

The Impact of Accounting Information System on Job Satisfaction in SMEs Industrial Firms: The Mediating Effect of Knowledge Management

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Abstract: This study attempted to ascertain if Knowledge Management (KM) and Accounting Information System (AIS) positively affecting job satisfaction. Also, this study aimed to determine if there is mediating effect of Knowledge Management (KM) on the relationship between accounting information system and job satisfaction. As demonstrated by the empirical findings, there appears theoretical effect of KM and AIS on job satisfaction based on the comprehensive utilisation of obtained and analysed statistical data. Smart PLS-2 was used for analysis. A total of 350 respondents employed in the Jordanian industrial SMEs were selected as sample. With respect to the construct of KM, AIS and job satisfaction, the outcomes demonstrate a high level of positive significant linkage between job satisfaction and every one of the two constructs. Nonetheless, the theoretical and empirical explanations have to be provided. It is expected that this research will contribute to literature as it reduces the gap on the substantial impact of KM and AIS on the job satisfaction and the associated implications of the relationship.

Key words: Knowledge management, accounting information system, job satisfaction, PLS, SMES, contribute

INTRODUCTION

Since, it assists firms in their creation of long-term external environments, knowledge management is regarded as among the determinants of successful firms. The dawn of 21st century witnessed the growing interest among businesses in knowledge management. This has made knowledge management a popular topic particularly in the domain of managerial accounting. Past work including those from Teece (1998) and reported that firms that have their activities under control are more likely to attain optimal success. Moreover, Darroch (2005) stated the function of knowledge management as a coordinating instrument in changing resources into competencies. In agreement, Chen and Huang (2007), stated that the adoption and performance of knowledge management adoption eases the improvement of firm's performance.

Consequently, Accounting Information System (AIS) significantly aids employee's performance. For instance, Petrus reported the role of AIS in the development of firm performance particularly when firm respond to the changes relating to the environment, especially in the revolution of IT (Harash, 2015).

Information technology is now important to most firms. In fact, firms could not possibly attain competitive advantage and endure in their environment if they do not adopt IT. For instance in the financial reporting domain

particularly, Harash (2015) reported AIS as the most utilised information system. Accordingly, job satisfaction has been under comprehensive scrutiny with regard to its linkage with the characteristics of organization and individuals, alongside organizational commitment (Fu and Deshpande, 2014) and also culture and organizational performance (Imran *et al.*, 2014). Somehow, there have been insufficient amount of studies that link KM to job satisfaction (Kianto *et al.*, 2016) caused by the fact that such approach type is still unfamiliar to many researchers.

As such the main reason for conducting this study is to ascertain the relationship that exists among KM, AIS and job satisfaction. Accordingly the arrangement of this study is as follows: the construction of hypotheses, expansive deliberation on the research methodology and the establishment of the study's conceptual framework are provided in the next sections. Then, the analysed results are highlighted alongside their explanation, prior to the drawing of the conclusions. The study ends with the discussion of the managerial implications and the research's limitations.

Research framework and hypotheses development

Job satisfaction: Job satisfaction is described as the employee's perception of obtaining pleasure from their work or their positive emotional state of the employees following their own job performance

appraisal (Shaikh *et al.*, 2012). Job satisfaction has different meanings in different studies according to Fritzsche and Parrish (2005), it is the worker's feelings about his job while Smith *et al.* (1969) described it as the effective response of the employee to his job that eventually leads to his comparison of the actual outcomes of his jobs with his expectations (Cranny *et al.*, 1992; Locke, 1969) defined job satisfaction as a "function of the viewed relationship between what is wanted by an employee from his job and his belief on what he actually attains". This is explained by Locke (1976) as the feeling that an employee has concerning his job whether positive or negative. Job satisfaction is actually a concept that has direct linkage with the impression of employee wellbeing. As demonstrated by the previous studies, experiencing no job satisfaction at all may lead to employee commitment and in turn, employee turnover.

Accounting information system and knowledge management: Accounting information system entails the processes of data gathering and processing that generate the creation of pertinent user information (Hall, 2012). provides a more detail explanation on main purpose of accounting information system that is to produce accounting information to the external stakeholders as well as users including management and operational staff. Zager study, the researchers related that accurate accounting information gathered from quality accounting information systems whereas Susanto (2008) reported that the AIS primarily generates qualified accounting information. Correspondingly, AIS has been described by Widjajanto (2001) as a set of human and equipment resources that smoothens the process of transforming data into information that is later presented to many decision makers. Meanwhile, Mujilan and Madiun stated that AIS facilitates the change manually or through information technology.

The key aim of this research was triggered by the high technology performance of disciplines here, a huge number of software's are not being used in an effective manner by the human resource operations. This owes to the one fact which is the levels of knowledge varying and this is the situation in the developing and developed countries. However, AIS effective and efficient functioning relies on the knowledge management it employs in its strategic management planning and implementation. This works towards establishing the firm's system and goals which demonstrates that knowledge management operates towards the daily management of firms. Also, with knowledge management, firms could create long-term competitive advantages which lead to successful business in the market environment that is dynamic. Knowledge management

comprises the ability of the firm in directing employee cooperation the generating, attaining, sharing and making use of knowledge for the purpose of making better the performance of firm (Lakshman, 2007). Other researches describe the term as the level to which the firms employ knowledge management that brings to numerous degrees of sharing and usage of knowledge. An example is the research by Wang and Huynh (2013). In the Malaysian context, Accounting Information System (AIS) was investigated with ZBMS SdnBhd as the research scope, particularly in its contribution to Knowledge Management (KM). In another related study, Khodadi concluded a significant AIS-KM relationship. Considering all mentioned above, the first hypothesis is:

- H₁: accounting Information System (AIS) positively influences knowledge management

Knowledge management and job satisfaction: Prior studies assessed the effect of the element of KM on job satisfaction with some strongly emphasizing on the issue concerning its measurement for instance, the study by Kianto *et al.* (2016). Further, Saleh and Khoualdi (2015) found a positive impact imparted by knowledge elements on job satisfaction. Meanwhile, in the Taiwanese electric wire and cable group (Chang and Lee, 2007) reported a mutually positive correlation between the construct of employee job satisfaction and KM. Similarly, within the industries of Indian telecommunication, Singh and Sharma (2011) also reported positive correlation between both variables. Meanwhile, Alamahamid *et al.* (2010) looked into the influence of knowledge sharing practices on job satisfaction. The researchers argued that the practices of knowledge sharing significantly impact job satisfaction. A total of 60 Jordanian employees participated in this study.

Koseoglu *et al.* (2010) delineated the crucial role of general competencies of employees within the culture of knowledge sharing process and outcomes of job in central Greece. A total of eighty four accounting firm offices employees were selected as respondents in this research. As recommended by the findings, there appears a mediating effect of general competencies on the relationship between sharing knowledge culture and satisfaction of job's. In brief, there is insufficient empirical evidence that could affirm the linkage between KM and satisfaction of job's. Therefore, this study brings forth the hypotheses:

- H₂: knowledge management positively influences job satisfaction
- H₃: knowledge management mediates the relationship between AIS and job satisfaction

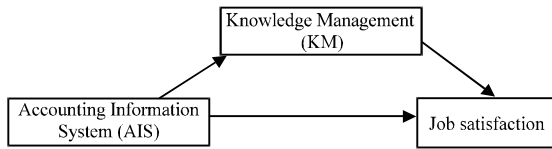


Fig. 1: Research conceptual framework

MATERIALS AND METHODS

Research methodology and instrument: The conceptual framework of the study is presented in Fig. 1.

Sampling: This study has selected Jordanian SMEs employees within the industrial sector as sample. Questionnaires were distributed to 350 respondents to obtain data with 70% response rate obtained. As the sample demographic characteristics indicate, the majority of the respondents (58%) were front-line employees while the remainder (30%) were low-level supervisors. Furthermore, most respondents (75%) were males and most (70%) were <30 years old. Additionally, the majority (90%) held university degree and more than half (56%) indicated <5 years of work experience.

Questionnaire design: A structured questionnaire was chosen in this study as the research instrument. Here, the items were supplemented with the 5-point Likert scale for respondents to indicate their level of agreement (strongly disagree to strongly agree). The measured variables were knowledge management, accounting information system and organizational performance. The literature review of relevant KM studies highlighted items used by Asli, job satisfaction items employed by Saleh and Khouadi (2015), Kianto *et al.* (2016). As for the AIS items they were obtained from Soudani (2012) and Budiarto and Prabowo (2015).

RESULTS AND DISCUSSION

Data analysis

Data analysis strategy: The PLS-2.0 (Partial Least Square) methods were employed in this study to analyse the obtained data. Using these methods, the interconnection between theoretical constructs can be analysed concurrently, even when there is no normal distribution of variables-indicators within a range of variances. Additionally, the analysis of structural equations on small samples can also be performed when these methods are employed irrespective of the level of multicollinearity between independent variables. Data analysis comprised of two phases. The first phase comprises the analysis of the measurement model to ascertain the psychometric

Table 1: Results of the exploratory factor analysis and values of Cronbach's alpha

Construct	JS	KM	AIS
JS1	0.908		
JS2	0.948		
JS3	0.966		
JS4	0.986		
KM1		0.928	
KM2		0.761	
KM3		0.860	
KM4		0.782	
KM5		0.873	
AIS1			0.965
AIS2			0.875
AIS3			0.862
AIS4			0.881
Cronbach alpha	0.935	0.918	0.850
CR	0.959	0.909	0.892
AVE	0.885	0.769	0.674

Table 2: Inter-correlation matrix of the constructs and AVE indicators

Construct	KM	AIS	JS
KM	0.769		
AIS	0.601	0.674	
JS	0.533	0.664	0.885

features of the applied measurement scale while the second phase entails the determination of the structural model for testing the hypotheses proposed.

Measurement model

Factor analysis: The measurement scales employed for analysing the measurement model include: one dimensionality, reliability, convergent and discriminant validity. However, Hair (2010)'s proposed exploratory factor analysis was performed first. This includes the reliability as Cronbach's alpha coefficient computation in order to affirm the dimension scales and to rationalize the amount of constructs. Table 1 shows the factors analysis.

The exploratory factor analysis and the Cronbach's alpha coefficient values indicate that all the manifest variables have factor loadings that exceed 0.70 on their corresponding factors (which is high) and lower loadings on other factors. As such, all the manifest variables were maintained. As for the Cronbach's alpha coefficient values for the whole measurement scales they were at least 0.70. Then, measurement model was analysed. Table 1 presents the selected variables of psychometric characteristics.

As can be seen in Table 1, there searchscales appear to be one dimensional and reliable with values of convergent validity that are deemed satisfactory. For example for the constructs indicators, the entire factor loadings on their respective factors all exceeded 0.70 and demonstrated statistical significance (p<0.05). Also with respect to the composite reliability indicator and AVE indicators of the scales they all exceeded Hair (2010) proposed cut-off value of 0.70. Furthermore, the CR

Table 3: Analysis of the structural model

Construct	Original sample (O)	Sample mean (M)	SD (St. Dev.)	t-statistics (O/STDEV)	p-values	Accepted hypotheses
KM->JS	0.172	0.171	0.027	6.263	0.000	Accepted
AIS->JS	1.142	1.166	0.139	8.236	0.000	Accepted
AIS->KM->JS	0.300	0.329	0.123	2.433	0.015	Accepted

indicators for the analyzed scales ranged from 0.892-0.959 with AVE indicators standing between 0.674 and 0.0885.

Discriminant validity: Discriminant validity in this study was affirmed by comparing between the indicators of AVE and squared correlation coefficients between certain constructs as Fornell and Larcker (1981) had proposed. The test outcomes for discriminant validity can be referred in Table 2. Here, all indicators of AVE are exhibited diagonally, surpassing the “squared correlation” coefficients. This mainly means that the level of discriminant validity of the measurement scales is fitting.

Structural model: The determination of structural model was done through research hypotheses testing taking into consideration the associations of the proposed constructs. The bootstrapping re-sampling method on the 500 sub-samples was employed to test the statistical significance of specific relations was tested. Table 3 presents the structural model analysis.

As evidenced from the analysis outcomes of the structure model, all three proposed hypotheses (H₁, H₂ and H₃) were supported with KM ($\beta = 0.172$) and IS ($\beta = 1.142$) showing statistically significant positive effect ($p < 0.05$) on the job satisfaction.

Further, the mediating impact of KM on the AIS-job satisfaction relationship appears to be statistically significant at ($\beta = 0.300$, $p < 0.05$). This demonstrates support for hypothesis (H₃). As such, it can be said that KM has effect mediation on the AIS and job satisfaction. As demonstrated by the model, 61% of the variances in job satisfaction were explained. This confirms that the model satisfactorily explains certain constructs at the ‘average to very good’ level.

This study looked into the mediating effect of knowledge management on the linkage that exists between AIS and job satisfaction. A total of three hundred and fifty 350 SMEs employees in the industrial sector were chosen as respondents. As demonstrated by the findings, there exists mediating relationship. Here, AIS appears to be a determinant of knowledge management while the latter has positive impact on job satisfaction. AIS also appears to impact job satisfaction with better level of knowledge management.

CONCLUSION

Considering the results of this research, AIS should be adopted by management of industrial SMEs so that they could improve their practices and methods of Knowledge Management (KM). Due KM is among the top resources that are crucial in generating sustainable competitive advantage. The future studies can benefit from this study’s findings in the evaluation of other supporting roles of the factors such as top management, leadership and innovativeness to promote job satisfaction.

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