

Knowledge Management in Telecommunication Industry

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Abstract: This study is the forerunner research in Saudi Arabia that examine the moderating effects of age on knowledge management in telecommunication industry. This study provides unique measurement in evaluating the initial implementation of knowledge management in telecommunication industry in Saudi Arabia, thus building a comprehensive advantage among these companies. 1000 questionnaires were distributed to young and old knowledge workers from different departments in telecommunication companies. After elimination of questionnaires with missing response, 441 complete questionnaires were analyzed. Findings- The result also shows that young laboratories also significant factors such as The result also shows that young laboratories also significant factors such as Benchmarking ($p < 0.001$), Culture ($p < 0.05$), Empowerment ($p < 0.05$), Innovation ($p < 0.05$) and Training ($p < 0.05$), but just Benchmarking ($p < 0.001$) and Training ($p < 0.001$) are significant variables for older staff. The associations between benchmarking and organizational performance ($p < 0.05$), culture and organizational performance ($p < 0.01$) and empowerment and organizational performance ($p < 0.05$) are substantially different between the old and the young age groups. The study is offers a pioneer set of unique and holistic knowledge management success factors for telecommunication industry in Saudi Arabia to build and sustain competitive advantage. This research addresses significant research gaps and contributes greatly to the academic theory of knowledge management.

Keywords: Saudi Arabia, knowledge management, telecommunications industry

1. Introduction

A major trend that has the implications for knowledge management today is globalization. The world has become an interconnected global market. Almost all companies now compete in international markets where barriers to capital movement and tariff walls have reduced. As the Kingdoms of Saudi Arabia grows economically to a powerhouse, competition increases particularly in the telecommunication industry. At

present; the telecommunications industry in Saudi Arabia is facing serious data and knowledge management issues (Al Ahbabi, Singh, Balasubramanian & Gaur, 2019). Among highly competitive telecommunication industry, there are many issues related to improving workers' turnover speeds, missing opportunities to achieve success by not taking the company's background knowledge, and not applying lessons learned from past events to limit the occurrences of errors (Abubakar, Elrehail, Alatailat, & ElcI, 2019). The effectiveness of knowledge management implementation appears to be an interesting area to explore, as it is an important area to build a competitive advantage in this growing global turbulent environment that can help Saudi Arabia achieve its Vision 2020 in implementing knowledge management in the telecommunications industry (Al Ahbabi et al., 2019). The mainly faced challenge regarding Innovation is managing the technical knowledge through organised structures and trying to persuade, coerce, direct and convince people within organisations to share their experiences (Connelly, Černe, Dysvik, & Škerlavaj, 2019). The dynamic and interconnected nature of expertise has contributed to high fractures in implementation of knowledge management but the failure of several initiatives to incorporate knowledge management is due to the lack of knowledge (Connelly et al., 2019). According to Lopez et al. (2009), the awareness, presence and use of technological tools are some other main challenges that are faced by the organisations while regulating the knowledge management activities, because these challenges hinder the effectiveness and rapidness which are required for the knowledge management initiatives such as culture, leadership and training. It becomes difficult for the telecommunication organisations to identify quick and responsive knowledge management technology-based tools to enhance the results of knowledge management in the telecommunication sector (Balasubramanian, Al-Ahbabi, & Sreejith, 2019). These shortcomings in turn have resulted in weak management strategies and policy formulation.

Previous research (Alavi & Leidner, 2001; Alazmi&Zairi, 2003; Foss & Pedersen, 2019) indicated that there are critical factors that contribute to the success of knowledge management implementation, but it failed to emphasize the success factors of knowledge management that must be identified in order for priority before implementing other knowledge management success factors. While investigating the complexity of the organizational system, it is difficult to show the impact of knowledge management on organizational performance because the operational KM projects are often out of focus for the top managers, since decentralized activities seem not to have the potential to convince the old managers of the impact of KM on organizational performance (Fehrenbacher & Wiener, 2019; Hayat et al., 2019).

To address the above-mentioned research problem, this study is aims to become the frontrunner research in Saudi Arabia that examine the moderating effects of age on knowledge management success in telecommunication industry. This study provides unique measurement in evaluating the initial implementation of knowledge management in telecommunication industry in Saudi Arabia, thus building a comprehensive advantage among these companies. This study establishes new relationship between the various factors that contributes towards successful knowledge management implementation. This study provides a holistic knowledge management framework to examine and resolve pressing knowledge management issues in devising effective knowledge management strategies in telecommunication industry. This study establishes new causal relationship between the participation of workers of different age in knowledge acquisition, sharing and maintenance.

The study is important to telecommunications industry as it is the first study in Saudi Arabia region that integrates all knowledge management success factor in a single framework to examine the age difference in knowledge management. This study has critically reviewed previous literature, identified crucial research problem that might impede the telecommunication industry from becoming successful and provide constructive solution to integrate the expertise of young and old workers to attain competitive advantage.

Critical success factors of knowledge management is underexplored and fragmented. Previous literature (Hameed, Nisar, & Wu, 2020; Le & Lei, 2019; Mikalef, Krogstie, Pappas, & Pavlou, 2020; Ode & Ayavoo, 2020; Omotayo, 2015) are narrowly scoped and almost none of them focus on telecommunication industry in Saudi Arabia. Given the fact that effective knowledge management is needed for better organizational performance (Singh, Gupta, Busso, and Kamboj, 2019), none of the above-mentioned studies have identified critical success factors of knowledge management, moderated by the age of knowledge workers in the organization. Previous research (Alavi & Leidner, 2001; Alazmi & Zairi, 2003; Foss & Pedersen, 2019) indicated that there are critical factors that contribute to the success of knowledge management implementation, but it fails to emphasize the success factors of knowledge management that must be identified in order of priority before implementing other knowledge management success factors. Among the literature identified, Le and Lei (2019) and Singh et al. (2019) have identified some primary factors, but they were conducted in isolation.

Previous research (Tortorella, Vergara, Garza-Reyes, & Sawhney, 2020; Yaghi & Bates, 2020) have shown that there exist important factors that lead to the success of knowledge management implementation but has neglected to highlight the success factors of knowledge management that must be prioritised prior to the implementation of other knowledge management success factors. Some of the primary factors were found in the literature (Al Aklabi, 2011; Fehrenbacher & Wiener, 2019; Mikalef et al., 2020; Mojibi & Khojasteh, 2019), but were performed separately. They were not put together in one frame. It is important to define the key success components for knowledge management, along with other essential factors such as knowledge management techniques and processes that need to be targeted by organisations prior to the launch of comprehensive knowledge management. It is particularly important for telecommunication organisations that have recently initiated knowledge management programmes (Alazmi, & Zairi, 2003). Some researchers (Foss & Pedersen, 2019; Fehrenbacher & Wiener, 2019) conducted information management studies and there is still a shortage of knowledge management research in the region. A great deal of research into knowledge management research needs to be conducted as telecommunications organisations, both domestically and globally, must improve their strategic strategies to become more competitive. They have to continually adapt, implement the most successful and competitive technologies, and increase productivity. These industry' interest in quality problems, quality control and knowledge management has grown to boost their performance and effectiveness in order to succeed in this competitive climate. Although few studies have investigated the applicability of knowledge management in service sector (Abubakar et al., 2019; Al Aklabi, 2011; Al Ahbabi et al., 2019; Balasubramanian et al., 2019), these studies failed to provide any effective management or measurement tools for scrutinising the telecommunication output needed by the telecommunication industry.

Past research (Foss & Pedersen, 2019; Fehrenbacher & Wiener, 2019) also rarely examined the organisational goals, processes of knowledge conversion (tacit/explicit to tacit/explicit knowledge), and

management of knowledge management tools that facilitate these cognitive processes and connect them in telecommunication companies (Connelly et al., 2019; Omotayo, 2015). The approaches, strategies and procedures of knowledge management and their influence on telecommunication companies were understudied. As Hayat et al. (2019) suggested that knowledge management is the main drive in the development and sustainability for the developed nations, thus telecommunication needs to continuously focus on the enhancement of the knowledge basis of their policies, standards, procedures and systems as this is a significant theoretical gap.

Previous studies (Hameed et al., 2020; Ode & Ayavoo, 2020) mainly focused on the inputs and outputs of the companies without adequately examined knowledge management success of young and old knowledge workers (Salama et al., 2020; Singh et al., 2019). Previous research (Mkrttchian, 2020; Mikalef et al., 2020) emphasised the technical aspects of knowledge management and its integration in the new system of telecommunication, yet many factors that can influence its implementation have been marginalised or ignored. Little is known about the impact of knowledge workers' experience and their understanding of knowledge on knowledge management (Singhet al., 2019; Yaghi & Bates, 2020).

As knowledge required for collaboration through networks, more emphasis should be placed on how knowledge management in telecommunication industry enhances the organizational performance (Singh et al., 2019; Yaghi & Bates, 2020). However, previous literature (Mikalef et al., 2020) has focused only on the technical aspects of the knowledge management without examining the value and importance of the human capital involved in the process. Previous studies have also mainly focused on the inputs and outputs of telecommunication but failed to provide adequate theoretical foundation on how the level of knowledge management can be measured and managed adequately; and what factors contribute to the proper implementation of knowledge management (Abubakar et al., 2019; Al Aklabi, 2011; Al Ahababi et al., 2019; Balasubramanian et al., 2019). For example, little is known about knowledge workers' experience of young and old workers and their understanding of knowledge on knowledge management.

The review of the literature (Abubakar et al., 2019; Al Aklabi, 2011; Al Ahababi et al., 2019; Balasubramanian et al., 2019; Le & Lei, 2019; Singh et al., 2019) indicates that knowledge management processes and variables were evaluated independently, and therefore, there is an absence of a holistic knowledge management for telecommunication industry. Past studies (Mkrttchian, 2020; Mikalef et al., 2020) did not propose an integrated framework of the knowledge management and provided little systematic analysis on how these knowledge management factors affecting young and old workers.

This research aims to integrate and empirically test all these important knowledge management factors identified from the literature that contribute to the successful implementation of knowledge management in the telecommunications industry. This research framework bridges the knowledge management gap in research conducted within the Saudi Arabia, since it provides the goal of discovering the key components for the success of knowledge management and organisational efficiency.

This research is important as it is one of the very first studies that integrate and evaluate all primary success factors leading to an effective knowledge management in telecommunication industry. It is also to add to knowledge management research by identifying new areas to perform knowledge management

consistently. This study is significant since a detailed picture of the academic findings in the area of organisational knowledge management has not been identified to date.

2. Method

Pilot study was conducted among 40 young and old knowledge workers in Saudi Arabia. Before the initial tests, suggestions and feedback of the pilot sample had been analysed and relevant recommendations had been taken into consideration in the study or research design. Few queries had been rephrased to promote their interpretation.

This pilot analysis was performed:

- a) To get the participants' input.
- b) To assess the practicability instrument in the area.
- c) To store unclear or redundant items.
- d) To have a format that enables the tabulation, maintenance, and interpretation of results.

The suggestions and comments from the pilot study were then evaluated and those found to be valid were incorporated into the survey prior to the actual study. Few questions were rephrased to make them easier to be understood. This study uses stratified sampling methods in selecting and identifying target respondents since it offers reliable and precise details inside a certain sample size (Hair Hult, Ringle, & Sarstedt, 2016). One thousand questionnaires were distributed to the young and old knowledge workers located in major cities of Saudi Arabia. Out of the 1000 questionnaires distributed, 441 complete questionnaires were analyzed. The researcher had contacted personally all target respondents and convinced them of the needs and the benefits of the study. A series of follow-up calls were made to ensure satisfactory response rate.

The hypotheses of the present study were tested by applying Partial Least Squares (PLS) to detect the most significant predictive relationships among latent variables (Hair et al, 2016). Bootstrapping (Hair et al, 2016) with 5,000 replications was applied to test the moderating effect of age towards success knowledge management. The structural models composed of the causal relationships between latent constructs, whereas the measurement model composed of the relationships among indicators and their corresponding constructs. There are two types of variables in the structural model namely exogenous (independent) and endogenous (dependent) latent variables. In the present study measurement model analysis was used to assess construct validity and internal consistency reliability.

3. Findings and Discussions

The data analysis findings will be addressed in this portion. Prior to data analyses, the data screening was performed to identify and monitor the missing values. The outcomes of all data screening are seen in the Appendix, indicating that the data collection does not detect any missing values. The outliers have now been removed. Skewness and kurtosis values have to be inside the scope ($-2.58 < z < 2.60$), falls within the normal range.

The results of the demographic profiles of the respondents of the present study are shown in Table 4.1. There were 441 respondents participated in the survey questionnaires; 306 of the respondents were males while only 135 were females. In addition, the results indicate that the majority of respondents were married (91.4%), while only few (8.4%) were single. The results also revealed that almost two third of the respondents had their bachelor's degree, followed by 17.7% having diploma and 9.1% having master or Ph.D. It also shows that only 1.8% had achieved primary and secondary education and none was illiterate as at the time of doing the survey for the current study. Apart from that, most of the respondents were in the age groups of 38 to 43 and 44 to 49 with 36.5% and 35.1% respectively. Following by the age groups of 32 to 37 with 14.7%, 50 to 55 with 9.3%, 26 to 31 with 2.3%, and 20 to 25 with a representation of 0.5%.

Table 1: Demographic Profiles of the Respondents

	Category	Frequency	Percentage
	Male	306	69.4
	Female	135	30.6
Marital Status	Married	403	94.4
	Single	37	8.4
	Others	1	0.2
Education Level	Illiterate	0	0
	Primary	5	1.1
	Secondary	3	0.7
	Diploma	78	17.7
	Degree	315	71.4
	Postgraduate	40	9.1
Age	20-25	2	5

	26-30	8	1.8
	31-35	65	14.7
	36-40	161	36.5
	44-49	155	35.1
	50-55	41	9.3
	More than 55	9	2.0

Source: Author's findings

6.1 Testing Moderating Effect of Age

The analysis survey, which is separated into the age classes, is used to test path-relationships of variables for one subsample at a time. A transparent numerical query assessed the respondent's age. The multi-group analysis was metrically scaled up into 2-level categorical buildings, namely young age (speakers less than 40 years old, n=204), and old age (speakers more than 40 years old, n=237). In addition, the invariance measures of the bootstrapping strategy are determined by the group-specific examination of the PLS route model (Rigdon, Ringle & Sarstedt, 2010). The approximate structural ties values inside and between young and old classes are seen in Table 4.10. The result also shows that young laboratories also significant factors such as Benchmarking ($p < 0.001$), Culture ($p < 0.05$), Empowerment ($p < 0.05$), Innovation ($p < 0.05$) and Training ($p < 0.05$), but just Benchmarking ($p < 0.001$) and Training ($p < 0.001$) are significant variables for older staff. The associations between benchmarking and organizational performance ($p < 0.05$), culture and organizational performance ($p < 0.01$) and empowerment and organizational performance ($p < 0.05$) are substantially different between the old and the young age groups.

Table 2: Multi-Group Analysis across Young and Old Employees

Relationships	Path Coefficient Young age (n = 204)	Path Coefficient Old age (n = 237)	Difference	Moderating Effect Testing
BEN->IPE	0.358***	0.514***	0.156*	Supported
CUL-> IPE	0.174*	0.089	0.263**	Supported
EMP-> IPE	0.127*	0.080	0.207*	Supported
INV-> IPE	0.134*	0.009	0.126	Not Supported
LED-> IPE	0.083	0.042	0.041	Not Supported

Knowledge Management in Telecommunication Industry

RWD-> IPE	0.088	0.092	0.004	Not Supported
TEM-> IPE	0.059	0.088	0.029	Not Supported
TRG-> IPE	0.153*	0.249***	0.096	Not Supported

BEN- Benchmarking; CUL-Culture, EMP- Empowerment, INV- Innovation, LED-Leadership, RWD- Reward, TEM-Teamwork, TRG- Training, IPE-Organizational Performance

R² young age= 0.292, old age =0.395

*p<0.05, **p<0.01, ***p<0.001

Source: Author's findings

This study is important as first research in telecommunications industry in Saudi Arabia that examines the moderating effect of age on knowledge management and organizational performance.

H1a: Age moderates the relationships between benchmarking and organizational performance.

The research supports H1a by showing that the employee's age has a moderating impact on partnership benchmarking with organizational efficiency. It is a fair inference, since old staff have been at work for a long time. To increase the competitiveness of telecommunications companies in Saudi Arabia, they are well informed of what to copy from other businesses. This result shows that the older the employee, the more benchmarking expertise and knowledge they will acquire. Ahbabi et al. (2019) noticed a positive correlation between the employee's age and the experience of benchmarking because benchmarking is seen as a key source of knowledge. Older workers share their knowledge, which in turn will boost the operational efficiency of telecommunication firms. Balasubramanian et al. (2019) argued that older labours are commonly valued in the institution due to their historical prospective of benchmarking practices. As the employees' experience in their work enlarges, they start to figure out the best resolutions to work on challenges through effective benchmarking, which significantly improve the organizational performance of the telecommunication companies. Telecommunication companies has system for reporting all the employees' ages to measure performance of the knowledge share. At telecommunication industry in Saudi Arabia, there are weekly meetings between old employees and young employees in order to share the knowledge with each other. The top managers at telecommunication industry in Saudi Arabia measure weekly meetings held with old employees and young employees or the purpose of performance knowledge sharing.

H1b: Age moderates the relationships between culture and organizational performance.

The research supports H1b by statistically substantially reducing the cultural and business consequences of the age of the employee. Connelly et al. (2020) stated that a philosophy of business that recognises the skills and expertise of old workers encourages a process of Innovation that increases organisational efficiency in Saudi Arabia in turn. Telecommunication industry in Saudi Arabia provides a rather flat culture. This allows for the exchange of knowledge amongst old workers. At times old leadership exchanges their experience with new workers whether the knowledge is sensitive or useful and that it is not just literature review (Hameed et al., 2020) but also observational research. The stance of old management may be justified because it is not appropriate to communicate with all staff the same form of knowledge, since it is meaningless to them. The workers can communicate about their experience and management with each

other. Telecommunication organization has a flat structure that requires exchange of knowledge between young and old employees. There are, of course, in the on-line conference, two major facets of culture and efficiency effects on cell phones: language and technology. The results on the linguistic element of suggest that the use of another language is troublesome for old employees (Mkrtrtchian, 2020). This limits the exchange of expertise between old employees and organisations owing to misinformation due to lack of consistency in verbal and written correspondence. In brief, language is no obstacle to the local exchange of individual knowledge but becoming a hurdle when interacting with workers overseas and sharing knowledge. Mode (e.g., email or telephone) and overuse of technology may therefore pose a possible obstacle to exchanging knowledge. The observational research further confirms the safest way to communicate implicit and clear knowledge is face-to-face conversation. Communication may be strengthened by offering better technical resources and answers to their problems. It is not necessary to exchange knowledge without contact. The workers at telecommunication industry in Saudi Arabia appear partly because of the occupational protection and partly because of mutual values, to pursue the same corporate objectives because of their competence-based confidence. Other considerations, like influence and personal relationships, tend to be present between employees' ages. The pattern with older workers, who are not as much interested in exchanging details as others, may, however, be attributed to their personal characteristics. In addition, in today's uneven and unpredictable economic condition, it is challenging to retain trust. This may also influence the exchange of knowledge between employees. Workers may hesitate to have faith and to share their skills among their fellow employees. Against all these evolutionary patterns, nonetheless, personal relations between young individuals could create a confidence dependent on benevolence (Ode & Ayavoo, 2020).

H1c: Age moderates the relationships between empowerment and organizational performance.

The research supports H1c by showing that employees' age modulates the impact of empowerment on corporate results. This finding indicates that employees' age depends on the impact of empowerment on corporate efficiency. Young employees gain knowledge through their interactions, which can boost the institution's efficiency, empower them to share their knowledge and make decision faster. Effective knowledge management through telecommunication industry in Saudi Arabia can help the company achieve a competitive advantage, as it strengthens the client relations, improves the internal market and efficiency visibility, accelerates and sounds the decision-making, improves the product/service growth, and facilitates the collaboration between teams and departments. Pace and consistency remain important for young employees in holding client ties intact with consumer satisfaction and strengthens the customer relationships. The analytical results at telecommunication industry in Saudi Arabia indicate that the company's language is English, which is not deemed a concern because telecommunication industry in Saudi Arabia is typically an American company. It is a crucial distinct element amongst contenders of telecommunication industry in Saudi Arabia. This goes against Omotayo (2015) but even the other companies investigated and acknowledged that terminology is troublesome even when implicit and often clear details are exchanged (Tortorella et al., 2020). The mobile subsidiary in Saudi Arabia does not hinder knowledge exchange since mobiles are the universal language of employees. Telecommunication industry in Saudi Arabia's workers appear, partly because of the occupational protection and partly because of mutual values, to pursue the same corporate objectives because of their competence-based confidence. Other considerations, like influence and personal relationships, tend to be present between employees' ages. The

pattern with old workers, who are not as much interested in exchanging details with others, may, however, be attributed to their personal characteristics. In addition, in today's uneven and unpredictable economic condition, it is challenging to retain trust. This may also influence the exchange of knowledge between employees. Old workers may hesitate to have faith and share their skills among their fellow employees. Against all these evolutionary patterns, nonetheless, personal relations between young individuals could create a confidence dependent on benevolence.

H1d: Age moderates the relationships between innovation and organizational performance.

H1d has been dismissed in this study by finding that the factor of age at the telecommunication companies in Saudi Arabia does not make substantial moderation in terms of employees' Innovation and organisational success because older telecommunication company employees in Saudi Arabia perceive inventions that have the same value as young people and invest the same time as young people in Innovation. Innovation often exchanged expertise with young and old workers to express common interests, to choose the right details and to choose the correct database before submitting their inquiry. These characteristics promote the quest method by recommending displays of items in multiple groups and assortments (Al Ahbabi et al., 2019). In comparison, in most websites the method of searching the site's interface stays the same. The same interfaces on the platform appear to provide gender-free interactions (Al Ahbabi et al., 2019). Without good incentives, telecommunication industry in Saudi Arabia workers are less involved in sharing their inventions. Management needs to put in an intense effort to inspire the employees of different ages to innovation in order to maintain the transfer of knowledge through telecommunication industry in Saudi Arabia. One approach is to use rewards programmes – financial or non-monetary benefits to attract the workers. Reward schemes are an important method for the control of the employees' awareness (Le & Lei, 2019). Therefore, telecommunication industry in Saudi Arabia uses incentives to pay an employee with good outcomes and the managers can ensure that this does not impact the factors of loyalty, reciprocity, and control. The analytical studies of Le and Lei (2019) revealed that the shared corporate objectives encourage the workers to share their individual expertise with fellow employees without caring about each other, simply when reciprocity is another driving force for the Innovation and exchanging expertise. Therefore, reciprocity does not always impact the exchange of knowledge in telecommunication industry in Saudi Arabia. Knowledge capacity is treated inside telecommunication industry in Saudi Arabia as an enabler because the respondent's active sharing of his age with other staff is optimistic. Management finds knowledge to be a centre of strength, which allows it to be prominent in the success of the company in line with Le and Lei (2019). This influence of personal silent knowledge allows the exchange of knowledge in Telecommunication industry in Saudi Arabia.

H1e: Age moderates the relationships between leadership and organizational performance.

In this study, H1e is rejected, since both young and old people in Saudi Arabia long for the work stabilization. It is observed that the age has no major moderating effect on the leadership and organisational efficiency of telecommunication firms. Telecommunication corporations' young and old workers agree with all the orders provided by executives in return for secure employment without recognizing their transactional or transformational leadership styles. However, the results show that none of the

organisations utilise incentives to facilitate knowledge exchange among workers. The mind-set of the businesses surveyed with respect to incentives indicates that incentives will either benefit or impede the exchange of knowledge. There is no proof of the impact of incentives on knowledge sharing from the companies surveyed however, as in the case of telecommunication industry in Saudi Arabia or mobiles, nonmonetary invisibility tends to encourage knowledge sharing. In addition, the adoption of incentives would have a detrimental effect on other variables, such as strength, morale and reciprocity. This, in essence, has a global effect on an organization's knowledge exchange community. Another motive for the diffusion of knowledge in all studied institutions is reciprocity. This study indicates that it would appear as the knowledge exchange is impeded if management does not have an organisational atmosphere in which workers have little protection at employment and if they have, they are used by fellow employees and management, as is the situation in telecommunication industry in Saudi Arabia. Motivation for promoting knowledge exchange in the company is more difficult. The extent of knowledge varies the leadership as well often varies from one to another organisation, institution, and age. Thus assumed, if the workers for several years do not feel assured of their work and role in an organisation, it is extremely likely that the knowledge is greater and therefore knowledge exchange would be hindered. However, the manager's willingness to inspire and develop trust in his staff to use knowledge capacity and to facilitate the exchange of knowledge depends on it. However, the findings of all the companies studied indicate that a sense of knowledge as energy partially makes the sharing of knowledge and partially prevents the sharing of knowledge especially with telecommunication industry in Saudi Arabia. In addition, leadership plays an equally important role in enhancing operational efficiency as the age of corporate staff.

H1f: Age moderates the relationships between reward and organizational performance.

Age awards when processing knowledge varies greatly between genders, where old ages prefer to select metrics when young people opt for wider and more detailed results. The study rejects H1f by pointing out that age has no major moderating effect on the incentives and organisational success of telecommunication companies in Saudi Arabia due to disparities between old and young employees. In addition, in Saudi Arabia all telecommunication firms are government-owned, and the management takes all decisions dependent on government policy without any proper compensation and appreciation for successful business practises. Telecommunication industry in Saudi Arabia old workers became less involved in expressing their own expertise without inspiring them (Mkrttchian, 2020; Salama et al., 2020). The management needs intensive initiatives to enable workers to share their expertise to ensure the transfer of knowledge through telecommunication industry in Saudi Arabia. One approach is to use rewards programmes - financial or non-monetary benefits to attract workers. Reward schemes are an important method for the control of employee awareness (Bartol & Srivastava, 2003). Since therefore, telecommunication industry in Saudi Arabia uses incentives to pay an employee with good outcomes, the managers can ensure that this does not impact the factors of loyalty, reciprocity, and control. Literature reviews often indicate that the premature method may also be a challenge if the method does not conform to management attempting to create confidence in the business (Mkrttchian, 2020). The analytical study reveals that the general organisational interests drive old staff to share their individual knowledge with their fellow workers without caring about each other. When it comes to the reciprocity as a driving force than age, it does not always impact the exchange of knowledge in telecommunication industry in Saudi Arabia. Incentive programmes at telecommunication industry in Saudi Arabia are not utilised specifically in

relation to age to motivate potential workers to exchange knowledge. However, old workers have other indirect benefits to share their experience at telecommunication industry in Saudi Arabia, which are linked to results. In exchange, this requires the sharing of knowledge. The lack of incentives for knowledge exchange may be because the old leaders at telecommunication industry in Saudi Arabia believe that knowledge is circulating at a sufficient speed or degree in the enterprise.

H1g: Age moderates the relationships between teamwork and organizational performance.

The finding of this study rejects H1g. Age has no significant moderating effect on teamwork and organizational performance. Further, both gender groups may exhibit no differences when they make teamwork about the knowledge sharing. This is bearing in view teamwork tendency to associate the functional benefits with their positive experience (Singh et al., 2019). This is evident when both visuals are applicable to both gender groups because the benefits of using those elements may collectively represent their similar experience (Hsu, 2006). In addition, both young and old workers are equally preferred to work in a team in telecommunication companies in Saudi Arabia for having a long-term job security. The telecommunication industry in Saudi Arabia empirical study (Al Ahbabi et al., 2019) demonstrates that it is difficult to achieve higher productivity in the absence of coordination among employees within an organisation. This reflects that the level to which workers of a company operate together dictates whether it allows the exchange of knowledge or impedes the sharing of knowledge. The researched company interviewees strongly agree that their cooperation in their respective divisions is well founded, which in turn permits the exchange of knowledge. However, the extent of teamwork is lower in interdepartmental relations for both young and old employees in telecommunication industry. Similarly, knowledge sharing in various areas of the world with other subsidiaries is seen as weak. At telecommunication industry in Saudi Arabia, the teamwork plays the role of a key factor to share knowledge in organization and to help the individual to learn more from expert employees.

H1h: Age moderates the relationships between training and organizational performance.

The research findings show that according to the effects of this research, age may not have a major moderating impact on coordination and organisational success. Thus, H1g is rejected. Both young and old staff are also favorably qualified to boost corporate efficiency for the advancement of long-term jobs in telecommunication companies in Saudi Arabia. Telecommunication training in all surveyed organisations is deemed one of the most significant considerations for knowledge sharing. Young and old employees are often hesitant to trade expertise because they see their expertise, abilities, and knowledge as a means of survival within the enterprise. This prohibits the exchange of knowledge. Therefore, workers should be advised and empowered to communicate their experience with their colleagues in order to accomplish effectively the given aims and goals. Any studied business often faces a difficulty in the training phase. In versatility, this dilemma is nevertheless seen as a significant obstacle to the exchange of knowledge. However, the responsibility for technology being a hurdle or obstruction to knowledge exchange will be an immense mistake, as perhaps the studied businesses could concentrate on effective technical methods as a means of sharing knowledge and stress upon casual means of exchanging knowledge. Telecommunication industry in Saudi Arabia's preparation department stores business knowledge but workers refuse to add additional awareness to these libraries owing to bureaucratic processes. The challenge in accessing these databases is another common concern.

In Saudi Arabia, telecommunication companies studied by the researcher have laws, rules and standards to meet their duties and handle their regular jobs but neither of them is punishable for failing to conform to certain laws, legislation and standards. The arrangement for mandatory invention days was a specific feature of telecommunication industry in Saudi Arabia. This offers workers an initiative to express their thoughts and suggestions. Telecommunication industry has an initiative named list of steps to track and validate what had been completed or not completed since the last structured conference. All companies have knowledge management programmes where corporate knowledge is processed, but workers are unable to access further knowledge to these libraries because of bureaucratic systems. The challenge in accessing these databases is another common concern. Telecommunication industry in Saudi Arabia view language as a barrier to the exchange of knowledge, while telecommunication industry in Saudi Arabia is the other organisation to be investigated as it says that the language is not a barrier to the sharing of knowledge at all. The telecommunication manager's argument gives the reflection of having been caught in self-criticism and is likely to represent his opinions on language competence alone.

In telecommunication industry in Saudi Arabia, however, this is a big obstacle to the exchange of knowledge. However, the responsibility for technology being a hurdle or obstruction to knowledge exchange will be an immense mistake, as perhaps the studied businesses could concentrate on effective technical methods as a means of sharing knowledge. Telecommunication industry in Saudi Arabia emphasize the informal ways of sharing knowledge while telecommunication industry in Saudi Arabia and telecommunication industry in Saudi Arabia agree that informal ways of sharing knowledge are essential, but more formal ways of sharing should be there. The respondents of the studies corporations strongly agree that trust amongst the workers of their respective divisions is well-developed, which allows the exchange of knowledge. However, the extent of confidence is lower when it comes to interdepartmental problems. Similarly, knowledge sharing in various areas of the work with other subsidiaries is seen as weak.

The result was taken from surveys with the three telecommunication companies' staff members - telecommunication industry in Saudi Arabia, telecommunication industry in Saudi Arabia, and Telecommunication industry in Saudi Arabia. However, both the managers and workers within the divisions and in other divisions may research the subject. In addition, a significant observation in the observational analysis of incidents, except for firms, points to an inadequate knowledge of employees' skills in other divisions. It is concluded that there is a definite way to exchange awareness, empowerment, leadership, and Innovation. The explanation for the growth of employees' empowerment, leadership and Innovation is because of the relationships and linkages between employees in the respective firms. This ensures that empowerment, leadership, and developments, both benevolence-based and competence-based, rely on the amount of time workers operate by working together. They create partnerships that can construct capability, leadership, and Innovation in turn. However, from a managerial viewpoint, the problem of empowerment, leadership and Innovation is how new workers develop in these areas. Unless management builds workers' empowerment, leadership and Innovation, knowledge exchange is hard to foresee. As described earlier, incentive programmes will affect its degree of empowerment, leadership, and Innovation. In addition, this study illustrates that the labour environment and the competitive status of the firm, in addition to the award programmes, can, as in the case of telecommunication industry in Saudi Arabia, often influence the degree of empowerment, leadership and Innovation.

The knowledge exchange inside an organisation, as argued in the literature review, may have a significant impact on system tools for handling knowledge. However, the results show that none of the organisations utilises incentives to facilitate knowledge exchange among workers. The mind-set of the businesses surveyed with respect to incentives indicates that incentives will either benefit or impede the exchange of knowledge. There is no proof of the impact of incentives on knowledge sharing from the companies surveyed however, as in the case of telecommunication industry in Saudi Arabia or mobiles, nonmonetary invisibility tends to encourage knowledge sharing. The establishment of prizes would also have a detrimental impact on other elements such as cooperation, Innovation, preparation, benchmarking, and reciprocity. This, in essence, has a global effect on an organisation's knowledge exchange community. Another motive for the diffusion of knowledge in all studied institutions is reciprocity. This study indicates that the knowledge exchange may appear to be impeded if management does not have an organisation's atmosphere in which workers have little protection at employment and if they have, they are used by fellow employees and management, as is the situation in telecommunication industry in Saudi Arabia.

This study develops, examines and validates the pioneer knowledge management framework focused on telecommunication companies in Saudi Arabia. Trust is an important enablement for the exchange of knowledge independently, as in the telecommunication industry in Saudi Arabia, or a deterrent if workers cannot trust their peers or their managers. The employee's loss of faith in management will also theoretically impact the acquisition and usefulness of corporate expertise. However, the absence of a shared language often prevents exchange of details, as stated earlier in the study. This problem may also impact the trust between workers and when they exchange individual knowledge at the completion of a project, as Levin et al. (2003) puts it, although there is typically a meeting where project knowledge is recorded and preserved in those processes. It is convenient to use in the framework where we locate the records. It is expected to include headings and other stuff. It is pretty easy to interpret and enter the knowledge management system. All have keys for it or to it. However, some staff said that they did not want to capture, store, share and reuse knowledge as they could lose control the telecommunication industry in Saudi Arabia culture, but they had been there for a long time Certain people do not have much to protect this. If everybody in the department understands what the other knows, it is very certain that no one is going to be thrown out of the company. In the meantime, telecommunication industry in Saudi Arabia management said that most of them were coordinating with other units through mails and mobile calls, but mainly via face-to-face conversations in the organisation in order to clarify the future difficulty of exchanging knowledge because of connectivity barriers and knowledge-sharing facilitators. The debate seems to have arisen from knowledge acquisition, sharing and maintenance. Many of these variables appear to be intertwined. The systematic analysis of research records and analytical results for this specific study provides an opinion that the exchange of knowledge in the enterprise is influenced by a small shift in each of these connected variables.

Knowledge management is not utilized specifically by telecommunication industry to facilitate the exchange of individual knowledge due to its flexibility. However, young and old workers can express their experience in telecommunication industry in Saudi Arabia with other performance-related, indirect non-monetary rewards. In exchange, this requires the sharing of knowledge. The idea that old management in mobile communications believe that knowledge's are streaming around the organisation, could contribute to a lack of incentives for sharing knowledge, reusing knowledge, and exchanging knowledge. Reciprocity is not seen

as a significant factor affecting individual mobile knowledge sharing in Jeddah-based units. The studied literature (Singh et al., 2019) stresses that mutual interest of involved parties can affect individual knowledge sharing in either way (hinder or enable). Reciprocity does not directly affect the tendency to share knowledge at telecommunication industry in Saudi Arabia, but if the reward system is visible to employees then it can be a barrier to knowledge sharing. Reciprocity primarily facilitates human capability development and therefore has a smaller influence on business awareness. Person knowledge shared through reciprocity will also bring value to telecommunication industry in Saudi Arabia be corporate knowledge and goods or services to its consumers. The analysis of literature (Singh et al., 2019) indicates that knowledge may be an obstacle or an enabler to human knowledge exchange, as a power source. Given that empirically, the propensity to use individual knowledge power, either as a distinct source among workers or as a protection source of employment, does not seem to be evident. It seems that knowledge power has little adverse influence on telecommunication industry in Saudi Arabia's exchange of knowledge. Security at jobs has the power to keep knowledge determine whether the exchange of knowledge takes place or not. If an employee is secure, they prefer to communicate their knowledge more openly. However, the feeling of dominance may contribute to a sense of control through sharing personal silence and overt knowledge.

Thirdly, telecommunication industry in Saudi Arabia Business has a tradition of exchanging knowledge, but telecommunication industry in Saudi Arabia needs an encouragement to exchange knowledge. There seems to be no major problem of trust in telecommunication industry in Saudi Arabia is sharing of knowledge. The knowledge of telecommunication industry in Saudi Arabia's organisation lies in libraries, intranets and other technological instruments. These libraries are able to store lessons learnt from various issues with the goods and can be retrieved by numerous workers and utilized if appropriate. This involve technologies, individual expertise and experience acquired in carrying out their duties. This knowledge has been preserved in the context of clear knowledge. The implicit knowledge is shared by citizens of telecommunication industry in Saudi Arabia through interactions and traditions. It also confirms that telecommunication industry in Saudi Arabia is more focused on a personalization file when utilizing the blogging technique, which is agreed with the literature review (Omotayo, 2015). Communication is a crucial consideration and the exchanged knowledge and observational evidence reveals that telecommunication industry appears to be able to share knowledge. However, correspondence created several issues via email when a company exchanges explicit knowledge. This was because the receiver may have misunderstood the exchange of details. With knowledge management considerations, telecommunication industry will leverage this task to strengthen its internal connectivity by stressing the employees to correctly leverage the technology for sharing knowledge. The findings of telecommunication industry in Saudi Arabia and telecommunication industry in Saudi Arabia reveal that the language of the business is English and Arabic. It is not a concern for Telecommunication industry in Saudi Arabia as Telecommunication industry in Saudi Arabia has a business historically from Kuwait. The Arabic language cannot be an obstacle for sharing. Telecommunication industry in Saudi Arabia's subsidiary knowledge since English is the Lingua Franca for its workers. The respondent highlighted the value of informal approaches for tacit knowledge exchange because they provide face-to-face opportunities. However, telecommunication industry in Saudi Arabia prioritizes structured mechanisms for knowledge sharing, since it not only tracks failings and successes but often enables operational knowledge to be improved and there

are laws, organisation, routines and guidelines about utilizing databases and other knowledge exchange resources. Such protocols, rules and regulations allow for overt knowledge transfer but often obstruct implicit tacit knowledge sharing, as employees are less involved in sharing individual knowledge without a clear reason (Stemark, 2011). Intensive effort by management to encourage workers to exchange expertise is required to ensure the flow of knowledge across the industry. One approach is to use rewards programmes, financial or non-monetary benefits, to attract workers. Reward schemes are an important method for the control of employee awareness. Telecommunication industry in Saudi Arabia uses incentives to compensate an employee for its strong work, managers can ensure that the confidence, reciprocity and power considerations do not impact this. Similarly, the observational research reveals that common corporate interests enable workers to share their personal knowledge with other workers while they are not thinking about reciprocal support, when it comes to reciprocity as another driving force for knowledge sharing. Therefore, reciprocity does not necessarily impact telecommunication industry in Saudi Arabia's exchange of knowledge in any way. The willingness to communicate the knowledge with other workers is called an enabler in telecommunication industry in Saudi Arabia, as the respondent is a positive person. The management uses knowledge as a center of strength that allows the company to be prominent, which is in line with Wang and Noe's literature review (2010). This feeling of control by individual tacit awareness encourages the exchange of knowledge in Telecommunication industry in Saudi Arabia.

This study shows that there are differences of age reward; although the processing knowledge differs strongly between the age groups where young workers tend to select specific cues while old opt for broader and more comprehensive cues. The results contradict themselves with the existing literature (Hameed et al., 2020). Further, both age groups may exhibit no differences when they make teamwork about the knowledge sharing. This is bringing in view the teamwork tendency to associate the functional benefits with their positive experience. However, innovation allows the young and old to knowledge to exhibit similar preferences, choosing the appropriate knowledge and selecting the relevant database before forwarding their inquiry. Likewise, empowerment of the old employees was found to show greater interest towards leadership. Young people, who capture knowledge, tend to choose relevant knowledge that constitutes sensitivity when they make decisions. An old-age indifference about the relationship between knowledge management and performance suggests that this trait, as a response tool, contains knowledge that reflects the concerns of old workers who share knowledge and can be seen as references for future youth, Ancient knowledge can look for alternative methods, through the knowledge system, to obtain reliable and safe knowledge. On the other hand, old knowledge of employees tends to seek confirmation through the mail to make their system easier to process. Evidence shows that a knowledge system, as a website, functions as a practical tool characterized by preferences for both ages. While mitigating the perceived risk of archaic knowledge, it also shows the predominant use of knowledge and the young people's knowledge can be used to improve cognitive experience of different ages (employees). It is compared as a relationship between knowledge and performance. This is to be expected because young employees and ancient knowledge of citizens exhibit different attitudes towards sites of knowledge. Young people gain more confident knowledge and appear to seek more pleasure in gaining knowledge. Likewise, older employees know a greater degree of security and need complete knowledge when making knowledge decisions (Seock& Bailey, 2008). In the current study, the knowledge of the young employee assumes that the reward is negatively affected by performance, while the knowledge of the young employee assumes a positive relationship. This is possible, when ancient knowledge cannot use cognitive knowledge as a reference point for judging the

quality of knowledge because knowledge offerings are simply intrinsic and often identical (Kim & Hyun, 2010).

4. Conclusion

Finding of this study shows that young knowledge workers perceive that Benchmarking ($p < 0.001$), Culture ($p < 0.05$), Empowerment ($p < 0.05$), Innovation ($p < 0.05$) and Training ($p < 0.05$) are important knowledge management factors but just Benchmarking ($p < 0.001$) and Training ($p < 0.001$) are significant variables for older knowledge workers. The associations between benchmarking and organizational performance ($p < 0.05$), culture and organizational performance ($p < 0.01$) and empowerment and organizational performance ($p < 0.05$) are substantially different between the old and the young age groups. The results of this study could be useful to develop effective knowledge management strategies to overcome the obstacles of knowledge management in telecommunications industry.

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