing work by using various tools (Google drive, Dropbox, Cloud Storage etc)	58	119	73	28	64
E8	Overhead Projectors	21	153	73	47	48
E9	Use the Internet for communication (e.g., email & chatroom)	11	24	58	127	122
E10	Remove computer viruses	28	186	49	46	33
E11	Research Profiling (Academia, Linkedin, Zenodo)	54	132	79	45	32
E12	Referencing Citation (Endnote, Mendely, Zotero)	44	143	81	45	29
Average		263	468	955	1388	1029

V.L=Very Low, L=Low, M=Moderate, H=High, V.H=Very High

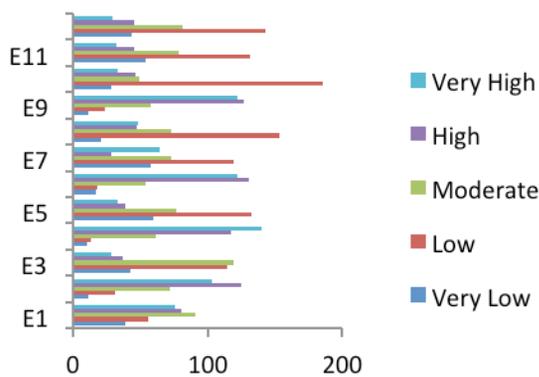


Figure 7. ICT Competence Level of Faculty Members

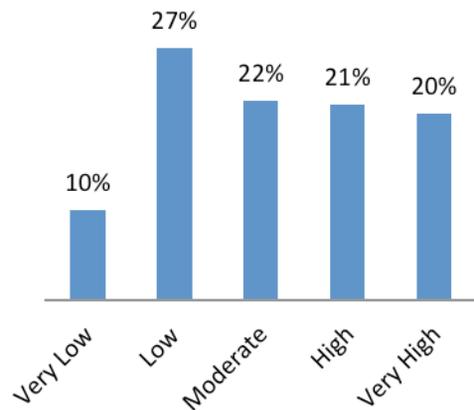


Figure 8. Overall ICT Competence Level of Faculty Members

4.6. Inferential statistics results

Table 4.7 shows the output of the ANOVA analysis of the demographic factors i.e. gender, province, age group, education level, designation, teaching experience and computer usage with all variables of perceived awareness whether there is a statistically significant difference between our group means. From the results, it is clear that there is a statistically significant relationship of all described variables of perceived awareness with gender except competence level. here is a statistically significant relationship of all variables of perceived awareness with Province but the impact on education has insignificant relationship with Province. It can also be concluded that

there is a statistically insignificant relationship of all described variables with age group, education level and designation.

Table 8 is showing the findings correlation analysis of all variables of perceived awareness. Based on the results, we can conclude that all four variables of perceived awareness have a statistically significant linear and positive relationship (i.e. $p < .001$). The strength of the association is high between attitude towards computers and impact on education while it is moderate for others.

Table 8. Correlations results

		Attitude towards Computers	Impact on Education	Impact on Social Life	Competence Level
Attitude towards Computers	R	1	.733**	.476**	.413**
	P-value		.000	.000	.000
Impact on Education	R	.733**	1	.512**	.381**
	P-value	.000		.000	.000
Impact on Social Life	R	.476**	.512**	1	.331**
	P-value	.000	.000		.000
Competence Level	R	.413**	.381**	.331**	1
	P-value	.000	.000	.000	
**		Correlation is significant at the 0.01 level (2-tailed).			

To check the effect of all three variables of perceived awareness on the attitude towards computers, we have run the multiple regressions. As a result of this R (coefficient of correlation) is found to be 0.729 which is clear evidence that the variables are strongly and positively related with the dependent variable. On the same way coefficient of determination (R^2) is found to be 0.567 which means that 56.7% of total variations in dependent variable are explained by the explanatory variables. Table 4.15 is showing the regression test results which shows our fitted model to be

$$B = 4.63 + 0.62C + 0.19D + 0.10E$$

Where B=Attitude towards computers, C=Impact on education, D= Impact on social life and E= Competence level. It is clear from the fitted model that all the explanatory variables have positive effect on the dependent variable. More clearly if an explanatory variable increases then the dependent variable will also increase.

It can also be used to test the significance of the dependent variables. We can see that all independent variable coefficients are statistically significantly different from 0 as p-value is less than 0.05.

Conclusion

The results show that the overall attitude of faculty members towards computers is positive. Most of the respondents are in favour of computers as they offer real advantages over traditional methods of instructions and improve the quality of students learning. Meanwhile some of them think that computers are not suitable according to their curriculum and class time is not enough for using computers.

It was also observed that they were receiving a low level of influence from other people with regards to the use ICTs and in their perception the use of ICTs would hinder the generation from learning their traditions so other social issues that need to be addressed before implementing computers in education.

The result shows that competence level of the faculty members is somehow at low level. Because most of the respondents could not install software and most of them are not using the research profiling and referencing softwares which are most important in education and research.

Finally, we can conclude that faculty members of the public sector women universities of Pakistan are aware of the requirement and significance of ICTs in education sector. They have positive attitude towards computers and age is one of the major factor which affect the attitude. Unfortunately, it is also noticed that their competence level of using computers is low. Most of them have never attended any training regarding ICTs, not even a single time. The institutions should arrange trainings regarding ICTs for them to have a competent faculty who have to shape the future of the country.

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The Urbanization and Environmental Challenges in Dhaka City

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ABSTRACT: The main purpose of this study is to focus on the urban growth and environmental impacts on Dhaka city for the sustainable development of urbanization policymaking.

The study has found that the Dhaka city is expanding rapidly and environmental issues are the main problem for urbanization. Because there is huge pollution in Dhaka city through unawareness of human activities. The local government can increase the public participation in sustainable development for urban growth in Dhaka city. The policymaker can formulate a strategy for urbanization growth and green environment by training on public participation and facilitation for urban people.

KEYWORDS: Urbanization, Environment, Dhaka

1. Introduction

In developing countries as Bangladesh, Dhaka is facing many challenges to develop a better knowledge of social dynamics and the interrelations. The challenges are preparedness, flood management, flood risk perception, vulnerability, flood damage, lack of city government policies for a long-term plan, deficiency of environmental concerns, lack of community participation, etc. ADB (2008). In recent decades, Dhaka is one of the fastest growing city in the world. During the last four decades, the average annual growth has been over 7% which led to rapid expansion of Dhaka city both horizontally and vertically (ADB 1998). Currently, ADB is working on environmental support to Southeast Asian countries as well as Bangladesh for the expansion of urbanization process. Especially, this expansion held at the city periphery areas which led to a transformation of surrounding land and urban dwellers with an ever-increasing demand for basic services and facilities and other resources. It enhanced based on physical growth, slum, and squatter formation and so on (Rahman 2008).

As part of the urbanization development, this research tries to explain the rapid urbanization of Dhaka city and its impact on the environment in accordance with water resources management under the environmental change and unplanned urbanization resulting urban floods in Dhaka city. The urban environment is being frequently degraded due to the lack of appropriate planning and lack of right policy framework, inter-city budget, local government, un-skilled institutional management and so on emphasized by Alam (2004). Definitely, we can say, there is a substantial administrative challenge for local governments and community leaders to formulate ways to develop and execute appropriate policies and strategies to control persistent urban growth. It may pursue viable urban environmental management in the peripheral areas of Dhaka city.

According to the Asia-Pacific Forum for Environment and Development (APFED) meeting, in Asia, the high step of social and economic development results in unplanned infrastructure, lack of infrastructure, environmental degradation, congested traffic, and a housing shortage as foremost issues met by cities and towns in their sustainable development (Ichimura 2003). Nowadays, cities are going as home to more than half of the world's population which generate 80% above of all GDP. The UN (United Nations) estimates that "today's urban population of 3.2 billion will rise to nearly 5 billion by 2030 when three out of five people will be living in cities" (Lewis 2007). Moreover, Brockerhoff (2000) notes that a majority of the population

of less developed countries will be living in urban areas by 2020, and dramatically in Asia and Africa (IRIN 2006).

I will show an increase in urban population in the world from 1950 to 2030. As can be seen in the table, by 2030, 60.3% of the population will be living in urban areas of the world, whereas it was only 29.7% in 1950. Notable, more developed countries show a saturated kind of urbanization, while less developed countries' urban population increases from 17.8 to 39.9% between 1950 and 2000, and will be more than tripled between 1950 and 2030 increasing from 17.8 to 56.2%.

More importantly, many cities of this region will get huge urban population, which are already known as megacities. According to World Bank, Bangladesh is one of the most densely populated countries which is no 8th in the world. Recently, the country is experiencing a rapid urban population growth (13.5 million in 1981, 22.9 million 1990, 37.3 in 2000, and 46.4 in 2005) in recent decades (Chowdhury and Amin 2006). Therefore this research aims to investigate the causes of urban growth and its impact on the selected peripheral "Union's" in order to throw light on how they are governed and can be better governance. This research also has concentrated on the development of Dhaka city, while little attention has been focused to the geographic designs of urbanization in Dhaka city of Bangladesh. The main objectives of this study are:

- a) to highlight the causes of urban growth in Dhaka city
- b) to investigate the environmental impact of the persistent urban growth

In the first section, we specify the introduction of this study, in the second section, we execute the urbanization trends and its impact, the third section contains impacts of the environment in Dhaka city, and the fourth section covers the hinders in developing of the cities in Bangladesh. Finally, we conclude the study with policy implications.

2. Urbanization trends and its impact

2.1. Historical Trend of Urbanization

Dhaliwal (2000) noted that the populations are particularly concentrated in and around major cities of the world. Moreover, according to UN (2000) report, 90% of urban population growth will be in developing countries of Asia, Africa, and Latin America. It is also projected that 80% world's cities will be in developing countries as well as Dhaka city of Bangladesh. Arnstein (1969) specified in her research on citizen participation that "there is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process."

Apparently, it shows that the cities of the developing countries will create much more challenges in the days to come.

2.2. Urban Population growth in Dhaka city and Bangladesh

Considering Dhaka city, the city has been growing exponentially, particularly since it became the capital of the independent nation of Bangladesh in 1971. Uneven development and regional policies, natural hazards, and the lack of employment opportunities in the rural areas are the vital factors of urban population growth. Islam (2001a) indicates three factors of rapid urban population growth; (1) a high natural increase in native urban population, (2) the territorial extension of existing urban areas and a change in the definition of urban areas, and (3) rural to urban migration.

Bangladesh experienced higher urban population growth rate at 10.03% due to the facts of both pull factors and push factors during 1974-1981 (BBS 2001). For the preference of the pull factors, these are employment opportunities, higher wage, and income, better life status, educational opportunities, transportation facilities, comparatively better social security, etc. On the other hand, push factors are poverty and lack of employment in the rural area. There is no higher educational institution; also cause of natural calamities like cyclones, floods, river erosion, and so on. Therefore, migration is the most important factor of intensive growth (up to 70%) of urban population for the Dhaka city (Islam 2001a). World Bank (2007) showed that in the Dhaka city, new poor migrants (about 300,000-4000, 000) arrive in a year.

Comparatively, the overall population growth of Bangladesh is greater than many other developing countries in the world. The estimated total population was 152 million in Bangladesh in 2005 with the growth rate of 1.2%, which was 2.6% in 1990. Only 8.8% of 76 million people lived in urban areas in 1974. In the same year, the level of urbanization touched near about to 25% (BBS 2005). Right now, the overall urban population growth rate is unchanged, but it is vast in few big cities, such as Dhaka which is the capital city of Bangladesh (Islam 1999). This type of rapid urban growth leads a vital role in sustainable development of urbanization, which is very challenging for the government to formulate policies of urban sustainability (Rana 2009). Mostly, the nature of urbanization would be measured by considering two components. No one is the level of urbanization, and no two is the growth rate of urban population.

For the case of Bangladesh, the level of urbanization is still low, but its total urban population is substantial, which was 28.60 million in 2001. Before independence of Bangladesh, the urban population growth was about 3%. After independence, it was rapidly changed about a tremendous urban growth 8.89% in 1974. Comparatively,

4.34% growth was in 1951 and 8.89% in 1974, which is continued up to 20.15% in 1991. Moreover, the annual growth rate was approximately high (10.03%) during 1974-1981 because of rural-urban migration as the result of huge famine in many remote village areas of the country. During 1981-1991 periods, slower growth of urban population (5.43%) was observed in comparison with the previous decade. During 1991-2001, the growth further declined to 3.15% but remained much higher than the national population growth rate. The overall growth indicates that the urban population in the country has been doubled every 12 years (CUS 2001). According to the United Nations, the current population (January 2018) of Bangladesh is 165,609,515.

2.3. Effects of rapid Urbanization

In Bangladesh, rapid urbanization seems to be quite a difference of opinion on whether we should encourage or discourage it. In our view, it does not matter what we think; it is, in fact, a reality that cannot be prevented but needs to be controlled. Failure to control it will mean that it becomes a big problem, but if we have to control it. Then it need not be one. In Bangladesh, the problem with rapid urbanization by rural-to-urban migration is not that it is occurring, but almost all of it is happening in Dhaka. Hence, the solution to managing this urbanization is to reinvest in other cities and district level towns throughout the country to bring the migrants there instead of Dhaka city. It means investment in jobs, education, healthcare, etc., migrate to in the secondary cities of Bangladesh. Recently, Dhaka has hosted a number of international workshops and meetings on issues to do with migration and also on urbanization. The outcomes of these series of workshops are that the two issues are very much intertwined in the context of Bangladesh where rural-to-urban migration and primarily to Dhaka, is the major issue. For the real impact of urbanization of Dhaka city, local government has to create a good policy for investing in other cities and towns for developing the new urban city.

2.4. Urbanization for the environment

According to conventional wisdom, urbanization degrades the environment. This finding may lead to many developing countries to limit rural-urban migration and curb urban expansion. But this finding is incorrect because there are some reasons. If the urbanization managed correctly, it could be useful for the environment. Firstly, urbanization conveys higher productivity growth due to positive externalities and scale of economic factor. Urbanization is the important factor in an Economy. Asian countries urban productivity is more than 5.5 times that of rural areas. For the case

of Dhaka city, the same output can be produced using fewer resources with urban agglomeration. In this sense, urbanization reduces the ecological footprint. The service sector requires urbanization because it needs a concentration of clients. As services pollute less than the factor of manufacturing, the view of this aspect, urbanization can also be beneficial to the aspect environment.

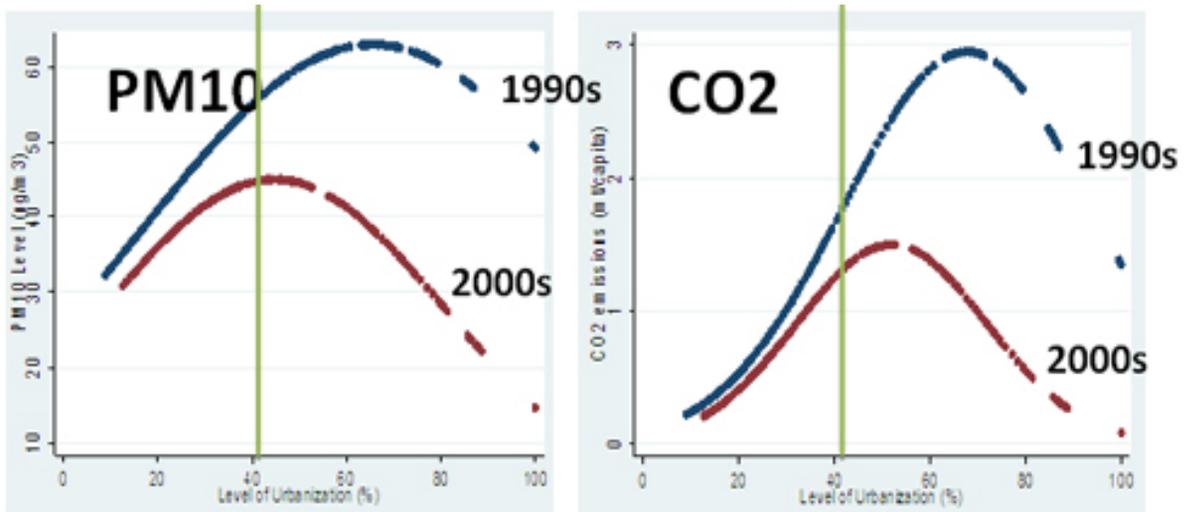
Secondly, the high urban density is benign for the environment for any given population. The urban economics literature focused that compactness is a key indicator of energy use. The high populated city can make crowded and use more public transport for viable and reduce the distance of trips. But, urban living boosts walking, jogging and cycling rather than driving.

Thirdly, Sustainable environment-friendly infrastructure and public services, for example, municipal infrastructure, piped water, sanitation, and waste recycling management are much more comfortable, convenient and more economical to build, operate and maintain in the urban setting. For example, Stockholm has a good infrastructure when it drives to recycling. Also, urbanization consents more people to get access to environment-friendly facilities and services at reasonable prices.

Fourthly, urbanization process plays innovation and creating green technologies. Environment-friendly equipment, vehicles, machines, and utilities will determine the future of the green economy in the long term. Green technological innovations in Bangladesh will be considered when the millions of people who will buy energy-efficient (environment-friendly) products. It will create opportunities for the entrepreneurs to invest in developing such type of products. So green technology can change the environment.

Urbanization is important for the environment. Finally, the higher standard of living also related to urbanization which facilitates people with education, health care, housing, and better food. Urbanization creates revenues that fund utilizes infrastructure projects, improving public health and reducing congestion. Urbanization also generates a pro-environment stance between property owners and the middle class, which is the application of environmental laws, rules, and regulations. In the context of Dhaka city, urbanization is the vital parameter for the green environment. An assessment of the impact of urbanization in Figure 1 follows that the Asian environment–urbanization association-ship varies on the level of development as the lower CO₂ emissions and particle pollution (PM₁₀).

Figure 1: Environment–Urbanization Association-ship in Asia



CO₂ = Carbon di-oxide; PM10 = Particulate matter with diameter of 10 micrometers or less; µg/m³ = micrograms per cubic meter; t = ton.

Source: ADB estimates.

The graph indicates that the cities in the 2000s are enjoying a better environment at the same level of urbanization than the cities in 1990s. In the case of green urbanization, the developing countries should continue the downward shift by adopting the urbanization process.

2.5. Urbanization effects in Dhaka city

Dhaka has earned the infamy of being one of the world's most unlivable cities and "worst vacation spots." According to different local and global media, Dhaka is the "traffic capital of the world." Every time the city's alleged urban dysfunction is in the news, local social-media reactions are typically three-pronged. The first group retorts that the western media don't understand how the metropolis functions with its organic cultural paradigms and carry-on-no-matter-what ethos. Because the western (journalistic) eye judges the city with western living standards, this type of labeling is fundamentally flawed and deceitful. The second group is the nihilist, conceding, yes, it is an unlivable city, and we have become frogs in the familiar well. All members of this group are likely to retreat into their private worlds, rather than engaging with the broader city life. The third group includes the umber-fatalists, who ask: "What can you do about it? It is too unsolvable a problem and let's just go on with our lives." It is also important to memorize that growth of cities everywhere has always been a complicated process. Cities defy singular narratives. Dhaka city's urban growth

transpired with both promises and perils, introducing contentious debates not only on urbanization but also the questions of progress and modernity. As Marshall Berman articulated, “a paradoxical unity, a unity of disunity [that] pours us all into a maelstrom of perpetual disintegration and renewal.” So Dhaka city shows to be a modernist narrative in which resilience and dysfunction, optimism and pessimism. Karl Marx’s observation that in modernization “all that is solid melts into air” -that is, the forces of the global market push into a perpetual city of transience, that presents a prescient of contemporary Dhaka. When Dhaka proved the worst cities in the world, the sweeping label simplifies a robust urban problem by isolating the city from its political, social, and economic issues. An urban tornado is sucking everything into a dizzying vortex of traffic congestion, wild land speculation, environmental challenges and economic disparities.

3. Impacts of the environment in Dhaka city

Perhaps most of the environmental problems of the next century will result from the continuation and sharpening of existing problems that currently do not receive enough government attention. The problems are not necessarily noticed in many countries as well as Bangladesh. The most emerging issues for cities are freshwater scarcity, climate changes, population growth and deforestation. These problems are complicated, and their interactions are hard to define. It is very important to examine problems through the social-economic-cultural system. Even the interconnections between environmental issues are now better known; we still lack exact information on how the issues are linked, on what degree they interact and what are the most effective measures. One problem is to integrate land- and water use planning to provide food and water security (UNEP 1999).

3.1. Impacts of the climate:

3.1.1. Environment Pollution

Pollution is the common phenomenon of cities. The city is full of industrial areas that often produces environment pollution. Lead-based paint used on highways, roads and on buildings that is one of the causes of Environment Pollution. For example, a widely dispersed pollutant that found its way into the soil. Some solid Materials such as concrete, bricks, asphalt, etc. absorb and reflect energy differently than vegetation and soil because cities are built of solid materials which create heat. So Cities remain always warm in the night while countryside has cooled. Human activities produce

every day a wide range of Green House Gas (GHG) emissions into the environment including carbon dioxide (CO₂), Methane (CH₄), carbon monoxide (CO), ozone (O₃), sulfur oxides SO_x, Methane (CH₄), and many other pollutants. For this reason, the air is always polluted in cities. The dust and GHG emissions freed into the environment alter patterns of precipitation over the cities. Cities often catch more rain than the surrounding villages since dust can produce the condensation of water vapor into rain droplets.

3.1.2. Pollution of Water

Higher, faster peak flows change streams channels that have evolved over centuries under natural conditions. Undisturbed soil and natural vegetation are replaced with brick, cement, concrete, and other materials. In rains, water is less likely to be absorbed into the ground; water flows directly into the river channels. Also, flooding can be a major problem as cities grow and stream channels attempt to keep up with these changes. The water quality degraded with time due to urbanization that ultimately leads to increase the pollution. Rapid development can occur high levels of erosion and sedimentation in river flows. The fertilizers that spread across lawns finds its way into water channels where it promotes the growth of plants at the expense of fish. The waste dumped into streams lowers oxygen levels during its decay and cause the die-off of plants and animals. There is also complete eradication of habitats as an outcome of urbanization, and native species are pushed out of cities. Moreover, new habitats are also created for some species such as pigeons, sparrows, rats, mice, flies, and mosquitoes. It causes the climate change.

4. The hinders in developing the cities in Bangladesh

The Dhaka city works like an urban maze that provokes some observers to dismiss the city as an irredeemable wasteland and some as a resilient urban zone that can be transformed into a livable metropolitan by political goodwill and sustainable development planning. By 2050, seventy-five percent of the world's population will qualify to live in urban areas, and future big megacities will be built in developing countries. Many researchers reveal that the urbanization experiments were undertaken in the western metropolises in late 19th and early 20th centuries which have shifted to the developing countries, particularly Asia. In the past decades, urban growth of Dhaka city was prolonged, but the current decade is very high. The urban population of Bangladesh was only 8 % at independence, in that period, the country was still an

agrarian delta punctuated by a few cities, most prominently Dhaka and Chittagong. The population of Dhaka grew at more than 6% per year in 1970, and early 1980 was at nearly 10% growth. In early 1990, the population of Dhaka was more than 6 million. Currently, the population of Dhaka is approximately 18.9 million according to some estimates and growth rate is 7.39%. The migration of impoverished rural population to Dhaka city is to find a better life which has been created a population boom. There have been some crucial factors for the city's growth. Such as natural growth, territorial expansion, job opportunities, educational institutions and healthcare facilities, industrialization, manufacturing, etc. Mainly, textiles (readymade) garments have focused the Dhaka into a primate city. The textiles are contributing nearly 40 % of the national GDP which is the big sector for internationalization process of Bangladesh. Besides, in the popular perspective, the capital is where one needs to be to pursue big dreams. The leading effect has been an unsustainable demand for urban land, leading to a large population density and sending the urban land value to an economic view. The pressure on land rapidly altered the city's traditional urban fabric, particularly low-rise residential areas.

4.1. Sustainability Related Major Problems and Challenges in Bangladesh

Urbanization has brought remarkable development in Bangladesh, even though it has been a great challenge environmentally, socially, and economically. These challenges have to face efficiently to build a sustainable city. In general, a sustainable city must be economically viable, socially peaceful, and environmentally friendly. More specially, a sustainable city is where people live in peace with sufficient income earning and quality of life, and without social and mental anxiety. Hardoy et al. (1992) note that a sustainable city provides the healthy environment and meets multiple goals, i.e., healthy living and working environments: access to water and sanitation, waste disposal, drains, paved roads, and other forms of infrastructure and services essential for health and for a prosperous socioeconomic base.

These definitions indicate major challenges of urbanizations as well as characteristics of a sustainable city. In the following sections, we try to describe major challenges, particularly in Dhaka city, which are very important for sustainable urban development. Moreover, Environmental problems in the cities constitute air, water, and noise pollution, and also problem-related with solid wastes (toxic or hazardous wastes). The process of industrialization and urbanization leads to deterioration of healthy environmental conditions. Uses of fossil fuels in industry, transportation, and household cause huge contamination of air, water, and soil. For example, 12.60% of the death in Jakarta is related to air pollution causes (World Resources Institute 1996).

Rehabilitation of the urban poor and housing are the major challenges in cities of developing country. In some cities (e.g., Mumbai), informal settlements and slumps, and squatters may form more than 50% of cities population (Islam 2001b). Dhaka city of Bangladesh, almost 34% of the city's 13 million residents live in 5,000 slum and squatter settlements (CUS 2006). The growth of the cities both in terms of areas and population has consistently been faster than the growth of infrastructural provisions and services in Dhaka. Resulting, a large section of the urban population does not have access to basic infrastructure services. However, in the third world cities, the poverty incidence advises that urban is a habitat of extreme opportunities for the riches, but not the poor.

The urban poverty levels are lower than rural poverty levels, but the absolute number of poor and undernourished is rapidly increasing in the cities. The context of poverty, it has been supposed to a key driver of violent crime too. One billion people, about one-sixth of the world population, currently live in shanty towns (by Whitehouse, 2005). These are seen as "breeding grounds" for social problems for example crime, alcoholism, drug addiction, unemployment, and poverty. Also, Flood is also a common hazard in the cities of Bangladesh. Depending on the time of the day, between 45,000 and 86,000 people may perish due to collapse and damage to the structure. The number of critical injuries may range between 110,000 and 210,000, with severe damage to the emergency relief and healthcare infrastructure (Ansary 2004).

5. Conclusions and Policy Implications

Rapid urbanization in the cities of developing countries as Bangladesh has been a dilemma of economic development and environmental sufferings. Our study tries to examine the issue of urban population growth and consequential challenges of urban sustainability and environmental issues in Dhaka city. It is manifest that Dhaka city is gradually going to be suffering from inadequate infrastructural services, social insecurity, natural and human-made hazards, and poor urban governance. This study shows that local government is one of the key factors for the urbanization growth of the Dhaka city. Finally, based on the urban challenges, this paper recommends some good strategies that can be considered to the sustainable urban development and to solve the environmental issues. The local government can increase the public participation in sustainable development for urban growth in Dhaka city. The policymaker can formulate a strategy for urbanization growth and green environment by training on public participation and facilitation for urban people.

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Knowledge, Attitudes, and Practice of Drivers Towards Traffic Rules and Regulations in Multan, Pakistan

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ABSTRACT: Traffic rules are an important agenda for the developing countries and the situation has become worsened particularly in Pakistan. Most of the road accidents are resulting due to lack of knowledge, negative attitudes and risky practices of drivers towards traffic rules and regulations. To highlight the knowledge, attitude and practices of professional drivers towards traffic rules, this research work was initiated. The objective of research was to determine and explore the knowledge, attitudes and practice towards traffic regulations of professional drivers in Multan (Punjab), Pakistan, also to acquire the relationship between demographic features, Knowledge, attitudes and practices of professional drivers towards traffic rules. Emphasis had also been given to the primary data generation and allied aspects such as construction of the data gathering instrument (Questionnaire), content management, sampling, execution, testing and refinement of the instrument for getting hold of the quality data which ultimately determines quality of the ultimate research. The study explored that many of professional drivers in Multan (Pakistan) had inadequate knowledge, less positive attitudes and risky practices towards traffic regulations. Implementation of effective and standard intervention programs may increase the driver's knowledge, positive attitudes and safe practices towards traffic rules and regulations.

KEYWORDS: Road Accidents, Knowledge, Attitudes, Practices, Professional Drivers, Demographic Features, Traffic Rules and Regulations, Multan Pakistan

1. Introduction

Globally road traffic accidents and injuries are among the foremost cause of death and disability, with a disproportionate number occurring in developing countries. Road traffic injuries are currently ranked ninth globally among the leading causes of disability adjusted life years lost, and the ranking is projected to rise to third by 2020 (Nantulya and Reich 2002).

In Pakistan, road accidents are very common and the situation has become worsened day by day. Experts in the different research reports reported that most accidents are caused by different factors such as careless driving, violation of traffic rules, bad roads and faulty old vehicles. According to the World Health Organization (WHO) report (published in 2013) road accidents will become the fifth major cause of deaths by 2030. Over 3400 people die on the world's roads every day and tens of millions of people are injured or disabled every year. Children, pedestrians, cyclists and older people are among the most vulnerable of road users. WHO had predicted that road accidents were claiming 30,310 lives in Pakistan annually. This indicates that approximately 20 people out of 100,000 die in road accidents in a year, making Pakistan rank 67 globally for a higher percentage of road traffic accidents (Kazmi 2017).

A research about the knowledge, attitudes, and practices of 2200 drivers towards traffic rules in Tehran and Zahedan showed that the rate of road traffic crashes can be reduced by increasing the levels of knowledge of drivers and by altering their practices and attitudes. A significant relationship was observed between safer attitudes and decreases in the rate of traffic crashes (Mirzaei 2014).

The knowledge, attitudes, and practice of drivers towards traffic rules and regulations are the main factors in decreasing traffic injuries and deaths, such as safe driving, adequate knowledge and less bad attitude of drivers towards traffic laws can contribute to lessen the traffic injuries and deaths.

1.1. Research questions

1. What is the level of awareness possessed by professional drivers of Multan?
2. What are the attitudes among professional drivers towards traffic rules and regulations?

3. What are the practices of the professional drivers towards traffic rules?
4. What are the relationships between Demographic characteristics and attitude, awareness and practices of drivers?
5. What are the impacts of awareness, attitude and practices of drivers on traffic accidents?

1.2. Research objectives

The need for this research was to assess the awareness, attitude and practices of professional drivers towards traffic rules and regulations in Multan, Pakistan. Knowledge about traffic laws and rules are very helpful to keep road and life safe. Awareness about traffic rules can save the life of both Driver and pedestrian. If we ignore these rules then we have to pay fine either in the form of money or prison. Even we get severe injury or death.

General objective: the general objective of this study was to explore the awareness, attitude and practices of the professional drivers towards road traffic rules and regulations in Multan, Pakistan.

Specific objectives: This research had the following objectives for the exploration of the aspect of traffic rules and regulations followed by professional drivers in Multan, Pakistan.

1. To study and explore the awareness level, attitudes and practices of professional male drivers towards road traffic rules and regulations in Multan.
2. To assess the ability of different professional drivers to observe safety rules while on the road
3. To determine the relationship between demographic features and Awareness, attitudes and practices of professional drivers towards traffic regulations.
4. To predict the impact of Awareness and practices towards the attitudes of professional drivers.
5. To predict the effect of awareness, attitudes and practices towards traffic accident.

2. Review of literature

What has already been done in reference to traffic laws and road accidents is necessary for further exploration in this area. Many studied had found in literature about traffic rules and drivers attitude towards these rules that have been summarized below:

(Batool 2012) had studied about personal attitude of drivers as a key factor in Road Traffic accidents in Pakistan. A sample of 428 drivers was taken from all the urban areas of Pakistan. A multi-method approach was adopted for data evaluation. Results showed that being affluent, female and student negatively influence driving behaviors in the country. Research findings were used to recommend targeted as well as general information based road safety solutions.

(Chakrabarty, Gupta, and Bhatnagar 2013) had studied a research about awareness of traffic safety among drivers in Delhi-India. The study indicated that increasing number of road accidents coupled with increasing vehicle population. Inexperienced drivers often experience anxiety due to their underdeveloped & declining skills which influence their behavior towards driving. In this study, a purposive sample of 102 drivers was selected and road-sign test was conducted from them. The study concluded that maximum level of awareness about road-sign on hills road (89%), seat belt usage while driving (89%), the safe way of stopping during emergency (40%), safe place of parking the vehicle (39%) and road workings (27%). Overall, drivers had an average level of awareness 52% to 77%.

(Issa 2016) had determine the effect of driver's personal characteristics on traffic accidents in Tabuk-Saudi Arabia. This study showed that in Saudi Arabia a high incidence of road accidents had been recorded in last several years due to various factors. The aim of this paper was to examine which factors contributed to road accidents & evaluate statistically the effect of certain drivers' personal character on road accident in study area. The study concluded that young drivers (less than 30 years) are involved in 60% of the accidents & more than 80% of the accidents related to human factors. The findings showed that the variables age of drivers & their educational level had significant relationships with road accidents. The findings suggested that to raise public awareness of road safety issues and to educate drivers in safe driving practice.

(Juma 2015) had studied assessment of road users awareness on strategies for controlling road accidents in Kigoma-Municipality. The study indicated that road traffic accidents are on the increase in Kigoma, causing injuries, loss of lives and damage of properties. Using a combination of qualitative & quantitative methods, the researcher had used stratified random sampling. Sample of 100 respondents had drawn from 4 major groups, namely pedestrians and passengers, drivers & motorists/cyclists. Research results showed that the knowledge of traffic rules varies greatly among respondents by type of road users with vehicle drivers scoring highest and pedestrians being the least knowledge of all.

(Oppong 2012) had done statistical analysis of road accidents fatality in Ghana using Poisson regression. The study indicated that road accidents in this country are

known to be the second major cause of death after Malaria and it is reported that there is an average of 1909 people who are killed by road accidents annually. The objective of this research was to perform descriptive analysis of the data, to model road accidents fatality in Ghana using Poisson regression, and to validate the models with Negative binomial regression. The results of Poisson analysis showed that there was over dispersion in the data. Negative binomial regression analysis was therefore used to validate the Poisson regression model. The result showed that people in the age group of 16-25 were mostly killed in road accidents.

(Muvuringi 2012) had studied road traffic accidents in Zimbabwe, influencing factors impact and strategies. The study indicated that Zimbabwe's key risk factors that contribute to RTIs included reckless driving, violation of traffic laws, damaged vehicles, and bad roads. The objective of this study was to analyze the situation on road traffic injuries in Zimbabwe in order to make recommendations towards reduction of the burden of road traffic injuries. The researcher concluded that there is negligence of road safety regulations by road users, poor law enforcement and corruption.

(Hammoudi 2014) had explored the causes and strategies to reduce road traffic accidents in Abu Dhabi. The study showed an increasing number of RTAs in the UAE with young drivers suffering injuries and the number of traffic violations increasing. The aim of this study was to benchmark the causes of RTAs in the UAE and to reduce the risk and occurrence of accidents by developing and testing a car accident reduction methodology for UAE. The researcher had used structured questionnaire to collect quantitative data among 291 drivers. The study was based on triangulation method. The researcher concluded that aggressive driving behavior was the most unsafe driving behavior, speeding, tailgating, not using indicators and jumping road traffic lights. Research had proposed methods to reduce RTAs in Abu Dhabi including traffic enforcement, traffic campaigns and education traffic safety programs.

(Hamza 2005) had studied road accidents, causalities and their injury patterns in Libya. The research showed that accident rate in Libya, on any comparable basis, is much larger than that in the Europe and USA. The researcher obtained information from several sources in Libya during three field trips, and population statistics were obtained from the secretariat of planning. The researcher examined the data using established methods used in UE and USA. The overall results indicated that motor vehicles accidents are the most common single cause of avoidable death and disabilities in Libya based on several factors such as the poor state of the infrastructure, the lack of road safety features, the aging population and the lack of adequate medical facilities.

(Tajvar et al. 2015) had studied a research about knowledge, attitudes and practice of drivers towards traffic regulations in Bandar-Abbas, Iran. The study indicated that the knowledge, attitudes & practice of drivers towards traffic regulations are key factor in decreasing traffic injuries and death. The objective of this research was to study the knowledge, attitudes & practice of taxi drivers towards traffic regulations in Bandar-Iran, and to determine the relationship between demographic features and knowledge, attitudes & practice of traffic rules. To study these factors 241 drivers taken as a sample. The researcher developed a questionnaire & a check list and the Chi-squared test were used. The study determined that there was a significant difference between the knowledge and work experience of drivers. The researcher concluded that many of the taxi drivers in had inadequate knowledge, less positive attitudes and risky practice towards regulations.

3. Proposed methodology

3.1. *Research design/data description*

Study design of this research was cross-sectional. The study had focused on male professional drivers of government and private employees who operated four wheeler vehicles within the city of Multan, Pakistan. A random sample of 308 male professional drivers has been taken and information obtained from these drivers was further used for statistical analysis.

3.2. *Sampling design*

For this research, stratified random sampling design was used. Stratification is done on the basis of public and private sectors job of the professional drivers. Hence Information gathered from the professional drivers of public and private sectors universities, colleges and vehicle terminals. For the allocation of sample size; Proportional allocation had been used. Public and private Institutions are the strata and each institute is a stratum. Finally, a total of 308 male drivers were drawn from each stratum.

Table 1. Institutions and terminals of Multan from where the data taken along with sample size

Institutions	Sample composition 'n'
Bahaudin Zikriya University, Multan (Public)	80
Nawaz Shareef University, Multan (Public)	5

University of Education, Multan. (Public)	6
The Women University, Multan. (Public)	12
Govt. Emerson College, Multan. (Public)	5
Govt. Girls College 6 nos. Multan. (Public)	5
Punjab College, Multan. (Private)	15
Terminal A (Private)	85
Terminal B(Private)	95

3.3. Instrument of primary data collection: The questionnaire

This research required primary data as the study objectives can only be achieved in this way. So we went for primary data. A well-equipped instrument: the Questionnaire was used for primary data collection. The questionnaire was divided into main four parts in order to assess the awareness, attitudes and practices of professional drivers. The first part covered demographic characteristics of the drivers. The second part covered checklist of road signs (to assess the knowledge of professional drivers about traffic rules) which are placed on main roads of Multan city. The third part was analyzed to identify the attitude; the researcher had used questions that showed drivers attitude towards traffic rules and forth part was analyzed to identify the practices of professional drivers.

3.4. Statistical analysis

Data analysis was done using SPSS16 statistical software and Microsoft Excel 2010. Data Screening/ handling and modification have been carried out through MS-Excel and statistical inquiry was done by using SPSS 16. The proposed methodology used in this study was:

- ✦ Descriptive Analysis (Univariate Summary Statistics (mean, mode and standard deviation) for quantitative variables, Frequency and percentage distribution for qualitative variables).
- ✦ Statistical Testing (Cross-tabulation and Chi-Square test)
- ✦ Modelling (Multiple Linear Regression Model)

4. Results

The findings that this research work explored and identified are mentioned below:

4.1. Descriptive analysis

The univariate summary statistics for quantitative variables was given in Table 2.

Table 2. Summary statistics of quantitative variables

Variables	Descriptive Statistics			
	n	Mean	Mode	Standard deviation
Age	308	1.41	2	0.622
Work hours	308	0.90	1	.338
Salary	308	1.56	1	.731
Working days per week	308	1.69	2	0.491
Experience	308	0.92	0	0.839

The following tables 3, 4, 5 and 6 illustrate the questions about demographic characteristics, knowledge, attitude and practices and also the frequency and percentage distribution of professional driver's responses to demographic features, Knowledge, attitude and practice items towards traffic rules and regulations, respectively.

Table 3. Demographic characteristics of the drivers

Variables	Category	n	%
Age (years)	< 25	22	7.0
	26 – 35	137	43.8
	> 36	149	47.6
Living area of drivers	Urban	275	87.9
	Rural	33	10.5
Sector of job	Public	104	33.2
	Private	204	65.2

Working hours per day	<7	34	10.9
	8-12	270	86.3
	>13	4	1.3
Experience of driving	7 and below	121	38.7
	8 – 12	90	28.8
	13 and above	97	31.0
Education of drivers	Middle and below	217	69.3
	Metric	70	22.4
	FA and above	21	6.7
Salary of drivers	<12000	9	2.9
	13000 – 17000	154	49.2
	18000 – 23000	110	35.1
	>24000	35	11.2
Working days per week	1 – 3	4	1.3
	4 – 5	88	28.1
	6 – 7	216	69.0

Table 4. Frequency and percentage of the responses to the knowledge items

Knowledge Items (Recognition of Road Signs)	Yes		No	
	n	%	n	%
End of speed limit imposed	228	72.8	80	25.6
Left turn prohibited	230	73.5	78	24.9
U-turn	297	94.9	11	3.5
Road is closed	63	20.1	245	78.3
Minor crossroad joining from left	86	27.5	222	70.9
Danger ahead	19	6.1	289	92.3

Overtaking prohibited	259	82.7	49	15.7
Go straight or left	79	25.2	229	73.2
Give way or completely stop	11	3.5	297	94.9
No entry for vehicles exceeding height more than 16	89	28.4	219	70.0
Narrow bridge	143	45.7	165	52.7
No entry for vehicle exceeding weight more than 7 ton	86	27.5	222	70.9

Table 5. Frequency and percentage of the responses to the practice items

Practice items	Yes		No		Sometimes	
	N	%	%	%	n	%
Waiting for the vehicles which are already in the circle to pass?	188	60.1	2	0.6	118	37.7
Looking for vehicles coming from right?	214	68.4	5	1.6	89	28.4
Merging with the vehicles, you wait for vehicles of main road to pass?	104	33.2	1	0.3	203	64.9
Looking into review mirror before overtaking?	276	88.2	5	1.6	27	8.6
Using indicator when turning?	294	93.9	7	2.2	7	2.2
Looking road signs speed limit indications while driving?	75	24.0	49	15.7	184	58.8
What is Average driving speed limit in city?	301	96.2	4	1.3	3	1.0
What is Average driving speed limit out of city?	37	11.8	158	50.5	113	36.1

Using a seat belt?	123	39.3	59	18.8	126	40.3
Do you Stop at marked lines before zebra crossing at traffic lights?	195	62.3	81	25.9	32	10.2

Table 6. Frequency and Percentage of the responses to the attitude items

Attitude items	Yes		No	
	n	%	n	%
Do you have a Driving license?	291	93.0	17	5.4
Did you go to Driving school to learn to drive?	9	2.9	299	95.5
Have you read Any booklet regarding rules of road?	91	29.1	217	69.3
Do you think Overtake from left is not a good practice for the drivers?	147	47	161	51.4
Use wrong side of the road to take short cut while driving is dangerous?	32	10.2	276	88.2
You wish to take a U-turn, but divider is far, will you follow correct direction?	290	92.7	18	5.8
Using high beam at night is a risk for drivers?	63	20.1	245	78.3
Stop your vehicle on road in such way that it can cause obstruction is bad attitude?	188	60.1	120	38.3
Using a mobile phone while driving is dangerous?	140	44.7	168	53.7
Driving under influence of drugs and medicines is dangerous?	286	91.4	22	7.0
Using a seat belt?	182	58.1	126	40.3
Smoking while driving is risky?	286	91.4	22	7

4.2. Statistical testing (Chi-square/cross-tabulation)

The relationship between demographic features and driver’s knowledge are presented in Table 7. Results indicate that no significant relationship found between age, sector

of job, driving experience, salary of drivers, working hours and drivers knowledge ($p > 0.05$). A significant relationship observed between drivers education, working hours per day, living area of drivers and knowledge ($p < 0.05$).

Table 7. Relationship between demographic features and drivers knowledge

Variables	Category	Adequate knowledge		Inadequate knowledge		Result of the Analysis		
		n	%	n	%	χ^2	df	P
Age(years)	< 25	4	10.5	18	6.7	0.814	2	0.666
	26 – 35	17	44.7	120	44.4			
	>36	17	44.7	132	48.9			
Total		38	100	270	100			
Living area of drivers	Urban	38	100	237	87.8	5.202	1	0.023
	Rural	0	0	33	12.2			
Total		38	100	270	100			
Sector of job	Public	21	55.3	183	67.8	2.333	1	0.127
	Private	17	44.7	87	32.2			
Total		38	100	270	100			
Working hours per day	<7	10	26.3	24	8.9	10.694	2	0.005
	8-12	28	73.7	242	89.6			
	>13	0	0	4	1.5			
Total		38	100	270	100			
Experience of driving	7 and below	18	47.4	103	38.1	1.215	2	0.545
	8 – 12	10	26.3	80	29.6			
	13 and above	10	26.3	87	32.2			
Total		38	100	270	100			

Education of drivers	Middle and below	15	39.5	202	74.8	24.136	2	0.000
	Metric	15	39.5	55	20.4			
	FA and above	8	21.1	13	4.8			
Total		38	100	270	100			
Salary of drivers	<12000	0	0	9	3.3	3.782	3	0.286
	13000 – 17000	24	63.2	130	48.1			
	18000 – 23000	11	28.9	99	36.7			
	>24000	3	7.9	32	11.9			
Total		38	100	270	100			
Working days per week	1 – 3	1	2.6	3	1.1	3.322	2	0.190
	4 – 5	15	39.5	73	27.0			
	6 – 7	22	57.9	194	71.6			
Total		38	100	270	100			

The relationship between demographic features and driver’s practice was given in Table 8. Results showed that driver area, working hours per day, education of drivers, salary of drivers and driving experience were significant. Also, most of the drivers 64(48%) with risky practice were in the age of 26-35. 93 (54%) drivers over 36 years of age were under the safe practice indicated that as age increases careful and safe practices would be observed.

Table 8. Relationship between demographic features and drivers’ practices

Variables	Category	Risky Practice		Safe Practice		Result of the Analysis		
		n	%	n	%	χ^2	df	P

Age (years)	< 25	14	10.4	8	4.6	6.327	2	0.42
	26 – 35	64	47.8	73	41.9			
	>36	56	41.8	93	53.4			
Total		134	100	174	100			
Living area of drivers	Urban	108	80.6	167	95.9	18.718	1	0.001
	Rural	26	19.4	7	4.0			
Total		134	100	174	100			
Sector of job	Public	91	67.9	113	64.9	0.298	1	0.585
	Private	43	32.1	61	35.1			
Total		134	100	174	100			
Working hours per day	<7	17	12.7	17	9.8	4.744	2	0.02
	8-12	115	85.8	155	89.1			
	>13	2	1.5	2	1.1			
Total		134	100	174	100			
Experience of driving	7 and below	61	45.5	60	34.5	5.171	2	0.04
	8 – 12	39	29.1	51	29.3			
	13 and above	34	25.4	63	36.2			
Total		134	100	174	100			
Education of drivers	Middle and below	108	80.6	109	62.6	11.722	2	0.003
	Metric	20	14.9	50	28.7			
	FA and above	6	4.4	15	8.6			
Total		134	100	174	100			
Salary of drivers	<12000	9	6.7	0	0	15.207	3	0.002
	13000 – 17000	72	53.7	82	47.1			
	18000 – 23000	40	29.9	70	40.2			
	>24000	13	9.7	22	12.6			
Total		134	100	174	100			
Working days per week	1 – 3	3	2.2	1	0.6	5.718	2	0.57
	4 – 5	30	22.4	58	33.3			
	6 – 7	101	75.4	115	66.1			
Total		134	100	174	100			

The relationship between demographic features and driver's attitude was given in Table 9. The results indicated that driver's education, driving experience, working hour per week and salary of drivers were significant with the demographic factors.

Table 9. Relationship between demographic features and drivers attitude

Variables	Category	Negative Attitude		Positive Attitude		Result of the Analysis		
		N	%	N	%	χ^2	Df	P
Age(years)	< 25	15	7.4	7	6.6	1.896	2	0.387
	26 – 35	95	47.0	42	39.6			
	>36	92	45.5	57	53.8			
Total		202	100	106	100			
Living area of drivers	Urban	179	88.6	96	90.6	0.277	1	0.599
	Rural	23	11.4	10	9.4			
Total		202	100	106	100			
Sector of job	Public	67	33.2	37	34.9	0.094	1	0.759
	Private	135	66.8	69	65.1			
Total		202	100	106	100			
Working hours per day	<7	18	8.9	16	15.1	4.647	2	0.098
	8-12	180	89.1	90	84.9			
	>13	4	1.9	0	0			
Total		202	100	106	100			
Experience of driving	7 and below	89	44.1	32	30.2	5.622	2	0.040
	8 – 12	54	26.7	36	33.9			
	13 and above	59	29.2	38	35.8			
Total		202	100	106	100			
Education of drivers	Middle and below	153	75.7	64	60.4	10.885	2	0.004
	Metric	41	20.3	29	27.4			
	FA and above	8	3.9	13	12.3			
Total		202	100	106	100			

Salary of drivers	<12000	6	2.9	3	2.8	12.733	3	0.005
	13000 – 17000	113	55.9	41	38.7			
	18000 – 23000	58	28.7	52	49.1			
	>24000	25	12.4	10	9.4			
Total		202	100	106	100			
Working days per week	1 – 3	0	0	4	3.8	20.586	2	0.000
	4 – 5	45	22.3	43	40.6			
	6 – 7	157	77.7	59	55.7			
Total		202	100	106	100			

4.3. Modelling.

Multiple linear regression models were fitted to predict the impact of knowledge and practices of drivers on the attitude of drivers about the traffic regulation, and to identify the contributing factors that contributed towards the incidence of accidents met by the drivers. The fitted models (Model I,II) and the results are presented in Table 10 and 11. The results showed that knowledge and practice variables were significant ($p < 0.05$) and had an influence upon the attitude of drivers towards traffic rules. Also, the knowledge and practice were contributing factors ($p < 0.05$) in regards to the occurrence of road accidents by the drivers.

Model-I

$$Y_{ATD} = \alpha + \beta_1 X_{PRC} + \beta_2 X_{KNW}$$

$$\text{Attitude of professional driver} = 7.395 - 0.094 X_{PRC} - 0.121 X_{KNW}$$

Model-II

$$Y_{R.ACID} = \alpha + \beta_1 X_{PRC} + \beta_2 X_{KNW} + \beta_3 X_{ATD}$$

$$\text{Road Accidents} = 3.229 - 0.182 X_{PRC} - 0.129 X_{KNW} - 0.013 X_{ATD}$$

Table 10. Result of multiple linear regression-I

Variables	B	S.E(β)	t	P
Intercept	7.395	0.250	29.557	0.000
Practice	- 0.094	0.027	-3.438	0.001
knowledge	- 0.121	0.041	-2.989	0.003

Table 11. Result of multiple linear regression-II

Variables	β	S.E(β)	T	P
Intercept	3.229	0.490	6.592	0.000
Practice	- 0.182	0.042	4.372	0.000
Awareness	- 0.129	0.071	-1.826	0.004
Attitudes	- 0 .013	0.098	-.136	.892

Conclusion

Our study explored that many of the professional drivers in Multan had inadequate knowledge about traffic sign boards, less aware, involved in risky practice and showed a negative attitude towards traffic rules that result in injuries and deaths of both drivers and pedestrians. Significant relationship was found between different demographics features and knowledge, attitude, practice of drivers. Lack of knowledge about traffic laws and practices of drivers are the contributing factors in regards to the bad attitude of professional drivers. Also, the deterministic effect of knowledge, attitude and practice on road accidents had been observed.

This study suggests that the Government of Pakistan should focus upon these factors (Knowledge, attitude and practices of professional drivers) that may be helpful in the controlling of traffic rules violation and mitigation of road traffic accidents. Also, start effective awareness programs regarding traffic safety rules and also determine the effectiveness of law enforcement to control the traffic rules violation.

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Role of Identity Crisis and Relative Deprivation as Catalysts of Political Violence and Terrorism: Case Study of Kurd Fighters in Turkey

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ABSTRACT: The role of identity and collective conscious is crucial for the understanding of social mobilization and orientation in any nation confronted with terrorism and political violence. Identity plays a crucial role in the lives of citizens may it be ethnic, cultural, religious or social aspects of a group or community as it can be an effective instrument for mass manipulation and propagation of ideology and conduct of a society. A challenged, deprived or marginalized group identity can be a precursor for politicization and violent manifestation in form of aggression and political violence by the challenged group or community. The paper intended to discuss the interplay and manifestation of identity and sense of deprivation at societal levels in modern nation states. It analyzed identity crisis as a catalyst for turning a deprived and vulnerable and insecure segment of the society, into a violent group, performing terror activities inflicted upon state as evident in case study of Kurds vs. Turkish state in the contemporary scenario.

KEYWORDS: Turkey, Kurds, identity, deprivation, nationalism, terrorism

Introduction

The incidents of 9/11 lead all the global powers to come on the same page regarding the stance about the phenomenon of terrorism as an absolute threat to the whole world. Where it was very clear to all the powers that in order to deal with the curse of

the terrorism appropriate coercive and non-coercive strategies has to use, but the most important challenge was to dig out the main causes of the terrorism. As with every disease to be cured the root cause has to dig out so that it could be prevented in the future. Terrorism has to be fought in the same manner but unfortunately, the fight against terrorism is often remained in the countering posture rather than understanding and addressing the root causes that caters to the success in dissemination, propagation and intensity over the period of time (Bjorgo 2004,1-5). Uncovering and exploring the factors that lead to terrorism are equally important as are the counter measures taken to tackle its ill effects and atrocities. The leading factors explain that how to curb the terrorism and its geographical and ideological growth. Without studying the reasons, circumstances and causes that lead to the emergence of feelings of discontent and negative sentiments that could be used by the terrorist factions to define the “just cause” for the terrorist activities, it would be impossible to envision the end of this menace.

Understanding the phenomenon as an umbrella term has been for long a debate that has occupied academia and practice in anti and counter terrorism spheres. In the past, the basic notions of terror were often associated with revolutionary, rebellious or backstabber approach which was considered as the resultant of some ‘ultra-natural or ritualistic’ beliefs of supremacy, indispensability or ‘moral duty’ by a group of motivated individuals. The new wave of global terrorism that swept the classical one encompassed the ‘nation-state’ aspect of politics and identity as evident in its nature that evolved with time. The political motivations resulting from unaddressed and justified concerns (subjective or objective) gave rise to the new face of the phenomenon having following elements as explained immediately in the 1980’s by Schmidt & Jongman in their book ‘Political Terrorism’ (Alex-P et al. 1988, 4-5).

The primary elements identified that were persistently observed in terror incidents that gave the researchers a new understanding in the field were violence and power projection that started showing up in almost 83.5 % of the definitions at that time. Moreover, the aspect of political interests/ gains for a particular agenda was seen to be persistent in 65% of the total terror incidents of that time. Other features that were observed by the researchers included elements of fear, dread and threats of execution by the terrorists. The psychological impacts were observed with each incident that was in form of an intentional, arranged, efficient and composed activity. However the methods of combat, the strategy and tactics showed efficiency in 30.5% if considered out of 100 % of the incidents by terrorist organizations and groups like the FARC and Popular Liberation Army (EPL) in Columbian conflict, PLO in Palestine, UDA in Northern Ireland, and also by the lone wolf, lone-wolf terrorist like the Barend

Hendrik Strydom, known as 'White Wolf', who was a part of terrorism in Africa in those years (Simon, Lone & Wolf 2016, 58).

Understanding at the phenomenon with 'Root cause' Lenses

Terrorism is a much-debated phenomenon in all spheres be it socio-political, religious or economic spheres, it is regarded as a tool to achieve ends with coercion and fear projection for a specific motive in the contemporary era. Group of individuals having converging insecurities and grievances often build up aggression that reaches heights and is articulated by terrorist activities in society or states (Copeland 2001, 5). This aggression sometimes embeds in an individual till they find like-minded individuals who have similar discontent or motives shaped by different situations that they experienced. Terrorism is a phenomenon in which all the responses to the internal and external structural inequalities by the state and societies that lead to the insecurities, discontent and aggression are accumulated. These factors make an individual or a group vulnerable and susceptible to terrorist recruitment and manipulation and provide the fertile ground for the perpetrators to generate violence and extremism. Hence, it is crucial to investigate and highlight how the socio-psychological processes like identity crisis, relative deprivation and empathy are associated with the reconstruction of challenged socio cultural identity that impact group behavior (whether directly or indirectly). On the other hand, it is also important to find out that how these factors contribute and catalyze mass group mobilization and make these groups susceptible to be used by political actors to be politicized and violent and ultimately turning them into terrorist organizations.

The interesting fact about this phenomenon is that it prevails in all societies historically as well as in contemporary settings. Whether countries are rich or are developing, having authoritarian or democratic regimes; this phenomenon is affecting the countries equally in different manners. This implies that the root causes that shape the minds and social attitudes of the vulnerable individuals or groups can exist in all sorts of environments, provided that there must be certain 'trigger factors'. These factors cause extremist behaviors which are later exploited by politically, ideologically or economically motivated terrorist factions. In this context, the study is intended to explore the three different root causes that contribute to the mindset that facilitates the recruitment, financing, execution and dissemination of terrorist activities globally. Following are three root causes that proved to be foremost sociological factors to drive terrorist motivations for vulnerable individuals. These are:

- a) Relative Deprivation,
- b) Identity Crisis
- c) Empathy

Relative Deprivation, identity crisis, and empathy prove to be sociological catalysts that influence and boost the radical and extremist motivations in susceptible individuals. These individuals are then become the easy targets for the terrorist organizations to use them for the accomplishment of their own political, ideological and economic objectives. These factors include socio-economic exclusion, structural violence, marginalization and discrimination (real or perceived) or historical baggage of identity clashes. Identity crisis is the by-product of all the above mentioned factors leading to susceptibility of the affected group or individuals of a state that enables reinforcing solidarity with radical, extremist groups pursuing terror acts in the long run. A close analysis is needed to curb the issue in a general sense which has always played an important role as a root cause for terrorism in different conflict zones of the world.

Manifestation of identity in state institutions and society

Identity has come to refer to several things to population in a state or any communal setting. It can be argued that identity serves many purposes; it may involve the attainment of maximum happiness for collective good and performing as an active member of the setting. Despite these aspects, identity is considered to be the source of contest and conflict in many multi-cultural societies. More importantly, the fact that the exploitation of identity for acquiring an edge over others or resources has been the major challenges confronting the concept of peaceful society. Alubo explores the identity crisis in Nigeria and explains identity as a concept having multifaceted aspects relating to both objective and subjective nature. According to him, identity is a distinguishing label that objectively exists, is subjectively felt, and enables its bearers to experience individually and collectively a sense of solidarity (Alubo 2009, 88).

Building on this context, and according to Kelman, human identities are taken and debated as intentionally and socially constructed, liquid and variable. A group of people may identify themselves with ethnic, religious, occupational, national traits of the respective groups. Generally, when we see the social fabric of any nation/state, the social structure of an identity draws influence from some authentic elements namely; a common history, ideology, language, traditions, experiences, values and collective goals. Consequently if mistreated or challenged, these clans, groups, communities

result in having common grievances and discontent that makes them bond stronger than before. This association of joy and challenge is shared and the course of union becomes a continuous process within any group having a common shared identity (Kelman 2001, 38-40).

Conflict having the context of identity that generates shared grief and deprivation is often followed by a struggle for possession of the state resources as explained by Adeyeye in his study relating to identity conflict leading to terror in Nigeria. His study narrates that the identity based conflicts erupt when groups or its members perceive that their identity is facing a threat and which could only be curbed, protected or boosted by the struggle against the inequalities in different segments of the society or state .without the exercise of identity and recognition, and representation in all fields of a society (Adeyeye & Idowu 2013, 118-120). This realization motivates acts capable of projection and support of awareness for owning and accepting a particular identity. However, identities challenged by factors like territory, right of self-determination, political representation in decision making, or economic purposes generate more conflicts because their social as well as biological survival, is dependent on these aspects as members of that state. For instance, it is argued that discrimination based on aspects such as citizenship against a group or community could lead to the powerful struggle because it is the basic component that will affect the material and non-material resource distribution, especially the political representation. Such inequalities hamper the perceptions and the struggle start with the ideology of the “we” vs. “you” (J.J & D.J 2008, 1136-1137).

In the context of the individuals or groups having psychological as well as sociologically violent approaches leading to the recruitment by the terrorist organization by manipulating their ideology and as a result the collective identity is a result which is crucial for mobilization as a new entity. The radicalization process capitalizes on existing unfavorable conditions, and projects them with augmentation to create false and propagandist narratives, and thus its social acceptance. May it be poverty, unequal resource distribution, ethnic discrimination, territorial disputes, without successful motivations having the potential to mobilize groups; the ideology is unlikely to attract followers to pursue the collective acts of violence and terror. Almost all extremist factions that supply material and manpower to terrorism powerhouses use social and psychological manipulation tactics on vulnerable individuals and groups which feed on social ills and failures in order to justify and strengthen their narratives (Littman 2016, 18).

Many social psychologists have endeavored to examine how challenged identities and relative deprivation contributes toward intractability and violence, which leads to

terrorist activities when socio-political degeneration of a society starts. In her article about identity in Yugoslavia, Franke Wilmer posed certain questions that incite debate and exploration of the sociological factors of group violence and terror. These questions include: How are individuals persuaded to abandon peaceful coexistence and resort to brutality? What factors lead to the buildup of aggression to such an extent in a group of a specific identity that they develop empathy for terrorist factions? These questions further form the basis of this paper as it examines the relationship between identity, and factors that mobilized violence based measures in identity and conflicts involving terrorism (Wilmer 1997, 14).

The net resultant sentiments of deprivation in response of territorial sabotage, political under-representation, economic marginalization or ideological discrimination has the potential to create a fraternal feeling of injustice in comparison to 'others' who are perceived as the receiving end for superiority and advantages. When there is comparison with others, the sociological forces are augmented in a negative way and manifested with either violence or empathy with terror tactics in the long run. The sense of inflicted injustice incites the potential for violent activities by affected individuals as well as groups, as a way to dispose of the aggression, revenge, insecurity or frustration (Agbibo 2013, 150).

Identity and Terrorism- Interplay of identity dynamics

The term 'identity' encompasses the three levels of interaction among individuals in any society setting. These levels of interaction determine the perceived collective goals and the course of actions that a community undertakes as a collectivity. These three complex theoretical constructs are (i) cultural (ii) social and (iii) personal identity domains.

The *cultural identity* refers to the cultural norms and traditions that an individual adopts as guiding principles for his life such as collective knowledge, actions and beliefs about religion, family and tribes. This identity includes aspects such as ethnicity, language, history, and all cultural linkages that a communal group shares promoted and preserved by travelling through generations (Jensen 2003, 190).

The *social identity* refers to the self-proclaimed devotion to the social groups in which individuals interact with each other. The mindset associated with participating in these groups' activities show the bond among members of the group, who perceives the other groups as "not us." (Henri & Turner 2004, 54).

The *personal identity* is of different nature and dimensions than the previous two discussed, as it indicates one's own chosen goals and values and perceptions about oneself. These personal beliefs are used by an individual to make sense of the world and him (Cote 2000, 150-153).

A wholesome study of approaches and perspectives on terrorism requires a holistic understanding about the 'terrorist' and what constitutes his beliefs and attitude development caused by the manifestations of each level of identity. Feelings like those relating to marginalization from mainstream social spheres are common in youth who face aggression and get involved in violent activities at some point but in very rare cases does this factor leads to becoming a suicide bomber.

However, such feelings carving out deprivation and marginalization coupled with passionate devotion to traditions, the "us vs. them" religious principles and revenge can lead to the formation of justification for violence. The others are then seen as a threat to one's ideological or cultural identity or group (Silberman 2005, 770-772). The belief that one's own group or clan is challenged and the deprived although superior group who is being targeted makes terrorist activities and violence a legitimate means to achieve ends by the perpetrator group. The study of interactions among the various levels is complex and requires a theoretical analysis which can untangle the phenomenon in an integrative approach (Smith 2004, 428-429).

A review of the ever evolving and transforming literature on terrorism and conflict escalation explain that the role of identity is central to the understanding of this phenomenon. Identity is regarded as the 'black box' within and among individuals, communities and groups having little explanation about how it operates and in what manner. The identity dynamics, however, have the inherent potential to act as trigger, perpetrator and a catalyst towards grief, discontent and ultimately violence which may be terrorism in some cases. Different levels of identity provide space and operating forums for group sentiments to be fostered may they be positive or negative due to some factors. These identities can be classified into the following main classes; cultural, social, and personal, identity (Fathali 2005, 160).

Any disruption or challenge posed to these identity dimensions can lead to aggravation of grievances, turning violent manifestations into terrorist aspirations and activities at any stage. Also, it is the interplay between the cultural, social, and even personal identity which determines the role of an individual or a group and the likelihood for engagement in terrorism.

Sense of deprivation: Perceiving oneself as 'the have not's'

The concept of relative deprivation has its roots in the broader spectrum of political violence. Ted Gurr explains that a collective discontent and feeling of resentment is created as a result of the gap between the expected and achieved welfare among certain individuals or groups in a society (Gurr 1970, 76). This deprivation can be self-perceived or even prevalent in the real sense in a society at cultural or socio economic levels. The violence that comes in the wake of this discontent justifies the fact that the vulnerable group perceives themselves to be treated as 'inferiors' by those who get more benefits or opportunities in a setting. Cases of political violence prevalent around the world in form of movements and conflicts show that the collective action in form of violence has often led groups to turn into terror activities in later stages of escalation and aggression (Fathali 2005, 161).

The analysis of the relative deprivation theory as a root cause for terrorism might be effective in understanding the phenomenon if we take in account the role of globalization in the contemporary times. The role of globalization on countries has hugely affected the role it has on terrorism too because of the advancements and the economic development that plays a vital part in propagating and expanding the terrorist activities both geographically and morally by using high technological advancements of information dissemination and financing. Relative deprivation also can be used to explain an inconsistency in what an individual's economic and socio cultural standing is in his country compared to what he believes he is justly entitled to after having a look at other groups or even countries for that matter.

The public awareness of identity, living, territory, and preservation of socio economic conditions prevalent in nations thousands of miles away has the tendency to create a new benchmark for individuals of a country as compared to themselves. Certain citizens of a nation may feel deprived of their identity or territorial power that they once had that might have been decreased or lost due to transforming global or regional scenario. This might trigger a sense of deprivation that might not be relative but in some cases according to activities of that group, can be taken as having relative nature by the host country.

Politicization of identity & deprivation for catalysis of terrorism

The role of any root cause of violent extremism leading to terrorism at some stage cannot come into play without aggravation of that cause to an extent that it serves the purpose of projection and propagation of violent activities by a group. This aggravation

needs a certain level of mobilization of mass and sensitization of the issues or the perceived goals related to a clan, ethnic group or population in order to set in motion a terrorist approach. Politicization is the most effective and the only means by which large masses of the population can be driven for a particular cause or motive.

Elites play a central role in this politicization process by which they can manipulate the dynamics of group identities and associate it to certain event, issue, aspect or instrument of disagreement, may it be a potential or an already existing one. They influence the group formation and cohesion by making use of the symbols, narratives and myths to fabricate the boundaries of identity specifying who 'We' and 'Them' are in order to identify the future targets of aggression. This construction of the out-group ('Them) who is enemy and anti-in-group (Us) is the part of the process of politicizing an issue to the extent that it becomes functional to be a driver of violence, aggression and at any point terror activities.

In the contemporary world, where societies experience changes dependent on global as well as local factors, the politicization of issues results in the breakdown of social cohesion and integration in a country. The politics play an active role in issues relating to breakdown of social bonds, economic regression, deprivation and challenged or vulnerable identities. Power plays are then incorporated along with the external as well as internal factors that drive the flow of conflict and aggression, exhibiting terrorist incidents every now and then (Brown 2007, 111). The elites are the leaders of this process and often tend to represent the whole community by using strong narratives, emerging as a part of the deprived and challenged group's, to show themselves as the main representatives of that group. They assume the predetermined role setting in motion, the shared understanding of history and myth in order to link the social situations to the group identity in order to steer the movement or terror activities (Kohn 2005, 380).

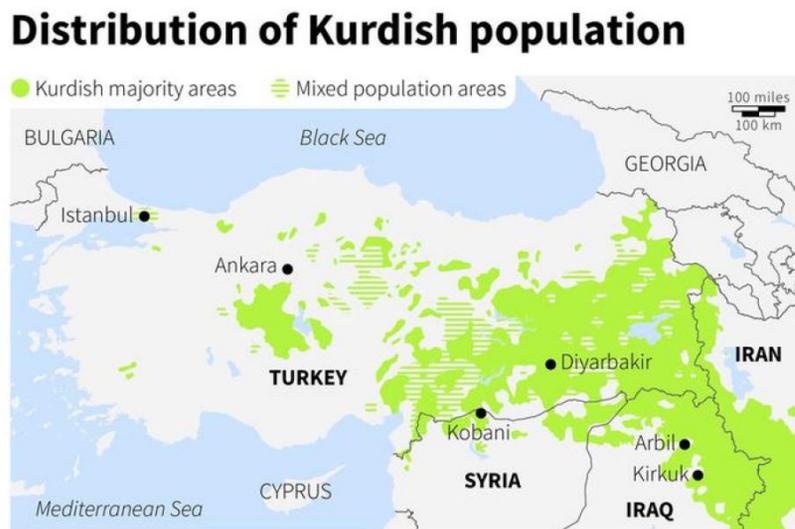
While politicization of the group identity can often be undertaken for the material or non-material interests of the in-group, it is widely debated that among other aspects of a mass movement, the political maneuvering can be sometimes pursued only for securing the interests of elite leaders. The demands of the rebel, or terrorist group may be different at the start of the conflict but the nature of demands are often seen as transforming gaining depth and weight according to different direct or indirect beneficiaries. The next section of the paper discusses Kurdish population and its activities as it is perceived as a population that is facing identity crisis along with deprivation in the Middle East and beyond. The manifestation of violence and aggression leading to terror tactics and insurgents movements is a symbol of the Kurdish frustration shaped by history. The Kurds are among the fighter population in

many conflicts of the world may they be considered as a proxy force, freedom fighters or terrorist in the case of Turkey and AL Qaeda Kurdish battalion. A closer look at the role of Kurdish identity crisis and deprivation is important to understand the possible reasons after group motivations, dynamics and future trajectories

Identity crisis and Relative deprivation: The Case of Kurds in Turkey

Kurds happen to be the indigenous people belonging to Mesopotamian plains and the mountainous region expanded to five countries. They are scattered ethnic population now inhabiting the now south-eastern Turkey, north-eastern Syria, the northern part of Iraq, north-western Iran and the south-western parts of Armenia. They form a unique population that is closely knit and united because of their race, culture and language, and goals. Kurds have a number of religious clans belonging to different creeds but the majority of the population is Sunni Muslim cadre.

Figure 1: Distribution of Kurdish population map



Source: <http://www.abc.net.au/news/2015-09-10/kurdish-map/6763626>

The Kurds are concentrated in five countries with respect to population. Since the sixteenth-century, Kurds have been surviving between dysfunctional states and bitter enemies from the Ottomans and the Persians to modern manifestations of these empires. Kurdish populations were always challenged identity bearers and were dealt with by forced resettlements, genocide, and the suppression as an ethnic minority group.

The bitter history of Kurd deprivation starts from the 1916 Sykes-Picot agreement between the United Kingdom and France that shaped the future of an entire region, thus creating fragmented and dysfunctional states like Syria, Iraq, Lebanon, Saudi Arabia, and others. Sykes-Picot ultimately caused the formation of these new states without considering the human connections and ethnic, historic and cultural linkages just on the basis of geographic dimensions the land was divided. This set the stage for a century of political instability, senseless violence, insurgencies, terrorism and socio cultural as well as ethnic disjoint in the region, all trends that show no signs of reduction till now. Furthermore, notably absent from the agreement was any provision for the third largest ethnic group of the region the Kurds. As they were a large population scattered in different states now, without a nation of their own, without borders left to protect their own identity and safeguard their rights in respective countries.

Much of Kurdish heritage and culture has been lost or destroyed, valuable records have been withered in secret archives, as a whole, many people are scared to talk about their Kurdish identity in some countries which depicts the worst identity crisis of all times.

The development of a challenged and deprived Kurd identity in Turkey

In early 20th Century, the Kurd nation developed aspirations to have their own homeland which they named as 'Kurdistan', the land of the 'Kurds'. After the World War One, when the Ottoman Empire had faced defeat, the western allies made an endowment for the ethnic Kurd population involving an independent 'Kurdistan'. A territory in which they can exercise their own rules and regulations with cultural and structural freedom along with preserving their distinct identity as an indigenous race evolved into a stable nation. The provision was made under the Treaty of Sevres in 1920 and hopes for an independent Kurd homeland were high, however, three years later these hopes were shattered with the signing of Treaty of Lausanne, in which boundaries of the 'Modern Turkey' had no trace of the Kurd homeland, leaving the Kurd population in deep dismay and a minority status in their own country. Hence, the first wave of 'identity-crushing' structural violence inflicted upon Kurds was evident in the violent war phase when Turkey had rose from the remnants of Ottoman Empire.

Mustafa Kemal Ataturk was the leader of a revolutionary process of reconstructing the country in a manner that the process was called 'Turkification'. The nation building process the Kurd discontent population was crushed at all fronts wherever they tried to raise their voice as an ethnic group having challenged identity and deprived

has the larger goal to establish an independent Kurd nation state on Marxist Lenin ideology, by combining all Kurdish populated regions of Syria, Iraq, Iran and Turkey. However, PKK has also tried to negotiate with the state and urged for greater cultural and political autonomy along with fighting the state forces (Yavuz 1998, 16). Their goal has now transformed in the form of leaving separatism and advocating integration into a democratized, co federalized Turkey (Akayya & Jongerden 2011) has always interpreted the ceasefire urge and peace agreement proposition by the PKK as their weakness and have labeled them as a terrorist organization.

The PKK sense of betrayal by the Turkish authorities and lack of recognition for their justified demands leaves Kurd population no option than to resort to violence and terror activities. The frustration is evident as their demands are meant to be understood keeping in mind the suffering and sacrifices made by the Kurd population in the conflict, provided this ethnic population is suppressed and negated the basic rights in all the states in which it is scattered as a nation less inhabitants may it be Iraq, Syria or Iran.

The foremost urge of the Kurd population in all the host countries is to live in autonomous regions inside the respective countries in order to live their lives according to their 'Kurd Identities.' They seek peaceful coexistence rather than causing violence and terror in Turkey or any country. The designation of Kurds PKK as a 'Terrorist organization' has made it appear as a perpetrator rather than victim of identity crisis and structural as well as cultural violence by the state. Thus the collective feeling comes into being that relates to being let down and misunderstood that is being confirmed by their popular proverb 'Kurds have no friends but the mountains.' This saying also depicts their resolute to retain their armed struggle through its armed guerrilla forces and negotiation tactics through force and terror activities across the country. According to them, 'PKK is not the cause of terrorism, it is the consequence... And if the cause will not change, the consequence will not change, we can lay down arms but in the past it was always left unanswered' (Abdullah Demirbas, then DTP Kurdish Party's Mayor)¹.

The Turkish government launched a violent tactic in form of a well "coordinated war on terror" against the PKK as a result; thousands of people including civilians have been the target of this aggression that is due to the ignorance and intentional suppression of the Kurd ethnic population. The clashes in south-eastern Turkey ignited clashes in Syria and Iraq too with Kurd armed militias active and declared as terrorist organizations by Turkey. According to Turkish government the armed Kurd groups active in violence and political terror in other host countries are all terrorist organizations. YPG and PYD in Syria and the KDP in Iraq are parts and factions

of the PKK, have its goal of terrorism through armed struggle, and are all terrorist organizations. (Somer 2005, 620). The designation of terrorist organization by Turkey is a form of mistreatment and has repercussions in form of violence and terrorist activities by the PKK causing collateral damage to human and material resources.

The PKK seeks national as well as global recognition as the central representative of Turkey's Kurd population. A continued negation of this status leads to increase in the extent and force of demands leaving them no choice than adopting terror tactics to put pressure on the host government. The present day persistent refusal to enter into peace or negotiation with the 'terrorists' (PKK) agreements by the Turkish government provides no advantage in case of leaving armed struggle as a reserve. Therefore it continues as a low intensity conflict with Turkish forces killing PKK militants all over the region including Iraq and Syria, but the terror attack attempts are also pursuing as the recent bombing of the OIC Summit in Istanbul was made unsuccessful by the Turkish police². Similar incidents of terror attacks as well as killing of PKK militants is undertaken often in cities of Turkey which shows that the violence is continued on both sides. This brings new grievances on both conflict parties as it revives the Kurdish and Turkish nationalist sentiments and then translates into further violence and societal friction in form of civil unrest in Turkish cities.

Conclusions

The identity crisis and relative deprivation in case of Kurd population in Turkey and other countries is an evident example of how the sociological root causes contribute to mobilize and organize the group aggression leading to the possibility of declaring the group as a terrorist organization. The ethnic Kurds perceive that their homeland is the solution to their identity crisis and in case they do not succeed, their identity will remain challenged and diminish in future. They face structural as well as cultural suppression in host countries due to the movement that is steered by strong identity collectiveness and ethnic in-group association. The labeling of PKK as a terrorist organization has transformed the Kurdish nationalist movement into an aggression based violent group exhibiting terror activities across the host states via splinter groups and associated Kurd armed factions. The Kurdish Diaspora all around the world has a strong affiliation with the Kurd ethnic identity and supports the cause of a separate 'Kurdistan' that underlies within the entire Kurdish parties in action in the region. The problem of identity crisis and deprivation lies at the heart of the Kurdish question and needs to be understood as mistreatment and mishandling continues at large scale in Turkey and other countries.

Any anti-terrorism or counter terrorism undertaken by the Turkish forces are prone to achieve temporary results for the future also, if the deep rooted Kurd identity and provision of all the rights is not being considered as an option.

Notes

- ¹ From a speech that was given at the EU-Turkey accession process related conference held in partnership with the Kurdish Institute in Brussels at the House of Parliamentarians, Brussels, and Oct, 2008.
- ² Police foil planned PKK attack on Organization of Islamic Cooperation summit in Istanbul, News Hurried, and December 15 2017. <http://www.hurriyetdailynews.com/police-foil-planned-pkk-attack-on-organization-of-islamic-cooperation-summit-in-istanbul-124197>, (accessed on 16 December 2017)

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Study on the Relationship between Mental Health and Teaching Efficacy of Chinese Secondary School Teachers

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ABSTRACT: In this study, “Symptom Checklist 90, (SCL-90)” and “Teachers’ teaching Efficacy Scale” were used in stratified sampling survey to 260 teachers in Chengdu to explore the relation between Mental Health and Teaching Efficacy. The results showed that: (1) Secondary school teachers’ SCL-90 scores were significantly higher than the national norm; (2) In terms of “Teachers’ teaching Efficacy Scale” scores and “personal teaching efficacy” scores, there were significant differences among teachers of different teaching ages; (3) there was a significantly negative correlation between mental health and the total score of teaching efficacy including the scores of all dimensions. The dimensions of symptoms such as depression and paranoid had a negative effect on teaching efficacy.

KEYWORDS: secondary school teachers, mental health, teaching efficacy

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1. Problem posing

Regarding the sense of teaching efficacy, most domestic scholars agree with the definition of Ashton and Gibson (Gibson and Dembo, 1984), that is, teachers

'subjective judgment on their own ability to influence students' behavior and academic performance. It mainly consists of general sense of efficacy (teachers' relationship between teaching and learning, the role of education in student development's views and judgments, etc.) and personal teaching efficacy (whether teachers are capable of completing their teaching tasks and the belief of bringing up excellent students) (Yu, Xin and Shen 1995) two aspects constitute. As a common assessment of teacher quality indicators, teaching efficacy has a conspicuous correlation with students' academic achievement (Wu 2003), teaching motivation (Wang 2006), classroom questioning behavior (Liu 2010), teaching monitoring capability (Luo 2000) and teaching effectiveness (Qu 1999).

Besides, some scholars have observed that teaching efficacy has negative correlation with job burnout (Liu 2004; Meng 2008), depression (Wang 2006), mental health (Yang, Lv, and Zhan 2012; Huang et al. 2012; Ma 2008) correlation in recent year. However, some researchers (Zhao and Li 2002) found that the correlation between teaching efficacy and teachers' mental health is not significant. It using more standardized measurement tools and research processes to clarify the relationship between the two is necessary. In this study, the middle school teachers in Chengdu is the research subjects, to explore the relationship between the teacher's mental health and sense of efficacy, with a view to improving teaching effectiveness by improving the teaching of mental health, so as to better serve the teaching work.

2. Method

2.1. Subjects

A stratified sampling method was used to investigate junior high school teachers in seven middle schools in the downtown area, suburbs and outskirts of Chengdu. A total of 260 questionnaires were sent out, and 248 valid ones were retrieved. With a callback rate of 95.4%. The respondents ranged in age from 22 to 54, with 104 males (41.9%) and 144 females (58.1%), 46 (18.5%) with a teaching experience of less than 5 years, 60 with a teaching experience of 5 to 10 years (24.2%), 142 (57.3%) with a teaching experience of more than 10 years.

2.2. Measurement Tool

This research uses Self-Assessment Questionnaire (SCL-90) revised by Wang Zhengyu (1984) to examines the mental health status of secondary school teachers. The scale has 90 items, including 10 dimensions: somatization, compulsion, interpersonal relationship, depression, anxiety, hostility, terror, bigotry, psychotic and

others. The project uses a 5-point scale, the range of “no”, “mild”, “moderate”, “partial emphasis”, “serious”, the lower the score, the higher the mental health level. The internal consistency reliability of the scale in this study was 0.991, indicating that the scale has a high-reliability level.

Instructor teaching efficacy measurement tool was “teacher teaching efficacy scale.” made by Yu Guoliang and so on in 1995. The scale has 27 items in total, including two dimensions of general teaching effectiveness and personal teaching efficacy. And there are 10 general teaching efficacy items and 17 personal teaching efficacy items. Project preclude the use of 6-grade score, the higher the score indicates that teaching efficacy is higher. In this study, the internal consistency coefficients of the total scale and the two fractal dimensions were 0.88, 0.86, 0.88 respectively.

2.3. Testing and data analysis data

The method of stratified sampling was adopted to randomly select middle school teachers to conduct individual testing. All the reclaimed data were statistically processed and analyzed using SPSS 17.0.

3. Result

3.1. Middle school teacher's mental health

According to Tong Hui Jie (2010) of the research results, the empirical use of 2-point critical value to examine the detection of mental health in all dimensions of the detection rate of “not much significance,” and cannot replace the normative reference. Therefore, this study uses the method of one-sample mean test to divide the survey participants’ SCL-90 scores of all dimensions and the total score with the national norm in 2006. For comparison, the results shown in the following table:

Table 1. Middle school teachers SCL-90 dimensions and the total score and the domestic norm comparison

	Chengdu middle school teacher		national norm		t
	M	SD	M	SD	
somatization	1.7705	0.8453	1.4194	0.4429	6.555***
compulsion	1.9214	0.8333	1.6586	0.5165	4.966***
sensitive of interpersonal relationship	1.7016	0.7749	1.5115	0.4938	3.864***
depression	1.7674	0.8249	1.4980	0.4707	5.143***

anxiety	1.6512	0.7917	1.3437	0.3886	6.117***
hostility	1.7083	0.8143	1.4948	0.5095	4.129***
terror	1.4787	0.7829	1.2656	0.3938	4.286***
bigotry	1.6801	0.7711	1.4361	0.4695	4.984***
psychoticism	1.5891	0.7554	1.3262	0.3876	5.481***
aggregate score of SCL-90	154.2056	68.6355	130.021	33.6260	5.549***

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; hereinafter inclusive.

As can be seen from Table 1, although the scores of secondary school teachers in each dimension of SCL-90 are below the critical value of 2, their scores in each dimension and the total score are significantly higher than the national norm, indicating that secondary schools Teachers' mental health has become a problem that cannot be ignored.

Taking gender and teaching age as independent variables, the multivariate analysis of variance was performed based on the average of all dimensions of SCL-90 and the total score as dependent variable. The results showed that the scores of SCL-90 in different teaching age secondary school teachers were significantly higher than those of the control group ($P < 0.05$), the total score of SCL-90 ($F(2,247) = 11.478$, $p < 0.05$), depression ($F(2,247) = 8.336$, $p < 0.05$), Anxiety ($F(2,247) = 12.496$, $p < 0.05$), hostility ($F(2,247) = 12.295$, $p < 0.05$), bigotry ($F(2,247) = 9.035$, $p < 0.05$) and psychotic ($F(2,247) = 9.565$, $p < 0.05$). Further multiple comparisons found that secondary school teachers with a teaching age of 5 to 10 years were significantly higher in SCL-90 total scores and average scores of all dimensions than those who had less than 5 years of teaching experience and more than 10 years of teaching experience. The specific results are shown in Table 2 below. There was no significant difference in the total scores and the various dimensions of SCL-90 among secondary school teachers in terms of the interaction effects of gender, gender and teaching age.

Table 2. Multiple Comparisons Among SCL-90 Scores and Average Scores by Different SCL Teachers

	Seniority		
	less than 5 years (A)	5-10 years (B)	more than 10 years (C)
aggregate score of SCL-90	127.761±41.476B	187.567±84.683AC	148.676±63.008 B
somatization	1.467±0.555 B	2.119±1.000 AC	1.721±.803 B

compulsion	1.635±0.700 B	2.350±0.941 AC	1.833±.768 B
interpersonal sensitivity	1.406±0.463 B	2.106±0.950 AC	1.627±.708 B
depression	1.492±0.606 B	2.117±0.978 AC	1.709±.771 B
anxiety	1.352±0.432 B	2.063±1.003 AC	1.574±.714 B
hostility	1.380±0.506 B	2.122±1.000 AC	1.640±.741B
terror	1.174±0.313 B	1.869±1.041 AC	1.413±.699 B
bigotry	1.402±0.431 B	2.011±0.973 AC	1.630±.715B
psychoticism	1.307±0.453 B	1.913±0.964 AC	1.544±.687 B

Note: The upper right labels A, B, C, and D represent groups that differ significantly from the 0.05 level.

3.2. Secondary school teachers teaching efficacy status

Table 3. Different gender, teaching age secondary school teachers teaching efficacy score

		general teaching efficacy	personal teaching efficacy	teachers' teaching efficacy
Gender	Male	34.923±9.880	76.289±13.637	111.212±18.872
	Female	33.734±8.350	77.243±11.525	110.909±15.941
Seniority	less than 5years	36.261±9.032	72.109±11.693	108.370±16.688
	5-10years	33.417±9.717	73.900±11.499	107.317±15.000
	more than 10 years	33.922±8.683	79.620±12.378	113.489±17.922

Table 3 shows the teaching efficacy of teachers of different teaching age. As we can see from Table 3, the trend that the male is slightly higher than the female in the total score of general teaching efficacy and teaching efficacy, while the female is slightly higher than the male in the personal teaching efficacy. In addition, teachers of less than 5 years of teaching generally showed a higher sense of effectiveness in teaching, while teachers with more than 10 years of teaching experience showed significantly higher scores in teaching effectiveness and teaching effectiveness.

Taking gender and teaching age as independent variables, took MANOVA based on the teaching effectiveness and scores of all dimensions as dependent variables. The results showed that there was a significant difference ($F(2,247) = 9.571, p < 0.05$) among teachers with different teaching ages on personal teaching efficacy. Further multiple comparisons found that teachers with more than

10 years of teaching experience were significantly higher in personal teaching efficacy. Secondary school teachers of less than 5 years and 5 to 10 years of teaching experience. Teachers' teaching-age differences reached the level of significance ($F_{\text{Teachers' teaching efficacy}}(2,247) = 3.222, p < 0.05$). In the further multiple comparisons, only the teaching age more than 10 years and 5 to 10 years have significant differences in teachers. Teachers of different teaching age have no significant difference in the general efficacy of teaching. Teachers of different teaching age have no significant difference in the general efficacy of teaching. In addition, the study also found that the teacher's teaching efficacy did not meet the requirement of significant level in terms of the interaction effect between gender and gender and teaching age.

3.3. The Relationship of Middle School Teachers' Psychological Health and Teaching Efficacy

The correlation analysis of teaching efficacy and mental health.

Pearson correlation analysis was conducted on all dimensions of mental health and the dimensions of teachers' perceived efficacy in middle school teachers. Results of the test were shown in Table 4. As can be seen, there is a significant negative correlation between all dimensions of teacher's sense of efficacy and mental health, and the correlation level remains at a moderate level.

Table 4. Correlation of middle school teachers' mental health and teaching efficacy

	teachers' teaching efficacy	general teaching efficacy	personal teaching efficacy
somatization	-.353**	-.299**	-.269**
compulsion	-.336**	-.287**	-.257**
sensitive of interpersonal relationship	-.329**	-.267**	-.260**
depression	-.385**	-.322**	-.300**
anxiety	-.347**	-.278**	-.279**
hostility	-.362**	-.322**	-.266**
terror	-.339**	-.216**	-.314**
bigotry	-.372**	-.267**	-.321**
psychoticism	-.352**	-.270**	-.292**
aggregate score of SCL-90	-.369**	-.298**	-.294**

3.4. Predictive Analysis of Teachers' Psychological Health on Teaching Efficacy

Taking the pedagogical total score and the scores of each dimension as the dependent variables, the SCL-90 score and the scores of each dimension were used as independent variables to conduct stepwise multivariate regression analysis. Table 5 shows the results.

Table 5 Secondary School Teachers' Mental Health on the Prediction of Teaching Effectiveness by Multiple Regression Analysis

DV	IV	R2	ΔR^2	b	T
teachers' teaching efficacy	depression	0.148	0.148	-0.385	-6.533***
general teaching efficacy	depression	0.103	0.103	-0.373	-2.451*
	terror	0.122	0.019	0.394	2.967**
	hostility	0.140	0.018	-0.327	-2.240*
personal teaching efficacy	bigotry	0.103	0.103	-0.321	-5.320***

The study found that when the total score of pedagogical efficacy was the dependent variable, only the depression dimension entered the regression equation, and the explanatory rate of variation was 14.8%. When the general sense of efficacy was taken as the dependent variable, the regression equations were followed by depression, terror and hostility. The overall explanation rate was 14.0%. The explanatory rates of the three variables were 10.3%, 1.9% and 1.8% respectively. To personal teaching effectiveness as a dependent variable, only the paranoid dimension into the regression equation, the explanation rate of 10.3%.

4. Discussion

4.1. Middle School Teachers' Mental Health Present Status

The study found that the overall level of psychological health and symptom dimensions of Chengdu middle school teachers are higher than the national norm, which is consistent with the research results of Yang Guolong (2012) and Yang Jianyuan (2012). Nowadays, the expectation of society, assessment pressure is increasing day by day, teachers, especially secondary school teachers have become the current high-pressure population of society; and we refer to the national norm a sample was completed

eight years ago, two of its subjects involved in society in all walks of life. Therefore, it is reasonable that the SCL-90 and the scores of each dimension are significantly higher than the national norm.

Further analysis on mental health status of teachers of different ages showed that secondary school teachers who had a teaching experience of 5 to 10 years were significantly higher than those who had less than 5 years of teaching experience and more than 10 years of teaching experience in SCL-90 scores and average scores of all dimensions. As young and middle-aged teachers who have a teaching experience of 5 to 10 years, they are obviously less enthusiastic and energetic than younger teachers who have less than 5 years of teaching experience. They are also less experienced in work experience than those who have been teaching for more than 10 years. In the family, it is just at the “pillar” of the family, “There are old and young at home”, which is the period when the family burden is the heaviest. They are not only confronted with high workloads in the schools, competition among colleagues, stress on job evaluation, and work-tiredness, but also are affected by the conflict of family work in various fields. Therefore, they are more likely to be in the so-called “sub-health” situation. Poor performance in all aspects of mental health.

4.2. Middle school teachers' teaching efficacy..

The result of this study shows a tendency that the teachers who have less than 5 years teaching experience have a higher sense of effectiveness in teaching and those who have been teachers for more than 10 years have a significantly higher total score of individual teaching efficacy and teaching effectiveness. This is consistent with the results of Yu Guoliang et al. that the sense of general education efficacy tends to decrease with the increase of teaching time, and personal teaching efficacy tends to increase with the increase of teaching age.

According to the statistic test of the differences of teaching efficacy between teachers of different ages, it is found that teachers who have more than 10 years of teaching experience been significantly higher than those of middle school teachers whose teaching effectiveness is less than 5 years and 5 to 10 years; Teaching effectiveness is significantly higher than the 5 to 10 years of teachers. Obviously, the improvement of individual teaching efficacy is accompanied by the accumulation of teachers' teaching experience. Generally speaking, teachers with less teaching experience have less teaching experience, and problems often encountered in teaching often do not know what to do. They lack corresponding teaching methods and strategies for classroom management. As the number of teaching years increases, secondary school teachers

accumulate more and more experience in imparting knowledge, teaching management in classroom or in students' moral behavior, making them more confident in teaching themselves about their teaching work. Its personal teaching efficacy also showed an upward trend.

4.3. The Relationship of Middle School Teachers' Psychological Health and Teaching Efficacy

This study found that there is a moderate degree of negative correlation between the dimensions of pedagogical efficacy and the dimensions of mental health, indicating a link between the two. Further stepwise regression analysis also found that mental health symptoms of depression, terror, hostility and paranoid and so on teaching efficacy there is a significant predictive effect. Comparing the explanatory rates of variation in different dimensions of mental health, it can be seen that "depression" is a more important factor affecting the total score of teaching efficacy and general teaching efficacy.

It is easy to understand that depressive symptoms are characterized by disappointment and pessimistic perception (Wang 1984), that is, the negation of self-worth and ability, which is just the opposite of "sense of efficacy" that recognizes one's own value and ability. In actual teaching activities, the factors leading to frustration and failure may come from the teachers themselves, or from the schools, students and even the social environment. Depression teachers tend to attribute frustration and failure to themselves. This inevitably brings the sense of efficacy damage. In addition, the depressive symptoms such as lack of motivation and vitality loss (Wang 1984), and other characteristics often affect people's enthusiasm and enthusiasm for work, which in turn led to poor performance of teachers in teaching, thereby further reducing their sense of efficacy of teaching, which affects their belief in teaching, that is, the general sense of teaching efficacy. In the stepwise regression analysis based on the personal teaching efficacy as the dependent variable, only "bigotry" entered the regression equation and had a 10.3% explanatory rate of variation. Bigotry as a personality tendencies, the typical manifestation of the acts of thought stubborn, rigid, often mind "occupied" by certain concepts and can not be based on objective reality to balance other more reasonable ideas. This kind of thinking characteristic of "Opinionated" contradicts the "flexibility" required by first-line teaching so that some teachers can not complete the teaching work with high quality. Even if the work often touches the wall, they can not be adjusted and raised through self-reflection.

In summary, to enhance teachers' sense of efficacy in order to ensure the steady improvement of teaching quality, attention to secondary school teachers' mental health can not be ignored. The results of this study suggest that the relevant education authorities need to focus on the psychological problems of young and middle-aged teachers aged 5 to 10 years, providing them with a more relaxed working environment, a more interpersonal atmosphere and a clearer Career prospects and more positive psychological health education and psychological help, so as to alleviate their ideological burden and work pressure, and encourage them to dedicate themselves to the teaching work.

Conclusion

1. The mental health status of middle school teachers is significantly lower than that of the national norm, and the teacher with a teaching age of 5 to 10 years is the most serious.
2. There was a significant difference in the scores of teaching effectiveness and individual teaching efficacy among different teaching age middle school teachers.
3. There is a significant negative correlation between each dimension of teaching efficacy and mental health.

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Particulars of Educational Management in the Context of Global Changes

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ABSTRACT: In order to achieve quality management, it is necessary to consider the particulars that characterize it. For this, it is important to understand how educational management is defined; the way it evolved over time; the functions it performs; the role of culture in educational management, as well as the elements to be taken into consideration in setting school curricula or study subjects.

KEYWORDS: management, education, change, organization, development

Given that the results of education are found in society, in civilized behavior, i.e. the good growth demonstrated in the middle of society, education requires its own management, specific to its field of activity. In terms of education, Ioan Jinga's educational management is defined as "a science and an art of preparing human resources, of forming personalities, according to the finality accepted by the individual and society" (Jinga and Istrate 1998, 409).

Educational management has to do with both the theoretical part and the practical part of organizing the educational activity, with all forms of management of this activity: planning, coordination, and regulation. These prerogatives of management are largely based on communication, which underlies the achievement of the other functions of management while being the premise of inter-human relations.

In comparison to general management, pedagogy of education differs, according to Elena Joița, through specific reporting: to the finality of education (others in content

and determination), to the human resources trained (themselves in formation-development), to the activities centered on information, communication and participation through specific educational strategies (methods, means, organizational forms), the behaviors of the actors involved (based on motivation, responsibility, cooperation, logic, affectivity) under decentralization conditions (Joita 2000, 25).

Educational management, therefore, has a complex character, both through the actions /methods/techniques that ensure the functioning of the educational system, as well as through the multi-participative character (managers, teachers, scholars, parents).

Among the important characteristics of the educational management, the applicative one is an essential one: to structure the educational issue (the process, the various factors) according to the particularities of a certain class/collectivity and to fulfill the functional needs: in good correlation with the needs of the individuals, with the requirements of the society. To design and coordinate an educational system that produces influences on pupils' personality, for the benefit of their aspirations and lives, and linked to the broader dimension of society, is a great goal and a not a simple job.

The scope of management is wide, which is why Sorin Cristea considers that the specification of the educational management concept encounters serious methodological difficulties that come from:

- ✦ The origin of the general concept, launched especially at the economic level, oriented towards the management of the organization's resources in achieving its objectives, then also at the level of sociology, politology, psychosociology;
- ✦ The cultural tradition of management is unsuitable to the European - Latin - leadership model, distinct from the American pragmatic model;
- ✦ Insufficient pedagogical practice in the field of management involves adaptations of the management in other fields, at least of some basic concepts: efficiency, organizational relations, science and art of management, valorization of the psychological elements of the behavior of educators and educators, adaptation at various application levels (teacher, class, director, etc.) (Cristea 1996).

In order to achieve quality management in the field of education, all these difficulties must be carefully analyzed and overcome, as is also emphasized in the specific literature.

The state of research in the field, as the variety, amplitude, complexity of the approach, shows that the management of education is solved only interdisciplinary, it pursues criteria of efficiency and effectiveness, of educational success, by the superior use of human resources, content, processes relationships, specific strategies (Joita 2000, 22).

In the paper *Management: Fundamental Elements*, the authors Ion Stăncioiu and Gheorghe Militaru (1998, 1.4) tackle the meaning and use of the term management as follows:

Management is an English term of French origin [...] The semantic correspondent of management in Romanian is “leadership”. Lately, the term “leadership” is increasingly replaced by “management” due not only to the predisposition of the specialists and the public for the completion of the language with neologisms, determined by the obvious tendency to open the states to the outside, but also because this term has gotten an international recognition.

Dr. Carter McNamara (n.d.) refers to more conceptual management than semantic, describing it as follows:

Traditionally, the term “management” refers to activities (and often to the group of people) involved in four general activities: planning, organization, management and resource management. We note that the four activities reappear throughout the organization and are as integral as possible. The guidelines in management include the emphasis that leadership is thus different from management, and that the nature of how the four activities are done needs to be changed to accommodate a “new paradigm in management.

With direct application to the education system, school management “represents the leadership of the system and of the educational process, at the level of the basic units, institutionalized in the network: kindergartens, primary schools, gymnasium schools, lyceum schools “ (Cristea 2003, 54) having” a triple significance: practical activity (process), decision center and scientific discipline” (Negreț 2009, 1). Managerial activity involves the activation of the three functions, namely the planning-organization of the education system, the methodological orientation of the educational process, the regulation-self-regulation of the system and of the educational process, by their coordination and their corresponding structures (Cristea 2003, 43).

Educational management, thus exceeds empirical leadership, where problems are solved by “seeing and doing”, based on common sense, intuition, imitation models, experience, psychosocial and cognitive traits (Joita 2000, 26). Florica Orțan (2004, 128) emphasized, on the other hand, that:

Educational sciences and, in particular, educational management are facing great challenges, such as finding ways and means to influence the behavior of adults and especially young people so that they can adapt to such complex rules of the school in the Western countries and the notion of the transformations through which the Romanian society will pass in the next period.

Faced with the many challenges that the future holds, education becomes an indispensable tool for achieving human ideals. Therefore, ensuring quality education at present must be a fundamental option for all those involved in the educational process. One can safely say that education has a fundamental role in the development of the individual and society. Education is one of the means available to help reduce poverty, ignorance and oppression.

In a context in which educational policies are deeply criticized and economic and political reasons no longer constitute a priority, a few things are needed, namely:

- Constantly adapting education to the needs of society.
- Adoption of an ethic that contributes to the improvement of the quality of the educational act.
- Appropriate assessment of all those involved in the educational process.
- Encourage the continuous improvement of the teaching staff.

The existence of a close relationship between the teacher and the learner is also essential for the educational process. This connection aims at developing personality, forming individual judgment and sense of responsibility for each individual, so as to enable those involved in the educational process to anticipate and adapt to the changes around.

In this respect, the educational act must not be confined to transmitting information or knowledge. Consideration should also be given to how information is presented so that the learner can connect the solutions found to other problems within a wider context. In other words, Educational Management should help to develop the conditions for the permanent education of every person (Rotaru 2013, 7-11). Education management can, therefore, be viewed as a way of controlling activities aimed at achieving the objectives of an educational institution.

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Characteristics of Association Words about Love among Tibetan College Students in China

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ABSTRACT: In order to explore the characteristics of Tibetan college students' association words about "love" under the background of social transformation in China, 239 Tibetan college students in Southwest Minzu University were selected as research objects to associate Chinese words with the stimulate word "love". After all the association words collected were sorted out, statistical analyzes like word frequency, association intensity and Chi-square test were carried out. Results showed that both "love experience" and "commitment" categories were important in Tibetan college students' association words; men were more likely to think of the "love representation" and "Love experience B"(feeling of miss in love) categories, while women tended to experience "Love experience A"(sweet feeling in love); who were single but had intimate experience are more likely to associate words of "pain of loss" category; and as a whole, Tibetan college students paid less attention to "rationality", "Joint action" and "dullness" categories.

KEYWORDS: Tibetan students, love concept, word association, implicit theory.

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As a distinctive form of “the most mysterious” in human relationships, Love has always been closely concerned by the scholars of sociology and psychology. Since the 1970s (Rubin 1970), love has been booming in the field of scientific psychology research. Among them, the affective color style theory (Lee 1977), the three-element theory of love (Sternberg 1986) and the adult attachment style theory (Bowlby 1988) and the evolutionary psychological strategy theory (Buss and Schmitt 1993), which aim to explain the nature of love. Other related theoretical models are endless with the continuous progress of the study. However, the explicit theory built up by foreign psychologists or sociologists for love is totally different (Hamilton 2006).

Prior studies have demonstrated the biological connotation of love (Fisher et al. 2002), and confirmed the existence of love in various cultures (Hatfield and Rapson 2002). However, love as a superior emotion is bound to be influenced by the social culture and should be regarded as a cultural concept. Considering that “love” is a borrowed word. It enters the Chinese context not only by inheriting its inherent meanings in western culture, but also by giving it new and additional meanings. Some domestic scholars have conducted preliminary exploration of love conceptions of Chinese urban adults and college students based on the implicit theories (Fuhrman et al. 2009, Zang 2013, Li et al. 2006; Yan 2004). Not to mention the differences between Chinese and western cultures, the Tibetan nationality as a minority nationality has strong cultural traditions of marriage and love (such as monogamy, polygamy and polyandry Co-exist) (Wang 2006), Tibetan college students must have some unique emotional experience or psychological experience in the context of their own national culture. Therefore, if we simply borrow the concept of love abroad, the theory of love examines Tibetan subjects; it is possible to “alienate people in the real-life scene”.

The research results are bound to break away common situations and the ecological validity of them are worrying. At the same time, college students who grew up in Tibetan culture have also been continuously influenced by the current “fashionable culture” such as “flash marriage”, “naked marriage”, “remarriage leftovers”, divorce, and even dating sites and blind date shows (Zhang 2013) etc. the concept of love is also subtly changing.

Therefore, to explore the concept of love of Tibetan college students and to compare them with the Western theory of love or common college students’ concept of love is necessary. One can deeply reflect the current situation of the Tibetan college students the concept of love, on the other hand also provide the necessary theoretical basis for the guidance and education of marriage values for Tibetan College students.

1. Method

1.1. Survey instrument

The survey instrument used in this study is a self-made “love vocabulary questionnaire”, including “basic information” and “word association” two parts. The “basic information” section mainly includes gender, grade, emotional experience and other content; and “word association” part is to ask subjects to fill in the “love” of the associative terms. Referring to the previous studies and the participants’ opinions after the preliminary investigation, the formal survey asked for “no less than 8 words” for the number of association words.

1.2. Participants

A random selection of 255 Tibetan college students in a national university for the survey, retrieved 239, the retrieved rate of 93.7%. The age of the subjects ranged from 17 to 24 years, with an average age of 20.36 (± 1.58) years. Among them, 87 were males (36.4%), 152 were females (63.6%), 78 (32.6%) were females in love, 78 (32.6%) were single with a history of love, 83 (34.7%) had never had love experience, 86 (36.0%) were freshmen, 46 were sophomores (46.2% Person (26.0%), senior 45 people (18.8%).

1.3. Investigation process

The survey was conducted by means of a collective survey of questionnaires. The instructional examinations were read out by the research leaders in a unified way. The associative terms that each subject should fill in and not be repeated and the subjects should be prohibited from freely discussing. The test does not limit the time of subjects to answer, the subjects completed an average of about 15 minutes.

1.4. Data compilation and analysis

Use Microsoft Excel 2007 to 239 valid questionnaires were collected and analyzed association vocabulary. Preliminary statistics found that the lowest frequency questionnaire all association word number is 8, the highest number of association word was 13, per capita number is about 8.73, the cumulative number association word collected 2087. Taking into account the highly repetitive nature of associative terms among different subjects, we further merged synonyms such as “long long-last long” and “long term”, while synonyms such as “Hasta Mannana” and “Everlasting”

were not merged. At the same time, due to language habits, some Tibetan students fail to fully understand the meaning of “words”. Associative phrases such as “I love you” and “I understand you” to simplify the merger. After the preliminary association were simplified and meagered, get a total of 604 non-repetitive association words.

2. Result

2.1. Analysis of association word frequency

Since the test words in this study require that the subject’s words can not be repeated, each associative word appears at the same frequency as the number of subjects in the study who are associated with the word. Generally speaking, more subjects to associate the words, the words and concepts of core structure is closer to. Statistics of the frequency of associated words and found that the top ten high-frequency associated words are romantic (word frequency 88, the same below), sweet (75), happiness (72), trust (54), understanding (37), happy (36), beautiful (33), love at first sight (33), forever (32), love each other. The sum of the frequency of the top ten high frequency terms (486) is 23.29% of the total word frequency of the associative term (2087), nearly a quarter. The top three frequency words “romantic”, “sweet” and “happy” almost mentioned by all one-third of the subjects.

Further sorting out the top ten high-frequency words of the associative terms of Tibetan students of different genders and emotions, the results are shown in the following table. As can be seen in all types of subjects in the “romantic”, “happiness” and “sweet” and other words still are the highest in the high frequency word list, the remaining words are broadly similar, but in a different order. More worth mentioning is that the “single and had a love experience,” who high-frequency associative words “break up”, “treasure”, “pay” and other related to the break-up vocabulary.

Table 1. Different gender, emotional experience Tibetan college students love association high frequency words

Subject categories		High frequency words and the number of them
Gender	Male	Romance (34), Happiness (21), Sweetness (17), Understanding (15), Love at First Sight (15), Forever (14), Trust (13), Accompanied by (11), Love (11), I Love You (9)
	Female	Sweetness (55), Romance (53), Happiness (51), Trust (41), Pleasure (29), Wonderfulness (25), Understanding (22), Care (19), Love at First Sight (18)

Love experience	In love	Sweetness (27), Romance (25), Happiness (22), Trust (20), Understanding (17), Accompanied by (14), forever (12), Life together (10), Wonderfulness (9), Pleasure (8)
	Singer with love experience	Romance (26) Happiness (25) Sweetness (22) Trust (14) Breakup (11) Pleasure (11) Love at First Sight (11) Wonderfulness (10) Cherish (10)
	Never in love	Romance (34), Happiness (26), Sweetness (23), Trust (18), Pleasure (16), Love at First Sight (15), Love (14), Wonderfulness (13), Understanding(10), Two of a Kind (10)

2.2. Classification of Association words

Considering the similarity of contents, classification of association collected according to Li Zhao-xu et al's classification standard research, and increase the "other" category, words will not have related to the previous study, and cannot be classified as existing types (such as "Timing", "Location" etc.) in. The Tibetan students love association words classification is obtained after the 15 low order classification, further after the induction of 6 high order classification, as shown in table 2.

Table 2. Tibetan college students love associate word classification situation

High-order classification	Low-order classification	Example of the content of the project
1. Rational	1. Material Basis	In reality, money, material, work, learning, knowledge
2. A Friend of Love	2. Friendship	Good friends, companions, friends, like-minded, world outlook
	3. Treat Each Other.	Help, communication, loyalty, sincerity, tolerance, acceptance
3. Ethics and Responsibility	4. Family	Family, family, children, wife, warmth, happiness
	5. Flat	Plain, ordinary
	6. Marriage	Love, sex, marriage, marriage, love, wedding
	7. Commitments	Responsibility, respect, understanding, trust, support, enduring as the universe
4. Conflict and Pain	8. The Pain of Lost Love	Break up, pain, loss, betrayal, hurt, sad
	9. Striking One Snag After Another	The cold war, fight, deception, contradiction, wishful thinking

5. Romantic Experience	10. Fall In Love	A solemn pledge of love, lasting love, understanding
	11. The Love Symbol	Romance, date, roses, flowers, kiss, fate
	12. Joint Action	Eat together, walk, travel, chatting together
	13. Love Experience A	Happy, pure, beautiful, sweet, intimate
	14. Love Experience B	Miss, crush, bear in mind constantly, sour, sweet, bitter, hot
6. Other	15. Other	Day, Austria, and positive energy, culture protection

In order to further explore the distribution of the word frequency of associative terms in all levels of classification, this study introduces “Association Strength” for analysis. Association Strength, the percentage of subjects who think of a word. The higher the associative intensity is, the higher the association frequency of such words is. This indicates that subjects are more likely to think of such words in the face of the word “love.” The average association strength of a category is calculated by dividing the sum of the associations of all words in the category by the total number of words. The specific results are shown in the following table:

Table 3. The average associative intensity of various associations

High-order classification	Original words	The average intensity of Lenovo	Low-order classification	Original words	The average intensity of Lenovo
Reason	20	0.71	Material Basis	20	0.71
Friends Care	270	4.74	Friendship	54	1.89
			Playing Together	216	5.45
Ethics and Responsibility	596	9.78	Family Ethics	130	18.11
			Plain	4	0.84
			Marriage	61	2.67
			Commitment	401	8.24
Conflict and Pain	129	2.48	The Pain of Lost Love	82	3.18
			Striking One Snag After Another	47	1.26

Romantic experience	942	9.85	Agree in opinion	182	5.72
			Love means	308	12.68
			Joint action	25	0.86
			love experience A	311	12.77
			Love experience B	116	2.99
Other	129	1.28	Other	129	1.28

In terms of higher-level classification, the performance of different categories in the “original words” and “average association strength” basically the same. In terms of original words, “romantic experience” accounted for almost half of all the associated words (45.14%), followed by “ethical responsibility” and “friend-care” terms, accounting for 28.56% and 12.94% respectively, while “rational” The words are the lowest association frequency, only 0.96%. Corresponding to the average associative intensity, the average associative intensity of the words of “romantic experience” in the high-class classification (9.85) is the highest, followed by the words of “ethics and responsibility” (9.78), while the average association of “rational” The lowest intensity, only 0.71.

In terms of low-level classification, the performance of different categories in the “original words” and “average association strength” appears inconsistent. The original words of Responsibility Commitment (401) were the highest, followed by “The love symbol” (308) and “Love Experience A” (311). In terms of average associative intensity, the “Family human relations” category (18.11), which had a primitive number of only 130, topped the list, while the Association of Responsibility Commitments, which had the highest number of original words, only had a strength of association of 8.24. In contrast, the average associative intensity of the three categories of “material basis”, “dull” and “common action” is very low, only 0.71, 0.84 and 0.86.

2.3. Analysis of influencing factors

Tibetan students of different genders were tested in six high-order frequency of the classification associated words chi-square test, boys and girls results show no significant differences in the various higher-order classification. Further tests were conducted on the frequency of word association between boys and girls in the low-order classification. The results are shown in the table below: Male subjects were tested in “The love symbol” ($\chi^2 = 10.13, p < 0.01$) and “Love Experience B” 5.16, $p < 0.05$),

while the associative words of women in “Love Experience Class A” were significantly higher than those of men ($\chi^2 = 8.14, p < 0.01$).

Table 4. Low-level classification sex differences in the χ^2 test results (df = 1)

Association Words	Male (N=87)		Female (N=152)		X ²
	Actual Frequency	Theoretical Frequency	Actual Frequency	Theoretical Frequency	
Material Basis	8	7.28	12	12.72	0.11
Friendship	20	19.66	34	34.34	0.01
Playing Together	74	78.63	142	137.37	0.43
Family Ethics	41	47.32	89	82.68	1.33
Plain	0	1.46	4	2.54	2.30
Marriage	28	22.21	33	38.79	2.37
Commitment	137	145.97	264	255.03	0.87
The Pain Of Lost Love	33	29.85	49	52.15	0.52
Striking One Snag After Another	13	17.11	34	29.89	1.55
Agree In Opinion	67	66.25	115	115.75	0.01
Love Means	139	112.12	169	195.88	10.13**
Joint Action	10	9.10	15	15.90	0.14
Love Experience A	89	113.21	222	197.79	8.14**
Love Experience B	54	42.23	62	73.77	5.16*
Other	44	46.96	85	82.04	0.29

Note: * for $p < 0.05$ (bilateral), ** for $p < 0.01$ (bilateral) (same below)

Differences in the frequency of associative words among six college students in different emotional states in the six higher-level classifications are shown in Table 5. The results are shown in Table 5. Tibetan college students with different emotional experiences only had associations of “clashes and pains” Significant difference ($\chi^2 = 9.00, p < 0.05$). Furthermore, we test the frequency of ideal words of Tibetan college students in different affective states in low-order classification and find that there are only significant differences in the frequency of ideal words ($\chi^2 = 6.07, p < 0.05$), in which “single with a love experience” were more likely to associate these words.

Table 5. Higher-level classification of emotional experience differences χ^2 test results (df = 2)

Association Words	Never In Love (n=78)		Single With Love Experience (n=78)		In Love (n=83)		χ^2
	Actual Frequency	Theoretical Frequency	Actual Frequency	Theoretical Frequency	Actual Frequency	Theoretical Frequency	
Reason	4	6.95	8	6.53	8	6.53	1.91
Friends Care	87	93.77	85	88.128	98	88.128	1.71
Ethics and Responsibility	197	206.99	195	194.53	204	194.53	0.94
Conflict and Pain	38	44.80	58	42.11	33	42.11	9.00*
Romantic Experience	359	327.16	286	307.47	297	307.47	5.84
Others	37	44.80	46	42.11	46	42.11	2.08

3. Discussion

This study investigated 239 Tibetan students through word association method, and explored the characteristics of their love association words by the analysis on association words frequency, association intensity of categories, and association words frequency of different groups on the base of 2087 love association words collected. Generally speaking, the current Tibetan College Students' love association words have the following characteristics:

3.1. Love association words tend to be positive

The statistical analysis of high-frequency words shows that the "romantic", "sweet" and "wellbeing" always top the list, whether in the sample population or in the classified population, but the order of the three words is different in different situation. This shows that in the current Tibetan students' minds, "love" first contacts with the three kinds of positive feelings, in other words, love more easily performances as positive

experience such as “romantic”, “sweet” and “wellbeing”. Furthermore, the classified analysis of association words also found that “romantic experience” words’ accounted for almost half of all association words (45.14%).

In this high order category, the association words in “Love experience A” (311, 12.77) which tends positive experience is more than “Love experience B” (116, 2.99) which tends negative experience. These analysis results show that the love concept of Tibetan students emphasizes the positive emotional experience, and the ideal of love experience emphasizes idealism, which is consistent with the survey results of ordinary college students.

As young college students, their physical and psychological development will inevitably lead to their strong demand for the pursuit of love. For Tibetan youth, their love life before marriage is relatively free, generally not be subjected to family or social interference, and can be free to talk. Therefore, in the relatively free environment of the university campus, Tibetan college students’ romantic relationship is basically to pursue and experience the feeling of love, and its expectations for love is often positive, passionate, full of idealistic color. This can also be seen from the sorting of high-frequency words, whether the sample population or boys and girls, “love at first sight” and “ever-lasting” always accompanied. From the “love at first sight” to “ever-lasting” should be regarded as the most perfect form of love. This vision of near-fantasy love is not only the typical manifestation of Tibetan college students’ love implicit concept, but also may be influenced by their national traditional literary works and songs.

3.2. Love Association words emphasize “responsibility and ethics”

By analyzing the original words and association intensity of high-order categories, we can find that although the words number of “romantic experience” and “responsibility and ethics” is significantly different, the association intensity is relatively similar. As mentioned earlier, although the Tibetan youth is relatively free to love before marriage, but their marital attitude is quite strict, whose style incorrect will be subject to social, family and friends and family condemnation and discrimination. This kind of traditional love concept and the influence of the open concept of social transition set up two important aspects of love in current Tibetan college students’ mind - love experience and commitment to responsibility. Western studies have found that love as a more complex emotion than the friendship has more stringent behavior standards, so the treat of lovers is more loyal than friends. Just because the higher “responsibility and commitment” they spend on love than other emotion, love will be more “passion”, “ecstasy”. Therefore, feelings do not have the full “responsibility and ethics” can not be regarded as true love. At this point, both the Tibetan and the Han students can

resist the impact of bad beliefs and uphold Traditional value of love from the excellent resources in the current society which is full of “Hook up”, “the third person” and high divorce rate.

Interestingly, there is a strong inconsistency of the words number and association intensity between “responsibility commitment” and “family human relations” in the “responsibility and ethics” high-order category. The “family human relations” whose words number is 130 tops the association intensity list (18.11), while the association intensity of “responsibility commitment” who tops the words number list (401) is only 8.24. This means that the words used by the participants to express “responsibility commitment” is abundant, and the words used to describe “family human” is relatively poor.

3.3. There are obvious gender differences in love Association

The results of association words frequency difference test show that men seem more likely to associate the words in “love experience B” and “love representation”, women are more likely to associate the words in “love experience A”.

In the classification of this study, “love experience A” mainly includes the existence of love aesthetic experience, similar to Maslows’ “exist love” (Being love), and “love experience B” is about the satisfaction of needs in love, similar to “lack of love” (Deficiency love). Although the Tibetan culture gives young people different degree of freedom between before and after marriage, it seems that men are more likely to divorce love and marriage, that think that there is not exist inevitable link between love and marriage. A qualitative study of Tibetan college students in 2015 found that women showed a more cautious and serious attitude towards love, treating love as a necessary stage of marriage, and that men were more likely to accept Parental arrangements.

This difference of attitude about love, on the one hand, makes men more likely to associate words directly related to things, that is “love representation”, on the other hand let men pay more attention to their satisfaction of needs in love, so it is easier for men to associate desires can not meet the feelings. In contrast, because women regard love as an important part of life, their attitude of love is more serious, careful, and their expectations of love is also more beautiful, positive, deep.

3.4. Emotional experiences affect love associations

Through the association word frequency difference test in every category of different emotional experience participants, we can see the Tibetan college students who are “single but had love experience,” associate more words in “conflict and pain”, especially

the “lovelorn pain” category. To further compare the top-ten high frequency words, we found that words about breakup and relationship maintain such as “break up”, “treasure”, “pay” only appear in the crowd who are “single but had love experience”. Obviously, the experience of breaking up makes the crowd who are “single but had love experience” have a more comprehensive understanding of love.

In fact, not only the one who don't have breakup experience are lack of consciousness of “contradictions and conflicts”, the frequency analysis of all subjects also shows that the Tibetan students are lack of awareness of “material basis”, “joint action” and “routine”. Although breakup experience can provide us with psychological preparation for the conflict and pain in love, can enhance our attention paid for the maintenance of love, the price is too heavy. Therefore, the relevant education departments can not let Tibetan students obtain “cohabitation” information from the literary and artistic works and even the network, rely on their own unilateral limited imagination to build their own love values, but should give their system, comprehensive emotional values education and guide.

On the basis of the word association method, this study explores the implicit love-concept of Tibetan college students, and makes a more objective and plain description of the characteristics of their love association. However, the classification standard of association words used in the study has limited the development of data. For example, association word frequency of the “other” category in the classification standard is 129, and the inconsistency between the words number and the association intensity in the category of “family human relations” and “responsibility commitment” shows that the application of original association vocabulary classification standard in this study is not ideal. Therefore, it is necessary to explore the structure of Tibetan college students' love association by “card classification”, cluster analysis and other experimental statistical methods, to provide necessary theoretical support for marriage guidance and education work of contemporary Tibetan college students.

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The Identity of a Christian Leader

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ABSTRACT: The subject of leadership has seen a rising growth in the last twenty years. A proliferation of material is available on and off-line on leadership along with thousands of seminars, webinars, and monthly conferences. All of these training efforts attempt to define and redefine leadership, and offer tips on how to be a successful leader. Prototypes for leadership are taken from religion, sport, and the corporate world. The question needs to be asked, "What is unique to Christian Leadership"? What are the marks that set aside Christian leadership from secular leadership? The answer is found in the uniqueness of Jesus Christ, the One who started Christianity. This article presents the identity of a Christian leader as a starting point in this uniqueness. A Christian leader's identity is based on his relationship with Jesus Christ and it gives him worth, value, resources and a right mentality for transitions.

KEYWORDS: leader, identity, Christ, value, transition

Not until eternity will we have the luxury of time to read all that is written about leadership. If you search "leadership" on Google you will find nearly 824,000,000 results in 0.47 seconds. It is an ocean nobody can swim or dive. Tomorrow the number will grow. Definitions, strategies, skills, know how, characteristics, leadership development, leadership traits, new horizons, are all leadership concepts presented in a most desirable light promising success to leaders.

Nevertheless, one of the deepest crises remains the lack of leadership. James Krantz, from Yale School of Organization and Management, identified in 1990 a need for

leaders. He wrote “A consensus is emerging that contemporary organizations are in critical need of leadership with compelling vision. Often this leads to an overemphasis on the personality or character of the leader. Although people clearly need to coalesce around a shared purpose in today’s organizations, the same conditions that make “vision” so prominent also make the huge emphasis on the leader inappropriate. Increasingly complex, turbulent environments have made highly centralized, bureaucratic hierarchies obsolete, and require our understanding of effective leadership to shift from the leader alone to the context in which leadership can be exercised” (Krantz 1990). If in 1990, there was a lack of leaders, by 2013, the urgency increased. Mike Myatt (2013), Chairman of N2 Growth in his article *A Crisis of Leadership – What’s Next?* wrote: “a lack of leadership isn’t just a problem in the United States; it’s a global problem. It’s also much more than an indictment on global politics; it’s a systemic problem that pervades every level of society. I don’t think there’s much debate the world is ensnarled in a crisis of leadership. The question becomes what do we do about it?”

This crisis started when people considered themselves as being wise, even wiser than God. Mike Ayens (2016) put it so well when he stated: “Possibly the saddest occurrence coinciding with the rise of the study of leadership in the twentieth century was the drift of God’s people away from the Bible as the standard of truth. The church, like the world, bought into the “whatever works” paradigm. Thus, the widespread, secular notions about leadership became pervasive and difficult for God’s people to withstand. This eventually led to the people of God accepting the wholesale assumptions of worldly leadership, and the church began to take its leadership cues from a secular culture.” With a worldly leadership standard success was defined by the secular business criteria: numbers, size, growth, buildings, power and visibility. This mentality affects the way we see leaders. The successful leader becomes the one who gets the results: numbers, size, growth, buildings, power and visibility.

Cris Glynn (2012), senior vice president for Transformational Engagement at World Vision, in his article, *What Makes Christian Leaders Different*, notices in his business as well as ministry experience that “devout Christians try to honor God with their leadership yet only succeed in putting a Christian face on a worldly system. Unfortunately, most discussions of Christian leadership simply tinker around the edges of today’s predominantly un-Christian leadership approaches. Christian leaders need to radically rethink what it means to be led in a way that expresses God’s design and purposes for our relationships”

This approach has the problem of being far away from any biblical values. Neither God in the Old Testament, nor Jesus in the New Testament defined success in these

terms. A leader was never appreciated by his eloquence, nor by the number of people he gathered, nor by the size of the organization he grew. There were other criteria to be evaluated: godliness, obedience to God, character, humbleness and real love for the people he leads.

Now, after a more secular “more academic” approach has proved deficient, the pendulum has swung toward more biblical or religious leaders. We have started to learn from several lists of the most influential leaders. John Sweetman (2012) identified six leaders and one lesson from each of them: “Abraham and faith, Moses and Perseverance, Joshua and Courage, Gideon and Obedience, David and Heart and Daniel and Prayer.” The lists are countless, and also the characteristics of a leader.

Today, if somebody read a secular book on leadership and a Christian book, they will find a overlapping of qualities. For example, the bestseller book *Good to Great*, presents Jim Collin’s five-year study on companies searching for the reason behind their success. At the top of his pyramid, there is what he called a “Level 5 Executive”. This type of leader has a combination of “personal humility and professional will” (Collins 2001, 20). For the secular world, humility in the life of a top executive is a paradox. This sounds more like Jesus!

The question remains, what characteristics are unique to Christian leaders? What makes a Christian leader a Christian? Chris Glynn (2012), recognized that: “When Christians talk about how God desires us to lead, we often discuss qualities that may be present in any leader. The Christian leader should seek to serve, as Jesus did. The Christian leader should work with integrity and honesty. The Christian leader will treat people well and with respect. Of course, in my years of for-profit leadership, I’ve seen non-Christians demonstrate all these values.”

Looking at Jesus, the greatest Leader of all time, we can identify some of the unique qualities of Christian leaders. These qualities give different answers to the Who, What, How and Where of leadership. For the sake of time and purpose of this paper we will consider only the “Who question,” the identity of a Christian leader.

Who is the leader? What is his/her identity? More and more people take seriously the identity of the leader. Jim Collins entitled the whole chapter “First Who, Then What?”

The identity of a leader has a competence side and a character side. On competence, there is no distinction between a Christian and Non-Christian leader. Both leaders could be the same. On the character side there, are leaders who are humble, moral, and sincere, regardless of their belief system. What is the difference between a moral leader and a godly one?

This was the most difficult question, even in the time of Jesus. In the Jewish religious system, there were different groups of spiritual leaders. The most well known ones were the Pharisees and Teachers of the Law. They were extremely preoccupied with the fulfillment of the Law as a sign of their spirituality. They tried to obey even the most minuscule commands in order to please God and impress people. They had a built-in righteousness, trying to work out their way to God. About them Jesus said: "For I tell you that unless your righteousness surpasses that of the Pharisees and the teachers of the law, you will certainly not enter the kingdom of heaven" (Matthew 5:20).

This righteousness gave them a sense of self-worth and superiority to any other person. About them, Jesus said: "I tell you that in the same way there will be more rejoicing in heaven over one sinner who repents than over ninety-nine righteous persons who do not need to repent (Luke 15:7). The religious leaders did not consider that they needed repentance, because of their righteous works.

What is there in a Christian identity that makes Christian Leadership unique? The starting point is a sincere self-evaluation. Who are we on our own? The Bible teaches that we were lost, separated from God by our intentional sin. It is intentional because it involves a personal choice made by each one of us to get away from God, to do our own will, to control our own life. This state of being is also called being dead in our sin.

Being dead in our sin would not have been a problem if we were able to do something about it. Neither a dead person nor a spiritual dead person can on their own become alive. We are not only lost, but we are hopeless. We can do nothing to get to God! This reality should be understood and accepted. This is the starting point.

Because God continues to love us even after we betrayed Him, He acted. God sent His Son, Jesus Christ to come and offer the payment for our sin. It was the highest price possible, His own life for the sin of mankind. This unique sacrifice satisfied the righteousness of God and as a sign, He raised Jesus from the dead. Now there is a solution, the only acceptable solution.

But this solution is not imposed automatically on anybody. Each person should decide if he wants to continue far away from God or to come home to God. Leaving the sinful past is called repentance, and trusting God for salvation is faith. But this is not just one momentary encounter, it is a new relationship. As a new spiritual beginning, we also call it being born again.

The new identity is called the child of God. Apostle John presented this miracle so simply: "He came to that which was his own, but his own did not receive him. Yet to all who did receive him, to those who believed in his name, he gave the right to become

children of God—children born not of natural descent, nor of human decision or a husband's will, but born of God" (John 1:11-13). This is our new position – member in the family of God.

But this new life needs to develop, a child needs to grow. He must become a disciple, a person who starts learning from his Master to be and to do whatever He is doing. A Christian leader is first a Christian, this means he is a child of God, reconciled with his Father and a disciple of Jesus Christ, full of the Holy Spirit. How does this identity affect his leadership?

Identity as a child of God gives a Christian leader his value and his sense of worth

The Christian leader's identity is based on Christ and what He did for us on the cross. A leader's worth is not dependent on how many deeds he is doing to please God. This truth is well illustrated in Jesus' baptism. After Jesus was baptized by John the Baptist, "... a voice from heaven said, "This is my Son, whom I love; with him I am well pleased" (Matthew 3:17). This declaration came *before* Jesus performed any miracles, preached any sermon and did any public teaching.

A Christian leader's sense of worth is elevated by knowing the price paid for his redemption. He is like a captive held hostage then released by the life of the most important person in the Universe (1 Corinthians 6:19-20). God did not spare His own Son for us – for we have been bought with a great price.

A leader in an established position does not have to be concerned about numbers or performing great achievements. A Christian leader can concentrate on his job, not on his reputation. Makintosh and Rima (2007, 213) put it very well when they affirmed that "The idea that a Christian leader's identity is based on Christ is a challenge to 'come to the point where we recognize that our value is not dependent on our performance, position, titles, achievements, or the power we wield.'"

Non-Christian leaders find worth in a position. As a result, they are always looking for a better position, a higher rank, a more visible place in the business. They see an enemy in every person who might take their place, and a hindrance to every person who is occupying the next higher step where they want to be. Their worth and value in a position is like a drug: always requiring a higher dose to have the same effect.

Identity gives a Christian leader a sense of acceptance

A Christian leader is freed from the desire to be accepted and appreciated by people. He is accepted by God as a member in His own family (John 1:12), he is no longer an enemy of God, the war is over. He is justified by God through Christ and has peace with God (Romans 5:1). As a disciple, the leader is a friend of Jesus Christ (John 15:15)

A Non-Christian leader is a people pleaser, especially toward those who can help him get where he wants. He is a slave of others, trying to keep them happy at his own costs. He cannot please the superior because he is interested in higher performance. He cannot please his inferiors because they want higher benefits. He cannot please his colleagues who are theoretically a team, because in reality they are his competitors.

Identity connects the Christian leader with the resources

Leadership is hard, it is difficult. Only a follower thinks that leadership is easy! Brian Evje (2012), the principal of Equipose Alliance put this so well when he stated: “Many burdens of leadership are well known and visible: getting people to back a common purpose and vision, managing change, and maintaining a balanced personal perspective. But there are a number of hidden challenges, common to both new and old leaders that underlie the more familiar work. To be a truly effective leader, you’re going to have to address them as well.” John Eades (2016) presented “A recent survey showed that there are roughly 2 Million new employees promoted into leadership roles in organizations every year. Consequently, 60% of them fail. Meaning 1.2M people fail at leadership every year.” These numbers are huge. Leadership is tough!

When you think of Christian leadership it becomes even tougher. A Christian leader is usually working with volunteers. He has no ways of “stimulating” the followers to change, or follow a vision, or volunteer their time, energy and money. He has no pay roll, grade book or any incentives. Still, he needs to motivate people, serve people, love people and invest his life in the community he leads. Where can a Christian leader find resources?

Brian K. Dodd (2013) offers a general answer to this question: “There is always a gap between what you have and what God wants done... The only way you can accomplish the assignment is if He does it through you.” He was right. Jesus expressed the same truth when he gave His disciples the last teaching before the crucifixion. Jesus used the wine to portray a visual lesson: He said: “Remain in me, as I also remain in you. No

branch can bear fruit by itself; it must remain in the vine. Neither can you bear fruit unless you remain in me. I am the vine; you are the branches. If you remain in me and I in you, you will bear much fruit; apart from me you can do nothing” (John 15:4-5).

The Christian leader gets his needed resources from Jesus. When he needs humility, Jesus invites him to “Take my yoke upon you and learn from me, for I am gentle and humble in heart, and you will find rest for your souls” (Matthew 11:29). When he needs love, God places love into his heart through the Holy Spirit (Romans 5:5). When he needs the power to forgive, Jesus reminds him how much he has been forgiven. When he needs the power to carry on, Jesus reminds him that He has all power in heaven and earth. When he feels alone, Jesus reminds him that He will be with him every day. When he needs wisdom Jesus is his wisdom.

What does a non-Christian leader do when the job becomes so difficult? Where will he turn for resources? Who can he really trust? It is no wonder why 60% of new leaders quit every year!

Identity makes a Christian leader’s transition easy

Leaders get older and the time comes when they need to step down off of the stage. This is painful! Likewise, there are times when a leader needs to move on from a place of comfort to a new uneasy place. How can a leader leave a project that gives him significance and the sense of importance? How can he leave his heart and go?

Rhoden (2018) clearly and gracefully puts it this way: “Guarding yourself against improper identity in those leadership roles allows you to transition out of roles when the time comes. There will come a point in certain leadership roles where the most God glorifying thing and the thing that best serves those around you is for you to transition out of that role. If your identity is wrapped up in Christ, this will come much easier. If your identity is wrapped up in what you’ve become good at doing, this will be a painful process for you and those around you.”

In conclusion, the main thing that makes a Christian leader unique is his identity in Christ. He is born again, forgiven, he is a member of God’s family, dead from a godless life and alive with Christ to a new life, he is a citizen of heaven and an ambassador on earth. This identity helps him to be confident in his internal world, where nobody can see, it helps him relate to his followers and serves them lovingly, it gives him unlimited resources for every situation and it helps him to do the transition with dignity and peace. This type of leader is surely successful!

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Hostility and Controversies upon Recommending the Teaching of a Standard Variety via a Colloquial Variety at Primary School Level: The Case of *Darija* in Algeria

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ABSTRACT: In 2015, speculations have raised to debate recommendations suggested, among others, at the Algerian National Conference on the Evaluation and Implementation of School Reforms to recommend the teaching of Standard Arabic through Algerian Colloquial Arabic –*Darija*- at primary school level. Since independence, in 1962, Algeria has witnessed an Arabization policy whereby the Arabic language was imposed as the sole official and national language at political, economic and most importantly education level. The aim of this work is to shed the light on the pedagogical and socio-linguistic motives nourishing the possibility of implementing a vernacular variety– which has no morpho-syntactical and phonological representation - as a vehicle for knowledge transmission, literacy and education in the Algerian primary school level. Focus will also be put on highlighting emerging vectors of controversies and hostilities against the project that are deeply rooted in the historical, political and identity-based reality of the country.

KEYWORDS: Speculations, Algerian Colloquial Arabic, The *Darija*, the Educational System, Algeria

1. Introduction

It has become well established to say that Algeria is characterized by an ideal of unilingualism which nourishes a language ideology based on favoring the sole use of Standard Arabic in the political, legal, social and economic spheres. It is also well known that Berber language varieties, dialectal Arabic and French are, to varying degrees and in different ways, consistently denied by official discourse. It is not possible, within the framework of this article, to draw up a complete picture of the situation of languages in Algeria; the few indications that follow will only make it possible to lay the necessary steps to understand the context of teaching Arabic in the country.

In fact, the functional distribution of Arabic in Algeria is organized around two preponderant language embodiment: the standard language body versus the Dialectal body. In Algeria, as in all Arab countries, dialectal Arabic – commonly known as Darija or Darja - is the one spoken at home. The Darija is a spoken and an unwritten variety with no available codified material or prior and settled morpho-syntactical or phonological representation as compared to Standard Arabic which is a rich and well established language at the morphological and phonologically levels; that is enjoyed in religion, education and in the official discourse. Algerians learn classical Arabic in their first year of primary school and study it until they sit for the baccalaureate exam but they acquire Algerian Arabic as their mother tongue.

2- Darija ...in Harmony with Society but not with Education

Darija represents for most Algerians a vehicle of a rich and varied Algerian popular culture. The sphere of social networks and telecommunications is not left behind with tweets, Facebook messages and SMSs fully written in Darija. No one can deny the impact Darija is having on the evolution of the linguistic landscape in the country.

However, Darija has low prestige in Algeria. It is still qualified as the language of the street and Algerian houses. It is seen as an improper or vulgar form of Classical Arabic, tainted by a long history of borrowing from French, Spanish, and Tamazight. The negative attitudes towards Darija can be explained as a way of preserving the purity of Classical Arabic.

In fact, education is an exceptionally influential tool in shaping language attitudes. The adoption of a language in school can legitimize a language, encourage its perception as a language that carries a manifest benefit, boost and reassure young children to adopt

it. The stigmatization of Darija is apparently accentuated by the fact that it is not a language of education: it is neither the language of instruction nor a written language.

3- In the Beginning

Since July 2015, the “rumor” to implement Darija in education stirred the media lantern and that of social networks. This research is born from a reflection on a propagated rumor about what if *Darija* is to be used to gently introduce and backup the teaching of Classical/Standard Arabic - the national and official language of the country- in the very early educational stages at primary school level.

According to an interview with Algerian Education Minister Nouria Benghebrit on Algerian Echourouk News TV, she put into question a national problematic which, according to her, hinders the teaching/ learning of Standard Arabic during early stages as most Algerian children grow with very limited if not scarce presence of standard Arabic around them: very few children grow up speaking it, so they often feel lost on their first day of school. Ms. Nouria Benghebrit advocated the introduction of Darija at the primary school and the main argument behind the project is to reduce pupils' frequent school failures due to the difficulties stemming from the teaching and learning of Standard Arabic.

The minister also emphasized that the use of local dialects in schools is not intended to snatch Classical Arabic position as Algeria's official language. Instead, teaching in Darija will be an attempt to bring knowledge closer to pupils in preparation to teach them Standard Arabic at later stages. Algeria, through the minister's ambitious project, sought to embark on a promoting reform of its education system, aiming on the one hand to generalize a smooth learning of Standard Arabic via Darija and on the other hand to modernize curricula and teaching practices.

The teaching of Standard Arabic using Dialectal Arabic in this very sensitive stage of education as suggested by the Algerian Minister of National Education has provoked a gigantic avalanche of criticism describing the proposal as an “*unacceptable heckling*”.

4-Controversies and Hostilities

The desire to introduce a dose of Arabic dialect in school education in Algeria triggered a revolt of purists and conservatives against the Minister of Education. Social media, parents, education unions and even ministers, politicians and parliamentarians raised controversial debates and went beyond that in fighting the minister's reported

suggestions. Those against the project saw it as a “*Violation of the Constitution*”, “*attack on national unity*”, and “*betrayal of the oath of martyrs*” of the war of independence: what was supposed to be a pedagogical affair took on a political and ideological turn.

4-1 An Attack to National Identity and Unity

When French widened its dominance in the Algerian territory, it aimed at a generalization of the use of the French language. Thus, the number of the Koranic schools was reduced and the Arabic language was suffocated and dismissed as a backward language. A French law of 1938, then, declared the Arabic Language a foreign language in Algeria. As a result, education was oriented towards French, while Standard Arabic was cut off from contemporary technological and scientific developments limiting the field of its use mainly to religious contexts, and Darija was conserved for everyday conversation.

After independence in 1962, nationalists pushed Arabisation to undo 132 years of French indoctrination; the purpose is to deploy the Arabization education policy and attempt to remove the French language in favor of Arabic. Ahmed Ben Bella, the first president of the Republic, in his first public and official address, unequivocally establishes the framework in which must be defined Algerian identity: “We are Arabs and Arabs, ten million of Arabs”. [...] there is no future for this country except in Arabism” (speech of 5 July 1963).

The most important Law is undoubtedly Law n° 91-05 of January 16, 1991 generalizing the use of the Arabic language, modified later by the law of December 21, 1996. It aimed at excluding the use of French and any other language by stipulating that public administrations, institutions, enterprises and associations, whatever their nature, are required to only use the Arabic language in all their activities such as communication, administrations, financial, technical and artistic management.

The Arabization education policy which attempts to remove the French language in favor of Arabic continued to foster Algerians’ thirst to the language which symbolizes identity and independence. Arabization was implemented along two directions, one being nationalist and the other religious. Arabization meant for some people an OBLIGATORY decision even if they knew that it will lead to a linguistic failure. Benrabe (1999) said that Arabization will not succeed but in any case it must be done. The Algerian Islamist parties, to react to the rumors, issued a joint statement on July 29, 2015 in which they denounce “*a dangerous precedent case in the history of education in Algeria (...) likely to make explode national identity and unity.*”

It is because national identity, in Algeria, is composed -according to the constitution and laws- by Islam, Arab affiliation and Berber affiliation, Ms Benghabrit's project and the language issue in particular have raised endless polemics and have been judged as a violation to the foundations of national identity and unity.

4-2 An Attack to the Nation

'The Arabic language is a red line that the Ministry of Education and no one else should reach.' This was said by the spokesperson of the National Union of Education and Training Personnel (UNPEF) Sadek Ziri who considered that the teaching of the Darija in the compulsory cycle would be returning backward. Sadek Zirir saw the project as an attack on the foundation of the nation. He added saying that if there are efforts to be made in this direction, it would be with the Tamazight language which should be generalized in all the schools of the national territory. It would also make sense to do the same for English, which needs to be improved and encouraged (July, 2018) . Yacine Boudhane (September 18, 2015) further stipulates:

"Supporters of Standard Arabic believe that teaching in dialect "threatens the fundamentals of the Algerian nation and puts its unity at risk." They also raise a fundamental question, asking which dialect the ministry would choose for the new language of instruction out of Algeria's dozens of local dialects. Favoring one dialect over another for schooling could produce serious social divisions and in turn threaten the unity and solidarity of Algerians."

A parliamentary group asked for the "immediate departure" of the Minister of Education who, according to them, "*crossed the red lines by infringing the foundations of the Algerian nation and society*".

4-3 An Attack to the Sacredness of the Arabic Language

Algerian Minister of Tourism Amar Ghoul has opposed Ms Benghabrit's proposal. He reacted to the controversy during a meeting on July 31, 2015 during which he argued,

"...this file is closed since the Minister said that she did not declare this and if she had declared it, the initiative must imperatively go through the government council."

Mr Ghoul warned the Minister of Education stipulating that the Arabic language is sacred and is preserved by the constitution and that for him Islam, the Arabic language

and the Tamazight are red lines, national constants, and Novemberist principles that Algerians would safeguard and defend fiercely. Islamic currents also opposed the project in the name of the sacredness of Arabic: the language of the Koran. According to a statement issued by the Association of Algerian Muslim Ulama, “*The Arabic language is one of the pillars of Algeria’s cultural identity, and we cannot bypass it under any pretext whatsoever.*” From the outset, the project is denied and seen as a germ of division threatening a national unity based on Arabic and Islam. Any reference to Darija in education is then instrumentalised to serve foreigners and neo-colonialism.

5-Conclusion

By using the mother tongue in education, we develop a significant part of the brain, argues Nouria Benghebrit citing neuroscience specialists. Not only Benghabrit but also many specialists in language sciences (speech therapists, linguists, psychologists, sociologists, etc.) are unanimous in saying that mother tongue is very important for developing cognitive abilities, socialization and especially belonging to the same nation.

In reality, Algerians are disoriented. It is not the daridja that disturb them but rather their sense of identity, belonging and unity that they would strive to preserve. Thus, the choice of the language of instruction, which must be scientifically determined by specialists and experts, should not fall in the hands of politics and ideology.

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Financial Constraints to SMME Growth: Investigating the Moderating Effect of Microfinance

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ABSTRACT: Small, Medium and Micro Enterprises (SMME) play a significant role in an economy. SMMEs are an important source of jobs, entrepreneurial spirit and innovation. However, despite the noted contribution of SMMEs, in many countries they face serious constraints, often resulting in failure. The constraints and economic environment have significant and unequal effects on SMMEs in different industries and in different locations. Constraints have been used, amongst other growth factors, to understand why some SMMEs fail to grow. The aims of this study was to examine the effect of financial constraints on SMME growth and to investigate the moderating effect of microfinance on overcoming, avoiding or

mitigating the financial constraints to SMME growth. The study found evidence that the lack of professional financial advisors, lack of access to finance and lack of awareness of financial services and assistance were significant constraints to SMME growth in South Africa. However, beyond knowing the effects or constraints, it is important that entrepreneurs know how they can avoid constraints. The study shows that microfinance provides a way to overcome or mitigate financial constraints for SMMEs that exhibit a constraint to growth. These results imply that microfinance can play a positive role in SMME growth particularly for SMMEs that experience financial constraints. The study also suggests that MFIs and government agencies should provide more information to the public in particular to SMMEs so they can reduce the negative effect of lack of awareness of financial services and assistance on SMME growth.

KEYWORDS: SMME growth, financial constraints, microfinance, moderating effect, South Africa

Cost-Benefit Analysis of Artificial Intelligence (AI) Fired Robots (AI-Bots) Replacing Educators

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ABSTRACT: In 2016, Buckingham University's Vice-Chancellor predicted that the educators will lose their traditional role in 10 years and effectively become little more than classroom assistants (2017, News.com.au. This is supported by the Georgia Institute of Technology's Computer Science Professor "Ashok Goyal", who has been using Jill Watson (AI-Bot) successfully since 2016 as a Teaching Assistant to help online students (2016, Hillary Lipko).

Jokes cracking Sophia (AI-Bot) by Hanson Robotics of Hong Kong mimics human beings. She appeared at Austin in the 2016 Interactive Festival and in the same year became a citizen of Saudi Arabia (2016, Sean Martin). Apparently, AI-Bots have already demonstrated superior performance in many areas. This poses a threat to educators of being replaced by AI-Bots. However, AI-Bots are expensive. The cost of the most advanced AI-Bot "ASIMO" by Honda in 2016 was US\$ 2.5 million (Honda.com). Most are afraid of being replaced by Robots. In 2017, Sophia urged, people in India, not to fear AI-Bots, but the 2017 Oxford University's study estimated that 47% of all U.S. jobs could be replaced by AI-Bots within 20 years. This trend is confirmed by the findings of the Center for Business and Economic Research at Ball State University, which attributed 85% of the 5.6m manufacturing job losses between 2000 to 2010 in the USA were due to technology.

The 2016 National Center for Education Statistics (NCES) shows that in 2015 a total of 1.6 million faculty (Full-Time 52%: Part-Time 48%) were employed in the degree granting postsecondary institutions, with total annual salary of \$131.4 billion. If 47% of all faculty lose their jobs over 10-15 years - It will result in a potential total savings of 61.75 billion in the 2015 US\$. Such a large amount of

savings will come at a cost of expensive AI-Bots and hiring of additional of IT Staff to keep the Bots working efficiently and effectively. Replacement is likely to start gradually with part-time to full-time faculty. As demonstrated by Georgia Tech, online part-time faculty is likely to be affected first followed by other part-time faculty teaching face-to-face courses. Next in line will be non-tenured faculty. Many colleges and universities have already stopped awarding tenures and others will follow suit. Because, under the contract to fire a tenured professor of any rank is almost impossible. However, they may leave voluntarily due to their own wish or offers of lucrative retirement packages.

Due to the expected replacement sequencing of the faculty, the above mentioned potential savings of 61.75 billion in the 2015 US\$, will be much less, because most of the part-time faculty is likely to be replaced first within next 10-15 years, whose average annual income is about one third of the full-time faculty (2013, The NPR Report). Assuming 50% of the part-time faculty is gradually replaced by AI-Bots as compared only 5% of full-time faculty in 15 years, it would result in a potential savings of little over 10.00 billion in the 2015 US\$. The estimated costs of such a large amount of savings, if not impossible to determine, can be estimated by the educated guess of at least 50% of the potential savings. Asides from the several demonstrated benefits of the AI-Bots, he estimated guess of the costs is based on the continued drop in the prices of all sorts of high-tech items and this trend is likely to continue in the future, even for AI-Bots.

KEYWORDS: Artificial Intelligence, AI-Bots, Sofia, ASIMO, Potential Savings

The Status and Role of Women in the Pasemah Tribe: Decreasing Acts of Violence Against Women Using Local Wisdom as Value Education

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ABSTRACT: The National Commission on Women in Indonesia, conveyed in its annual report that the number of incidents of violence against women continues to increase from year to year (Kompas, 2016). Sexual violence is one of the most prominent forms of violence, so it is said by some that Indonesia is currently in an emergency condition concerning sexual violence. Some famous cases reported in the media, among others, include the Yuyun junior high school girls in Bengkulu, who were raped and then killed by 14 drunk young men, all the perpetrators were underage; a woman was raped by 19 people and severely traumatized in Manado; and the most recent is the sad case of Eno in Tangerang, who was raped by her boyfriend, who then cruelly pierced a wooden handle into her vagina through to her lungs. Many activists, researchers, educators and other community members have advised including materials for the protection and empowerment of women through formal and in-school education in both families and communities. Most of our societies still regard women and children as weak human beings, who have no right to be protected, and can, therefore, be used as an outlet for resentment, anger and all forms of negative emotions. Therefore, the education of cultivating the values of tolerance, caring, compassion and respect for women is important and should be a massive movement by various parties to correct this frighteningly incorrect view towards women. It is also suggested that the values education uses the local wisdom evident in the community because humans learn better from the values that exist in their own environment.

This study was conducted in order to provide information regarding the local knowledge, which the community can use as value education aimed at reducing the acts of violence against women. This study describes the status and roles of women in the Pasemah tribe, South Sumatra. The researcher investigated the values of justice, equality, and respect for women in the tribal culture via the form of daily social interaction and cultural activities. This research used a qualitative method with an ethnography approach. The researcher conducted intensive field research in Pagaralam, South Sumatra, one of the areas where the Pasemah tribe resides. Data collected was in the form of interviews, observations and documents. The techniques used in analyzing the data included a descriptive interpretative method. The data obtained from the research is reported as is, then analyzed and presented descriptively to gain a comprehensive overview of the facts to help answer the questions about the formulation of the problem.

KEYWORDS: Status, Role, Women, Pasemah Tribe, South Sumatra, Indonesia, Violence Against Women

Subjectivity, Belonging, and Performativity: Adivasi Land Struggles in Kerala, India

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ABSTRACT: In postcolonial Kerala (India), Adivasis (the indigenous communities) have been entrenched in a legal discourse on the restoration of their alienated land, which they had lost to the migrant settlers (non-Adivasis migrated from other parts of Kerala to Adivasi settlements, encroaching their land). In the neoliberal period (after 1991), marking a historic shift, the Adivasis initiated an unprecedented socio-political mobilization for land, premised on their indigenous identity. These protracted land struggles have enabled the Adivasis to reconstitute their political subjectivity reflexively and emerge as a socio-political formation. Performing Adivasiness have been central to the way the movement has been seeking to embed the indigenous identity and construct a politics of belonging. My research interrogates the dynamics and processes that are constitutive of Adivasi subjectivity and how their land struggles are reworking the democratic fabric of Kerala. In this presentation, I would like to draw on my empirical data to argue how Adivasis have inadvertently used the depriving elements of their marginality as resources for their relentless struggle for land and in turn have reconstituted their political subjectivity.

KEYWORDS: Subjectivity, belonging, Land struggles, Indigenous politics, Reflexivity

Leadership of Deans: Difficulties and Challenges for Deans at Private Universities in the Mekong Delta Region of Vietnam

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ABSTRACT: Private universities have been mushrooming in the Mekong Delta region of Vietnam, and this requires necessary changes in university administration, especially educational administrators. This study investigates difficulties and challenges that deans at private universities in the region have been facing. The study is a qualitative one in which semi-structured individual and focus group interviews were conducted for data collection. Twelve deans and 18 departmental heads and vice heads from 3 private universities in the Mekong Delta participated in this study. The findings of the research indicate that deans' difficulties and challenges could be categorized in three main areas: autonomy, leadership styles, and resources.

KEYWORDS: deans, private universities, Vietnam, difficulties, challenges, autonomy, leadership

