



DETERMINANTS OF KNOWLEDGE MANAGEMENT STRATEGIES ON ORGANIZATIONAL PERFORMANCE IN LIBYAN TRANSPORTATION INDUSTRY

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Abstract:

The aim of this study is to identify the determinants of knowledge management strategies in the Libyan transportation industry for organizational performance. This study began to propose the research method through an Exploratory Factor Analysis (EFA), after proposing a testable conceptual framework, where the items of further research can have some light to move forward. For this analysis, the sample size was 529 and simple random sampling was employed. The results of this research indicate that the main aspects of organizational performance in the Libyan Transportation Industry are the knowledge management system, knowledge management process, knowledge management strategy, organizational performance. Through proposing an empirically validated research model that could be an important implementation tool for the success of the performance of the Transportation Industry, this research has added to established knowledge.

JEL: L10; L25; L91

Keywords: knowledge management strategies, organizational performance, transportation industry, Libya

1. Introduction

Knowledge management is considered to be the primary instrument for bringing in changes by governments in order to strengthen society and adopt strategies (Azam and Moha Asri, 2015; Tham et al., 2017; Udriyah et al., 2019). It has been consistently observed,

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however, that government policy efforts to change the transportation sector have largely failed to encourage the development of awareness. In contrast to the transportation industry, knowledge management in the private sector was introduced earlier, where governments were found struggling to incorporate the notion of knowledge management due to intrinsic obstacles associated with organisational knowledge. It is very important to incorporate a knowledge-based framework in transportation industries for knowledge learning and knowledge sharing components of knowledge management processes. It is very important for the capture of knowledge and the exchange of knowledge components in the processes of knowledge management. For improved development and performance, management and organisational expertise must be incorporated into the organisation's processes and procedures. It is very important for the capture of knowledge and the exchange of knowledge components in the processes of knowledge management. Management and organisational expertise must be incorporated into the organisation's process and processes for improved development and performance (Liebenskind 1996). Organizational management must improve the organisational culture to increase adaptability among employees in order to pave the way for knowledge management in any organisation (Zander & Kogut, 1995; Rachmawati et al., 2019; Azam and Yusoff, 2020; Azam et al., 2020).

However, the lack of thorough knowledge in this regard hinders the efforts of the Libyan Transportation Industry's organizational performance. It is therefore important to investigate whether there is an important correlation between strategies for the management of knowledge and organisational performance in Libya. In addition, the research questions discussed in this quantitative study also seek to establish the connection between strategies for the management of knowledge and organisational performance, while defining factors affecting the management of knowledge in Libya.

2. Literature Review

Western thought has been dominated by the study of epistemology, or the existence, origins, limits and validity of knowledge, since the time of the ancient Greek philosophers (Sankaran, 2006). In 360 BC, Plato described knowledge as 'justified true belief' in his *Theaetetus* (Project Gutenberg, 1999). While in many ways discussed and updated, the notion of understanding of Plato is still commonly expressed in Western thought (Nonaka and Takeuchi, 1995). More recently, Drucker (1993) coins the word 'knowledge worker' and believed that it was no longer capital or labour or natural resources in the 'knowledge society,' but the knowledge that would be the fundamental economic resource.

For improved development and performance, management and organisational expertise must be incorporated into the organisation's processes and procedures. It is very important for the capture of knowledge and the exchange of knowledge components in the processes of knowledge management (Tsoukas, 2005; Chun et al., 2019; Yang et al., 2019). However, as to the meaning and essence of knowledge, there is no uniformity or

common conformity on the part of scholars, an intrinsically ambiguous or equivocal word.

Knowledge management manages the knowledge of the enterprise through a systematically and organizationally defined mechanism for the acquisition, institution, maintenance, implementation, sharing and renewal of both tacit and explicit employee knowledge to increase organisational performance and value development (Allee, 1997; Davenport et al., 1998; Alavi and Leidner, 2001; Maghfuriyah et al., 2019; De Silva et al., 2017; Kuruwitaarachchi et al., 2019; Pambreni et al., 2019). In the face of increasingly discontinuous environmental change, this addresses the crucial issues of organisational adaptation, sustainability and competence; it embodies organisational processes seeking a synergistic combination of knowledge technology data and knowledge processing ability and human beings' creative capacity (Malhotra, 1998). Knowledge management is a mechanism that helps organisations identify, pick, coordinate, disseminate, and pass essential knowledge and expertise required for operations, Gupta et al. (2000) noted. Other researchers (Bhatt, 2001; Holm, 2001; Horwitch and Armacost, 2002) identified that the development, extraction, transformation and storage of the right knowledge and knowledge is knowledge management in order to design better policies, change behaviour and produce results.

Knowledge is experience that can be conveyed and exchanged, according to Allee (1997), although he focuses more on knowledge by experience. Leonard and Sensiper (1998), who assume that such data is implicit in nature, echo this. Bhagat et al. (2002) support the idea that intelligence is derived from knowledge development and restructuring, which, according to Beckman (1997), by rational reasoning, improves the performance, problem-solving and decision-making skills of a person.

Cavaleri and Reed (2000) note that knowledge is basically composed of and dependent on possible acts / activities or signals, social in nature, when describing knowledge; these may be applicable to political questions and views arising from the experience of an person. This awareness signifies the ability to act efficiently. Davenport and Prusak (1998, p.5) say that *"the fluid mix of framed experience, beliefs, contextual facts, and expert intuition emerged in the minds of the experts is expertise. It is also found not only in records or archives in an organisation, but also in organisational routines, procedures, methods, and standards."*

Companies are seeking to resolve the challenges posed by different forces in these times of intense competition, ranging from globalisation to the diffusion of technological advancement to knowledge development, acceptance and dissemination. The consequence of these turbulent changes has led to a paradigm shift in the establishment of firm objectives that stress the use of its knowledge base rather than the physical resources at its disposal. In order to reap a sustainable competitive advantage, traditional market strategies must also adapt to the complexities of the changing business environment through the use of knowledge-based tools (Grover and Davenport, 2001; Jackson et al. 2003; Sharkie, 2003; Azam et al., 2014; Haur et al., 2017; Katukurunda et al., 2019). 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 facets of knowledge management have attracted significant attention from academics and industry players, with the latter starting to view managing their knowledge base as part of their overall strategic initiatives (Hung et al., 2005).

3. Research Methodology

Research design consists of three main types namely descriptive, explorative and experimental. The current study is using the descriptive design as the most appropriate study design for this kind of study. According to Sekaran and Bougie (2010), "*descriptive study is under taken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation*" (p.105). This type of study is a guide for making observations to proper documentation of phenomenon of interest based on scientific method and therefore it is more reliable than doing casual observation which is conducted by untrained people (Bhattacharjee, 2012; Dewi et al., 2019; Nguyen et al., 2019).

The main purpose of the study is to determine the knowledge management strategies and organizational performance in Libyan Transportation Industry. The sample size was 529 for this study and simple random sampling was employed. Besides, the two main methods which consist in research approach are deductive and inductive (quantitative and qualitative approach). Quantitative method relies on the collection of quantitative data which is mainly used in descriptive studies for testing a theory. So, to test the specific relationship of hypotheses, quantitative data must be collected to analyze the relationship and finally the result could be generalized on the population and select a sufficient sample size which represents the whole population. For this research, the data are subsequently analyzed to explain the relationships among the variables by employing statistical analysis namely descriptive and inferential statistics.

4. Research Findings

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.

Item-wise descriptive statistics are presented in Table 1 below. From the table, it can be observed that the item “In their government work, our employees rely on experience, skills and knowledge” has achieved the highest mean value (4.480) with a standard deviation of .670. This confirms that majority of the respondents strongly agreed that government work activities are emphasized by employees’ experience, skills and knowledge. On the other hand, the item “Managerial records are kept in proper manner in our organization” has achieved the lowest mean score of 3.480 with a standard deviation of .932. This means that majority of the respondents neither agrees nor disagrees to this statement.

Table 1: Descriptive Statistics

Code	Item	Mean	Std. Deviation
Q1	Our employees obtain a good extent of new knowledge from internal and external sources	4.22	.763
Q2	Our employees gain new knowledge from business partners and rivals	4.42	.651
Q3	Our organization recognizes knowledge creation as a resource	4.31	.674
Q4	We look for opportunities to learn more about knowledge for internal and external operations	4.27	.668
Q5	In their government work, our employees rely on experience, skills and knowledge	4.48	.671
Q6	Our organization encourages and rewards the sharing of knowledge	4.18	.841
Q7	Our organization encourages engaging in dialogue or brainstorm session for new knowledge	4.31	.707
Q8	Workshops and training programs are thought sufficient in our organization for knowledge management	4.35	.699
Q9	Our organization thinks that the knowledge sharing results in increased proper practice and performance	4.42	.710
Q10	Protecting one’s knowledge is considered to be a way of life in this organization	4.23	.699
Q11	Personally gained experience is considered as an important input for knowledge management in our organization	4.21	.670
Q12	Our organization is fair in knowledge-related performance measurement	4.24	.635
Q13	Explicit knowledge is seen as a significant aspect for financial knowledge in the organization	4.34	.563
Q14	The organization has better communicated relevant knowledge with employees for better Knowledge Management Process	4.25	.645
Q15	Organizational knowledge is expressed by employees such a way that the organization gets benefit from it	3.94	.904
Q16	Our organization gives priority to the understanding of successful and purposeful Knowledge Management Process that explains effective strategy	3.91	.819
Q17	Our organization thinks that appropriate Knowledge Management Process helps to explain the reasoning which enhances proper strategy for business performance	4.17	.809
Q18	Employees in our organization have gained a good extent of Knowledge Management System that employs an expected organizational performance	3.95	.807

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Q19	Our organization culture encourages teamwork among the employees	4.21	.826
Q20	Our organization culture improves involvement of workers in the workplace	4.33	.759
Q21	We have an open and trusting culture to increase the organizational performance	4.22	.725
Q22	In our organization, Knowledge Management System is encouraged for expected Knowledge Management Process and organizational performance	4.02	.866
Q23	Training and learning in regard to appropriate knowledge management strategy is adequate in the organization	4.17	.885
Q24	The knowledge management is communicated throughout the organization for performing suitable risk taking activities	4.25	1.061
Q25	We encourage employees to benchmark other organizations' best practices	4.46	.797
Q26	For our knowledge management process/activities, our organization does have specific goals and objectives	3.82	.648
Q27	Our organization provides sufficient managerial and operational efforts for appropriate strategy	3.83	.932
Q28	The environment of our organization has established a suitable process which supports controlling of management strategy	3.77	.896
Q25	In our organization, all relative documents are sent out to the respective people in a timely manner	4.10	.977
Q30	The organization controls its knowledge management, make ends meet, plan for the future and choose a suitable Knowledge Management Process	3.90	.912
Q31	Management control and checking records are appropriately exercised in our organization	3.67	.757
Q32	Managerial records are kept in proper manner in our organization	3.48	.932
Q33	We establish internal benchmark on coordination of strategy, budget, HR systems	3.59	.805
Q34	Our organization's knowledge management is based on management's established structure	3.54	.997
Q35	There is a written knowledge management report prepared by the top management which is raised in each management meeting	3.95	.734
Q36	Our organization's sales turnover has increased	3.94	.845
Q37	Our organization's market share has increased	4.03	.902
Q38	The number of employees has increased in our organization	3.75	.792
Q39	There is an improvement in preparing for the future financial growth	3.68	.807
Q40	There is an improvement in overall business circumstance of our organization	3.68	.822

The study aimed to identify the construct validity of Knowledge Management System (KMS), Knowledge Management Process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance on the basis of data collected from 529 respondents (n = 529) who were the executives, non-executive and the employees of various Transportation Industry (GE) in Libya. 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 within the Libyan Transportation Industry (GE) context. First, the statistical assumptions of PCA were tested. The exercise revealed that a substantial number of variables were correlated ($r \geq .30$). 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 .814, indicating that the inter-correlations were sufficient for PCA (Pallant, 2007) (Table 2).

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.814
	Approx. Chi-Square	4190.487
Bartlett's Test of Sphericity	df	406
	Sig.	.000

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 (Table 3). Thus, the results show that four latent factors were successfully extracted on 25 items. Table 3 shows that factor loadings are between .531 and .784. Following the guideline provided by the scholars (Byrne, 2010; Hair et al., 2010, Kline, 2011; Nunnally & Berstein, 1994), all four factors were renamed as Knowledge Management System (KMS), Knowledge Management Process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance, respectively.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.818	26.960	26.960	7.818	26.960	26.960	5.845	20.156	20.156
2	3.766	12.987	39.946	3.766	12.987	39.946	3.604	12.427	32.583
3	2.490	8.587	48.533	2.490	8.587	48.533	3.476	11.987	44.571
4	2.078	7.167	55.700	2.078	7.167	55.700	3.227	11.125	55.700
5	.942	3.249	58.948						
6	.914	3.151	62.099						
7	.880	3.034	65.133						
8	.845	2.914	68.047						
9	.785	2.708	70.755						
10	.720	2.484	73.239						
11	.702	2.421	75.660						
12	.646	2.225	77.889						
13	.620	2.140	80.025						

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14	.548	1.888	81.917						
15	.518	1.785	83.702						
16	.499	1.720	85.423						
17	.464	1.599	87.022						
18	.460	1.588	88.610						
19	.431	1.485	90.094						
20	.405	1.397	91.492						
21	.364	1.256	92.748						
22	.360	1.241	93.989						
23	.342	1.179	95.168						
24	.279	.964	96.132						
25	.270	.925	97.061						
26	.254	.874	97.936						
27	.227	.782	98.718						
28	.205	.709	99.427						
25	.166	.573	100.000						

Table 4: Loadings Four Rotated Factors

Code	Item	Knowledge Management System (KMS)	Knowledge Management Process (KMP)	Knowledge Management Strategy (KMST)	Organizational Performance (OP)
Q1	Our employees obtain a good extent of new knowledge from internal and external sources	.697			
Q2	Our employees gain new knowledge from business partners and rivals	.728			
Q3	Our organization recognizes knowledge creation as a resource	.752			
Q4	We look for opportunities to learn more about knowledge for internal and external operations	.730			
Q5	In their government work, our employees rely on experience, skills and knowledge	.704			
Q6	Our organization encourages and rewards the sharing of knowledge	.773			
Q7	Our organization encourages engaging in dialogue or brainstorm session for new knowledge	.743			
Q8	Workshops and training programs are thought sufficient in our organization for knowledge management	.707			
Q9	Our organization thinks that the knowledge sharing results in increased proper practice and performance		.767		
Q10	Protecting one's knowledge is considered to be a way of life in this organization		.763		
Q11	Personally gained experience is considered as an important input for knowledge management in our organization		.784		
Q12	Our organization is fair in knowledge-related performance measurement		.756		
Q13	Explicit knowledge is seen as a significant aspect for financial knowledge in the organization		.650		
Q14	The organization has better communicated relevant knowledge with employees for better Knowledge Management Process			.707	

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Q15	Organizational knowledge is expressed by employees such a way that the organization gets benefit from it			.757	
Q16	Our organization gives priority to the understanding of successful and purposeful Knowledge Management Process that explains effective strategy			.747	
Q17	Our organization thinks that appropriate Knowledge Management Process helps to explain the reasoning which enhances proper strategy for business performance			.616	
Q18	Employees in our organization have gained a good extent of Knowledge Management System that employs an expected organizational performance			.596	
Q19	Our organization culture encourages teamwork among the employees			.581	
Q20	Our organization culture improves involvement of workers in the workplace			.609	
Q21	We have an open and trusting culture to increase the organizational performance				.733
Q22	In our organization, Knowledge Management System is encouraged for expected Knowledge Management Process and organizational performance				.752
Q23	Training and learning in regard to appropriate knowledge management strategy is adequate in the organization				.736
Q24	The knowledge management is communicated throughout the organization for performing suitable risk taking activities				.701
Q25	We encourage employees to benchmark other organizations' best practices				.615
Q26	For our knowledge management process/activities, our organization does have specific goals and objectives				.680

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 5. All four factors [Knowledge Management System (KMS), Knowledge Management Process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance (OP)] had good reliability indices of .838, .731, .786 and .833, respectively.

Table 5: Reliability Statistics

Variable	Cronbach's Alpha	N of Items
Knowledge Management System (KMS)	.838	7
Knowledge Management Process (KMP)	.731	5
Knowledge Management Strategy (KMST)	.786	7
Organizational Performance (OP)	.833	6
Overall	.897	25

The following section presents the results of EFA to support the construct validity of Knowledge Management System (KMS), Knowledge Management Process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance (OP). The factors derived from the results of the PCA contain the four variables loaded on 26 indicators. The first variable is Knowledge Management System (KMS), second variable

is Knowledge Management Process (KMP), third variable is Knowledge Management Strategy (KMST) and the variable is Organizational Performance (OP).

The interrelationships among the 25 measures of Knowledge Management System (KMS), Knowledge Management Process (KMP), Knowledge Management Strategy (KMST) and Organizational Performance were checked at the estimates section of the AMOS (version 21.0) text output and it showed that the indices were statistically significant. For normality, the use of AMOS showed through the indices of skewness and kurtosis that there was no serious violation of the assumption of normality as all values of skewness were negative and less than 3 (Anderson & Gerbing, 1988; Barrett, 2007; Bollen, 1989; Byrne, 2010; Tabachnick & Fidell, 2007) (Table 6). This is the justification for the researcher's adoption of CFA for further data analysis.

Table 6: Assessment of Normality

Code	Item	Skew	Kurtosis
Q1	Our employees obtain a good extent of new knowledge from internal and external sources	-.285	-.087
Q2	Our employees gain new knowledge from business partners and rivals	-.371	.111
Q3	Our organization recognizes knowledge creation as a resource	-.289	.488
Q4	We look for opportunities to learn more about knowledge for internal and external operations	-.262	.242
Q5	In their government work, our employees rely on experience, skills and knowledge	-.338	.726
Q6	Our organization encourages and rewards the sharing of knowledge	-.143	-.064
Q7	Our organization encourages engaging in dialogue or brainstorm session for new knowledge	-.321	-.188
Q8	Workshops and training programs are thought sufficient in our organization for knowledge management	-.053	-.444
Q9	Our organization thinks that the knowledge sharing results in increased proper practice and performance	-.653	.309
Q10	Protecting one's knowledge is considered to be a way of life in this organization	-.555	.512
Q11	Personally gained experience is considered as an important input for knowledge management in our organization	-.823	.959
Q12	Our organization is fair in knowledge-related performance measurement	-.277	-.602
Q13	Explicit knowledge is seen as a significant aspect for financial knowledge in the organization	-.586	-.519
Q14	The organization has better communicated relevant knowledge with employees for better Knowledge Management Process	-.479	.003
Q15	Organizational knowledge is expressed by employees such a way that the organization gets benefit from it	-.574	-.240
Q16	Our organization gives priority to the understanding of successful and purposeful Knowledge Management Process that explains effective strategy	-.837	.968
Q17	Our organization thinks that appropriate Knowledge Management Process helps to explain the reasoning which enhances proper strategy for business performance	-.743	.401

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Q18	Employees in our organization have gained a good extent of Knowledge Management System that employs an expected organizational performance	-.836	.262
Q19	Our organization culture encourages teamwork among the employees	-.726	.858
Q20	Our organization culture improves involvement of workers in the workplace	-.513	-.167
Q21	We have an open and trusting culture to increase the organizational performance	-.912	1.246
Q22	In our organization, Knowledge Management System is encouraged for expected Knowledge Management Process and organizational performance	-.612	-.789
Q23	Training and learning in regard to appropriate knowledge management strategy is adequate in the organization	-.579	.043
Q24	The knowledge management is communicated throughout the organization for performing suitable risk taking activities	-.397	-.248
Q25	We encourage employees to benchmark other organizations' best practices	-.328	-.266
Q26	For our knowledge management process/activities, our organization does have specific goals and objectives	-.266	-.710
Multivariate			125.175

5. Conclusion and Implication

The proposed model discusses how the dependent variable is affected by independent variables, the Knowledge Management System and the Knowledge Management Mechanism, along with the level of impact of each of the independent variables on the success of the performance of the Transportation Industry. By proposing an empirically tested / validated model that could be used to predict a material portion of the variables that contribute to the eventual success of the transportation industry, this research has contributed to current knowledge.

Literature revealed that the minimal research available lacks validity by empirical research, whereas this study bridged the research gap through extensive empirical testing and verifying the hypothesis. Constructs were established for the independent variables and empirically tested for their relevance, validity and contribution yet again. This has given the researchers new knowledge that can be tested or contested due to country conditions that are different from Libya's or laps of time that have altered the findings as of a future date. Future researchers could recognise emerging variables that could change the importance of the tested variables that could lead to entirely new results as to what contributes to the Transportation Industry's performance.

Previous studies have analysed the independent variable's contribution to the success of the Transportation Industry in isolation, but the combined contribution of the variables has not been observed. Similarly, due to mediating variables, prior models lack any identified impact. By building on the recommendations of former scholars, this study bridged the research gaps above and explored the cumulative influence of the independent variables when participating in the knowledge management strategy.

In order to boost business performance, the Knowledge Management System and Knowledge Management System is an emerging subject among the Libyan Transportation Industry. The transportation industry was able to gain a deeper understanding of the competitive market climate and the constantly evolving landscape in relation to the aspirations of stakeholders through an efficient knowledge management framework. This research would make a major contribution to the existing knowledge collection, since previous research concentrated on industries other than the Transportation Industry and countries other than Libya. This also appears to be the first time this model has been empirically evaluated on the basis of the literature review, integrating the knowledge management method as the mediating variables, thereby improving the knowledge of this particular field of research. In addition, the knowledge gained from this study can be extended to other Libyan market segments, such as micro-enterprises and larger Transportation Industry enterprises.

The results of the study and literature review suggested the research gap that the inadequacy of available literature to be elaborated in the context of Libya as to whether the knowledge management method and the mechanism of knowledge management have an impact on the performance of the Transportation Industry. While limited empirical research was discovered in other countries relating to the Knowledge Management System and the Knowledge Management Process and its effect on business performance, during the previous year's these studies were carried out in the respective countries and thus there was a lack of evolution of the subject matter to the current context. The business success of larger organisations has been investigated in many instances to understand the effect of the Knowledge Management System and Knowledge Management Process. This research is the first of its kind in Libya to suggest a model for the Transportation Industry and validate the model empirically through a study covering all of Libya's provinces.

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