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VALIDATING A KNOWLEDGE MANAGEMENT ORIENTATION CONSTRUCT IN THE PRIVATE UNIVERSITIES CONTEXT IN JORDAN: AN EMPIRICAL STUDY

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ABSTRACT

This study is an attempt to validate one of the knowledge managements constructs that is called knowledge management orientation (KMO), which was proposed and validated already by Wang and Ahmed (2004). The reason for this revalidation of the f KMO construct is to work in a different context where it will be applied to measure knowledge management performance in the private universities in Jordan. To achieve this, a random sample of 296 managerial position employees was selected from different private universities in Jordan, where confirmatory factor analysis was applied to test for model fit. The results revealed a modified model with only 19 items rather than the initial 30 items, where all the five factors remain the same. As for reliability and validity, the analysis shows the quality of measurement by conducting Internal and composite Reliability and Convergent and Discriminant validity.

Keywords: SEM Analysis, Knowledge Management Orientation (KMO), Private University, Jordan

1. INTRODUCTION

knowledge and information and, consequently, Knowledge Management and Information Management are used interchangeably by so many people, though neither of them is synonymous with the other. IM largely offers a fact that one can then use to help create useful knowledge, i.e., know-what, while KM is largely concerned about know-how, know-why, and know-who Wang and Ahmed (2004). In fact, the role of management information systems (MIS) is to manage data, organize, and retrieve the information which assists the organization to provide services faster, and market more accurately and easier, which also affect the level of

performance AL-Gharaibeh and Malkawi (2013). This is due to the fact that the revolution in information technology has significantly changed the nature of business and created competitive advantages for those who appreciate its effects Noor et al. (2003). On the other hand, knowledge management approach is the conscious integration of employees and all processes and technology involved in the design, capture and implementation of the organization's intellectual infrastructure. This is very consistent with Munirat et al. (2014) when they claim that the major task facing management in almost every field of Endeavour is to plan carefully so that the quantity and quality of information obtained will be adequate to meet its needs.

Indeed, KM is not limited to the design and implementation of information systems but extends to include the necessary changes in the organizational behaviour and management attitudes and policy of the company. This is what enables people within the organization to develop information collection and share what they know, which is reflected in decision-making to improve services and outcomes. This approach can also be used to provide educational institutions with the means to focus their strategies and practices to optimize their capacities and resources Educause (2004).

Nevertheless, research in knowledge management are still few, especially with regard to generalization of results. This is due to the fact that examining the impact of knowledge management on performance requires creating an effective knowledge management scale that can be adopted. However, the absence of this scale drove companies to evaluate knowledge management results by calculating the input/output ratio of a single knowledge management program, neglecting the broader impact of knowledge management on organizational capacity, which negatively affects performance, let alone some other companies adopt a long-term strategic view, which cannot measure short-term results. However, Darroch and Mcnaughton (2001) have helped move the field a step forward in a guiding structure of knowledge management. Its construction is greatly rounded up in the market trend scale Kohli et al. (1993). In addition, research in knowledge management has evolved into a range of topics covering knowledge and knowledge management, knowledge management processes, approaches, emergencies, contexts, critical success factors for knowledge management programs, and so forth. However, the performance of knowledge management is still not understood and is therefore under consideration. The reason for the incomprehensibility is that all the frames that were proposed were descriptive with superficial and/or artificial views and differences. Bontis (2001) noted, in the field of knowledge management and models of intellectual capital performance, that the main models focus on intellectual capital and distinguish knowledge into several artificial categories. In fact, many models have similar designs and measures that are described differently. For example, human capital (Scandia Navigator) is called human-centered assets (technology intermediaries) and staff efficiency (intangible asset control). Most current models rely on situations, which are essentially narrative in nature Wang and Ahmed (2004). Therefore, knowledge management performance and outcomes remain relatively ununderstood as they are fully under-researched. In this context, according to Wang & Pervaiz, they are still conceptual or case anecdotes as they are most likely very descriptive in nature with a severe paucity in empirical evidence. This case highly applies to most firms, especially higher and education institutions, in Jordan, from two aspects. First, most of the studies are directed towards MIS. For example, Mamary (2015) developed an integrated model for successful adoption of management information systems that link three factors (technological, organizational, and people, Shehadeh et al. (2013) identified the impact of

management information systems (MIS) on the performance of governmental organizations in Jordanian Ministry of Planning, Alina et al. (2015) attempted to develop integrated model for successful adoption of management information systems and Khresat (2015) has examined the relationship between management information system and organizational performance in Jordan. Second, none of the studies (if there is one) relevant to KM are empirical in nature, i.e., not concerned about building and validating a measuring construct as this study will do, that is where the problem of this study arises from. Therefore, this paper will test and validate a knowledge management orientation construct, in the Jordanian context, specifically in the private Universities in Jordan.

As a matter of fact, the lack of empiricism due to the lack of effective knowledge management measurement constructs has forced researchers to start developing constructs in this field whether tested or not. Kohli et al. (1993)developed the construct knowledge management orientation Kohli et al. (1993). In his design, knowledge management orientation is defined analogous to market orientation. It contains three components: knowledge dissemination, knowledge acquisition and responsiveness to knowledge. Market orientation with this conceptualization is regarded as a subset of knowledge management orientation which means that they overlap, though they have different emphasis. For example, market orientation is externally oriented as it is behaviours of firms oriented towards the marketplace, whereas a firm could be oriented towards knowledge management Day (1994).This difference is what has led to the development of a new independent construct by Wang & Pervaiz who developed and validated a construct, named knowledge management orientation that is consisting of five components: knowledge system, organizational memory, knowledge sharing, learning culture, and knowledge benchmarking. Indeed, this would facilitate testing casual relationships between knowledge management and firm performance.

2. KNOWLEDGE MANAGEMENT ORIENTATION CONSTRUCT AND ITS COMPONENTS

2.1. KNOWLEDGE MANAGEMENT ORIENTATION

knowledge management orientation is based on the company's knowledge-based view Nonaka and Takeuchi (1995). It is the most important strategic resource that a firm can possess. Based on Simon's (1991) view of bounded rationalism, members must specialize in certain fields of wisdom. Thus, knowledge management can be defined as the relative tendency to build gained wisdom as well as the tendency to share, assimilate and being receptive to new wisdom (e.g., Schulz (2001), Simonin (1999), Szulanski (1996)).

2.2. THE KNOWLEDGE SYSTEM

The knowledge system supports knowledge management practices tools and techniques. Its role has been widely recognized Gold et al. (2001). Organizations should have the ability to utilize it to facilitate knowledge identification, capturing, codification, categorization, retrieval, dissemination, as well as promotion of dialogues and communications. Information technology is seen as embodying two capabilities: creating knowledge networks and managing codified knowledge Hansen et al. (1999)

2.3. ORGANIZATIONAL MEMORY (OM)

Organizational memory could be defined as the achieved knowledge that is learnt from past experience that bears on decisions Moorman and Miner (1997). This knowledge and experience can be behaviours, promises, past events, goals or assumptions. Its benefit is commonly recognized in allowing for a structured and centralized approach to otherwise scattered knowledge. In addition, it promotes knowledge preservation, retrieval, sharing, and use Hansen et al. (1999). Based on this, organizational memory serves the "storage" of knowledge and future knowledge acquisition). Organizational memory provides a mechanism that captures and preserves lessons, for later use, where it facilitates their retrieval when needed Day (1991).

2.4. KNOWLEDGE SHARING (KS)

Knowledge sharing (KS) is defined to as the transfer of wisdom, skills, and technology between the different organizational units. However, often occurs between firms such as in supply chains (e.g., Hult et al. (2004)) and heavily relies on individuals Huber (1991). KS main role is to mobilize knowledge, given that effective Knowledge Management Orientation initiatives needs a constant flow of wisdom, but not just a stock of it Holtshouse (1998). In fact, Knowledge flows connect Knowledge seekers of specific wisdom with providers of such knowledge.

2.5. A LEARNING CULTURE

Technology by itself does not deliver knowledge management Mcdermott (1999). In order to deliver knowledge performance, information technology must be coupled with knowledge-friendly organizational culture Mcdermott (1999). In fact, this learning culture establishes the capability of managing organizational memory and knowledge systems and motivates knowledge sharing Gray (2001). Indeed, there is a wide variety of depictions of learning cultures. Davenport et al. (1998) asserts that it is difficult to create if it does not already exist where it is the most important factors in the success of a knowledge management project.

2.6. KNOWLEDGE BENCHMARKING (KB)

KB refers to the capability of the organization to measure its knowledge assets against other organizations so that it can identify knowledge gap(s), adopt knowledge management best practices, and therefore improve its capabilities to manage knowledge to reach a sustainable competitive advantage in the marketplace. It is largely involved in inter-organizational learning to exploit knowledge complementarity which may arise from knowledge exploitation of economic scale, market-entry, managing strategic uncertainty, managing costs and risks, and other tacit collusions Hennart (1988). In fact, effective inter-organizational learning relies on organization absorptive capacity, causal ambiguity, and the arduousness of the relationship between partner organizations. In such inter-organizational learning, tacitness and complexity (knowledge-specific variables) and prior experience, culture distance, and organizational distance (partner-specific variables) impact learning outcomes between partner companies Simonin (1999).

More importantly, the above five elements of knowledge management, i.e., the knowledge system, organizational memory, knowledge sharing, a learning culture

and knowledge benchmarking are integral and inter-twined components of the proposed knowledge management orientation construct.

3. KNOWLEDGE MANAGEMENT AND HIGHER EDUCATION INSTITUTIONS

Higher education institutions have injected millions of dollars into information technology to increase the effectiveness of operations and information systems. Unfortunately, the successful integration of these technologies to improve knowledge sharing and effective decision-making remains a major challenge Levine (2001). The organization should create special criteria to measure the success of knowledge management efforts. How people share information and knowledge and the incentives to do so, levels of satisfaction and retention among staff, student success metrics, increased operational efficiency and the ability of the organization to proactively address trends and problems are extremely helpful Educause (2004).

Organizational reflexivity and continuous learning can affect the success of educational institutions in effectively managing their information and knowledge assets. For example, a KM policy can be used to integrate disassembled information systems. Information maps and audits can also reveal strengths and weaknesses to provide an overview of current processes and practices. Integrating KM strategies is essential to promote sustainable learning—not only to meet external demands but also to improve organization-wide effectiveness Educause (2004).

The long-term effects of KM in higher education have the ability to monitor and maintain continuous change. A knowledge management approach supports a culture of continuous research and improvement that can provide appropriate mechanisms for institutions to deal with an increasingly climate of accountability. KM also allows organizations to leverage information to improve services and programs for their students and their organization as a whole. In addition, KM brings some specific advantages to the organization. The systematic collection and storage of institutional knowledge throughout the institution is designed to be more secure and easier to participate. It also allows the institution to know and build on the knowledge within the institution and this is very important because there is a growing demand for strategies that help institutions to meet external and internal demands Educause (2004).

4. KMO AND HIGHER EDUCATION INSTITUTIONS

We assume that these five first-order constructs reflect the highest order constructs KMO in **Higher education institutions**. However, each first-order construct is therefore important, but not sufficient individually, to reverse the underlying constructs of the KMO (e.g., Barney and Mackey (2005)). According to the technology adopted by Barney and Mackey (2005), KMO will be examined as a latent construct that reflects the commonalities of a set of observable indicators (the five constructs here), Jöreskog et al. (2000).

Following the above discussions, three hypotheses regarding the knowledge management construct are generated:

H1.1: The covariance among the 30 items that form five distinct components of knowledge management orientation can be accounted for by a single factor (i.e., a general knowledge management orientation factor).

H1.2: Covariance among the items can be accounted for by a restricted five-factor model (namely the knowledge system, organizational memory, knowledge

sharing, a learning culture and knowledge benchmarking), wherein each factor represents a particular conceptual component of knowledge management orientation, and each item is reflective only of a single component (i.e., loads only on one factor). The five factors are correlated.

H1.3: Responses to each item are reflective of two factors: a general knowledge management orientation factor and a specific component factor corresponding to one of the five conceptual components. Thus, the covariance among the items can be accounted for by a six-factor model.

5. METHODOLOGY

This paper will test and validate the Knowledge management orientation construct, in the Jordanian context, specifically in the Private Universities in Jordan. Data was collected from 320 management staff participants, where only 296 returned valid after data screening, from the private universities in Jordan, by adopting the predesigned questionnaire (in Arabic and English languages) of Wang and Ahmed (2004), i.e. based on their five aspects namely: the knowledge system, organizational memory, knowledge sharing, learning culture, and knowledge benchmarking and the 30 questions they generated, by using a five-point scale, where 5=strongly agree, 4=agree, 3=neither agree or disagree, 2=disagree and 1=strongly disagree, as shown in the questionnaire in Appendix 1.

In order to test for validity (convergent and Discriminant) and reliability (internal and composite) of the data, this study conducted first and 2nd-order confirmatory factor analysis (CFA). To evaluate the validity of the five constructs, this study considered multiple model-fit indices provided by SEM, where model fitness was evaluated using several criteria. This includes Chi-square Goodness-of-Fit test, degree of freedom, Chi-square/df, (GFI), (AGFI), (NCP), (RMR), (NFI), (CFI), (RMSEA), and PCLOSE. For model identification purpose, the first regression path in each measurement component is fixed at 1. All 30 items of the knowledge management orientation construct were initially incorporated into the model testing. Item's error variance estimate; evidence of cross-load on; residual covariance; parsimony purpose; regression coefficient are among the Several criteria used to evaluate the items. This was achieved by using AMOS and SPSS, for model fit, validity and reliability of the KMO construct and finally, results, conclusion and recommendations were reported.

6. RESULTS

6.1. FIRST-ORDER CONFIRMATORY FACTOR ANALYSIS

The initial KMO measurement model fit indices without any modification were: Chi-square = 1004.030, Chi-square/df= 2.542, df= 395, GFI .808, RMSEA .072, PCLOSE=0.000, PGFI=.686, NFI= .612, CFI= .717, RMR= .142, AGFI= .774, NCP= 609.030. However, Table 1 shows the Recommended and Acceptable Values GOF Indices of Measurement Model which otherwise is considered a bad fit for the model.

Table 1

Table 1 GOF Indices of Measurement Model

Fit index	Recommended Values	Acceptable Values	Source
CMIN(χ2)			
p-value	> 0.05	≥ 0.000	Hair Jr, Anderson, Tatham, and William, (1998), Joreskog and Sorbom (1993)
χ2/df	≤ 3.00	≤ 5.00	Bagozzi and Yi (1988)
GFI	≥ 0.90	≥ 0.80	Hoyle (1995), Hair et al. (2006) and Kline (2010)
AGFI	≥ 0.80	≥ 0.80	Chau and Hu (2001)
CFI	≥ 0.90	≥ 0.90	Bagozzi and Yi (1988), Byrne
TLI	≥ 0.90	≥ 0.90	Hair et al. (2006), Ho (2006)
IFI	≥ 0.90	≥ 0.90	Hair et al. (2006), Ho (2006)
RMSEA	0.05 to 0.08	≤ 0.10	Schumacker and Lomax (2010)

Therefore, and based on the values in Table 1, the initial model needs to be improved to better fit the data. For this, 11 items were eliminated, and 19 items remained in the final construct of knowledge management orientation: 4 for knowledge-learning culture (K-culture), 6 for knowledge sharing (K-sharing), 3 for knowledge system (K-system), 3 for organizational memory (K-memory), and 3 for knowledge benchmarking (K-benchmarking). The following entails the data pruning process. Thus, items were eliminated based on the low squared multiple correlation and low standardized regression weights below the cut-off 0.4 weight Hair et al. (2017a). Table 2 shows all the remaining items loading onto one of the subcomponents constructs.

Table 2

Table 2 Standardized Regression Weights

Variables	R^2	Standardized Regression Weights				
		K-culture	K-sharing	K-system	K-memory	K-benchmark
KM28	.347	.589				
KM26	.371	.609				
KM29	.175	.750				
KM21	320.	.566				
K-culture	**Covariance**		**134.**	**359.**	**261.**	**076.**
KM22	.532		-.729			
KM14	.290		.539			
KM11	.265		.515			
KM15	.461		.679			
KM13	.504		.710			
KM12	.545		.738			
K-sharing	**Covariance**			**.107**	**.171**	**.360**
KM1	.481			693		

KM20	.465	682.		
KM2	709.	842.		
K-system	**Covariance**		**.249**	**.190**
KM9	.348		.590	
KM5	.437		.661	
KM6	.434		.659	
K-memory	**Covariance**			**.117**
KM18	.299			.547
KM17	.594			.771
KM10	.587			-.766
K-benchmark				-

From Table 2 it is easily noticeable that the regression weights of all variables loading onto their respective factors is between -.750 for KM29 in the K-culture construct and .842 for KM2 in the K-system construct, with all critical ratios (t-value) above 1.96 (which means that all the regressions are statistically significant at 95% confidence level). Indeed, this results in the re-specified first-order model fit indices where Chi-square statistics= 331.126, Chi-square/degree of freedom= 2.332, Degree of freedom= 142, GFI= .896, RMSEA=.067, PCLOSE=0.000, PGFI=.670, NFI= .810, CFI= .880, RMR=.120, AGFI=.861, NCP=189.126. These results indicate that the respecified model fits better to the sample data than did the original model.

6.2. SECOND-ORDER CONFIRMATORY FACTOR ANALYSIS

Table 3

Table 3 Standardized Regression Weights

Components		Components	Estimate
K-sharing	<---	KMO	0.491
K-system	<---	KMO	0.582
K-memory	<---	KMO	0.507
K-benchmark	<---	KMO	-0.564
K-culture	<---	KMO	0.684

The next step is to show how well the first-order five factors load onto the second order KMO construct. This is shown in Figure 1 and Table 3. However, the regression weights were very close with each other, with all critical ratios (t-value) above 1.96. The model fit indices show better result as the first-order confirmatory factor analysis: Chi-square statistics=397.426, Chi-square/degree of freedom=2.704, Degree of freedom=147, GFI=.874, RMSEA=.076, PCLOSE=0.000, PGFI=.837, NFI=.772, CFI=.841, RMR=.146, AGFI=.837, NCP=250.426. The slight difference in estimations of the first order and second-order confirmatory factor analysis occurs due to the emergence of slightly different degrees of freedom between executing first-order and second order measurement models.

The above statistics show that all the 19 items converge into a single KMO construct. The 19 items are partitioned into five subcomponents: K-culture, K-sharing, K-system, K-memory, and K-benchmarking. Without any cross-loading,

where each of the 19 items is loaded onto only one of these five factors well. However, K-sharing and Memo loaded the lowest into KMO with .491 and .507 respectively, which are acceptable either.

Figure 1

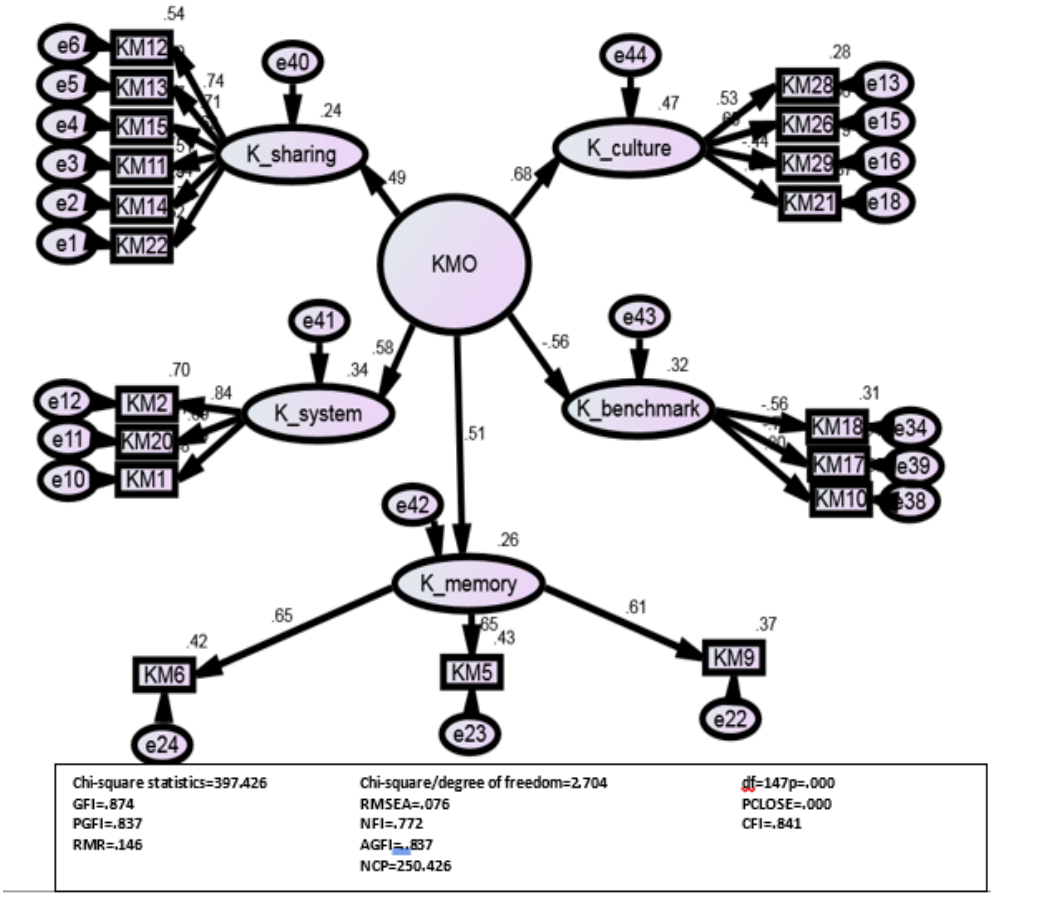

Figure 1 KMO- Second-Order Confirmatory Factor Analysis

6.3. QUALITY OF MEASUREMENT

For **quality of measurement**, all items face validity and content validity were adopted from Wang and Ahmed (2004). However, once the uni-dimensionality of the constructs was achieved, each of the constructs was assessed for their internal reliability, composite reliability (CR) and validity.

For internal reliability, Nunnally (1976) recommended that the minimum acceptance standard of internal consistency reliability is 0.70. Price and Mueller (1986:6) note that 0.60 is generally viewed as the minimum acceptance level. As listed in Table 4, the alpha value of each of five components is over 0.67, and the overall alpha value is .745 which means that the reliability of the KMO construct is accepted.

For Convergent Validity AVE is used for. It reflects the overall amount of variance in the indicators accounted for by the latent construct. It ranged from 0.400 for KM28 in the K-culture, construct to 0.604 for KM1 in the K-system construct. In fact, these values should be below 8.5 and above the cut-off 0.5 as suggested by Nunnally and Bernstein (1994). However, an AVE below .50 could be considered to retain the factor if CR is above .70 Fornell and Larcker (1981).

As for composite reliability value, which depicts the degree to which the construct indicators indicate, the latent construct: K-sharing, K-culture, K-system, K-benchmark, and K-memory were 0.741, 0.818, 0.785, 0.672 and 0.725 respectively as shown in Table 4. In fact, all of them did exceed the recommended value of 0.6 as recommended by Bagozzi and Yi (1988). This means that the model constructs were assessed for their convergent validity and reliability. Table 4 represents the result of Quality of measurement: Cronbach's alpha, composite reliability (CR) and convergent validity

Table 4

Table 4 Results of Quality of Measurement

Components		Components	Estimate	Estimate^ 2	r2-1	AVE/C R	Reliability
KM28	<---	K-culture	0.589	0.347	0.653	0.400/	
KM26	<---	K-culture	0.609	0.371	0.629	0.725	
KM29	<---	K-culture	0.750	0.563	0.438		
KM21	<---	K-culture	0.566	0.320	0.680		
T			2.514	1.601	2.399		
K-culture							0.74
KM22	<---	K-sharing	0.729	0.531	0.469	0.433/	
KM14	<---	K-sharing	0.539	0.291	0.709	0.818	
KM11	<---	K-sharing	0.515	0.265	0.735		
KM15	<---	K-sharing	0.679	0.461	0.539		
KM13	<---	K-sharing	0.710	0.504	0.496		
KM12	<---	K-sharing	0.738	0.545	0.455		
T			3.910	2.597	3.403		
K-sharing							0.78
KM1	<---	K-system	0.693	0.480	0.520	0.604/	
KM20	<---	K-system	0.682	0.465	0.535	0.785	
KM2	<---	K-system	0.842	0.709	0.291		
T			2.217	1.654	1.346		
K-system							0.77
KM9	<---	K-memory	0.590	0.348	0.652	0.406/	
KM5	<---	K-memory	0.661	0.437	0.563	0.672	
KM6	<---	K-memory	0.659	0.434	0.566		
T			1.910	1.219	1.781		
K-memory							0.67
KM18	<---	K-benchmark	0.547	0.299	0.701	0.493/	
KM17	<---	K-benchmark	0.771	0.594	0.406	0.741	
KM10	<---	K-benchmark	0.766	0.587	0.413		
T			2.084	1.480	1.520		
K-benchmark							0.72
the overall alpha value=.745							

Table 5

Table 5 The Squared Correlations for All Construct's Interactions

Components		Components	Estimate	Squared r
K-sharing	<-->	K-system	.116	0.013456
K-sharing	<-->	K-memory	.202	0.040804
K-sharing	<-->	K-benchmark	.602	0.362404
K-sharing	<-->	K-culture	.219	0.047961
K-system	<-->	K-memory	.283	0.080089
K-system	<-->	K-benchmark	.305	0.093025
K-system	<-->	K-culture	.565	0.319225
K-memory	<-->	K-benchmark	.206	0.042436
K-culture	<-->	K-memory	.448	0.200704
K-culture	<-->	K-benchmark	.184	0.033856

6.4. DISCRIMINANT VALIDITY

To assess how truly distinct a construct is from other constructs Discriminant validity is used. In the case of discriminant validity, the correlations between factors in the measurement model do not exceed 0.85 as recommended by Kline (2010), the validity was checked based on comparisons between average variance extracted for a construct (shown in Table 4) and the squared correlations for all constructs interactions (shown in Table 5), Fornell and Larcker (1981) where it is found that all are less than AVE, as shown in Table 5 which supports the existence of the discriminant validity.

7. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

There is a difference between IT-led process-based views of knowledge management and the KMO construct developed and tested in this paper. This construct exceeds the essence of managing knowledge management processes and technology as encapsulated in the knowledge system and organizational memory and extends to also underscore knowledge benchmarking, K-sharing, and K-culture, which are still missing from existing knowledge management measures. In fact, this new construct encapsulates and combines the five identified aspects to form one single construct that is not constrained to any of which at all but rather a collection of their contributions though each has its unique and varied amount of contribution. This draws the line between MIS and KM.

However, the three hypotheses were modified to include 19 items rather than the initial 30 items or the 20 items validated by Wang and Ahmed (2004), where all the five component factors remain the same where the Covariance among the 19 items can be accounted for by a restricted five-factor model which are correlated while each item is reflective only of a single component (i.e., loads only on one factor). In addition, it was found that the covariance among the respecified 19 items that form five distinct components of knowledge management orientation can be accounted for by a single factor, where answers to each item are reflective to one of the five conceptual components and to KMO construct which means that the covariance among the items can be accounted for by a six-factor model. This is

based on the overall assessment of the model fit indices which demonstrated a relatively good fit and coherence for the new KMO construct.

However, the low loading of K-sharing <--- KMO .491 and K-memory <---KMO .507. However, the fact that there is no optimal strength of factor loadings, as factor loading is a supposed causal effect or correlation of a latent variable and an observed indicator, where its strength depends on the theoretically assumed relationship between both - which in turn depends on the supposed meaning of the latent variable (i.e., what should the latent variable reflect). Thus, in our case here, low loading of K-sharing and K-memory, though are in the acceptable range, means that they contribute lower to the KMO latent measure John et al. (2013).

In conclusion, the KMO construct developed and validated in this paper may require additional work in the methodological domain, especially in the sample size and the types of questions that may better suit the private universities context in Jordan, though the results yielded in this paper may motivate managerial personals for paying more attention to KMO in two aspects, as it first highlights the major components of the KMO or the different aspects of an organization's knowledge management capability and second, how to assess then. In addition to this, the results provide a framework to measure the extent to which a firm, in general, or an educational institution, in particular, is knowledge management oriented which is the main goal of this study. However, a methodological limitation of this paper is that it requires replications and modification of the questions and more importantly considering more components and items.

CONFLICT OF INTERESTS

None.

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REFERENCES

AL-Gharaibeh, S., Malkawi, N. (2013). The Impact Of Management Information Systems on The Performance of Governmental Organizations- Study at Jordanian Ministry of Planning, International Journal of Business and Social Science, 4 (17).

Al-Mamary, Y. H., Shamsuddin, A., Abdul Hamid, N. A., Al-Maamari, M.H. (2015). Adoption of Management Information Systems in Context of Yemeni Organizations : A Structural Equation Modeling Approach. Journal of Digital Information Management, 13(6), 429.

Barney, J. B., Mackey, T. B. (2005). Testing Resource-Based Theory, in D. J. Ketchen Jr. and D. D. Bergh D. (Eds.) Research Methodology in Strategy and Management, 2, 1-13. https://doi.org/10.1016/S1479-8387(05)02001-1.

Bontis, N. (2001). Assessing Knowledge Assets : A Review of The Models Used to Measure Intellectual Capital, International Journal of Management Reviews, 3(1), 41-60. https://doi.org/10.1111/1468-2370.00053.

Darroch, J., Mcnaughton, R. (2001). Developing a Measure of Knowledge Management, in Brontis, N. (Ed) World Congress on Intellectual Capital Readings, Butterworth-Heinemann, Boston, 226-242. https://doi.org/10.1016/B978-0-7506-7475-1.50016-6.

Davenport, T. H., Delong, D. W. and Beers, M. C. (1998). Successful Knowledge Management Projects, Sloan Management Review, 39(2), 43-57.

Davenport, T.H. (1997). Information Ecology: Mastering the Information and Knowledge Environment, New York: Oxford University Press.

Day, G. S. (1991). Learning About Markets, Marketing Science Institute Report, No.91-117, Cambridge, Ma : Marketing Science Institute.

Day, G. S. (1994). The Capabilities of Market-Driven Organizations, Journal of Marketing, 58, 37-52. https://doi.org/10.1177/002224299405800404.

Educause Center for Applied Research Research Bulletin (2004). Knowledge Management, Information Systems, and Organizations Lisa A. Petrides. Institute for the Study of Knowledge Management in Education (ISKME), 2004(20).

Field, J., Burke, R. J., and Cooper, C. L. (2013). The SAGE Handbook of Aging, Work and Society SAGE. https://doi.org/10.4135/9781446269916.

Fornell, C., Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, Journal of Marketing Research, 18, 39-50. https://doi.org/10.2307/3150980.

Friedman, D., Hoffman, P. (2001). "The Politics of Information," Change, 33 (2), 50-57.

Gold, A. H., Malhotra, A. and Segars, A. H. (2001). Knowledge Management : An Organizational Capabilities Perspective, Journal of Management Information Systems, Summer, 18(1), 185-214. https://doi.org/10.1080/07421222.2001.11045669.

Gray, P. H. (2001).The Impact of Knowledge Repositories on Power and Control in the Workplace, Information Technology and People, 14(4), 369-384. https://doi.org/10.1108/09593840110411167.

Hair, Hult, G. T. M., Ringle, C. M., Sarstedt, M. and Thiele, K. O. (2017a). Mirror, Mirror on the Wall, a Comparative Evaluation of Composite-Based Structural Equation Modeling Methods. Journal of the Academy of Marketing Science, 45(5), 616-32. https://doi.org/10.1007/s11747-017-0517-x.

Hansen, M. T., Nohria, N. and Tierney, T. (1999). What's Your Strategy for Managing Knowledge ? Harvard Business Review, 77(2), 106-116.

Hennart, J. F. (1988). A Transaction Cost Theory of Equity Joint-Ventures, Strategic Management Journal, 9, 361-374. https://doi.org/10.1002/smj.4250090406.

Holtshouse, D. (1998). Knowledge Research Issues, California Management Review, 40(3), 277-280. https://doi.org/10.2307/41165955.

Huber, G. P. (1991). Organizational Learning : The Contributing Processes and the Literatures. Organization Science, 2(1), 88-115. https://doi.org/10.1287/orsc.2.1.88.

Hult, G. T. M., Ketchen, D. J., Jr., and Slater, S. F. (2004). Information Processing, Knowledge Development, and Strategic Supply Chain Performance. Academy of Management Journal, 47(2), 241-253. https://doi.org/10.2307/20159575.

Jaworski, B. J., Kohli, A. K. and Sahay, A. (2000). Market Driven versus Driving Markets, Journal of the Academy of Marketing Science, 28(1), 45-54. https://doi.org/10.1177/0092070300281005.

Jöreskog, K. G., Sörbom, D., Du Toit, S., and Du Toit, M. (2000). LISREL 8 : New Statistical Features. 2nd Edition. Chicago, IL : Scientific Software International, Inc.

Kohli, A. K., Jaworski, B. J. and Kumar, A. (1993). MARKOR : A Measure of Market Orientation, Journal of Marketing Research, 30(4), 467-477. https://doi.org/10.1177/002224379303000406.

Levine. L. (2001). "Integrating Knowledge and Proœsses in a Learning Organization," Information Systems Management, 18(1), 21-33. https://doi.org/10.1201/1078/43194.18.1.20010101/31262.4.

Mcdermott, R. (1999). Why Information Technology Inspired But Cannot Deliver Knowledge Management, California Management Review, 41(4), 103-117. https://doi.org/10.2307/41166012.

Mcdermott, R., O'Dell, C. (2001). Overcoming Cultural Barriers to Sharing Knowledge, Journal of Knowledge Management, 5(1), 76-85. https://doi.org/10.1108/13673270110384428.

Moorman, C., Miner, A. S. (1997). The Impact of Organizational Memory on New Product Performance and Creativity, Journal of Marketing Research, 34(1), 91-106. https://doi.org/10.1177/002224379703400108.

Munirat, Y., Sanni, I., and Kazeem, A. (2014). The Impact of Management Information System (MIS) on the Performance of Business Organization in Nigeria. International Journal of Humanities Social Sciences and Education (IJHSSE), 1 (2), 76-86.

Nonaka, I., Takeuchi, H. (1995). Knowledge-Creating Company : How Japanese Companies Create The Dynamics Of Innovation, Oxford University Press, Oxford, 29(4), 592. https://doi.org/10.1016/0024-6301(96)81509-3.

Noor, A., Shamsul N., and Abdullah, M. (2003). "Computer-Based Accounting Systems: The Case of Manufacturing-Based Small and Medium Manufacturing Enterprises in the Northern Region of Peninsular Malaysia " Jurnal Teknologi, 39, 19-36. https://doi.org/10.11113/jt.v39.473.

Schulz, M. (2001). The Uncertain Relevance of Newness: Organizational Learning and Knowledge Flows, Academy of Management Journal, 44(4), 661-681. https://doi.org/10.2307/3069409.

Shamsuddin, A., Abdul Hamid, N. A., and Al-Maamari, M.H. (2015). Adoption of Management Information Systems in Context of Yemeni Organizations : A Structural Equation Modeling Approach. Journal of Digital Information Management, 13(6), 429.

Shehadeh, M.A., AL-Gharaibeh, and Nazem, M.M. (2013). The Impact of Management Information Systems on the Performance of Governmental Organizations-Study at Jordanian Ministry of Planning. International Journal of Business and Social Science, 4 (17).

Simonin, B. L. (1999). Ambiguity and the Process of Knowledge Transfer in Strategic Alliances, Strategic Management Journal, 20, 595-623. https://doi.org/10.1002/(SICI)1097-0266(199907)20:7%3C595::AID-SMJ47%3E3.0.CO;2-5.

Stone, R. W., Good, D. J. and Lori, B. E. (2007). The Impact of Information Technology on Individual and Firm Marketing Performance, Behaviour and Information Technology, 26 (6), 465-482. https://doi.org/10.1080/01449290600571610.

Szulanski, G. (1996). Exploring Internal Stickiness: Impediments to the Transfer of Best Practices Within the Firm, Strategic Management Journal, 17,27-43. https://doi.org/10.1002/smj.4250171105.

Wang, C., Ahmed, P. (2004). Development of a Measure for Knowledge Management : An Empirical Test and Validation of the Knowledge Management Orientation Construct.

Khresat. A. (2015). The Effect of Management Information System on Organizational Performance : Applied Study on Jordanian Telecommunication Companies, Information and Knowledge Management, 5(6), 1-7.

APPENDIX 1: QUESTIONNAIRE

Validating a Knowledge Management Orientation Construct in the Private Universities in Jordan: An Empirical Study

This study is an attempt to validate one of the knowledge managements constructs that is called knowledge management orientation, which was proposed by Wang Ahmed (2004), where it will be applied to measure knowledge management performance in the private universities in Jordan. Please, answer the following 30 questions to the best of your knowledge. Your cooperation is required and very much appreciated and all information you provide us with will be kept confidential and only to serve our research purposes.

Appendix 1

Appendix 1 Questionnaire						
Paragraph#	**KMO QUESTIONS As Designed By (Wang and Pervaiz, 2004)**	**S. A**	**A**	**N**	**DA**	**SDA**
1.	We have systems to capture and store ideas and knowledge					
2.	We have systems to codify and categorise ideas in a format that is easier to save for future use					
3.	IT facilitates the processes of capturing, categorising, storing, and retrieving knowledge and ideas in our company.					
4.	We systematically de-brief projects, record good practices that we should extend in the future.					
5.	We make efforts to remember mistakes we made and avoid making similar mistakes in the future.					
6.	Information and knowledge stored in our systems is relevant and sufficient.					
7.	We constantly maintain our information systems and upgrade knowledge stored in the systems.					
8.	We treat people's skills and experiences as a very important part of our knowledge assets.					
9.	When we need some information or certain knowledge, it is difficult to find out who knows about this, or where we can get this information.					
10.	We very often use knowledge that our company possesses, either from the past experience or from external sources.					
11.	We have systems and venues for people to share knowledge and learn from each other in the company					

12.	We share information and knowledge with our superiors
13.	We share information and knowledge with our subordinates
14.	We often share ideas with other people of similar interest, even if they are based in different departments
15.	There is a great deal of face-to-face communications in our company.
16.	We use information technology to facilitate communications effectively when face-to-face communications are not convenient
17.	We use information technology to access a wide range of external information and knowledge on competitors and market changes, etc.
18.	Through sharing information and knowledge, we often come up with new ideas that can be used to improve our business.
19.	We have networks of sharing knowledge with other organisations on a regular basis
20.	People are encouraged to access and use information and knowledge saved in our company systems.
21.	Managers value knowledge as a strategic asset, critical for success
22.	Our company culture welcomes debates and stimulates discussions
23.	We hesitate to speak out our ideas because new ideas tend to be highly criticised or ignored.
24.	In our company, new ideas are evaluated equitably.
25.	In our company, we evaluate ideas based on their merits, no matter who comes up with the ideas.
26.	In our company, we evaluate new ideas rapidly on a regular basis
27.	There is a general culture in our company where people respect knowledge and knowledge ownership