THE EFFECTS OF KNOWLEDGE MANAGEMENT PROCESSES ON HUMAN RESOURCE MANAGEMENT PERFORMANCE

[1]HALIL ZAIM, [2]SAIT REVDA DINIBUTUN

American University of the Middle East, American University of the Middle East
E-mail: [1]halil.zaim@aum.edu.kw, [2]sait.revda@aum.edu.kw

Abstract - The purpose of this study is to investigate the effects of Knowledge Management (KM) processes on Human Resource Management's(HRM) performance. In order to analyze this, a survey questionnaire composed of 36 questions is used and distributed to 2000 employees and managers working in the service sector in Turkey, out of which 835 useful questionnaires are analyzed. The results show that KM processes have significant positive relationships with HRM'sperformance. Among the processes of KM, Knowledge Generation is found to have the most significant effect. This study shows that KM processes are enhancing HRM performance.

Index Terms - Human resource management, knowledge management, knowledge sharing, performance.

I. INTRODUCTION

The rise of knowledge economy and socio-economic transformation of the societies have led knowledge to be the fundamental means of wealth and prosperity[1]. In today's business environment, knowledge seems to be a key factor for organizations' success in the long run [2]. Therefore, leveraging the knowledge resources effectively and efficiently is considered to be a vital step in order to gain the competitive advantage and to ensure the sustainability of organizations [3]. A variety of case studies, [4]applications [5] and a rich literature, support the belief that knowledge management (KM) plays a significant role in managing business successfully [6]. On the other hand, there is almost a consensus that effective HRM practices result in a strong organizational climate [7], high job performance[8], [9], low turnover [10],and in generalenhance organizational financial [11],[12], and non-financial performance outcomes [10], [13], [14].

The main purpose of this study is to investigate the relationship between KM and HRM's performance. Therefore, a model is proposed to explain the core processes of KM and their effects on HRM's performance. In order to test this relationship and find out the empirical evidences, a field study is conducted based on data collected from the service sector in Turkey.

II. LITERATURE REVIEW

KM processes can be defined as "the set of activities in managing knowledge to achieve organizational objectives" [15]. Several attempts have been made to identify and name the different knowledge processes. The main purpose of KM is to utilize knowledge in order to ensure that the firm achieves sustainable competitive advantages. Considering the strategic importance of knowledge for the companies and the difficulty of acquiring, maintaining, locating and applying it, many organizations initiated the development of systematic procedures to manage knowledge effectively and efficiently [16].

Although there are some disagreements over the number and labeling of knowledge processes, there is a common ground on four major processes with slightly different labels [17], [18], [19]. These are:

- Knowledge acquisition, generation, creation and development
- Knowledge codification and storage
- Knowledge sharing and transfer
- Knowledge application and utilization

According to [20], knowledge utilization and application is considered as a catalyzer of KM processes that link them to organizational outcomes.Therefore, it has been excluded from KM processes and is analyzed separately. Accordingly, this paper will analyze KM based on three major processes, namely, knowledge generation, knowledge storage and knowledge sharing.

There are sufficient research findings revealing the effects of KM processes on organizational performance [21], [22],[23], [20]. However, there is comparatively less empirical evidence related to more specific effects of KM on HRM practices. Even though HRM and KM have much in common, there are very few studies that make such connection explicit. A few studies aim to conceptualize and clarify the orientation of HRM practices from the KM point of view [24], andprovide connections and reasoning between KM and HRM[25]. Moreover, there are some research findings suggesting that it is possible to promote sustainability through effective KM and HRM linkages [26], [27].There are also researches that analyze strategic HRM and highperformance work systems related to some implementations of KM [28], [29], [30]. Nevertheless, there is a need for more comprehensive studies that disclose the specific effects of KM processes on HRM performance.

III. RESEARCH METHODOLOGY AND ANALYSIS

Based on the discussion of the above literature review, a conceptual model of KM processes and their effects on HRM performance is proposed. It is hypothesized that KM processes are positively associated with HRM performance. Accordingly, the main hypotheses are:

- HRM performance increases if knowledge generation is augmented.
- HRM performance increases if knowledge storage is augmented.
- HRM performance increases if knowledge sharing is augmented.

A. Survey Instrument

The survey instrument is a self-administered questionnaire composed of 36 questions. 3 of them are demographic questions. 18 questions are aiming to reveal KM processes and 15 questions are for HRM practices. KM construct was developed by [31], and HRM practices construct was derived from [32] best practices approach. According to the initial version of the questionnaire, KM processes are comprised of four processes: knowledge generation, knowledge storage, knowledge sharing and knowledge utilization. However, the model was developed and reorganized in 2018 [20],and knowledge utilization was removed out of the model since it is considered as a moderator between KM and organizational outcomes. According to the final version of the model the scale is composed of three KM processes, namely, knowledge generation, storing and sharing. Each item is rated on a five-point Likert Scale anchored at the numeral 1 with the verbal statement "strongly agree" and at the numeral 5 with the verbal statement "strongly disagree".

B. Data Collection

The sample of this research is determined using judgmental sampling, which is a form of convenience sampling in which the population elements are selected based on researcher's judgment.Convenience sampling attempts to obtain a sample of convenient elements where the selection of sampling units is left primarily to the interviewer. This technique is recommended for less expensive and less time-consuming researches. All data are collected from the companies in the service sector in Turkey. The Service sector can be defined as the portion of the economy whose principal activity (the activity contributing the most to the unit's total value added) is to provide service products [33]. According to economic development stages of countries, as income per capita rises, agriculture loses its primacy, giving way first to a rise in the industrial sector, then, to a rise in the service sector. According to World Bank Report, these two consecutive shifts are called "industrialization" and "post-industrialization" and growing economies are likely to go through these stages. Furthermore, for the high-income countries, particularly, in the last few decades, the service sector has emerged as the most dynamic and innovative sector that dominates the economic growth and wealth production[34]. The questionnaires have been distributed to approximately 2000 employees and managers working in the service sector in Turkey and 850 ones are returned. After eliminating the incomplete ones and missing variables 835 useful questionnaires are analyzed.

C. Regression Analysis

It is assumed that there is a positive linear relationship between the KM processes and the HRM'sperformance. In order to test the hypotheses, a linear model is constituted and a regression analysis is performed using "Ordinary Least Squares Estimates" technique. In the written formulation below, the HRM performance is classified as dependent variable (Yhrm) while knowledge generation (KG), storage (KS) and sharing (KSh) are determined as independent variables respectively. In addition, prior to performing multiple regression analysis, all the assumption of linear regression is tested and no problem has been found.

$$Y_{hrm} = \beta_0 + \beta_1 KG + \beta_2 KS + \beta_3 KSh$$

The next step is assessing the significance of the model using ANOVA (F) test. The significance level demonstrates the combined effects of all the independent variables in the regression model. As a general rule, significance level of the model for acceptance should be equal or less than %5 (0.05). As shown in Table I, the model is significant. Furthermore, the adjusted R2 (coefficient of multiple determination) is 0.55 for HRM performance (Table II). It means that almost 55% of HRM performance (dependent variable) can be explained by independent variables (KM processes). The remaining 45% is estimated as the influence of personal evaluations, psychological and sociological influences, other HRM performance indicators, and subjective evaluations, which are not included in the model.

Table I: Annova Test for HRM Practices

Model		Sumof Squares	df	Mean Square	F	Sig.
1	Regression	233,908	3	77,969	340,601	,000b
	Residual	190,001	830	0,229		
	Total	423,909	833			
a Dependent Variable: HRM						
b Predictors: (Constant), KnowledgeStorage, KnowledgeGeneration, KnowledgeSharing						

Table II: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	,743a	0,552	0,55	0,47845	
a Predictors: (Constant), KnowledgeStorage, KnowledgeGeneration, KnowledgeSharing					

Finally, using the "t-test", partial regression coefficients, which explain the effects of independent variables on the dependent variable is analyzed. As shown in Table III, the standardized regression weights for all variables are significant at 0.05 level. These results indicate that all hypotheses are significant at 0.05 levels.

Table III: Partial Regression Coefficients

Model		Unstandardized Coefficients		
		B	Std. Error	
1	(Constant)	0.555	0.115	
	Knowledge Sharing	0.223	0.032	
	Knowledge Generation	0.459	0.024	
	Knowledge Storage	0.113	0.033	
Standardized Coefficients			t	Sig.
Beta				
			4.842	0
0.212			6.875	0
0.539			18.834	0
0.103			3.378	0.001
Dependent Variable: HRM				

CONCLUSION

According to these results,the hypothesis of this research proposing the positive effects of knowledge generation, storage and sharing on HRM performance is confirmed. Among allof KM's processes, knowledge generation is found to have the most significant effect (0.54) on HRM performance. The second influential KM process is knowledge sharing (0.21). According to the results, knowledge storage has also positively correlated with HRM performance though comparatively with less impact (0.10). One of the key findings of this research is KM processes are positively associated with HRM's performance. Nowadays most companies are well aware of the statement that both KM and HRM are positively associated with organizational outcomes.This research findings indicate that KM processes are enhancing HRM performance. Therefore, companies should pay more attention on KM processes and the linkage between KM and HRM in order to get better HRM results. Hence, eventually will lead to higher organizational performance in the company. On the other hand there are some limitations of this research. First of all it is conducted on services sector. Hence, it is difficult to conclude general results based on a single sector analysis. Second the sample were not chosen randomly. The majority of data were collected though HRM departments who were available, reliable and easy to access. For this reason we may assume that the HRM awareness is high in the selected participants. Thus for future research, it is going to be useful to make cross-cultural and cross-sectorial studies to compare the business cultures and to find out more accurate outcomes related to KM and HRM implementations.

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