

# The Effect of Knowledge Management Practices on Hotel Front Office Department Performance and Innovation

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**ABSTRACT:** Knowledge management (KM) seeks to create potentially useful knowledge and to make it available for everyone who can use it at a suitable time and place to achieve maximum useful usage for making positively influence in organizational performance and innovation. Recently, KM has been recognized as a key competitive tool for the hospitality and tourism sector. However, KM in the hospitality industry has not accomplished the same level of empirical research and applications as in other fields. Therefore, this study aims to extend KM in the context of the hospitality industry particularly hotel front office department by investigating the effect of KM practices on its performance and innovation. Self-administrated questionnaire was used to collect data from front office employees in a sample of five-star hotels in Sharm El Sheikh. Correlation analysis and multiple regression analysis were used to test the research hypotheses. Results indicated that KM is highly implemented in hotel front office department. The study found that both KM infrastructure and KM processes have positive influences on the performance and innovation of this department

**Keywords:** Knowledge Management, KM Infrastructure, KM Process, Front Office Department, Performance, Innovation.

Knowledge management is defined as the set of well-organized and restricted actions that can be taken to achieve the maximum value from the knowledge available by an organization (Jennex, 2005). A proper combination of organizational, social and administration motivation along with exploitation of appropriate technology is required by KM. Gathering.

Classify, storing and spreading all knowledge which the organization needs to both develop and progress is the idea of KM (Huergo, 2006).

With the increasing competition in the hospitality industry, it becomes important to have systematic knowledge and understanding of all elements of the hospitality business, including how it should continuously change in accordance with changes in customers' needs and preferences. Several studies found that hospitality organizations that adopt KM practices perform better than competing organizations that do not (Ruhanen and Cooper, 2004; Marques and Simon, 2006). Salem (2014) indicated that identifying and sharing useful knowledge can enhance hotel performance. The effective use of KM can create competitive advantage and is positively connected to organizational performance (Schulz and Jobe, 2001). For instance, Kremp and Mairesse (2004) found that firms having KM policies are likely to

## I. INTRODUCTION

innovate and to have higher productivity related performance

KM concepts in the literature are mostly developed from a manufactured and international perspective (Nonaka and Takeuchi, 1995), thus failing to take into account the many aspects of the hospitality industry (Hallin and Marnburg, 2008). Moreover, Salem (2014) indicated that although the study and practice of KM have grown rapidly in a wide range of industries, KM practices have been marginally implemented in the tourism and hospitality industry. Consequently, this study aims to extend KM in the context of the hospitality industry. It aims to investigate the effect of KM practices on hotel front office department performance and innovation. The study is an attempt to explore the application of KM in hotel front office department through an inclusive investigation of all KM infrastructures (KMI) and KM processes (KMP). This study should help academics to develop a better understanding of KM and also present visions into how managers in the hotel industry can implement KM.

## II. LITERATURE REVIEW

### Knowledge Management

Wong (2005) explained that new economy becoming a more knowledge-based economy, knowledge is getting the most important element for organizational success. Knowledge management is now considered as one of the most important components of any organization and a complement to the hospitality practices. Today, more and more information technologies have been attained in support of KM (Jennexet al., 2007). The success of KM based on the organization of generation of new knowledge and the transition of existing knowledge throughout the organization (Hicks et al., 2007).

Hallin and Marnburg (2008) argued that the hospitality industry is one of the largest users of information technology. Moreover, Kahle (2002) indicated that hospitality operations service processes are becoming knowledge-based or knowledge-intensive due to the great influence and use of information and communication technology. The industry is knowledge-intensive as a result of the nature of the service industry, where the service delivery occurs as a result of interaction between customers and employees and where it is required that employees are knowledgeable of customers' needs in order to achieve customer satisfaction.

Researchers agreed that KM enables employees to be innovative about the company's products and services. In order to be competitive,

hospitality organizations need to produce new products and be creative about service (Cooper, 2006). By acquiring, sharing and transferring the required knowledge, KM leads employees to be creative, ultimately leading organizations to gain competitive advantage (Bouncken, 2002). Moreover, Cooper (2006) argued that KM is the process of gaining competitive advantage by allocating knowledge assets within companies. He added that performance of employees has as a huge impact on organizational performance. Also the performance of employees can greatly affect the implication of KM. In order to effectively adopt KM approach to organizations, human resource needs to foster a KM culture that encourages KM applications.

The businesses in the industry are increasingly reliant on the KM approach to improve performance and gain competitive advantage (Leiper, 2004). Due to the increased use of information technology and systems, hospitality services have become knowledge-based. It is imperative for hospitality organizations to encourage and learn from KM research in order to distinguish an organization from its competitors. However, the studies on KM in the hospitality and tourism sector have been limited.

Within the hotel industry, KM practices are mainly found within hotel chains, which have to deliver an overall service quality standard. For instance, Bouncken (2002) revealed that the Accor Hotel Group is developing KM-based strategies and is engaged in KM activities. The Accor Corporation has implemented a KM system based on three components: motivation for knowledge use and creation; IT-based knowledge accumulation; and access to the IT-based knowledge system. Baldwin-Evans (2006) illustrated another example of KM approaches by hotels is that of the Hilton Corporation, where they developed a learning culture for Hilton Hotels by encouraging and offering a consistent approach to training for team members at all levels using e-learning technology. Knowledge Management system consists of both KM infrastructure and KM processes.

### Knowledge Management Infrastructure

KM Infrastructure includes components as organization culture, information technology and human resources.

**Organization culture:** Massa and Testa (2009) indicated that organizational culture supports KM by affecting how members educate and share knowledge. Organizational culture is the main impediment to KM and it is effective to note that

organizational culture contributes significantly to or impedes KM. Migdadi (2005) mentioned that organizational culture has a basic role in KM. Organizations aim to develop dominant organizational cultures overtime as the organizations adapt and respond to the challenges and changes in the environment. Therefore, culture and structure should be essential or basic feedback in KM for organizations in the hospitality industry (Gold et al., 2001).

**Information Technology:** IT can make more value for the organization by its interaction with other organizational processes (Radhakrishnan and Grover, 2008). IT offers one of the strongest ingredients of KM development and includes a level of systems offering capabilities in KM (Iftikhar et al., 2003). Yoo et al. (2010) indicated that although there are several benefits that information technology has clearly supplied for organizations, many extra concerns interest about the application and management of information technology should be increased, particularly regarding large and complex information systems. Moreover, many organizations have not yet paid attention that acquiring information technology would rather generate good management outputs.

**Human Resource:** Lee and Choi (2003) mentioned that people of organizations are instructed to be the clue in successful KM. Human resources are at the pillar of creating organizational knowledge because knowledge accumulated in employees' heads. Scarbrough (2003) stated that acquiring, developing and using employees with private knowledge, skills, and capacities are essential for firms to develop KM practices. Choice and recruitment of individuals with appropriate skills enable firms to accomplish knowledge from various sources, and encourage innovative idea generation. When firms use classified systems to attract and obtain competent workforce, they can deal with creative thinking and problem solving to support KM (Grover and Davenport, 2001).

#### Knowledge Management Processes

Sveiby (2001) indicated that KM processes facilitate organizations in acquiring, storing, and using knowledge to support strategic planning, dynamic learning, problem solving and decisionmaking. Holsapple and Singh (2001) explained that KM processes include many components as: acquisition, conversion, application and protection.

**Acquisition Processes:** Gold et al. (2001) indicated that acquisition processes are those directed toward the acquisition of knowledge or the collection of knowledge. Chakravarthy et al. (2005)

reported that knowledge acquisition carried out at all three levels of the organization (individual, team, and organizational/institutional). The acquired knowledge is useful for the organization in terms of productivity, improving of creativity, the reduction of response times, and the improvement of decision-making. Two methods are employed in acquiring knowledge. The first method is by individual members of the organization, because they deal with the customer, suppliers or stakeholders. The second method is from organization to another (intra-organization knowledge acquisition), as well as by means of competition (Jashapara, 2004).

**Conversion Processes:** Conversion processes are those activities directed toward making gained knowledge useful by organizing, representing, integrating, combining, structuring, coordinating or distributing knowledge (Gold et al., 2001). Knowledge is something not to be simply gathered and shared but needs to be converted to be used in the business atmosphere. Without common representation standards, no consistent dialogue of knowledge would be found, and this would make it difficult to effectively manage (Lee and Suh, 2003).

**Application Processes:** Application processes are those directed toward the real use of the knowledge by making knowledge more positive and combined for creating value (O'Dell and Grayson, 1998). Daud and Yusuf (2008) stressed that the knowledge-based theory of the firm hypothesizes that the main source of competitiveness rests in the ability to stratify knowledge and not in the ability to create new knowledge. Vital practice of application of knowledge assist companies to improve their efficiency and reduce costs (Davenport and Klahr, 1998). Meanwhile, the performance of a firm is based on the ability to exploit its incorporated knowledge resources in order to create and transfer products and services to its customers using its organizational capabilities (Nielsen, 2006).

**Protection Processes:** Becerra-Fernandez and Sabherwal (2004) stated that Security or protection processes are those directed toward the protection of knowledge inside an organization from illegal or unsuitable use or theft. A competitive advantage for the front office department is its ability to effectively keep generated knowledge safe (Chakravarthy et al., 2005). Protection mechanism can be built into the technology infrastructure, but other forms of protection should also be considered that govern the behavior and conduct of employees.

#### Knowledge Management and Performance

Locating and sharing useful knowledge can enhance hotel performance (Salem, 2014). The effective use of KM can create competitive advantage and is positively related to organizational performance (Schulz and Jobe, 2001). Liao et al. (2010), as well as Gopalakrishnan (2000) stressed that the whole performance of the organization rely on the content to which managers/owners can transfer all of the knowledge resources captured by individuals and teams and turn these resources into value-creating activities. Liao et al. (2010) stated that the measurement of organization performance includes tangible and intangible benefits, financial measures and intellectual capital. Tallonet al. (2000) found that the perceptual measures of organization performance correlate strongly with more traditional objective measures including return on investment, net income growth, sales growth, efficiency of operations, and quality of services in comparison with key competitors. Kim and Hancer (2010) pointed out that significant KM resource inputs that affected organizational performance are information technology, incentive, and knowledge-sharing culture. The evaluation of firm performance can imply financial measures, touched and abstracted benefits, and intellectual capital. Moreover, Mahaba (2013) indicated that the KM technique relates to organizational performance in the hospitality industry and found a substantial positive relationship between processes, mental capital, culture and strategy, and KM.

In order to investigate the previously mentioned KM factors and their relevance and importance in the hotel front office department, the following hypotheses regarding KM infrastructures and KM processes, and their relation to hotel front office department performance need to be tested.

**Hypothesis 1:** KM infrastructures (organization culture, information technology and human resources) have a positive influence on hotel front office department performance.

**Hypothesis 2:** KM processes (acquisition, conversion, application, and protection) have a positive influence on hotel front office department performance.

#### Knowledge Management and Innovation

Hotels must constantly undergo innovation to gaining competitive advantage. This requires that hotels continuously distinguish their products and services from competitors (Chen and Huang, 2009). This innovation requires a well-planned KM capability that will enable the hotel to excel in knowledge-based interactions. Various studies focus on the role of KM in the innovation process. For instance, Liao and Chuang (2006) confirmed the vital role that KM plays for the knowledge-processing capability and in turn, on speed and activity of innovation. Moreover, Huergo (2006) provided evidence for the positive role technology management plays for the likelihood and success of organization innovations. Innovation in the hotel front office may include the adoption of a new idea or behavior, policy, program, device, process, product or service. Kremp and Mairesse (2004) found that firms having KM policies are likely to innovate more extensively and to have higher productivity related performance. They explained that firms implementing KM grow more quickly than the others. Marzet al. (2006) indicated that the effective development of innovation focuses on underlying creating and sharing knowledge. Deshpande et al.

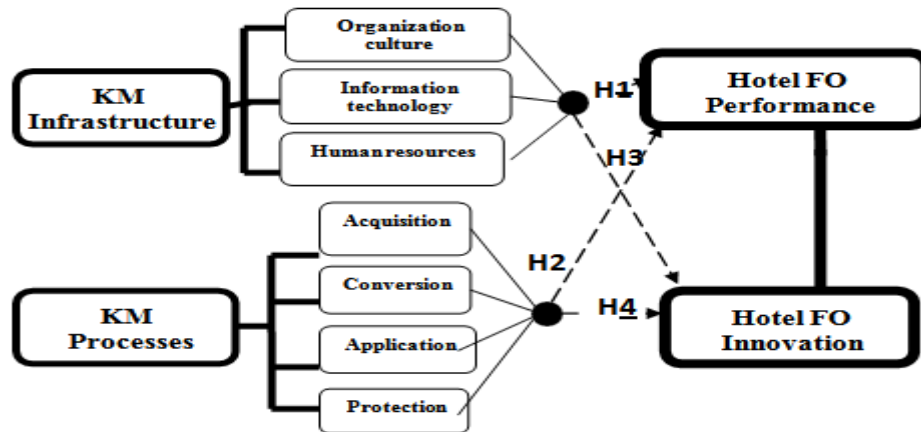
(1993) illustrated that if a firm's aim is to become the most innovative firm in the world, this needs the vital use of KM.

Based on previous discussion, the following hypotheses are developed to investigate the relation between KM (infrastructures and processes) and hotel front office department innovation practices.

**Hypothesis 3:** KM infrastructures (organization culture, information technology and human resources) have a positive influence on hotel front office department innovation .

**Hypothesis 4:** KM processes (acquisition, conversion, application, and protection) have a positive influence on hotel front office department innovation.

Based on the pervious discussion, a conceptual framework was developed (see the following figure) that depicts the research hypotheses and illustrates the relationships between research variables: KM infrastructures, KM processes, performance and innovation.



Conceptual framework of KM, performance and innovation

### III. METHODOLOGY

#### Sample

This study used Sharm El Sheikh five-star hotels as the population. According to the Egyptian Hotel Association (2013), there are 41 five-star hotels in Sharm El Sheikh . The study addressed a convenience sample of 12 hotels which represent nearly 30 % of all five-star hotels in Sharm El Sheikh. Five-star hotels were selected in this study since they have the excellence of their cumulative local and worldwide experience, standard operating

procedures, using up-to-date IT programs, constant training and specific programs for training employees especially in the front office department. One hundred and eighty questionnaire forms were distributed to a convenience sample of front office employees in the participated hotels, out of them 131 forms were completed and valid for analysis with a response rate of 72.8%. Table 1 shows the chosen sample from five-star hotels in Sharm El Sheikh and number of questionnaire forms distributed in each hotel.

**Table 1:** Number of questionnaire forms distributed in each hotel

Hotel	No. of forms distributed	Valid forms	
		No.	Percentage
Hyatt Regency Sharm El Sheikh Hotel	15	7	46.6%
Sharm El Sheikh Marriott Beach Resort	15	10	66.6%
Novotel Sharm El Sheikh Beach & Palm	15	8	53.3%
Iberotel Palace Sharm El Sheikh	15	15	100%
Baron Resort Sharm El Sheikh	15	12	80%
Regency Plaza Aqua Park and Spa	15	13	86.7%
Continental Garden Reef Resort	15	12	80%
Movenpick Resort Sharm El Sheikh	15	12	80%
Coral Sea Sensatory	15	9	60%
Sonesta Beach Resort Sharm El Sheikh	15	10	66.6%
Savoy Sharm El Sheikh Resort	15	12	80%

Baron Palm Sharm El Sheikh	15	11	73.3%
<b>Total</b>	<b>180</b>	<b>131</b>	<b>72.8%</b>

**Measures**

To measure the constructs in the proposed model, a questionnaire was adapted from previous validated research studies. Examples of questionnaire items are listed in Table 2 along with their sources. The questionnaire used in the current study comprised of two parts. The first part addressed demographic variables; information was gathered on front office employee characteristics including gender, age, educational level, department and period working in the hotel. The second part was divided into four scales measured on a 5-point Likert-type scale (1 = strongly disagree; 5 = strongly agree). The first scale was designed to measure KM infrastructures. The scale consisted of ten questions measuring the availability of organizational culture factors among front office employees; eleven questions to measure the accessibility of information technology to front office employees and fifteen questions to measure the ability of human resources in understanding and managing this knowledge within the department. The second scale was developed to measure KM processes (acquisition, conversion, application and protection). Acquisition was measured with six questions addressing the ease of acquiring and creating knowledge in the front

office. Conversion was measured with seven items analyzing the ability to filter and organize knowledge transfer and circulation between the employees in the front office department. The application was measured with six items to reveal the ability of front office employees in applying knowledge to solve problems and improve efficiency. Protection was measured using six questions to reveal protection measures used in the front office department to protect knowledge inside or outside the hotel. The third scale consisted of eight items to measure the impact of the use and application of knowledge on the performance of employees in the front office department. While, the fourth scale consisted of ten questions to measure the impact of the use and application of knowledge on the innovation practices in the front office department.

Prior to the distribution of the questionnaires, a pilot test was conducted. The questionnaire was pilot tested with twenty five front office employees. Respondents were asked to make comments on anything that was unclear. Based upon comments and interviews, some questions were reworded and modified to increase clarity.

**Table 2:** Measures of the study

Measure scale	Source	Example of measurement items
<b>KM Infrastructures</b>	Bhatt (2001); Grover and Davenport (2001); Gold et al. (2001)	Our front office employees understand the importance of knowledge. Our front office department uses technology to retrieve knowledge about its services and processes. Our front office employees understand not only their own task's knowledge but also others' task knowledge
<b>KM Processes</b>	Chakravarthy et al. (2005); Becerra and Sabherwal (2004) ; Gold et al.(2001), Holsapple and Singh (2001); O'Dell and Grayson (1998)	Our front office department has processes for acquiring knowledge about our guests. Our front office department has processes for filtering knowledge Our front office department has processes for using knowledge to solve new problems Our front office department has processes to protect knowledge from inappropriate use inside the hotel
<b>Performance</b>	Liao et al. (2010); Gopalakrishnan (2000)	- Our front office staff shows sincere interest in solving guest problems

<b>Innovation</b>	Kremp and Mairesse (2004); Deshpande et al. (1993)	- Our front office department has produced many novel ideas.
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#### IV. RESULTS

##### Sample Characteristics and Reliability Analysis

SPSS 21 was used for data analysis. The analysis of demographic data revealed that 81.7% of respondents were males while only 18.3% were females. With regard to age, the majority (75.6%) of respondents were at the age between 25 to 40 years; followed by the staff whose age of over 40 years with a percentage of 16.8%, while only 7.6% of them were at the age of 25 years or less. With regard to educational background, it is noted that university qualification had the highest percentage which represents (76.3%) of all respondents, 21.4% of respondents had secondary school education, while only 2.3% of the respondents had other education levels. In terms of the field of education, the majority of the respondents (77.8%) had a hospitality education background. 34.4% of the respondents in the investigated hotels work in the reception, 29% of them work in the reservation department, 22.9% work in operator, while, only 13.7% of the respondents work in other departments related to front office. The majority of respondents (45%) worked in the current hotel for 5 to 10 years. 14.5%

worked in the same hotel for more than 10 years and only 7.6 % worked for less than 1 year

Prior to the examination of the research hypotheses, it was important to establish the reliability and validity of each of the scales utilized in this study. Reliability judges the degree to which measures are free from error and therefore yield consistent results (Tabachnick and Fidell, 2001; Hair et al., 1998). One of the most commonly used measures of reliability is the Cronbach's alpha coefficient. Ideally, the Cronbach's alpha coefficient of a scale should be above .7 (Hair et al., 1998). The Cronbach's alpha coefficient test of reliability led to coefficients which ranged from .715 to .843 (see Table 3) and for the entire scale items, the alpha value was .89. The high level of the coefficients and the finding that deletion of items would reduce the coefficient led to the conclusion that the research scales were acceptably reliable (Pallant, 2011). As stated earlier, the questionnaire was piloted, pre-tested and adjusted to improve content validity. Consequently, it was concluded that each of the scales used in the study are acceptably reliable and valid.

**Table 3: Summary of Scale Reliability**

Scale	Number of items	Mean	Std. Deviation	Cronbach's alpha
Organization Culture	10	4.52	0.56	0.843
Information Technology	11	4.70	0.46	0.723
Human Resource	15	4.56	0.58	0.763
Acquisition Process	6	4.51	0.61	0.783
Conversion Process	7	4.80	0.38	0.753
Application Process	6	4.84	0.36	0.790
Protection Process	6	4.86	0.34	0.842
Performance	8	4.72	0.45	0.715
Innovation	10	4.71	0.46	0.813
<b>Over all</b>	<b>79</b>			<b>0.890</b>

Testing Research Hypotheses

The study aims to investigate the effect of KM practices on hotel front office department performance and innovation. The study hypotheses are tested using correlation analysis (r). Moreover, multiple regression analysis was conducted to further investigate the research hypotheses. Preliminary analyses were performed to ensure no violation of assumptions of normality, linearity and homoscedasticity.

Table (4) shows that ‘organization culture’ had a large and significant positive correlation with ‘front office performance’ (r = .83, p < .05), ‘information technology’ had a large and significant positive correlation with ‘front office performance’ (r = .897, p < .05), and ‘human resources’ had a large and significant positive correlation with ‘front office performance’ (r = .714, p < .05).

**Table 4** Correlation analysis between KMI and front office performance

KM Infrastructures		Front Office Performance
Organization culture	Correlation	.830**
	p-value	.000
Information technology	Correlation	.897**
	p-value	.000
Human resources	Correlation	.714**
	p-value	.000

\*\* = Highly significant at P ≤ 0.05

Multiple regression analysis was conducted to obtain the sum of effects of KM infrastructures three variables on front office performance. Results show that the three variables were found to be significantly directly related to front office performance (see table 5). Regression analysis results further reveal relatively high values for R Square (.87). The model reaches very high statistical significance (p < .05). Results of the standardized coefficients show that the three variables included in the regression model make unique, and statistically significant, contribution to the prediction of the dependant variable (p < .05). Beta (β) values were checked to compare the contribution of each independent variable in the prediction of the dependent variable. Findings from

the regression model revealed differences in the importance of the independent variables in predicting front office performance. In this case the largest beta coefficient is for ‘Information technology’ variable (β=.908). This means that this variable makes the strongest unique contribution in explaining the dependent variable, when the variance explained by all other variables in the model is controlled for, followed by ‘Organization culture’ variable (β=.633) and finally the ‘Human resources’ variable (β=.313).

Based on the results of correlation analysis and the multiple regression analysis, which represent proposed linear relationships, hypothesis 1 was fully supported.

**Table 5** Multiple Regression between KMI and front office performance

KM Infrastructures (Independent variables)	(β)	T-test	p-value	Ranking (Sort by β)	R	R <sup>2</sup>



Information technology	.908	12.491	0.000**	1st	0.93	0.87
Human resources	.313	9.430	0.001**	3rd		
Organization culture	.633	6.665	0.000**	2nd		

\*\* = Highly significant at  $P \leq 0.05$

Table (6) shows that all KM processes variables (acquisition, conversion, application, and protection) have significant positive correlation with front office performance. (r) values ranges between .574 and .913 ( $p < .05$ ).

**Table 6** Correlation analysis between KMP and front office performance

KM Processes		Front Office Performance
Acquisition process	Correlation	.574**
	p-value	.000
Conversion process	Correlation	.820**
	p-value	.000
Application process	Correlation	.913**
	p-value	.000
Protection process	Correlation	.780**
	p-value	.000

\*\* = Highly significant at  $P \leq 0.05$

The results of multiple regression analysis show that the four variables of the KM processes were found to be significantly directly related to front office performance (see table 7). The model reaches very high statistical significance ( $p < .05$ ) and R Square = .86.

Beta ( $\beta$ ) values were checked to compare the contribution of each independent variable in the prediction of the dependent variable. Findings from the regression model revealed differences in the

importance of the independent variables in predicting front office performance. In this case the largest beta coefficient is for 'Application process' variable ( $\beta=.545$ ), followed by 'Conversion process' variable ( $\beta=.339$ ), 'Protection process' variable ( $\beta=.251$ ) and finally the 'Acquisition process' variable ( $\beta=.17$ ).

Based on the results of correlation analysis and the multiple regression analysis, hypothesis 2 was fully supported.

**Table 7** Multiple Regression between KMP and front office performance

KM Processes (Independent variables)	( $\beta$ )	T-test	p-value	Ranking (Sort by $\beta$ )	R	R <sup>2</sup>

Application process	.545	7.273	.000**	1st	0.93	0.86
Conversion process	.339	5.352	.001**	2nd		
Acquisition process	.170	2.496	.014**	4th		
Protection process	.251	3.951	.000**	3rd		

\*\* = Highly significant at  $P \leq 0.05$

Table (8) shows that ‘information technology’ had a large and significant positive correlation with ‘front office innovation’ ( $r = .89$ ,  $p < .05$ ), ‘organization culture’ had a large and significant positive correlation with ‘front office

innovation’ ( $r = .793$ ,  $p < .05$ ), and ‘human resources’ had a large and significant positive correlation with ‘front office innovation’ ( $r = .728$ ,  $p < .05$ ).

**Table 8** Correlation analysis between KMI and front office innovation

KM Infrastructures		Front Office Innovation
Organization Culture	Correlation	.793**
	p-value	.000
Information Technology	Correlation	.890**
	p-value	.000
Human Resources	Correlation	.728**
	p-value	.000

\*\* = Highly significant at  $P \leq 0.05$

Multiple regression analysis was conducted to obtain the sum of effects of KM infrastructures three variables on front office innovation. Results show that the three variables were found to be significantly directly related to front office innovation (see table 9). Regression analysis results further reveal relatively high values for R Square (.84). The model reaches very high statistical significance ( $p < .05$ ). Findings from the regression model revealed differences in the importance of the independent

variables in predicting front office innovation. In this case the largest beta coefficient is for ‘Information technology’ variable ( $\beta = .588$ ), followed by ‘Organization culture’ variable ( $\beta = .361$ ) and finally the ‘Human resources’ variable ( $\beta = .283$ ).

Based on the results of correlation analysis and the multiple regression analysis, hypothesis 3 was fully supported.

**Table 9** Multiple Regression between KMI and front office innovation

KM Infrastructures (Independent variables)	( $\beta$ )	T-test	p-value	Ranking (Sort by $\beta$ )	R	R <sup>2</sup>
Information technology	.588	11.550	0.000**	1st	0.91	0.84
Human resources	.283	4.350	0.000**	3rd		

Organization culture	.361	3.931	0.000**	2nd		
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\*\* = Highly significant at  $P \leq 0.05$

Table (10) shows that all KM processes variables (acquisition, conversion, application, and protection) have significant positive correlation with front office department innovation. (r) values ranges between .638 and .94 ( $p < .05$ ).

The results of multiple regression analysis show that the four variables of the KM processes were found to be significantly directly related to front office department innovation (see table 11). The model reaches very high statistical significance ( $p < .05$ ) and R Square = .90.

Beta ( $\beta$ ) values were checked to compare the contribution of each independent variable in the

prediction of the dependent variable. Findings from the regression model revealed differences in the importance of the independent variables in predicting front office performance. In this case the largest beta coefficient is for ‘Application process’ variable ( $\beta=.96$ ), followed by ‘Conversion process’ variable ( $\beta=.608$ ), ‘Protection process’ variable ( $\beta=.349$ ) and finally the ‘Acquisition process’ variable ( $\beta=.155$ ).

Based on the results of correlation analysis and the multiple regression analysis, hypothesis 4 was fully supported.

**Table 10** Correlation analysis between KMP and front office innovation

KM Processes		Front Office Innovation
Acquisition process	Correlation	.638**
	p-value	.000
Conversion process	Correlation	.869**
	p-value	.000
	N	131
Application process	Correlation	.940**
	p-value	.000
Protection process	Correlation	.778**
	p-value	.000

\*\* = Highly significant at  $P \leq 0.05$

**Table 11** Multiple Regression between KMP and front office innovation

KM Processes (Independent variables)	( $\beta$ )	T-test	p-value	Ranking (Sort $\beta$ ) by	R	R <sup>2</sup>
Application process	.960	8.101	.000**	1st	0.95	0.90
Conversion process	.608	2.392	.018**	2nd		
Acquisition process	.155	1.434	.004**	4th		
Protection process	.349	3.478	.001**	3rd		

\*\* = Highly significant at  $P \leq 0.05$

## V. DISCUSSION

The outcome of the study indicated that knowledge management practices are highly implemented in the sampled hotels. This is may be due to that the sample chosen from five star hotels that normally consider knowledge as valuable assets and resources. These hotels have the privilege of their chain's accumulated, worldwide experience, standard operating procedures, extensive use of information technology, and continuous training (Salem, 2014).

The findings of the study revealed that KM infrastructures (organization culture, information technology and human resources) and KM processes (acquisition, conversion, application, and protection) have a strong positive influence on the performance of the hotel front office department. These findings are in the line with Zaim et al. (2007) study as they indicated that KM practices contribute to the performance. Moreover, Daud and Yusuf (2008) examined the relationship between KM processes and organizational performance and explained that with an effective KM processes, organizations should be able to come up with innovative products and services to ensure their competitiveness and sustainability of performance. The results found by Mahaba (2013) support the vital role of KM strategies on organizational performance in the hospitality industry.

In addition, the findings of the study revealed that KM infrastructures and processes have a strong positive influence on innovation of the hotel front office department. These findings go in line with Kremp and Mairesse (2004) study where they found that firms having KM policies are likely to innovate more extensively and to have higher productivity performance. Moreover, The results found by Liao and Chuang (2006) confirm the vital role of KM on speed and activity of innovation. Thornhill (2006) also proposed a framework linking innovation and performance and indicated that knowledge enables people to innovate more quickly to achieve better performance. Liao et al. (2010) assured the same point of view that KM has a significant positive influence on organization innovation. Hence, all relevant studies are in line with the results of this study.

## VI. CONCLUSIONS AND IMPLICATIONS

This study aims to provide better understanding of knowledge management practices

and its effect on the performance and innovation of the hotel front office department. The findings of the study revealed that KM infrastructures (organization culture, information technology and human resources) have a strong positive influence on hotel front office department performance and innovation. Moreover, the study found that KM processes (acquisition, conversion, application, and protection) have a strong positive influence on this department performance and innovation. Therefore, hotels can improve organization performance and achieve a competitive edge over competitors by implementing KM.

This study attempted to contribute to knowledge of how KM could improve innovation and performance in hotels. It makes an important empirical contribution by treating various dimensions of KM separately and exploring their relationships with performance and innovation. In the current study, KM is conceptually and empirically linked to hotel front office department performance and innovation. Therefore, this study contributes to the hospitality literature and offers further opportunity to expand this research in other areas of the industry.

Moreover, the study attempts to provide a variety of practical recommendations for guiding front office department employees to be successful in using KM practices to attain business objectives. First, front office department must build up an organizational design that enables the creation of new knowledge, knowledge exchange and transfer across functional boundaries. At the same time, knowledge needs to be frequently examined for mistakes. Second, front office department should clearly support the role of knowledge in department success, make sure that employees understand this issue and more importantly encourage them to participate in training and learning as well as in capturing, transferring and protection of knowledge. Third, it might be helpful to establish a special knowledge center in the hotel with the aim of collecting information about customers, markets, competitors or any other useful information from internal and external sources, then treating, analyzing, and making it available to other departments.

## LIMITAIONS AND FUTURE RESEARCH

The study has some limitations; it investigated the effect of KM practices on hotel front office department performance and innovation. In that sense, it is worthwhile to focus in further studies on different hotel departments

such as food and beverage department and sales and marketing department. Furthermore, this study investigated KM using a sample of five-star hotels in Sharm El Sheikh. Thus, in the further studies it worthwhile to focus on investigating KM in other hotel categories and in different locations. One of the methodological limitations in this study was the use of self-administrated questionnaires. Future studies using qualitative methods, including interviews, should provide a broader understanding of the KM impacts. However, despite these limitations, this study has useful implications both for scholars and practitioners.

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