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The Strategic Deployment of Information Systems Attributes and Financial Performance in The Hospitality Industry

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Abstract: The purpose of this article is to explore the strategic value, resources, and capabilities of information systems, as well as their effect on financial performance in the Jordanian hotel business. Design/methodology/approach- The research was carried out on a representative sample of Jordanian hotel establishments. It uses the framework developed by Bharadwaj as a guide to assist firms in addressing the management of information systems and developing a better competency in that area. Research limitations/implications – This study contributes to the establishment of a new framework of analysis in the literature on information systems management by introducing a perspective of analysis for the study of the strategic deployment of information systems attributes that is based on the resource-based view of the hospitality industry. This perspective of analysis is used in the study of the strategic deployment of information systems attributes. Practical implications – This paper provides a useful framework for beginning the diagnosis of the situation of each hotel in terms of its available information systems resources and capabilities, as well as for identifying and selecting the information systems resources and capabilities that make the greatest contributions to the profitability and quality of the hotel. Originality/value – In order to determine which information systems resources and competencies are most significant in the creation of unique hotel competences, this effort will assist in identifying those that are most important.

Keywords: Information systems, Hotels, Value analysis, Competitive strategy.

1 Introduction

Hotels nowadays are concerned with the comfort of the customer and provide him with all the services that satisfy his needs and desires. Not only that, but there are continuous developments in the field of hotels in which management information systems directed at the hospitality industry contribute to the production of quality information because the quality of information and its response to the needs of management. It involves assuring the contribution of these systems to attaining the intended added value, together with other values achieved by operations and activities focused in the end on the ultimate beneficiary (the customer [1]. In order to earn the complete satisfaction of this beneficiary [2-4]. In addition to these operations, good management information systems in hotels provide the hotel management with high-quality information about the current competitive position, room sales, and the number of existing, new, and potential consumers [5].

This research intends to examine the performance of management information systems in the hotel sector by understanding the quality of information outputs of these systems. This is because the degree of information quality is what defines the additional value that information systems contribute to the value chain of hotel management operations in a manner that satisfies the demands of the beneficiary and helps deliver exceptional and unparalleled service to him [6-8]. This research has shown that the quality of choices relies on the availability of data and information [2, 9]. The absence of proper data and information or the failure to deliver them in a timely manner typically leads to greater risks when making a choice, and this impacts the hospitality companies' capacity to achieve their objectives. In recent years, as a result of technological and economic advancements as well as globalization, information systems have assumed a prominent position in all fields, particularly administrative fields, resulting in the rapid development of information systems and the proliferation of their applications at all administrative levels, making information

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systems one of the most successful technological tools that managers in organizations use to make decisions across geographical boundaries. Management information systems are used to help organizations perform their functions successfully and efficiently [10-12].

In this changing and complex environment, information plays a critical role in the long-term survival and continuity of organizations. It must be consistent with the requirements of the various organizational levels, starting from those of the operational levels and progressing to those of higher management, making it an essential and vital element that aids in the facilitation of organizational work and the development of organizational capabilities [13].

Information systems play an essential part in process re-engineering because they allow for faster and more efficient data operation as well as greater ease of communication [7, 8]. This results in increased efficiency in operations as well as the facilitation of cooperative efforts amongst work groups [2]. It is also possible to employ management information systems to help the entire quality management plan by assisting the company in collecting crucial data about customers, evaluating this data so that tourists get a better service, and integrating the property with the consumers [14].

On the list of the most significant contemporary trends is the expansion of management information systems' strategic role, as it has become an integral part of management's fabric, as well as an essential resource on which it relies in order to strengthen the administrative process and administrative decisions, as well as to assist in improving financial performance [11]. Because of the rising expansion of the tourist industry, the problem of performance has taken a significant portion of the attention of thinkers and practitioners, and it has been the subject of a lot of academic studies in recent years. Salaries and other business activities [15].

The constant adaptability to the worldwide setting, as well as the strong competition that today's hotels must contend with, has prompted some of them to contemplate increasing their competitiveness by developing new techniques to assist them in enhancing performance. To do this, one method would be to assign strategic importance to the management of information systems resources. In this regard, we believe it is vital to understand the strategic approach that may be ascribed to those resources, as well as any conceivable relationships between those resources and performance. To facilitate the development of a unique competence that results in a long-term competitive advantage for tourist businesses, effective and efficient management of business information, as well as management of the technologies and systems that support it, are critical considerations [16]. In this case, investment in information technology helps the hotel since it allows consumers to have a better experience and the hotel employees to work more effectively in order to better serve the customers [14]. As a result, it is necessary to provide a fresh viewpoint on the use of information systems resources that fully leverages the resources' potential. The

ability to utilize them better than the competition entails not just utilizing them well, but also developing the capacity to use them better than the competitors [17]. Information systems resources management and strategic value become a priority in this setting, and they may be a decisive factor in enhancing competitiveness and attaining competitive advantages over the competition [7, 8, 11].

With this paper, we will examine the relationship between the strategic value of the information systems area and financial performance, as well as the effectiveness of management of the IS area in terms of the contribution of resources and capabilities used in that activity to the overall performance of the hotel. In order to achieve these goals, we have divided the job into three stages. In the first section, we construct the theoretical framework that will be used as a guide in the study of information systems activity in terms of its contribution to organizational performance in the context of a resource and capability-based perspective of the business. In the second section, we describe the context of the study as well as the technique that was used to determine the most important resources and competencies that hotels rely on in the information technology (IT) field. In the third section, we provide the findings and conduct an analysis of the data in order to put the goals to the test. Finally, the main findings of the empirical research are summarized and discussed.

2 Literature Review

A significant portion of the most recent research on information technology and information systems has focused on the identification of resources that are likely valuable and unique, and particularly on intangible resources as a source of competitive advantage [2, 12, 18, 19]. In order to determine the strategic value of an activity, we use the requirements of the resource-based view of the firm in order to determine the characteristics that an area's resources and capabilities must possess in order to be considered a source of competitive advantage based on the management of an activity (IS). This approach views the strategic worth of a resource or capacity in terms of three fundamental conditions: heterogeneity, the persistence of heterogeneity, and the appropriability of the rents created by the resource or skill [20]. The amount of compliance with those three fundamental parameters for IT/IS area resources and competencies determines the strategic worth of the organization. When it comes to heterogeneity, [21] believes that it occurs when the resources supporting an activity are valuable or important to the Hospitality firm, allowing it to devise and implement strategies that improve its efficiency and effectiveness, [22] while also providing customers with a higher level of service quality [2, 7, 8, 22]. Additionally, according to [23], In order for a function to provide above-average performance in the business, the resources on which it is built must be scarce, in the sense that only a small number of organizations could execute that function in the same manner as the firm's personnel. That may be due to their superior understanding of the company and its

requirements, or it may be due to the fact that they have built efficient work routines or have a good connection with the information system architecture. This will result in a specific and distinct activity for the firm, based on the development of interpersonal relationships between employees, whose knowledge and expertise will be linked to the specific characteristics of the organization, with a subsequent generation of organizational capability that will give the activity the potential to be a source of competitive advantage. According to [24], the success attributable to the novel configurations of information system resources is only temporary in nature. As a result, in order to maintain its "first mover" status, the business must continually innovate, making it critical that the long-term viability of its information technology resources be clearly established [25]. This guarantees that rivals who attempt to reproduce the resources that are the source of competitive advantage will be thwarted as long as heterogeneity persists [26]. In this regard, and in light of the fact that the information technology (IT) function is a resource-intensive activity that makes extensive use of technological resources and the relevant human resources, it is necessary to consider the ex-post competition barriers that delay, increase the cost, or prevent competitors from copying or substituting the valuable resources and capabilities of the organization. The resources supporting activities should be non-substitutable or unique in order to allow for the development of long-term rents [27], which are bolstered by several factors such as causal ambiguity, the learning of the producer, temporal compression diseconomies, and history, to name a few.

A significant role is played by modern information systems in improving the performance of financial management units in hotels. [28]. These systems will aid in the investment of those technical developments of modern information systems in order to benefit from them strategically in order to gain a competitive advantage. In addition to benefitting from it in terms of strengthening its financial management and exercising its function, the escalation of this rivalry not only at the local level, but also at the worldwide level, is a positive development for the company [29].

Modern information systems are regarded as one of the most important scientific topics because of their quick development, dissemination, and use, as well as the fact that they represent a constant source of human effort and communication. In addition to supporting managers in dealing with situations that depend substantially on knowledge, expert systems, decision support systems, manager support systems, and other systems are used to define cases in a computer-assisted manner.

Internet systems and their applications, digital corporate support information systems, customer relationship management systems, supply chain management systems [30], e-commerce, e-government, strategic information systems, decision support systems, marketing and sales systems, accounting and financing systems, human resource systems, process processing systems, knowledge management systems, economic information systems, trade,

industry, agriculture, and tourism are all examples of Internet systems and their applications. Individual and family information systems, as well as cost systems for creating different reports that are beneficial to the decision maker, are all available, in addition to culture, education, and health information systems [31].

The successive developments that the world is witnessing today in the tourism sector have demonstrated the vitality and dynamism of this sector, as many radical transformations have taken place and had positive repercussions on all of the events and activities it practices to be qualified at any time to absorb the challenges and benefits of the next stage and to comply with the current and expected trends, particularly in the industry Hospitality, seeking to introduce and use moderators in their operations. Knowledge bases, functional and cross-functional information systems that encompass more than one function, and information systems all assist management in making significant, strategic, and long-term choices that affect the organization's future.

Websites for hotels in Jordan, and other services that allow potential interactive marketing activities, so consumers may be participants in producing, promoting, buying, and enhancing goods and services. Sales force automation systems leverage mobile computing and Internet technologies to automate or computerize numerous information processing processes for the objectives of sales assistance and administration [32]. Other information systems also serve to aid marketing managers in customer relationship management, production planning, pricing and other production management choices, advertising, sales promotion, targeted marketing tactics, and marketing research and plans. [33]. Interactive marketing It indicates the processes that the consumer concentrates on in marketing, the base of which is the use of the Internet for the goal of building two-way transaction, between the firm and its customers, or between it and its essential customers.

The purpose of the interactive market is to allow the tourist establishment to utilize these three kinds of networks in a lucrative and advantageous way, working to attract and maintain consumers to become partners with the company in securing, acquiring, and enhancing goods and services. In the interactive market, clients are not simply passive players, getting educational ads prior to purchase, but actively engaged in practical networking and interactive activities. The interactive market enables travelers to become a part of manufacturing development processes. This is done by employing Internet technology in numerous ways such that the interactive market offers rich returns in terms of crucial marketing data, ideas for new goods, and strong connections with consumers.

The facility system may assist establish a more cohesive organization, in which everyone utilizes a single information and processing system, and they can assess their work on the basis of uniform performance criteria throughout the company.

3 Methodology

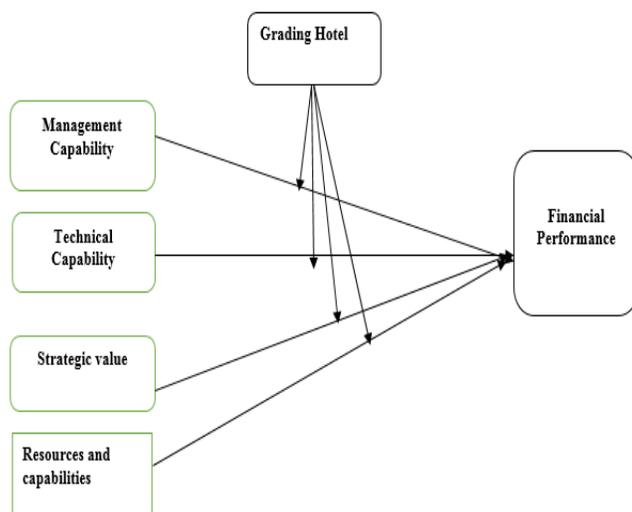
Coordination in sales, manufacturing, finance, and logistical activities offered by the enterprise system, which allows firms to react quickly to consumer demands. The problems of the tourist facility's systems, and tourism organizations need to examine and work with their processes and work in order to make information flow between them effortlessly. And employees should perform work and new job duties.

H1: There is a positive relationship between the Technical capability of and Financial performance.

H2: There is a positive relationship between the management capability of and Financial performance.

H3: There is a positive relationship between the Strategic value of and Financial performance.

H4: There is a positive relationship between the Resources and capabilities of and Financial performance.



4 Analysis

Measurement Model

CFA was conducted to examine the model fit. Based on the CFA. CFA was conducted. Table 1 shows the fit statistics, indicating a good fit between the theoretical model and the data ($\chi^2/df=1.218$, $p < .00$; GFI: .90; CFI: .977; GFI; RMSEA: .032; SRMR 0.0493). . Table 2 shows the Cronbach's α greater than 0.60, this shows good internal consistency. Further, the discriminant validity of [34] was measured through the square root of the average variance extracted. The square root of The AVE for each construct was greater than the partial correlations.

VIF values for independent variable less than 5.00 so There is no correlation between the independent variables [35]. Figure 2 represents the validity of the construct using factor loadings. Particularly, the results of convergent validity assessment. in figure 2 indicate that all the factor loading values are above the level of 0.50 [36], This indicates that all of the constructs conform to the construct validity test which means that all items belonged to the specified core values

Table1. Goodness of fit statistics(N=217).

χ^2/df	GFI	IFI	TLI	CFI	RMS EA	SRMR
1.218	0.90	0.976	0.974	0.977	0.032	0.0493

Table 2. Means, Standard Deviations, Reliability, Correlation Coefficients and the square root of AVE (N=217).

Measures	Mean	SD	FP	MC	TC	SV	RC	The square root of AVE	vif
FP	3.84	0.98	1					0.76	
MC	2.41	0.71	-	1				0.66	1.030
TC	3.40	1.04	-	0.189	1			0.74	1.092
SV	4.10	1.02	-	0.076	0.277	1		0.79	1.063
RC	3.75	0.97	-	0.035	0.134	0.058	1	0.78	1.015
Cronbach's Alpha			0.86	0.82	0.85	0.81	0.90		

Hypothesis

H1: There is a positive relationship between the Technical capability and Financial performance.

H2: There is a positive relationship between the management capability and Financial performance.

H3: There is a positive relationship between the Strategic value and Financial performance.

H4: There is a positive relationship between the Resources and capabilities and Financial performance

H5: The relationship between the Technical capability and Financial performance is moderated positively by Grading Hotel.

H6: The relationship between management capability and Financial performance is moderated positively by Grading Hotel.

H7: The relationship between Strategic value of and Financial performance is moderated positively by Grading Hotel.

H8: The relationship between the Resources and capabilities and Financial performance is moderated positively by Grading Hotel.

Testing of Hypotheses

Maximum likelihood estimation (MLE) used to test the hypotheses 1, 2, 3, and 4. MLE is a method of estimating the parameters of a probability distribution by maximizing a likelihood function. But H5 , H6 , H7 , H8 are tested by observed variable OLS and logistic regression path analysis modeling [37].

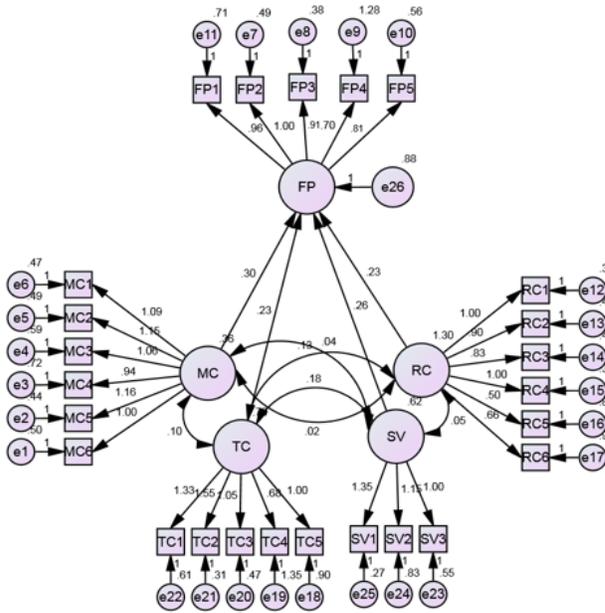


Fig.1: Model of multiple regression -Unstandardized Estimates

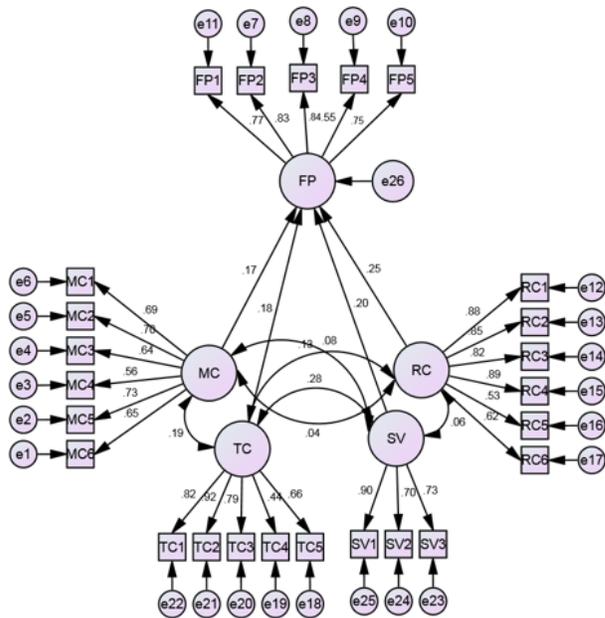


Fig.2: Model of multiple regression - Standardized Estimates

Table (3) shows the effects between independent variables and dependent variable. The effect (MC→ FP) was 0.298, (TC→ FP) its effect was 0.231, the effect (SV→ FP) was 0.171, and the effect (RC→ FP) was 0.227. All these effects are significant ($p < 0.05$), therefore H1, H2, H3, and H4 were supported

Table 3: Maximum Likelihood Estimates(N=217).

Links	Estimate	S.E.	C.R.	P-value
MC→ FP	0.298	0.133	2.245	0.025
TC→ FP	0.231	0.065	3.548	0.001
SV→ FP	0.264	0.102	2.58	0.010
RC→ FP	0.227	0.096	2.367	0.018

To examine the moderation hypotheses. Used OLS and logistic regression path analysis modeling. see (table 4) which Indicates the interaction term was statically significant for MS ($p = 0.002$, $\Delta R^2 = 0.028$), indicating that grading was a significant moderator positively of the effect of MS on FP by a factor of 0.028. therefore, H5 were supported.

The interaction term was statically significant for TC ($p = 0.001$, $\Delta R^2 = 0.059$), indicating that grading was a significant moderator positively of the effect of TC on FP by a factor of 0.059. therefore, H6 were supported.

The interaction term was not statically significant for SV ($p = .106 > 0.05$), indicating that grading was not a significant moderator of the effect of SV on FP, therefore H7 is not supported. The interaction term was not statically significant for RC ($p = .157 > 0.05$), indicating that grading was not a significant moderator of the effect of RC on FP, therefore H8 is not supported

To better understand the interaction effects, FP scores were plotted at combination of levels for grading. The plots demonstrate effect of MC and TC on FP were positive for all. The more effect for 3 Stars (Figs. 3). The plots demonstrate effect of MC and MC on FP were positive for 3 Stars and 4 Stars, but about 5 Stars was negative (Figs. 4)

Table 4: Results of Moderation Testing (N=166).

Moderation	R2 change	F	P-value
MS_GH	0.028	8.97	0.002
TC_GH	0.059	20.06	0.001
SV_GH	0.008	2.62	0.106
RC_GH	0.006	2.01	0.157

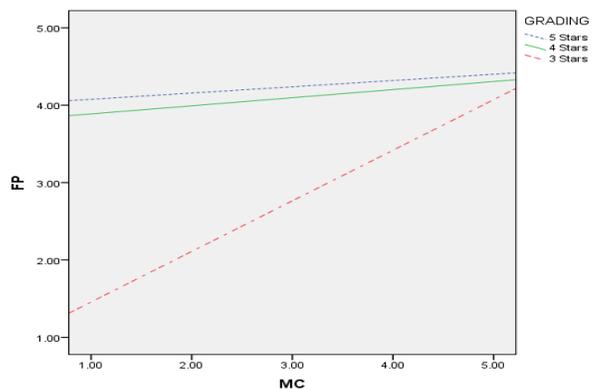


Fig. 3. Effect of MC on FP .

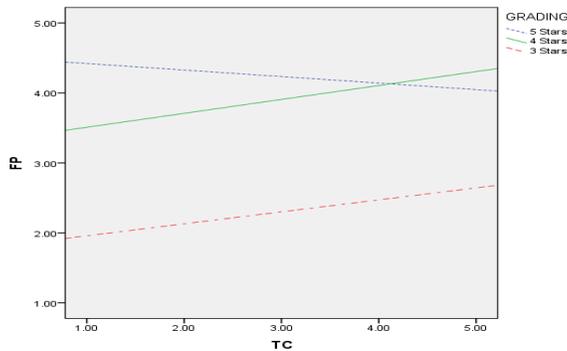


Fig. 4. Effect of TC on FP.

5 Conclusion

The hotel industry is a major draw for tourists from all over the world. Nowadays, hotels prioritize their guests' well-being by offering a variety of amenities and services designed to meet their specific wants and requirements. It is critical to stay abreast of these changes via the use of cutting-edge methods in management information systems. High-quality data on competitive positioning, room sales, and the number of existing, new, and prospective customers may be found in well-designed hotel management information systems. The ability of hospitality firms to fulfill their goals is harmed when they lack the necessary data and information or fail to provide it in a timely way.

The development of management information systems' strategic function is one of the most important modern trends. Furthermore, it is critical to grasp the strategic approach that may be assigned to those resources and any possible link between those resources and performance. If you're going to get the most out of them, you'll need to be able to use them better than your competition. Throughout this article, we analyze the link between information systems strategic value and organizational success. Management's contribution to hotel performance is also examined in terms of the resources and competencies that are utilized in that activity.

Studies on the relationship between IS/IT resources and business performance have used a theory known as Resources and Capabilities Theory. Many of these studies concentrate on intangible assets as a source of competitive advantage. According to [2], an organization's IS/IT resources consist of a mix of the technological infrastructure and human resources involved with the organization's IS activity. Customer and organizational knowledge are important when it comes to examining capacity-performance relationships, says this author, who stresses their importance. The strategic value of a business is determined by how closely it adheres to three basic characteristics for IT/IS resources and competences.

Management wants credible information to make excellent choices an accurate and trustworthy accounting system must

satisfy requirements of wide scope, timeliness, aggregation, and integration. A management information system which offers information for the management to make better choices needs information technology. Every strategy, including innovation strategy, needs specialized information. Innovation strategy impacts the architecture of management information system in terms of wide breadth, timeliness, aggregation, and integration. There is a significant link between company strategy and management information system

As a consequence, the correlations between the independent and dependent variables may be seen clearly. It was found that the effects of MC were 0.298%, TC were 0.231%, SV were 0.171%, and RC were 0.227%. H1, H2, H3, and H4 were all found to be true ($p < 0.05$) based on the results of this study. To investigate the hypothesis on moderation. Path analysis was performed using OLS and logistic regression. A statistically significant interaction term ($p = 0.002$, $r^2 = 0.028$) was found for MS (Table 4) that shows the moderating influence of grades on MS on FP was substantial (by a factor of 0.028). So, H5 was given the thumbs-up. Classification was statistically significant ($p = 0.001$; $R^2 = 0.059$), suggesting that grading was an important mediator of the influence that Classification had on Frequency Perception (FP). As a result, H6 was approved. Because the interaction term ($p = 0.106 > 0.05$) was not statistically significant, H7 is not supported, which means that the impact of SV on FP was not significantly influenced by grading. Grading had no statistically significant influence on the RC-FP interaction term ($p = 0.157 > 0.05$), which means H8 is not supported, since the interaction term was not statistically significant.

FP scores were displayed at a variety of grading levels in order to better understand the interaction effects. The graphs show that MC and TC had a beneficial influence on FP for all groups. 3 Stars (Figs. 3) have the most impact. The plots show that MC and MC had a favorable influence on FP for 3 and 4 stars, but for 5 stars, the results were negative (Figs. 4)

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