

European Journal of Social Sciences Studies

ISSN: 2501-8590 ISSN-L: 2501-8590

Available on-line at: www.oapub.org/soc

DOI: 10.46827/ejsss.v5i6.755

Volume 5 | Issue 6 | 2020

MEASURING STRATEGIES FOR KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE IN LIBYAN TRANSPORTATION INDUSTRY: STRUCTURAL EQUATION MODELLING

Ahmad Mohamad Omar Omranⁱ, S. M. Ferdous Azam

Postgraduate Centre (PGC), Management and Science University, University Drive, Off Persiaran Olahraga, 40100 Shah Alam, Selangor, Malaysia

Abstract:

The purpose of this research is to measure the strategies for knowledge management and organisational performance in Libya using an approach to structural equation modelling (SEM). The research method of this analysis is a quantitative method only, where the total sample size is assumed to be 453 using simple random sampling. The structural model for this analysis showed the relationships between the variables. The results show that the framework of knowledge management is significantly related to the strategy of knowledge management, while knowledge management practise is significantly related to the strategy of knowledge management. However, the framework of knowledge management was found not to be very positively linked to organisational performance. Unexpectedly, in terms of significantly related to organisational performance, knowledge management activity has also not been considered relevant. Knowledge management approach, on the other hand, is positively linked to organisational performance and to the reciprocal relationship between the system of knowledge management and the practise of knowledge management. By offering an empirically validated model that could be used to forecast organisational performance as a whole, this study has added to established knowledge.

JEL: L10; L25; L91

Keywords: strategies, knowledge management, organizational performance, transportation industry, Libya, structural equation modelling

ⁱ Correspondence: email <u>a omran1977@yahoo.com</u>

1. Introduction

Knowledge management is seen as the essential tool for governments to implement reforms for societal improvements and strategies for implementation (Zander & Kogut, 1995; Chun et al., 2019; Yang et al., 2019). It has been repeatedly noted, however, that government policy initiatives for transportation industry reform have largely failed to promote the creation of knowledge. In addition, in comparison to the transportation industry, knowledge management in the private sector was previously adopted where governments were found struggling to implement the notion of knowledge management due to intrinsic barriers associated with organisational knowledge (Liebenskind 1996; Maghfuriyah et al., 2019; De Silva et al., 2017; Kuruwitaarachchi et al., 2019; Pambreni et al., 2019; Dewi et al., 2019; Nguyen et al., 2019).

However, when it comes to knowledge management, the Libyan transportation industry faces a competitive disadvantage, as the transportation industry suffers from a lack of backward-integrated facilities. Different business capacities and processes have been included in knowledge management ideas. As a learned approach, these principles focus on the various types of management that facilitate the identification, identification, finding, development, putting away, and management, implementation, sharing, and recharge of knowledge to strengthen an organisation. Since there is a lack of skills in building or executing an appropriate organisational performance in the transportation industry, it places the organisations at a great disadvantage.

For various reasons, knowledge management practises are gradually becoming basic. The three main goals are 1) to improve basic leadership capacities, 2) to create learning organisations, and 3) to encourage social change and progress (in the same place.). There has been an increase in attention to the idea, strategies, and devices to hold and develop this knowledge with an increasing awareness and significance of "learning" living in organisations. In addition to the above limitations, one obstacle facing many government organisations in the government of Libya is the execution of their expected performance due to their lack of knowledge.

In addition, existing knowledge management practises are largely determined by global organisations and private business organisations to a great extent. There is limited confirmation of the use of knowledge management at hierarchical levels and, more particularly, the creation of nations. Such subjective perspectives and contextual investigations should be considered as a critical plan for benchmarking and reflection in view of the potential estimation of learning management practises (Azam et al., 2014; Haur et al., 2017; Katukurunda et al., 2019).

In the transportation industry, knowledge management is seen as an important method for bringing about reforms by governments for the betterment of society. It has been repeatedly noted, however, that government policy initiatives for transportation industry reform have largely failed to promote the creation of knowledge (Rachmawati et al., 2019; Azam and Yusoff, 2020; Azam et al., 2020). In addition, in comparison to the transportation industry, knowledge management in the private sector was adopted

earlier, where governments were found struggling to implement the notion of knowledge management due to intrinsic barriers associated with organisational knowledge (Azam and Moha Asri, 2015; Tham et al., 2017; Udriyah et al., 2019). In addition, even after an excessive literature survey on knowledge management strategies and organisational performance, only a very few studies have been identified on the Libyan transportation industry, a clear lack of this sector. The lack of thorough knowledge in this respect hinders the efforts of the Libyan transportation industry to achieve organisational performance. It is therefore important to examine whether there is an important link between strategies for the management of knowledge and organisational performance in Libya.

2. Literature Review

As to the definition and nature of knowledge, an intrinsically ambiguous or equivocal term, there is no uniformity or common conformity on the part of the scholars. Western thought has been dominated by the study of epistemology, or the nature, sources, limitations and validity of knowledge, since the time of the ancient Greek philosophers (Sankaran, 2006). In 360 BC, Plato defined knowledge as 'justified true belief' in his Theaetetus (Project Gutenberg, 1999). Although in many ways debated and modified, the notion of knowledge of Plato is still widely articulated in Western thought (Nonaka and Takeuchi, 1995). More recently, Drucker (1993) coins the term 'knowledge worker' and claimed that it was no longer capital or labour or natural resources in the 'knowledge society,' rather the knowledge that would be the fundamental economic resource. Therefore, in different times and studies, numerous approaches and taxonomies, such as 'belief', 'understanding', 'knowledge', 'experience', 'power', etc. are provided by them to convey the meaning of knowledge from a variety of perspectives as found in the literature. In order to increase growth and performance, management and organisational knowledge must be integrated into the organisation's processes and procedures (Tsoukas, 2005). It is very important for the capture of knowledge and the sharing of knowledge components in the processes of knowledge management. The literature on knowledge management distinguishes between different kinds of knowledge so that it can be managed well. Some experts thus distinguish between technical and strategic knowledge. However, the more prevalent kinds of knowledge include tacit knowledge, explicit knowledge and implicit knowledge. Businesses must allow the organisational culture and organisational structure within the organisation to explore the management of knowledge. Knowledge management in organisations essentially integrates knowledge with a distinctive ability to improve the performance of employees. For increased growth and performance, management and organisational knowledge must be integrated into the organisation's processes and procedures. Knowledge is experience that can be communicated and shared, according to Allee (1997), although he focuses more on knowledge through experience. Leonard and Sensiper (1998), who believe that such data is tacit in nature, echo this. Bhagat et al. (2002) embrace the concept that

knowledge is derived from knowledge creation and restructuring, which, according to Beckman (1997), through logical reasoning, increases the productivity, problem-solving and decision-making skills of an individual.

Cavaleri and Reed (2000) mention that knowledge is essentially composed of and based on potential acts / activities or signs, social in nature, when defining knowledge. These can be relevant to political questions and beliefs resulting from the experience of an individual. This knowledge denotes the ability to act effectively. Davenport and Prusak (1998, p.5) claim that "the fluid mix of framed experience, values, contextual knowledge, and expert insight originated in the minds of the experts is knowledge". It is often embedded in an organisation not only in documents or repositories, but also in organisational routines, procedures, strategies, and standards. In these times of intense competition, companies strive to address the challenges posed by different forces, ranging from globalisation to the dissemination of technology innovation to knowledge creation, adoption and dissemination. The result of these tumultuous changes has led to a paradigm shift in the establishment of firm priorities that emphasise the use of its knowledge base more than the physical resources at its disposal. In order to reap a sustained competitive advantage, conventional business strategies must therefore adapt to the dynamics of the evolving business landscape through the use of knowledge-based resources (Grover and Davenport, 2001; Jackson et al. 2003; Sharkie, 2003). Therefore, in these days of exponential knowledge growth, companies engaged in such generation and deployment of knowledge is prepared to reap the windfalls. Therefore, it is not surprising that different aspects of knowledge management have drawn considerable attention from academics and industry players, with the latter beginning to consider managing their knowledge base as part of their overall strategic initiatives (Hung et al., 2005). The hypothesised research model and the key relationships to be tested in this study are illustrated in Figure 1 on the basis of literature support in the previous sections.

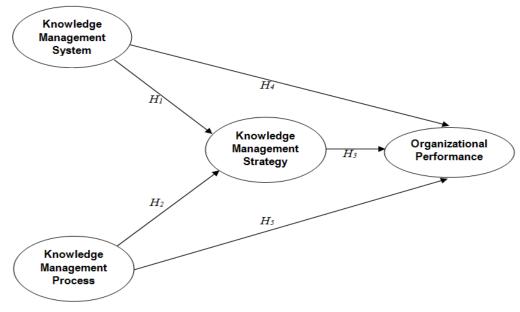


Figure 1: The Conceptual Framework

From this conceptual framework, five primary hypotheses are developed to test the relationships among the various variables.

H₁: Knowledge management system is significantly related to knowledge management strategy.

H₂: Knowledge management process is significantly related to knowledge management strategy.

H₃: Knowledge management strategy is significantly related to organizational performance.

H₄: Knowledge management system is significantly related to organizational performance.

H₅: Knowledge management process is significantly related to organizational performance.

3. Research Methodology

The main purpose of the study is to determine the knowledge management strategies and organizational performance in Libya. Quantitative method was used, which relies on the collection of quantitative data which is mainly used in descriptive studies for testing a theory. For this research, the data are analyzed to explain the relationships among the variables by employing statistical analysis namely descriptive and inferential statistics. To conduct the Structural Equation Modelling (SEM), the first step that is to specify the measurement model in three stages. Firstly, specify the number of factors or latent variables which is represented by ovals to be hypothesized by the scale's items constituted by rectangles. Next is to specify the items linked to each factor whereby each item linked to only one latent variable. Thirdly, if the hypothesized model includes multiple factors, then the associations between factors specify are to be represented. In this measurement model specification stage, three types of parameters are desired that are the hypothesized factor loadings, correlation between factors or the loading of a lower order factor on a higher order factor and error variance for each item.

Since the sample size was 453, which is sufficient for the simple random sampling, thus, upon completion of specification phase, analysis begins whereby actual variances and actual covariances are computed using collected data. This is done to estimate the model's veracity by creating the implied item variances and covariances and if it emulates the actual variances and covariances, hence, the research model is good. Therefore, indices of model fit are computed. Interchangeably, a good model fit will output small discrepancies.

From there on, it will be interpretation of the results which includes model fit indices such as Goodness of Fit Index, Incremental fit Index, Normed Fit Index, Comparative Fit Index, Non-normed Fit Index, Root Mean Square of Approximation, Root Mean Square Residual and Standardized Root Mean Square Residual. Parameter Estimates. The items' factor loading, inter-factor associations and error variances is examined.

4. Research Findings

The first section presents the frequency distribution of the demographic variables of the research sample (n = 453) who were the executives, non-executive and the employees of various transportation industry in Libya. The composition of the sample indicated that the 88% of respondents are represented by males while the remaining 12% are represented by the female respondents. Findings reveal that the largest group of respondents fell into the 31-35 years age group (41%), followed closely by 41% are above the 36 year age group. Of the rest closely by the 26 - 30 age groups at 15% and below 20 year age group represent by 9%. The educational level of the respondents reflects that the most of the executive officers that had a degree which is noted at 42.5%, 10.0% had a diploma while 30% had the secondary education qualification and 16.9% of the respondents' had qualified with school training. In order to that most of the non-executives of transportation industry who, are qualified with a degree which is evident from the study.

The dimensionality of the Knowledge management system (KMS), Knowledge management process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance (OP) were sought through a principal component analysis (PCA) after which a confirmatory factor analysis (CFA) was conducted to confirm the dimensionality obtained through PCA. The PCA was to explore the underlying dimensions of Knowledge management system (KMS), Knowledge management process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance. First, the statistical assumptions of PCA were tested. The exercise revealed that a substantial number of variables were correlated ($r \ge .50$). In addition, the two measures for inter-correlations among variables supported the use of PCA (Hair et al., 2010; Kline, 2011; Kothari, 2004; Neuman, 2007). Bartlett's Test of Sphericity was statistically significant [4190.487, p = .000], while the Kaiser-Meyer-Olkin (KMO) measure of the sampling adequacy (MSA) was .857, indicating that the inter-correlations were sufficient for PCA (Pallant, 2007).

PCA with Varimax rotation was performed on the data collected. Four latent factors were extracted with eigenvalues greater than one, explaining 55.70% of total variance. Thus, the results show that four latent factors were successfully extracted on 59 items. The internal consistency of all the factors were obtained by computing the Cronbach's Alpha coefficient on the four extracted factors was retained by PCA. In view of the guidelines by researchers (Cronbach, 1951; Sekaran & Bougie, 2010), Cronbach's Alpha was employed to estimate the reliability of the extracted factors as presented in Table 1. All four factors [Knowledge management system (KMS), Knowledge management process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance (OP)] had good reliability indices of .803, .771, .796 and .771, respectively.

Ahmad Mohamad Omar Omran, S. M. Ferdous Azam MEASURING STRATEGIES FOR KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE IN LIBYAN TRANSPORTATION INDUSTRY: STRUCTURAL EQUATION MODELLING

Table 1: Reliability Statistics

Variable	Cronbach's Alpha	N of Items
Knowledge Management System (KMS)	.803	11
Knowledge Management Process (KMP)	.771	15
Knowledge Management Strategy (KMST)	.796	17
Organizational Performance (OP)	.771	16
Overall	.816	59

At this point, this research has adopted structural equation modelling (SEM), which is a comprehensive approach to find the relationship among the factors (Byrne, 2010). In SEM, prior to examine any specific relationship, researcher must determine the overall model fit (Hair et al., 2010). The researcher must either accept or reject the entire model. Hence, before to set off to the path analysis, the study went for measurement model to justify if the model defines the constructs adequately. The similarity between measurement model and the full (path) model is also necessary for depicting the different sorts of validity of the analysis (Byrne, 2010). Among the many statistical evidences, some are treated as relatively important in seeking the overall model fit for complete structural model (path analysis). In depicting the overall model fit, the research should report $\chi 2$ (Chi square) and the degree of freedom with p-value along with incremental index (at least one) such as CFI) and one absolute index like RMSEA (Hair et.al, 2010). This treated as the fundamental tools used to assess the overall fit measures. The calculated chi square value depends on the sample size and the difference between the observed and model covariance matrix. Meaning that, the lower the value is the better at certain degree of freedom and given "P" value. In the study, Chi Square value is closed to the standard value at the given degrees of freedom and p value shows the good fit.

The number of items used in a model is also considered to justify the p value of the model. For an instance, if the number of items is more than twelve with the 250 or greater respondents (in this research, n=453), significant p value is expected. Comparative fit index (CFI) is one of the mostly used incremental indices used to examine the baseline comparison. Fundamentally, it measures the correlation and their average size in the given data. Higher the correlation between the variable is higher the CFI value. The expected CFI value is .90 and higher (close to 1). RMSEA is a kind of absolute index to assess the overall model fit. The value of .08 and less is expected for the good model fit while the value of .1 or more usually indicates the poor model fit. However, in social science research, the global fit indices are unrealistic as this only provides statistical fitness (Byrne, 2010; Hair et al., 2010). However, in social science, the fitness should also be considered theoretically as well as practically.

The hypothesized model was estimated by using AMOS adopting the Maximum Likelihood (ML) estimation on the data collected from the sample of 453 respondents involved at various Transportation industry (GE) in Libya (n = 453). The results of the model were assessed using the goodness-of-fit indices and reasonableness of parameter estimates. The squared multiple correlations (SMC) of the indicators were also computed. The results from the SEM structural model showed the fitness level for the hypothized

model [Absolute fit (RMSEA) = .070, Incremental fit (CFI) = .870; and Parsimonious fit (ChiSq/df) = 2.457]. The Normed chi square (CMIN/DF) which is an attempt to reduce the sensitivity of chi-square to the sample size, was found to be 2.457, thus, within the recommended ≤ 3.0 value. The comparative fit index (CFI) was .870, indicating a lack of satisfactory fit index for the hypothesized model in relation to the uncorrelated model. The root mean square error of approximation (RMSEA) also showed good fit (.070) for the hypothesized model. For a good fitting model, RMSEA should be \leq 0.08. Conversely, the parameter estimates of the hypothesized model did not show any offending estimates (offense-free). All path coefficients were positively directed with reasonable magnitude. The causal path between the constructs was statistically significant at 0.001, but the path value of Knowledge management system (KMS) and Organizational Performance (OP) and Knowledge management process (KMP) and Organizational Performance (OP) were not statistically significant. Hence, it was further needed to examine the skewness and Modification Index (MI). It has been found that the skewness for the item Q33 was positive while other items' skewness was negative. Thus, the item Q33 was deleted from the further analysis. This is, however, justified methodologically (using AMOS) and theoretically.

The model was re-specified and re-run again using AMOS (version 21.0). The goodness-of-fit indices of the revised model were sharply improved as compared to that of the hypothesized model. Thus, indicating that there were statistical discrepancies between the observed covariance matrix of the sample (observed data) and the implied covariance matrix of population (revised hypothesized model). The Normed chi-square (CMIN/DF) showed a good fit for the revised model, with an index less than 3 (i.e. 2.411), supporting the consistency of the data to the revised model. The statistical significance of the $\chi 2$ of the model) may be due to the large sample size (n = 453).

Moreover, the measure of RMSEA was .068, which is below the recommended cutoff of RMSEA \leq .08 for the complexity of this revised model (Hair et al., 2010). Thus, RMSEA of .068 indicates lack of any significant difference between the covariance matrix of the sample and the covariance matrix of population. In other words, the revised model adequately fitted the data.

The CFI (.879) of the revised model also show adequacy of the model fit, adding more evidence to support the goodness of fit of the revised model. The AMOS (Version 21.0) text output did not provide any further suggestion to modify the revised model. After this, hypothetical relationships are tested that sometimes is called confirmatory data analysis, is a hypothesis that is testable on the basis of observing a process that is modeled via a set of random variables. A statistical hypothesis test is a method of statistical inference. Commonly, two statistical data sets are compared, or a data set obtained by sampling is compared against a synthetic data set from an idealized model. A hypothesis is proposed for the statistical relationship between the two data sets, and this is compared as an alternative to an idealized null hypothesis that proposes no relationship between two data sets. The comparison is deemed statistically significant if the relationship between the data sets would be an unlikely realization of the null

hypothesis according to a threshold probability, the significance level. Hypothesis tests are used in determining what outcomes of a study would lead to a rejection of the null hypothesis for a pre-specified level of significance.

Table 2: Hypothesis Testing (Maximum Likelihood Estimates)

Variable	Relationship	Variable	Estimate	S.E.	C.R.	P
Knowledge Management Strategy	<	Knowledge Management Structure	.440	.119	3.713	***
Knowledge Management Strategy	<	Knowledge Management Process	.468	.084	5.603	***
Organizational Performance	<	Knowledge Management Strategy	.286	.075	3.823	***
Organizational Performance	<	Knowledge Management Structure	.176	.096	1.831	.067
Organizational Performance	<	Knowledge Management Process	.159	.070	1.842	.065
Knowledge Management Structure	<>	Knowledge Management Process	.045	.015	3.052	.002

 Table 3: Standardized Regression Weights: (Default model)

Variable	Relationship	Variable	Estimate
Knowledge Management Strategy	<	Knowledge Management Structure	.250
Knowledge Management Strategy	<	Knowledge Management Process	.419
Organizational Performance	<	Knowledge Management Strategy	.350
Organizational Performance	<	Knowledge Management Structure	.122
Organizational Performance	<	Knowledge Management Process	.141
Knowledge Management Structure	<>	Knowledge Management Process	.220

Total six hypotheses were also answered by goodness-of-fit indices showing that Knowledge management system (KMS) and Knowledge management process (KMP) substantially influence Knowledge Management Strategy (KMST) into the various transportation industry in Libya. Moreover, it also shows the influence of Knowledge Management Strategy (KMST) on Organizational Performance (OP). However, the results did not support the second and fourth hypothesis that relate to the influence of Knowledge management system (KMS) on and Organizational Performance (OP) and the influence of Knowledge management process (KMP) on Organizational Performance (OP). The last research hypothesis was also addressed. It was revealed that there is a significant positive reciprocal relationship exists between Knowledge management system (KMS) and Knowledge management process (KMP). The main findings of the study are summarized in Table 4.

Ahmad Mohamad Omar Omran, S. M. Ferdous Azam MEASURING STRATEGIES FOR KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE IN LIBYAN TRANSPORTATION INDUSTRY: STRUCTURAL EQUATION MODELLING

Table 4: Summary of the Main Findings of the Study

H(x)	Hypothesis	Finding	
T T1	Knowledge management system (KMS) is significantly	Accepted	
H1	related to Knowledge Management Strategy (KMST)		
H2	Knowledge management process (KMP) is significantly	Accepted	
П2	related to Knowledge Management Strategy (KMST)		
1.10	Knowledge management system (KMS) is significantly	Doiogtod	
H3	related to Organizational Performance (OP)	Rejected	
H4	Knowledge Management Strategy (KMST) is significantly	Aggantad	
Π4	related to Organizational Performance (OP)	Accepted	
Н5	Knowledge management process (KMP) is significantly	Dejected	
	related to Organizational Performance (OP)	Rejected	

The findings of this study are formulated for the hypothesis which based on the research questions of this study. The findings of this study are based on all the variables of conceptual framework, data collection and data analysis. According to the analysis of the data where it was found out that most of the government industries in Libya are operated in structured way. Moreover, the next section will provide an extensive discussion.

5. Conclusion and Recommendation

The Libyan transportation industry is totally focused on the performance of organisations. However, because the sample size was short and confined to a specific pool, the results of this study cannot be applied to any scenario in Libya. The first hypothesis was that the system of knowledge management was significantly related to the strategy of knowledge management. In order to reap a sustained competitive advantage, conventional business strategies must adapt to the dynamics of the evolving business landscape through the use of knowledge-based resources (Lee and Choi, 2003; Chuang, 2004). Therefore, organisations involved in such knowledge generation and deployment are ready to reap the windfalls in these days of exponential knowledge growth (Nahm et al., 2004). Therefore, it is not surprising that various facets of knowledge management have gained considerable attention from academics, where theories play an important role in overall strategic strategies (Hung et al., 2005).

The second hypothesis then stated that the process of knowledge management is significantly related to the strategy for knowledge management. This result is also confirmed by previous studies where the authors were present. Knowledge management, according to Schermerhorn (1999), can harmonise various other organisational drives, such as proper practise and strategy building (Lee and Choi, 2003; Hung et al., 2005). Knowledge is therefore increasingly considered pivotal to achieving business excellence these days (McAulay et al., 1997; Nahm et al., 2004), with high-performing organisations stimulating an atmosphere of continuous learning through knowledge acquisition, discovery and innovation, and courting risk (McGill et al., 1992).

First, the third hypothesis notes that the method of knowledge management is positively connected to organisational performance. This finding is also supported by

previous findings in which the authors argue that the performance of organisations in a social environment is driven by the importance of a particular cultural context or norm (Hofstede, 2001). Therefore, considered as a form of organisational capital (Camerer and Vepsalainen, 1988), the prevalence of a culture of knowledge is instrumental in establishing strategies for knowledge management in an organisation and ultimately making it a success (Nahm et al., 2004). In addition, numerous studies by Hung et al. (2005) illustrate the relationship between organisational culture and the role it plays in its success.

The fourth hypothesis after that stated that the strategy of knowledge management is significantly related to organisational performance. This result is also confirmed by previous studies where the authors were present. A learning culture dedicated to improving people's skills and abilities helps an organisation broaden its knowledge base, according to Bhatt (2000). Such learning skills make it easier for workers to apply their conceptual knowledge (Tsai and Lee, 2006). This is critical because it would lead to the organisation creating and maintaining core competencies (Simonin, 1997). This is in line with the See (2002) study, where a culture of learning is found to be a precedent in activities of knowledge creation that consequently affect organisational performance. In addition, the company's resource-based view holds that businesses are a source of value-added skills (Wernerfelt, 1984), and such underlying organisational competencies will benefit from a knowledge-based evaluation of the company's resources (Prahalad and Hamel, 1990; Conner and Prahalad, 1996).

In addition, the fifth hypothesis notes that the process of knowledge management is positively linked to organisational performance. This finding is also supported by past findings in which the authors argue that performance rewards organisations that acknowledge their employees for what they know and exchange that knowledge foster an environment that contributes to efforts to manage knowledge. However, since the role of a knowledge worker may occupy a new role within an organisation, it takes some time to develop a desired knowledge culture for the exchange and use of knowledge. In order to promote a knowledge sharing activity in such a community to take firm root in an organisation, it is important that the exchange of knowledge and ideas within and through teams is rewarded, not the individual success that could give way to the accumulation of knowledge (Walczak, 2005).

Finally, the sixth hypothesis notes that there is a reciprocal relationship between the method of knowledge management and the mechanism of knowledge management. Past studies also support this finding. To develop competitive advantage, knowledge management is important for organisations (Walczak, 2005). In order to have a greater capacity to adapt, businesses need careful management of knowledge resources and all managers and directors should understand that their knowledge resources with workers are the organisation's greatest resource (Handzic, 2008). All company workers have classified the knowledge matrix as either collective or entity (van Zolingen et al., 2001; Hofstede, 2001). In order to have a greater capacity to adapt, businesses need careful management of knowledge resources and all managers and directors should understand

that their knowledge resources with employees are the organisation's greatest resource. To this degree, the research results showed that the knowledge management system would effectively support even the competing transportation industry, where scarce resources could be channelled to more efficient areas than attempts to counter competition between the transportation industries. The literature also identifies an increased level of trust in the transportation industry due to networking to minimise problems in the transportation industry.

The results will allow the transportation industry's owners and managers to devise plans to envisage a future with the company rather than in isolation and to share the resulting performance gains in a mutually beneficial way. Likewise, the method of knowledge management was empirically evaluated and found to be a value-adding initiative for the transportation industry, where the performance of the transportation industry's knowledge management process.

The transportation industry plays a crucial role in enhancing a nation's input and competitiveness, as clearly demonstrated during the literature review. Improving the performance of the transportation industry will therefore bring multiple benefits to the national economy, such as job creation, promoting innovation, poverty reduction, and promoting entrepreneurship.

With increasing unemployment, the spread of poverty, pressure on social security, and even political instability due to the widespread representation of the transportation industry in a country, the lack of performance in the transportation industry will add to the pressure on the government. In Libya, the method of knowledge management has not been found to emerge as a mainstream subject on the government agenda. Elements leading to the effective system of knowledge management were identified accordingly as the constructs of the model.

This research will reveal a wide gap in the availability of literature relating to the transportation industry in Libya in previous studies. Therefore, to some extent, the results of this study may help solve the current gap in different fields. Finally, the significance of this study is that the results could be used to evaluate and review Libya's existing transportation industry.

References

- Allee, V. (1997). *The Knowledge Evolution: Expanding Organizational Intelligence.* Boston: Butterworth-Heinemann.
- Azam, S. M. F., Mohd Shukri, S., & A. Yajid, M. S. (2020). The impact of dynamic factors on the successful implementation of SAP. International Journal of Psychosocial Rehabilitation, 24(7), 5366–5376. https://doi.org/10.37200/IJPR/V24I7/PR270497.
- Azam, S. M. F. and Moha Asri A. (2015). Differential Roles between Owner and Manager in Financial Practice That Contributes to Business Success: An Analysis on

- Malaysian Small Business, *Academic Journal of Interdisciplinary Studies*, 4 (1 S2): 123-134
- Azam, S. M. F., & Yusoff, S. K. M. (2020). Investment and financing analysis of automotive industry of China. International Journal of Psychosocial Rehabilitation, 24(7), 4848–4857. https://doi.org/10.37200/IJPR/V24I7/PR270464.
- Azam, S. M. F., Haque, A., Sarwar, A. and Anwar, N. (2014). Training Program Effectiveness of Service Initiators: Measuring Perception of Female Employees of Bank Using Logistic Approach, *Asian Research Journal of Business Management*, 1 (2): 98-108.
- Beckman, T. (1997). A methodology for knowledge management. International Association of Science and Technology for Development, AI and Soft Computing Conference, Banff.
- Bhagat, R. S., Kedia, B. L., Harveston, P. D., & Triandis, H. C. (2002). Cultural variations in the cross-border transfer of organizational knowledge. *The Academy of Management Review*, 27(2), 204-221.
- Bhatt, G. (2000). Organizing knowledge in the knowledge development cycle. *Journal of Knowledge Management*, 4(1), 15-26.
- Bhattacherjee, A. (2012). Social Science Research: Principles, Methods, and Practices 2nd Edition.
- Byrne, B. M. (2010). *Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). New York: Routledge.
- Camerer, C. & Vepsalainen, A., (1988). The economic performance of corporate culture. *Strategic Management Journal*, 9, 115-126.
- Cavaleri, S. & Reed, F. (2000). Designing Knowledge Generating Process, Knowledge and Innovation, *Journal of the KMCI*, 1(1), 109-131.
- Chuang, S. H. (2004). A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation. *Expert Systems with Applications*, 27, 459-465.
- Chun, L., Tham, J. and Azam S. M. F. (2019). Corporate Competence Determining Factors in China Telecom Industry in Achieving Customer Satisfaction, European Journal of Management and Marketing Studies, 4 (3), pp.75-101.
- Conner, K. R., & Prahalad, C. K. (1996). A resource-Based theory of the firm: knowledge versus opportunism. *Organization Science*. 7(5), 477-501.
- Davenport, T. H. & Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know.* Boston: Harvard Business School Press.
- Davenport, T., De Long, D., & Beers, M. (1998). Successful knowledge management projects. *Sloan Management Review*, 39(2), 43-57.
- De Silva, A. D. A., Khatibi, A. and Azam, S. M. F. (2017). Do the Demographic Differences Manifest in Motivation to Learn Science and Impact on Science Performance? Evidence from Sri Lanka, *International Journal of Science and Mathematics Education*, 16(S1), 47–67.

- Dewi, N, Azam, S. M. F. and Yusoff, S. K. M. (2019). Factors influencing the information quality of local government financial statement and financial accountability, *Management Science Letters*, 9 (9): 1373-1384.
- Drucker, P. F. (1993). The Post Capitalist Society. Oxford: Butterworth-Heinemann.
- Grover, V., & Davenport, T. H. (2001). General perspective on knowledge management: fostering a research agenda. *Journal of Management Knowledge Systems*, 18(1), 5-21.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th Global ed.). Upper Saddle River: Pearson Prentice-Hall.
- Handic, Lagumdzija and Eljo, 2008, Auditing knowledge management process: model and application. Knowledge Management Research & Practice 6(1), 90–99
- Haur, C. H., Khatibi, A. and Azam, S. M. F. (2017). Antecedents of Consumers' Perception towards Online Advertising in Malaysia: The Structure Equation Modeling Approach, European Journal of Management and Marketing Studies, 2 (3): 15-30
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Beverly Hills, CA: Sage Publications.
- Hung, Y., Huang, S., Lin, Q., & Tsai, M. (2005). Critical factors in adopting a knowledge management system for the pharmaceuticals industry. *Industrial Management and Data Systems*, 105(2), 164-183.
- Jackson, S. E., Hitt, M. A., & DeNisi, A. S. (2003). Managing knowledge for sustained competitive advantage: designing strategies for effective human resource management, Jossey-Bass, San Francisco.
- Katukurunda, K. G. W. K., Yajid, S. M. A, Khatibi, A. and Azam, S. M. F. (2019). Students' Satisfaction towards Biosystems Technology; Does Programme Quality Matters? (Evidence from Sri Lankan Perspectives), European Journal of Open Education and Elearning Studies, 3 (2): 174-190
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modelling* (3rded.). New York: The Guilford Press.
- Kuruwitaarachchi, N., Yajid, S. M. A, Khatibi, A. and Azam, S. M. F. (2019). Enhance the use of Internet Based Advanced Communication Technologies in Small and Medium Scale Enterprises in Sri Lanka, *European Journal of Social Sciences Studies*, 3 (2): 44-57
- Lee, H. & Choi, B. (2003). Knowledge management enablers, processes, and organisational performance: an integrative view and empirical examination. *Journal of Management Knowledge Systems*, 20(1), 179-228.
- Leonard, D. & Sensiper, S. (1998). The role of tacit knowledge in group innovation. *California Management Review*, 40(3), 112-132.
- Liebeskind, J. P. (1996). Knowledge, strategy, and the theory of the firm, Strategic Management Journal (17:Winter), pp. 93-107.
- Maghfuriyah, A., Azam, S. M. F. and Shukri, S. (2019). Market Structure and Islamic Banking Performance in Indonesia: An Error Correction Model, *Management Science Letters*, 9 (9): 1407-1418

- McAulay, L., Russell, G., & Sims, J. (1997). Tacit knowledge for competitive advantage. *Management Accounting*, 75(11), 36-37.
- McGill, M. E., Slocum, J. W., & Lei, D. (1992). Management practices in learning organizations. Organizational Dynamics, 21(1), 4-17.
- Nahm, A. Y., Vonderembse, M. A., & Koufteros, X. A. (2004). The impact of organizational culture on time-based manufacturing and performance. *Decision Sciences*, 35(4), 579-607.
- Nguyen, H. N., Tham, J3, Khatibi, A. and Azam, S. M. F. (2019). Enhancing the Capacity of Tax Authorities and its Impact on Transfer Pricing Activities of FDI Enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong Province of Vietnam, *Management Science Letters*, 9 (8): 1299-1310.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company*. Oxford: Oxford University Press.
- Pambreni, Y., Khatibi, A., Azam, S. M. F. and Tham, J. (2019). The Influence of Total Quality Management toward Organization Performance, *Management Science Letters*, 9 (9): 1397-1406.
- Prahalad, C. K., and Hamel, G. (1990). The Core Competence of the Corporation. *Harvard Business Review*, 68(3), 79-91.
- Rachmawati, D., Shukri, S., Azam, S. M. F. and Khatibi, A. (2019). Factors Influencing Customers' Purchase Decision of Residential Property in Selangor, Malaysia, *Management Science Letters*, 9 (9): 1341-1348.
- Sankaran, G. (2006). Knowledge diffusion from DBA research. actKM Online Journal of Knowledge Management, 3(1), 26-34.
- Schermerhorn, J. R. Jr. (1999). Management. New York, NY: Wiley.
- See, R. T. K. (2002). Learning Organisation Practices and Organisational Effectiveness the Impact of Type of Company, M.B.A. Thesis, Universiti Sains Malaysia, Penang.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: a skill-building approach* (5th ed.). Haddington: John Wiley & Sons.
- Sharkie, R. (2003). Knowledge creation and its place in the development of sustainable competitive advantage. *Journal of Knowledge Management*, 7(1), 20-31.
- Simonin, B. L. (1997). The importance of collaborative know-how: An empirical test of the learning organisation. *Academy of Management Journal*, 40(5), 1150-1174.
- Tham, J., Yazid, M. S. A, Khatibi, A. A. and Azam, S. M. F. (2017). Internet and Data Security Understanding Customer Perception on Trusting Virtual Banking Security in Malaysia, *European Journal of Social Sciences Studies*, 2 (7): 186-207
- Tsai, M. T., & Lee, K. W. (2006). A study of knowledge internalization: from the perspective of learning cycle theory. *Journal of Knowledge Management*, 10(3), 57-71.
- Tsoukas, H., & Vladimirou, E. (2001). What is organizational knowledge? *Journal of Management Studies*, 38(7), 973-993.
- Udriyah, U., Tham, J. and Azam, S. M. F. (2019). The Effects of Market Orientation and Innovation on Competitive Advantage and Business Performance of Textile SMEs, *Management Science Letters*, 9 (9): 1419-1428.

- van Zolingen, S. J., Streumer, J. N., & Stooker, M. (2001). Problems in knowledge management: A case study of a knowledge-intensive company. *International Journal of Training and Development*, 5(3), 168-184.
- Walczak, S. (2005). Organizational knowledge management structure. *The Learning Organization*, 12(4), 330-339.
- Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management Journal*, 5, 171-180.
- Yang, Z. Z., Tham, J. and Azam S. M. F. (2019). Negative Psychological Factors and Online Shopping Behaviour: A Review Among College Students' at Tongren City in China, European Journal of Management and Marketing Studies, 4 (4), pp.40-58
- Zainudin, A. (2012). *A Handbook on SEM: Structural Equation Modelling Using Amos Graphics* (4th ed.). Kelantan: University Technology MARA Press.
- Zander, U., and Kogut, B. (1995). Knowledge and the speed of the transfer and imitation of organizational capabilities: An empirical test, Organization Science (6:1), pp. 76-92.

Ahmad Mohamad Omar Omran, S. M. Ferdous Azam MEASURING STRATEGIES FOR KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE IN LIBYAN TRANSPORTATION INDUSTRY: STRUCTURAL EQUATION MODELLING

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Social Sciences Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a Creative Commons Attribution 4.0 International License (CC BY 4.0)