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Impact of Cultural Variation on Knowledge Management – Study of National versus Multinational Banks

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Abstract - This study was initiated to measure the role & impact of culture (sub-factors) in the process of knowledge management and to priorities cultural factors (variables) especially with respect to cultural variations. Moreover, study measured the extent/degree of contribution of different cultural factors (variables) in the adoption and implementation of knowledge management practices. This research was conducted in Banking Industry of Pakistan. Expert survey guided by well structured questionnaire was managed to achieve basic objectives. Knowledge sharing, cross functional & interdepartmental teams, intrinsic & extrinsic rewards, official language, interpersonal trust, group trust, organizational trust, institutional trust, sharing of routine information, external orientation i.e. use of consultant, trade journals, etc, on job training and transactional leadership were used as cultural constructs. Descriptive (mean) analysis and t-test were used to measure the extent of different cultural factors (variables) and their significance in adoption and implementation of knowledge management process. Outcomes exposed visible variations in term of priorities with respect to cultural variables and their contribution in the process of knowledge management. Moreover, Results revealed that knowledge as individual's power, local languages, sharing of sensitive information, transformational leadership, and off the job training are among the cultural variable considered less important in adoption and implementation of knowledge management. In addition, existing cultural variations creates differentiation of opinion in term of degree of contribution of different cultural variables in the process of knowledge management.

Keywords : *Knowledge Management, Cultural Factors, Banking Industry of Pakistan*

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I. Introduction

Today, business organizations are using 'knowledge' as power over others to acquire better understanding and to formulate competitive strategies (Ducker 1994; Nonaka 1995; Zack 1999). At present, in a highly competitive business environment, main challenge for any organization is to produce skills and to create culture that must facilitate the adoption and application of knowledge management process. Knowledge can be classified as explicit and tacit and normally used to get know-how and this know-how helps organizations to boost their performance (Milton 2002). Ford (2001, p.33) stated explicit knowledge as "knowledge that can be easily coded" (e.g., documented, identified, and articulated), while, tacit knowledge as "knowledge that is extremely difficult to code" (e.g., identified, articulated and documented). Vorbeck, Heisig et al. (2001) explained that every organization contain two types of assets, tangible and/or intangible assets. The key to success for any organization is to create culture that must convert their intangible assets to tangible assets and this can be achieved through a process known as knowledge management. According to Muhammad and Hayati (2006, p.2), knowledge management refers to "the process through which organization create, gather, organize, share and analyze its knowledge in terms of resources, documents and people skills".

Observing the benefits of knowledge management, now-a-days organizations are striving to create a 'culture' that must facilitate the process of knowledge management and help to preserve knowledge and experience of their employees so that it can be utilize in future (Dfouni and Croteau 2004; Goh et al. 2006). Benefits of the organizational culture that facilitate knowledge management occur at both individual level and organizational level and such culture will help organization to make faster decisions through empowerment of their employees (Milton 2002). Academicians and practitioners have presented number of theories, models and case studies focused on the relationship between knowledge management and culture. These studies have described organizational culture in various ways. According to Usoro and Kuofie (2006) organizational culture is defined as the way we do things around. Organizational culture set the rules, assumptions, values, norms, beliefs, and the way of doing things that will help organization to create, gather, organize, share and analyze its knowledge in terms of resources, documents and people skills. According to Hurely and Green (2005) organizational culture can be accessed by focusing on organizational task, structure, technology and people. Flynn (2004) stated that successful organizations are those who own up and intrigue their existing intellectual assets as well as devise new knowledge inside the organization. To be

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successful, an organization must address affairs related to culture, strategy, policy, and practice.

Van den Berg and Wilderom (2004) have explained the process of knowledge management through work practices based approach, which include five dimensions, i.e. autonomy, inter-departmental coordination, external orientation, human resource orientation and improvement orientation (Van den Berg and Wilderom 2004). Usoro and Kuofie (2006) have presented a model that classifies culture into two main streams a) organizational culture and b) societal culture. In order to measure the organizational culture two different approaches named value based approach and work practices approach along with various culture factors i.e. trust, free information sharing and positive working relationship have been suggested. While according to Davel and Snyman (2007), it's the organizational culture that guides members of the organization how to manage their knowledge effectively, however, organizational culture itself is the single largest hurdle toward successful implementation of knowledge management process (Mason and David 2003).

Much of the existing research have probed the role and contribution of existing culture in knowledge management, yet little attempts have been made to priorities various cultural factors with respect to cultural variation on knowledge management. To fill this knowledge gap this study has been initiated with two main objectives;

a. *Understand and measure the role & impact of culture in the process of knowledge management and to priorities cultural factors (variables) especially with respect to cultural variations.*
b. *To measure the extent of contribution of different cultural factors (variables) in the adoption and implementation of knowledge management.*

Further, the paper has been planned as; section 2 present current state of literature on cultural variables in context of existing theories and models normally perceived obligatory in adoption and implementation of knowledge management process. While, section 3 present snapshot of research methodology, followed by data analysis in section 4. Last section 5, discuss the findings and conclude the research along with future implication.

II. Literature Review

Nemours practitioners have presented heterogenous theories, models and case studies explaining relationship between knowledge management and culture. Long (1997) has accessed organizational culture from behavioural (norms and practices) perspective and conclude that organizational knowledge and culture are closely allied. Moreover, Long (1997) has introduced a framework related to knowledge management that focuses on three major elements included are; work processes, technology, and culture. He recommended four ways in which organizational culture impact behaviors central to knowledge management. 1) Culture and specifically subcultures outline our assumptions about what knowledge is 2) Culture conciliates the relationships between individual and organization-level knowledge. 3) Culture formulates the frame of reference for social interaction and 4) Culture silhouettes the procedures by which new organizational knowledge is taken, legitimated, and diffused (Long 1997). Tuggle and Shaw (2000) concluded that knowledge management can be enabled or impeded by organization's culture. One way to review an organization's culture is to cross examine the impact of knowledge management on an employee's set of activities, meetings and attitudes. If the organizational culture brings changes to the individual's daily work routines, then the employee will most likely be embrace to their new work system. They come forward with the model that can be used to gauge whether or not existing culture is appropriate for the successful implementation of knowledge management.

Choi (2004) attempted to scrutinize the knowledge supportive human resource (HR) factors that can influence the success of knowledge management. Results proved that top management support is a decisive factor for knowledge management success. Factors that were accessed and conceived to be compulsory for the success of the knowledge management are training, employee involvement, teamwork and collaboration, employee empowerment and leadership. The results of a study reveal that leadership performs a more consequential role toward human resources supportive environment. Flynn (2004) presented a knowledge management model and used the organization culture audit approach to identify those barriers that can hinder knowledge management process. Organizational culture related barriers to knowledge management identified by the number of authors, which are; unwillingness to share knowledge, fear of knowledge sharing (job security), mistakes are not tolerated, too little time to share knowledge, no use of appropriate technology, information overload, command and control culture.

These cultural variables have been observed by number of authors. Hurley and Green (2005) utilized the Leavitt's (1965) model of an organizational change as a framework to review the components essential for efficacious knowledge management culture. Results portray that task, structure, technology, and people conduce significantly to a knowledge management culture. Goh, Ryan et al. (2006) have identified some key cultural factors included are; collaboration, mutual trust, learning, Kiasu-ism, leadership and use of incentives or rewards, which have significant impact on the level of knowledge management practices. According to Nonaka and Konno (1998) organization's cultural factors

that are required for efficacious knowledge management are empowerment, leadership support and motivation. Moreover, human resource kindred factors that were singled out are, IT training, teamwork, communication, education, orientation and voluntary participation.

Muhammad and Hayati (2006) used case study approach to access the validity of research model known as "Banking Knowledge Management Model" (BKMM) in the banking sector. The model identifies impact of environment, people and technology on knowledge management processes. Moreover, they have acknowledged various cultural factors i.e. communication, reward systems, leadership, use of knowledge experts, group problem solving, sharing of new ideas and lack of training that can either facilitate or hinder knowledge management. Chen and Mohamed (2008) presented a theoretical framework on the business environment and tried to access the impact of organizational environment and technical environment on knowledge management from strategic perspective. According to them, every organization consists of internal business environment and this internal environment can help organizations to adopt and implement knowledge management process. Moreover, they suggest knowledge management requires trust and collaboration. The outcome of the study exhibited that both organizational environment and technical environment can impact organization knowledge management purists; however, it is the organizational environment that has greater repercussions for knowledge management practices.

In literature, Kiasu-ism refers to mentality that "knowledge is my power" and job insecurities leads to hoarding of knowledge by employees for self-preservation. Organizational culture with high Kiasu-ism will be unable to create culture of collaboration and mutual trust. Organizational culture should promote the belief that sharing leads to power rather using knowledge as a power. Organization has to make sure that their employees should get chance to learn and develop themselves at job. According to Milton (2002), organizational culture that does not help its employees to realize that knowledge sharing will increase collective power rather individual power. While, explaining the importance of trust, Levin et al. (2002) and Ford (2001) suggest that trust play vital role in knowledge sharing. This is due to the reasons that trust not only help to create coordination but also facilitate the exchange of explicit as well as tacit knowledge. Researchers have also investigated the role of leadership in knowledge management process. Leadership refers to the ability to influence and develop individuals and teams to achieve goals that have been set by the organization. Ambrosio (2002) stated that organizational culture in which leaders lead from front and support their employees will be able to create and share knowledge. In a similar tune, Haneberg and Practice (2009) concluded that leadership influence organizational culture through its intuition, mission and strategies. Similarly, Crawford (2003) concluded that organizational culture which promotes transformational leadership will be able to implement knowledge management successfully.

Organizations that want to see their knowledge management initiatives to be successful, they have to introduce incentives and rewards in their culture. These incentives and rewards are the source of motivation. According to Goh et al. (2006) both intrinsic as well as extrinsic rewards facilitate the process of knowledge management. While, Amabile (1997) concluded intrinsic as well as extrinsic rewards influence motivation and therefore boost morale. In addition to above, many authors have identified the role of teams in the process of knowledge management. In this regard, it was established that organizational culture that does not encourage communities/teams building fails to institute knowledge management. To certify that knowledge sharing will take place among members, organization should make cross-divisional teams (Milton 2002). This drive will not only publicize the knowledge management, but it will also ease to amalgamate ideas from different sources (Nonaka 1995). By building teams organizations can exercise the hidden skills and experience of its members in the more productive ways (Choi 2004). Usoro and Kuofie (2006) observed that knowledge friendly culture is one in which employees work closely with each other. Teams promote collaboration, where, collaboration refers to "the degree to which people in a group actively assist one another in their task" (Hurley and Green 2005; p.47). Without collaboration knowledge sharing and creation can never be possible; this is because collaboration directs toward the concept of "togetherness".

In literature, another key cultural dimension is training of employees by offering different programs i.e. mentorship programs, job rotation etc. Training can be provided on the job and off the job. These training session aid employees to enhance their knowledge (Gümüş and Hamarat 2004). Success of knowledge management initiative relies on skills and motivation, which can be advanced only through training. Some authors like Iftikhar et al. (2003) and Milton (2002) have observed the importance of language in knowledge management and have suggested that organizations should exercise common language at the workplace i.e. official language which in results creates ease for knowledge management. Knowledge based culture is one in which employees can share their information freely without any obstacle. Sharing of information will occur freely, when organization will use its knowledge as strength and employees had free access to all kind of relevant information i.e. routine and sensitive information without any hurdle. Moreover, it has been concluded that organizations that transfer their decision making initiative lower down in the hierarchy will be able to

implement knowledge management initiative successfully as compare to those organizations that make their decision at the top level.

Every organization deals with external environment factors e.g. competition and have to shape their strategy according to that environment. Firms not only depend on their internal source of knowledge but also from its external resources. Usoro and Kuofie (2006) suggest that it's the internal environment that sets the rules and guidelines regarding how to deal with external environment. While, according to Hafeez et al. (2000), organizations often use consultants or conduct benchmarking to make their knowledge management initiative successful. According to Iftikhar et al. (2003), to measure the success or failure of knowledge management some sort of valuation process has to be matured. To review the success of knowledge management in the organization, they advised four factors, which are organizational environment, technical and managerial support, strategy and goals for knowledge management projects and utilization of knowledge and technology (Iftikhar et al. 2003).

Organizational culture in which employees are penalized for their errors/mistakes will not lead toward knowledge management. Organizations that want their knowledge management initiative to be successful they have to promote a culture where employees may not be penalized for their errors (Milton 2002). It is due to reason that mistakes create opportunities for learning which will help organization to get new ideas. According to Iftikhar et al. (2003) those organizations will be successful in which sufficient time is available to employees to think creatively (Iftikhar et al. 2003). One of the cultural barriers to knowledge management is that no time is available to the employees to share their knowledge. Solution to this problem is that capturing and sharing of knowledge should be a part of routine work rather another addition to responsibility (Milton 2002). Organizations can utilize their official time as informal time period to promote their knowledge management initiative. Based on above discussion, it can be concluded that culture linked factors that can expedite knowledge management are, employee willingness, networks are formed, teams are built, employees are trained, staff is rotated, failure is seen as facilitator for learning, knowledge is shared at regular intervals, best practices are used, time is available to employees, free access to information, common language is spoken in the organization and rewards are given to those employees who support knowledge management.

III. Research Methodology

This research was initiated to priorities cultural factors (variables) especially with respect to cultural variation in the process of knowledge management. Moreover, intentions were to measure the degree/extent of contribution of different cultural factors (variables) in the adoption and implementation of knowledge management. To attain the basic objectives, study was conducted in Banking Industry of Pakistan. Due to cultural variations, data were collected from national and multinational banks. Based on literature synthesis different cultural constructs i.e. Kiasu-ism, communities/teams, rewards and incentives, tolerance for errors/mistakes, time, languages, trust, free sharing of information, autonomy, empowerment, external orientation, interdepartmental coordination, improvement orientation, leadership, training, and human resource content were observed. Proceeding paragraphs presents the operational definition of these cultural constructs/concepts.

Kiasu-ism reflects individuals believe that knowledge is just individual's power and one may not share it with others. For the sake of this research, the construct Kiasu-ism were operationalized through three different variables i.e. knowledge considered individual's power, sharing considered knowledge power, and culture of sharing. Two types i.e. cross functional and interdepartmental teams/communities have been used to measure the contribution of teams/communities in knowledge management process. Another cultural construct is rewards/incentives that facilitate knowledge management. Two basic types of rewards i.e. intrinsic and extrinsic were used to measure the role of rewards/incentive in adoption and implementation of knowledge management in banking industry of Pakistan. Next, tolerance for errors/mistakes generates opportunities for learning (knowledge), this was probed through a question i.e. management normally ignore unintentional mistakes. Based on literature synthesis time as cultural construct was operationalized i.e. capturing and sharing of knowledge considered a part of routine work. Similarly, the role of language was measured through two different variables i.e. official (formal) and local (informal) languages.

Next, Information sharing was operationalized through two different variables i.e. routine information sharing and sensitive information and sharing. Likewise, trust also contribute in knowledge management, trust was measured through four different variables i.e. "trust between employees", "trust between team members", trust on organization by the employees" and "trust on organizational policies, procedures, and laws. Autonomy and external orientation as a source of knowledge management was probed by means of autonomy at work, industry trend analysis, use of consultants and academic journals etc. Similarly, interdepartmental coordination was checked through formal and regular interaction. Leadership considered imperative cultural construct that contribute in adoption and implementation of knowledge management. The role and extent of leadership were operationalized

through two different styles i.e. transformational leadership and transactional leadership. Last cultural construct under observation was training, which was operationalized as on the job training and off the job training.

Total 115 responses from 42 banks through well structured questionnaire were managed across banking industry of Pakistan that was classified as national and multinational banks. Snowball referencing was used to manage high response rate. Out of 115 responses, 73 i.e. (63%) were from national banks while 42 i.e. (37%) were from multinational banks. Descriptive (mean) analysis was used to measure the role and extent of cultural variable in adoption and implementation of knowledge management process in national and multinational banks. High score mean describe the most important factors and low mean score depicts the least important factor. Independent sample t-test was administered to determine the difference of mean score. Low significance values (Sig. 2-tailed < 0.05) reveal all those variables on which respondents of both national and multinational banks deviate considerably. Table 3.1 present the snapshot of the banks remained under observation.

Table 3.1 : Name Of The Banks Under Observation

SR.	BANK NAME	ORG. LEVEL	SR.	BANK NAME	ORG. LEVEL
1.	State Bank of Pakistan	Head Office.	22.	Standard Chartered Bank Ltd.	Head Office.
2.	First Women Bank Limited	Corporate Office.	23.	United Bank Limited	Corporate Office.
3.	National Bank of Pakistan	Head Office.	24.	Trust Investment Bank Ltd.	Head Office.
4.	Punjab Bank Limited	Corporate Office.	25.	Prudential Investment Bank Ltd.	Head Office.
5.	Zarai Taraqiati Bank Limited	Corporate Office.	26.	Orix Investment Bank Ltd.	Head Office.
6.	Allied Bank Pakistan Limited	Corporate Office.	27.	Islamic Investment Bank Ltd.	Corporate Office.
7.	Arif Habib Limited	Head Office.	28.	Dawood Islamic Bank Limited	Head Office.
8.	Askari Bank Limited	Head Office.	29.	Dubai Islamic Bank Pakistan	Head Office.
9.	Bank Al Habib Limited	Corporate Branch.	30.	Bank Al Habib Limited	Corporate Branch.
10.	Habib Bank Limited	Corporate Office.	31.	Rozgar Micro Finance Bank	Corporate Office.
11.	MCB Bank Limited	Corporate Office.	32.	BankIslami Pakistan Limited	Corporate Office.
12.	Bank Alfalah Limited	Corporate Office.	33.	Emirates Global Islamic Bank	Head Office.
13.	Atlas Bank Limited	Corporate Branch.	34.	Meezan Bank Premier Islamic Bank	Corporate Office.
14.	Barclays Limited	Head Office.	35.	Dawood Islamic Bank Limited	Head Office.
15.	Habib Metropolitan Bank	Head Office.	36.	Network Micro Finance Bank	Head Office.
16.	JS Bank Limited	Head Office.	37.	Karakuram Bank	Corporate Office.
17.	KASB Bank Limited	Head Office.	38.	Khushali Bank Limited	Head Office.
18.	Silk Bank Limited	Corporate Office.	39.	NRSP Micro Finance Bank Limited	Head Office.
19.	Citibank Limited	Corporate Office.	40.	Escorts Investment Bank Limited	Corporate Office.
20.	HSBC Limited	Corporate Office.	41.	Fidelity Investment Bank Limited	Branch Office.
21.	Royal Bank of Scotland Ltd.	Head Office.	42.	Crescent Investment Bank Limited	Head Office.

The structured questionnaire was designed to navigate the response and for the same measuring instrument include two main sections; section-1 was dedicated to priorities cultural factors that considerably contribute in the process of knowledge management, while section-II were designed to probe the degree/extent of contribution. The importance of cultural variables were measured on five point likert scale, where, 1 mean extremely important, 2 mean important, 3 mean neutral, 4 mean less important, 5 mean least important. Moreover, the degree of contribution of cultural variables were measured using five point likert scale, where 1 stand for strongly agree, 2 means agree, 3 means neutral, 4 means disagree and 5 stands for strongly disagree. Data were collected only from head office, corporate office, and/or corporate/regional branches, moreover, senior vice presidents, vice presidents and operation managers were selected as respondents. Some general information such as bank name, designation of the respondent, organizational level and contact information were also probed.

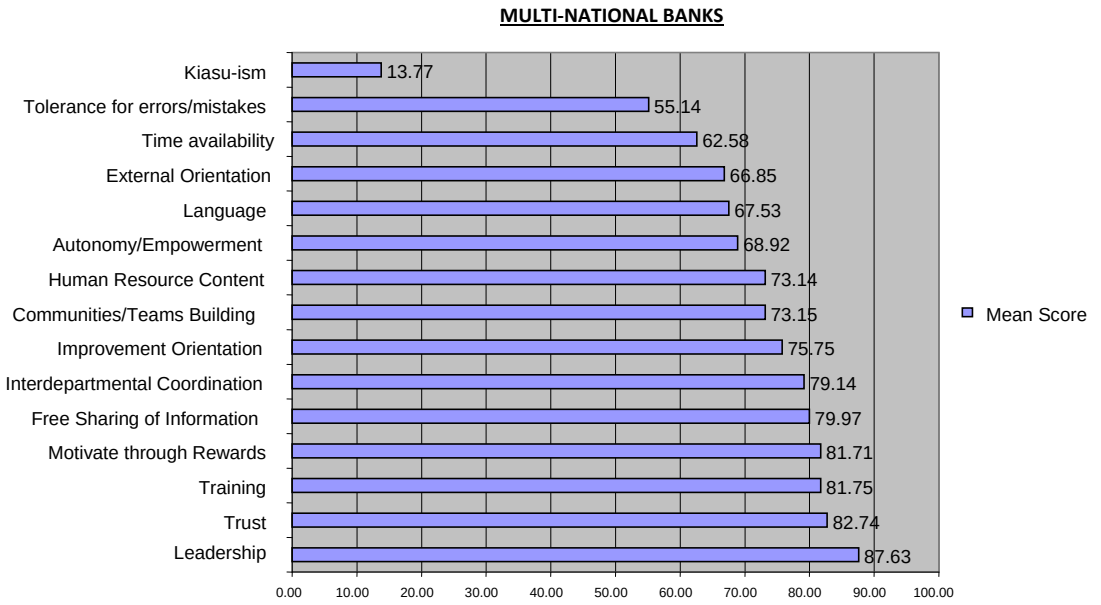
IV. Findings

This section presents the finding on cultural factors that are perceived important for knowledge management. Each factor (variable) considered being independent of each other therefore respondents were required to score each factor out of 100 as per their importance. Results reveal visible variations in term of priorities with respect to cultural variables and their contribution in the process of knowledge management.

The degree of importance assigned by the national and multinational banks on various factors ranged from 87.6 to 13.7 and 88.1 and 15.3 respectively. It is quite interesting to note, though all the cultural factors considered important in term of their contribution in knowledge management, however, individual contribution of each cultural factor perceived differently e.g. leadership with mean rating 87.63 observed to be most important by national banks, on the other hand, trust with mean score of 88.1 observed important by respondents from multinational banks. Both national and multinational banks scored Kiasu-ism

at the lowest e.g. national banks ranked it with mean score of 15.3 and multinational banks scored it 13.7. On the basis this result it can be inferred that banking industry viewed Kiasu-ism as hurdle in the process of knowledge management. Figure 4.1 and 4.2 comprehend score analysis.

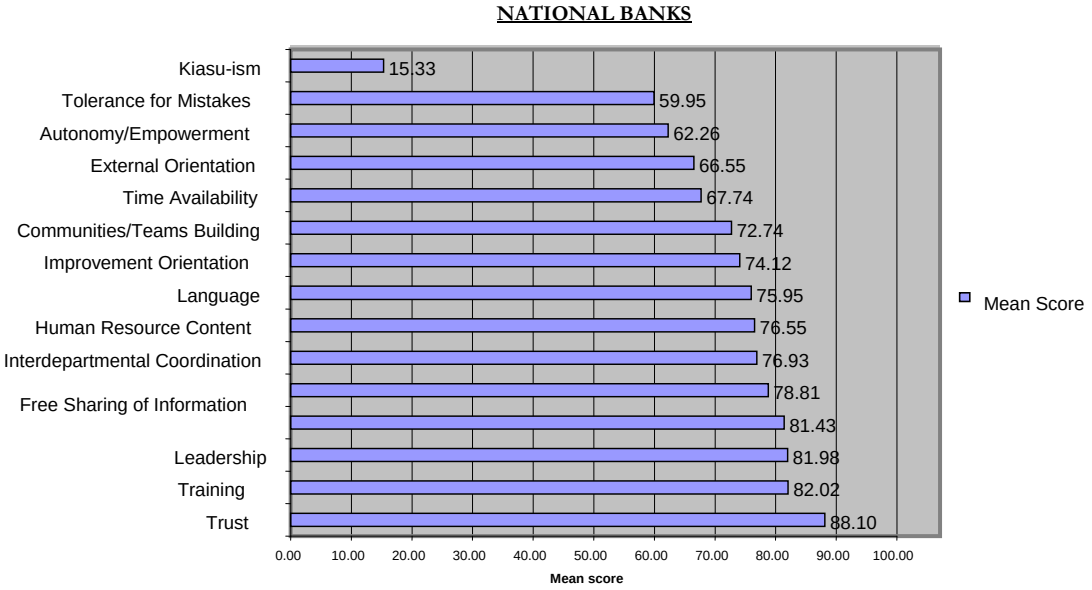
Figure 4.1 : Mean Analysis Of Culture Factors Considered As Necessary Contributor For Knowledge Management (Response Of Multi-National Banks)



Based on the mean score of the multinational banks, it can be concluded that top ten cultural factors that are necessary for knowledge management are; leadership (mean score = 87.63), trust (mean score = 82.74), training (mean score = 81.75), use of reward and incentives (mean score = 81.71), free sharing of information between the employees (mean score = 79.97), interdepartmental coordination (mean score = 79.14), improvement orientation (mean score = 75.75), communities/team building (mean score = 73.15), human resource content (mean score = 73.14) and autonomy empowerment (mean score = 68.92). While, respondents of national banks priorities different factors that are obligatory for knowledge management are; trust (mean score = 88.10), training (mean score = 82.02), leadership (mean score = 81.98), use of reward and incentives (mean score = 81.43), free sharing of information between the employees (mean score = 78.81), interdepartmental coordination (mean score = 76.93), human resource content mean score = 76.55), use of common language at the workplace to share ideas (mean score = 75.95), improvement orientation (mean score = 74.12) and building teams or communities to share knowledge (mean score = 72.74) Based on cultural variation, results reflect variation in term of priorities that means local culture (national) and multinational culture requires different variables in the adoption and implementation of knowledge management.

Descriptive statistics have been used to testify the contribution of cultural variables in adoption and implementation of knowledge management process. First cultural construct was Kiasu-ism, which was measured through four different questions i.e. "Organization considered task/job expertise/skills as individual's power"; respondents from both the national and multinational banks disagree with the statement with mean value of 4.12 and 4.37, respectively. Next question under observation was "Organization believes task/job expertise/skills sharing with colleagues and subordinates enhance knowledge power"; respondents from both national and multinational banks accept the statement with mean value of 1.31 and 1.35 respectively. Third question related to Kiasu-ism was "In my organization, there is a culture of sharing i.e. when ever I and/or my colleagues face any problem at work (during assignments and tasks), seniors/head of the department always show positive gesture to guide/help"; results reflect differentiation, respondents from multinational banks accept the statement with mean value of 2.17, while, respondents from national banks remained neutral with mean value 2.97. Outcomes reflect that Kiasu-ism observed as hurdle to promote knowledge management. Similarly, it is worth mentioning that multinational culture is more conducive to promote the culture of sharing which is lacking in national/bureaucratic culture.

Figure 4.2 : Mean Analysis Of Culture Factors Considered As Necessary Contributor In Knowledge Management (Response Of National Banks)



Second variable under observation was teams/communities. In banks, formal teams can be classified as cross functional and interdepartmental teams. Teams/communities contribution in adoption and implementation of knowledge management process was measured through two different questions i.e. "Please specify the role of cross functional teams/communities in adoption and implementation of knowledge management process in your bank", and "Please specify the role of interdepartmental teams/communities in adoption and implementation of knowledge management process in your bank". Respondents of national (a mean value of 2.42 & 2.50 for cross functional teams and interdepartmental teams respectively) and multi-national banks (a mean value 2.43 & 2.57 for cross functional teams and interdepartmental teams respectively) perceive positive about the role cross functional and interdepartmental teams/communities perform in adoption and implementation of knowledge management process. Moreover, in response to measure the degree of contribution, respondents of multinational bank (a mean value of 2.33) perceive positive about cross functional teams as compared to interdepartmental team/communities (a mean value of 2.60). However, the perception emerge differently as respondents of national bank believe interdepartmental teams/communities (a mean value of 2.17) contribute better then cross functional teams/communities (a mean value of 2.53). Based on these results, it can be inferred that cross functional teams in multinational organization can be more useful, while, in national/bureaucratic organization, interdepartmental teams are more effective to implement knowledge management.

Rewards and incentives facilitate knowledge management process. Two different classification of rewards included were intrinsic and extrinsic were probed through two different questions i.e. "Please specify the role of intrinsic rewards in adoption and implementation of knowledge management process in your bank", respondents of multi-national banks showed neutral response (a mean value of 3.21), while, results generated from national banks (a mean value of 2.06) reflect positive attitude towards intrinsic rewards. On the other hand, response regarding question i.e. "Please specify the role of extrinsic rewards in adoption and implementation of knowledge management process in your bank", respondents of multinational banks strongly agreed (a mean value of 1.79) about the extrinsic rewards as a source to adopt and implement knowledge management process. Similarly, respondent form national bank though agreed, yet the mean value (i.e. 2.26), is lower then the responses of multinational banks. In addition, respondents of multinational bank (a mean value of 1.83) perceive extrinsic rewards/incentives contribute better in knowledge management process then intrinsic rewards/incentives (a mean value of 2.64). However, respondents of national bank believe intrinsic rewards/incentives (a mean value of 2.17) contribute better then extrinsic rewards/incentives (a mean value of 2.35). This variation in opinion is because of noticeable differentiation in pay structure.

Next, tolerance for errors/mistakes generates opportunities for learning, this was probed through a question i.e. "Management normally ignore unintentional mistakes", respondent from both national and multi-national banks agreed with mean value of 2.13, and

2.24, respectively. Other cultural construct was time, which was operationalized as i.e. "Capturing and sharing of knowledge considered a part of routine work rather than to be considered as additional responsibility"; results remained neutral with mean value of 2.90 and 3.00 from national and multinational banks respectively. Quite interestingly, as a whole, banking industry has ignored the importance of time in the process of knowledge management.

Similarly, the role of language was measured through two different questions i.e. "Please specify the role of official (formal) language in enhancing job/task skills and expertise in your bank", respondents of both national (a mean value of 1.90) and multi-national (a mean value of 2.01) banks agreed that formal language play vital role in enhancing skills and expertise. Next question was "Please specify the role of local (informal) languages in enhancing job/task skills and expertise in your bank", the results reflect that local/informal languages considered less important in enhancing skills and expertise in both national (a mean value of 2.98) and multi-national (a mean value 2.80) banks. In addition respondents of both national (a mean value of 2.31) and multinational banks (a mean value of 2.45) perceive that frequent use of official (formal) language normally help their banks to create, share, and analyze knowledge. Here it is worth mentioning that the importance of local (informal) languages in knowledge management is not yet realized by both national (a mean value of 3.47) and multinational banks (a mean value of 3.26).

Table 4.1 : Mean Analysis Of Cultural (Sub-Factors)

CULTURAL VARIABLES	NATIONAL BANKS	MULTI - NATIONAL BANKS	NATIONAL BANKS	MULTI - NATIONAL BANKS
	ROLE OF VARIABLE		DEGREE OF IMPORTANCE	
Job Skills/Expertise Considered as (Individual's) Power	4.12	4.37		
Sharing Considered Knowledge Power	1.31	1.35		
Culture of Sharing	2.97	2.17		
Cross Departmental Teams	2.42	2.43	2.53	2.33
Intra Departmental Teams	2.50	2.57	2.17	2.60
Intrinsic Rewards/Incentives	2.06	3.21	2.17	2.64
Extrinsic Rewards/Incentives	2.26	1.79	2.35	1.83
Tolerance for Mistakes/Errors			2.13	2.24
Capturing and Sharing Knowledge Considered as Part of Routine Work			2.90	3.00
Role of (Formal) Official Language	1.90	2.01	2.31	2.45
Role of (Informal) Local Language	2.98	2.80	3.47	3.26
Sharing of Routine Information			1.71	1.64
Sharing of Sensitive Information			3.57	3.33
Interpersonal Trust			1.97	1.83
Group Trust			2.14	2.12
Organizational Trust			1.85	2.12
Institutional Trust			2.14	2.64
Autonomy at Work	3.79	1.62	2.74	2.11
External Orientation			2.59	2.54
Interdepartmental Coordination (Formal)	2.97	1.91	4.17	2.67
Transactional Leadership Style	1.71	1.63		
Transformational Leadership Style	4.33	4.28		
On the Job Training	1.73	1.45	3.12	2.09
Off the Job Training	1.97	3.24	2.33	3.53

Note : Based on 5-point likert scale.

Information sharing was probed through two different questions i.e. "Do you think organization has provided healthy and suitable environment to share routine information freely without any hurdle", respondents of multinational banks (a mean value 1.64) and of national banks (a mean value of 1.71) agreed that their bank has healthy and suitable environment to share routine information freely without any hurdle. However, results regarding "Do you think organization has provided healthy and suitable environment to share sensitive information freely without any hurdle" reflect that both national (a mean value of 3.57) and

multinational (a mean value of 3.33) banks remained some what disagree with the situation. It means knowledge management process must be synchronized through routine information sharing. Trust was measured through four different variables i.e. "trust between employees (a mean value of 1.83 and 1.97 for multinational and national banks, respectively)", "trust between team members (a mean value of 2.12 and 2.14 for multinational and national banks, respectively)", trust on organization by the employees (a mean value of 2.12 and 1.85 for multinational and national banks, respectively)" and "trust on organizational policies, procedures, and laws (a mean value of 2.64 and 2.14 for multinational and national banks, respectively). Results reflect irrespective of the type and level of trust, still it seems to be important contributor in adoption and implementation of knowledge management process.

Autonomy at work was measured through four different questions i.e. "Please specify the role of autonomy in adoption and implementation of knowledge management process in your bank", respondents of multinational (a mean value of 1.62) agreed, however, respondent of national banks (a mean value of 3.79) disagreed with the statement, that means multinational banks offer better autonomy at work. For next question i.e. "Do you think autonomy at work normally help your bank to create, gather, organize, share, and analyze knowledge", results of multinational banks reflect (a mean score of 2.11), autonomy at work facilitate knowledge management process. External orientation as a source of knowledge management was probed i.e. "Organization believes external sources e.g. industry trend analysis, use of consultant and academic journals etc. contribute in knowledge management". Both multinational (a mean value of 2.54) and national banks (a mean value of 2.59) seems somewhat agreed that means external consultancy, industry analysis and trade journal are considered nice facilitator to adopt and implement knowledge management process in bank industry of Pakistan.

Interdepartmental coordination were measured through questions like, "Organization has formulated regular interaction mechanism e.g. formal and informal meetings to resolve on the job and off the job problems", respondent of multinational banks agreed (a mean value of 1.91), while, respondents of national bank (a mean value of 2.97) remained neutral. Result for question i.e. "Do you think regular interaction normally help your bank to create, gather, share, and analyze knowledge", reflect respondents of national banks (a mean value of 4.17) reject the statement, however, respondent of multinational banks (a mean value of 2.67) remained neutral. Unexpectedly, banking industry reject the importance of regular interaction as a source to create, gather, share and analyze knowledge management. Another variable that contribute in knowledge management is leadership. The role of leaders i.e. transformational leaders and transactional leaders were measured through different questions i.e. "Do you think that transformational style of leadership promote the culture of knowledge management", and "Do you think that transactional style of leadership promote the culture of knowledge management", results from both multinational (a mean value 4.28) and national (a mean value 4.33) banks reject the contribution transformational style of leadership, however, industry consider transactional style necessary to promote the culture of knowledge management (a mean value 1.63 and 1.71 for multinational and national banks, respectively).

Last factor under observation was training, which were measured through two different variable i.e. on the job training and off the job training. Question like "Please determine the importance of 'on the job training' in adoption and implementation of knowledge management process in your bank" and "Please determine the importance of 'off the job training' in adoption and implementation of knowledge management process in your banks". Respondents of both multinational (a mean value of 1.45) and national bank (a mean value of 1.73) favored 'on the job training', however, regarding off the job training respondents of the national banks (a mean value of 1.97) remained positive, while, respondents of multinational banks (a mean value of 3.24) remained neutral.

Independent sample t-test was administered to determine the difference of mean score. The degree of importance assigned by respondents of multinational banks ranged from 1.64 to 3.53 and for national banks it ranged from 1.85 to 4.17. The highest rated sub-factor by multinational and national banks was a belief that sharing is power, with a mean rating of 1.31 and 1.35 respectively. The lowest rated sub-factor by multinational and national banks was a belief that skills/expertise is of individual's power, with a mean rating of 4.12 and 4.37 respectively, results reflects this sub-factor does not contribute in knowledge management. Mean score of multinational banks depict sub-factors like on the job training (mean value = 1.45), transactional leadership (mean value = 1.63), access to routine information (mean value = 1.64), extrinsic rewards (mean value = 1.79), interpersonal trust (mean value = 1.83) and official language (mean value = 2.00), as key contributor in knowledge management. In comparison, mean score of national banks depict factors like transactional leadership (mean value = 1.71), access to the routine information (mean value = 1.71), on the job training (mean value = 1.73), off the job training (mean value = 1.97), organizational trust (mean value = 1.85), use of official language (mean value = 1.90), interpersonal trust (mean value = 1.97), are among the key contributor to promote knowledge management.

Table 4.2 : Independent Sample T-Test For Sub-Factors

Variables	LEVENE'S TEST FOR EQUALITY OF VARIANCES		T-TEST FOR EQUALITY OF MEANS						
	F	SIG.	T	DF	SIG. (2-TAILED)	MEAN DIFFERENCE	STD. ERROR DIFFERENCE	95% CONFIDENCE INTERVAL OF THE DIFFERENCE	
								LOWER	UPPER
Knowledge is Power.	0.296	0.588	1.363	113	0.176	0.301	0.22	-0.1368	0.739
Sharing is Power	0.201	0.655	-0.74	113	0.463	-0.103	0.14	-0.3818	0.175
Cross Departmental Teams	0	0.988	0.049	113	0.961	0.009	0.19	-0.386	0.405
Intra Departmental Teams	1.763	0.187	0.347	113	0.73	0.075	0.21	-0.3553	0.505
Intrinsic rewards	5.862	0.017	3.705	105.8	0**	0.790	0.21	0.3675	1.213
Extrinsic rewards	1.588	0.21	-2.38	113	0.019**	-0.467	0.19	-0.8562	-0.078
Formal Time	0.632	0.428	0.501	113	0.618	0.108	0.21	-0.3221	0.539
Informal Time	2.443	0.121	1.284	113	0.202	0.295	0.23	-0.1607	0.752
Official Language	2.132	0.147	0.213	113	0.831	0.047	0.22	-0.3943	0.489
Local Language	0.661	0.418	0.728	113	0.468	0.176	0.24	-0.3041	0.657
Interpersonal Trust	0.503	0.48	-0.87	113	0.387	-0.140	0.16	-0.4614	0.180
Group trust	1.58	0.211	-0.11	113	0.917	-0.019	0.18	-0.3895	0.350
Organizational Trust	0.72	0.398	1.399	113	0.165	0.266	0.19	-0.1108	0.643
Institutional Trust	2.768	0.099	2.554	113	0.012**	0.500	0.19	0.11242	0.889
Access to Sensitive Information	0.291	0.591	1.034	113	0.304	0.242	0.23	-0.2219	0.705
Access to Routine Information	0.84	0.361	-0.42	113	0.673	-0.070	0.16	-0.3999	0.259
Use of Consultants	0.002	0.964	-0.2	113	0.839	-0.047	0.23	-0.507	0.412
Benchmarking	1.169	0.282	1.105	113	0.272	0.226	0.20	-0.1795	0.632
Transformational Leadership	1.32	0.253	-0.21	113	0.832	-0.045	0.21	-0.4701	0.378
Transactional Leadership	2.784	0.098	-0.47	113	0.641	-0.084	0.17	-0.4407	0.272
On the Job Training	1.023	0.314	-2.09	113	0.038**	-0.286	0.13	-0.5566	-0.015
Off the Job Training	0.884	0.349	1.123	113	0.264	0.270	0.24	-0.2065	0.747

*Note : Based on a 5-point likert scale. ** Sig. (2-tailed<0.05) depict those factors on which respondents of multinational and national banks differ significantly.*

Significance value ($p < 0.05$) reveals all those variables on which employees of both multinational and national banks deviated/differed considerably. Factors having ($p > 0.05$) depict all those variables which seemed to be significant i.e. on these variables both national and multinational banks didn't differ. Two different rewards including intrinsic and extrinsic were considered as effective contributor in the knowledge management. Table 4.2 confirm statistically significant difference of mean on intrinsic rewards between national and multinational banks as ($t = 3.70$, $p = .000$). Results reflect that employees of national banks believe that intrinsic rewards like personal satisfaction add more positively in knowledge management. In contrast, employees of national banks seem to be different. National banks have a higher mean score on extrinsic rewards 1.79 than multinational banks 2.26. The results reflect national banks see extrinsic rewards i.e. bonuses, pay increment etc as more effective tool for knowledge management as compare to multinational banks.

Trust also contribute in knowledge management, the results depict statistically significant difference between the mean on institutional trust for national and multinational banks ($t = 2.55$, $p = 0.01$). National banks had a statistically significant mean score of 2.14 than multinational banks 2.64. National banks believe that organizational laws, policies and regulations play an important role in the knowledge management

process. Last factor under observation was training, which had statistically significant difference between the mean for on the job training as ($t = -2.09$, $p = 0.038$). Multinational banks have a mean score of 1.45 for "on the job training" while on the other hand mean score for national banks remained 1.73, results reflect that multinational banks prefer on the job training for the effective knowledge management.

V. Conclusion

Based on descriptive analysis, it can be inferred that banking industry firmly believes on sharing of skills and expertise. In this regard, the culture of multinational bank seems more encouraging as compared to national banks. Respondent from both national and multi-national banks declared that importance of cross functional and interdepartmental teams in the process of knowledge management. Interestingly, results reflect that in multinational banks intrinsic incentives perceive less important as compared to extrinsic rewards. However, the opinion remained somewhat different in the national banks where intrinsic rewards play perceived more crucial. In addition, outcomes reveal high tolerance for unintentional mistakes/errors and official time can create favorable climate for knowledge management. Moreover, it was observed that formal language play vital role in enhancing skills and expertise. Industry has affirmed unanimously that culture of information sharing is suitable for knowledge management. Mean analysis reflect trust between employees, trust within the group, trust on organization, and trust on organizational policies, procedures, and laws considered key ingredients for adoption and implementation of knowledge management. However, respondents of multinational banks remained indifferent regarding trust on organizational policies, procedures, and laws. Overall results reveal that banking industry is frequently acquiring benefit from external sources e.g. use of consultants, industry trend analysis and academic journals. Interdepartmental coordination through formal and informal meetings to resolve on the job and off the job problems remained questionable in national banks that means existing culture is hostile in national banks, conversely, better interdepartmental coordination through formal meetings was observed in multinational banks. Results regarding leadership style i.e. transformational and transactional illustrate that banking industry unanimously rejected transformational leadership style and recognize transactional leadership style as facilitator to knowledge management. Lastly, on the job training perceived key contributor in knowledge management.

Over all results reveal that cultural factors add positively toward knowledge management. To formulate knowledge based culture organizations should address issues i.e. trust, leadership, training, use of rewards/incentives, free sharing of information, interdepartmental coordination, human resource content, language, improvement orientation and building communities/teams to share information. Based on outcomes, one can be conclude that the process of knowledge management is in evolutionary stage in banking industry of Pakistan. Survey analysis reveals that without addressing cultural factors knowledge management cannot be implemented successfully. Similarly, it can be concluded that existing cultural in the banking industry in general and national banks particular need transformational changes, which must be synchronized with knowledge management process.

Finally, the findings of this research will enable the management of banking sector to get know-how about all those cultural factors that contribute positively in knowledge management. By addressing these factors management will be able to create knowledge based culture. This initiative will help management to deliver quality service and get good return on investment on major decisions. In this regard, transformational changes may be required in national banks to adopt and implement knowledge management process. This paper is unable to draw any deep conclusion as per various classifications in the banking industry because of low response rate in some categories. Therefore, this paper presents holistic view of cultural contribution in knowledge management. The results of this study can be generalized, if the scope of research extends to more banks. Similarly, systematic sampling could also add to the validity of findings.

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