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Assessing the Impact of Digitalization Practices on the Saudi SMEs' Strategic Management Implementation

Alamzeb Aamir
Department of Management Sciences, FATA University
Email: alamzeb.aamir@fu.edu.pk

Sharif Ullah Jan
Department of Management Sciences, FATA University
Email: sharifullah.jan@fu.edu.pk

ABSTRACT

A tech-savvy population and increased internet penetration have driven a substantial growth in Saudi Arabia's e-commerce sector in recent years. Adapting business strategies to the digital era requires a reevaluation of organizational management strategies. Hence, the purpose of this study is to examine the role played by the e-commerce in shaping the strategic management with a specific focus on Saudi Arabian Small and Medium Enterprises (SMEs). In addition, this study also explores the factors that moderate the relationship between the strategic management and e-commerce. To serve these purposes, the paper conducts a quantitative analysis of selected Saudi Arabian e-commerce SMEs to explore how they have adapted their organizational structures and cultures to fit the environment, identifies the challenges they face in managing their organizational behavior, and examines the strategies employed by successful e-commerce businesses in the Kingdom. The findings of this study confirms the strong impact of e-commerce on the strategic management of the selected SMEs. Most of the participatory SMEs asserted that e-commerce has brought drastic changes to their business plans and strategies. Similarly, the study has also indicated the major factors as mediators between e-commerce and strategic management. As Saudi Arabian companies navigate the digital frontier, this study contributes to the growing literature in e-commerce and business strategies. The future studies may focus on comparing the Saudi Arabian context with other developed or developing countries and may bring some new insights in the context of managing business strategies in response to artificial intelligence (AI).

Keywords: E-Commerce, Saudi Arabia, Small and Medium Enterprises (SMEs), Strategic Management

INTRODUCTION

An e-commerce business is one that involves buying and selling products and services over the internet, as well as utilizing computer systems to improve overall productivity (Oudan, 2010, p. 19). People often think of e-commerce as doing business online (Ofori et al., 2002). The term "e-commerce" is defined as "the use of information technology to assist in defining and developing new strategies for solving

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business problems" by Ofori et al. (2002). E-commerce has many advantages for businesses. In addition, businesses can benefit from 24-hour access to services, reaching customers directly, satisfying their needs, developing relationships with customers and exchanging information (Gunasekaran et al., 2002), increasing sales and improving productivity (Awa et al., 2015), and reducing costs (Faloye, 2014). A study by Ratnasingam (2009) found that small businesses can achieve competitive and strategic advantages through e-commerce. The use of E-commerce and internet in Saudi Arabia is increasing day by day. According to a report by the Communication and Information Technology Commission (CITC) in 2017, e-commerce is expected to grow by 50 percent in the next ten years. A total of 29.7 billion Saudi Ryals was spent on e-commerce in Saudi Arabia in 2016. Customers bought online from local businesses only 7 percent of the time (CITC, 2017). Hence, all these make it an ideal situation for the Saudi SMEs to adopt and excel with e-commerce and compete in global market.

As e-commerce expands, organizations are changing their methods for operating, interacting with customers, and managing internal dynamics. The phenomenon is not limited to advanced economies but also occurs in emerging markets, such as Saudi Arabia. E-commerce is transforming traditional business practices in Saudi Arabia due to its burgeoning e-commerce sector (Alotaibi et al., 2020). Increasing Internet penetration, mobile device usage, and a tech-savvy population have contributed to the exponential growth of e-commerce in the Kingdom of Saudi Arabia over the past decade (Alotaibi et al., 2020). As Al-Ghofaili and his colleagues (2018) point out, Online retail, digital marketing, supply chain management, and customer relationship management are just a few of the many operations that fall under the umbrella of e-commerce. In response to this transformation, Saudi businesses have had to reevaluate their organizational behavior strategies.

The SME sector is the backbone of Saudi economy and the government does every possible effort to boost this sector to compete with large businesses. E-commerce has revolutionized the way of doing business for these SMEs in the Saudi Arab. It has transformed the traditional brick-and-motor businesses in to fully technological enterprises.

Strategic management and e-commerce are not just academic issues, but have significant practical implications for Saudi Arabian SMEs. It can help them formulate effective strategies to address the challenges and opportunities presented by the digital age. To shed light on successful practices and interventions for adapting to and thriving in an e-commerce environment, this study will examine a variety of practices and interventions that have proven successful. Nevertheless, e-commerce is not so easy to implement, especially in developing countries like Saudi Arabia. The purpose of this study is to examine how the concept of e-commerce is changing businesses' strategies toward a new era of business that is based on advanced technology. E-commerce has only begun to penetrate Saudi Arabian business life in the last few years, so it is unclear how far it will go. In this study, we examine how ecommerce is being adopted by SMEs in Saudi Arabia and how it is affecting business strategies. Furthermore, it attempts to identify the factors that moderate this relationship. This study can provide information and knowledge necessary for policymakers and decision makers to help SMEs grow successfully. This study tends to explore the

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effect of e-commerce on strategic management.

Problem Statement

This study focuses to explore the effects of e-commerce on Saudi Arabian SMEs' strategic management. The reason for undertaking this objective for the study is that e-commerce has now become the essential part of everyday business and fully integrated by the enterprises in most of the developed countries. However, in the developing countries particularly in the Saudi Arabia it is comparatively a new phenomenon. To compete globally in the international market, the Saudi SMEs have to not only realize the importance of e-commerce but they have to embed it in their strategic business plans. As it is inevitable and now became the reason of survival for businesses to digitally transform with all their dynamics (see Wang & Zhou, 2009). The technologically transformed enterprises need to reevaluate and reconstitute their strategic business and plans in context of existing technologies (Lee et al., 2015). If one hand, the e-commerce provides the opportunities to the enterprises to reach their customers 24/7 from anywhere; on the other hand, it requires the enterprises to get rid of their traditional inefficient ways of doing businesses otherwise they will face failure (Oudan, 2010). As stated by Porter (2001, p. 63), "the winners will be those that view internet as a complement to, not a cannibal of, traditional ways of competing". It clearly indicates, that adoption of technology will come with some new strategies but some of the traditional strategies will also be enacted.

Following are the research questions of this study:

What is the effect of e-commerce adoption on the selected SMEs strategic management in Saudi Arabia?

What elements influence the relationship between e-commerce and the chosen Saudi Arabian SMEs' strategic management?

It is vital for Saudi Arabian companies to understand how they manage their business strategies in the era of e-commerce. With a specific focus on the Saudi Arabian context, this study contributes to the growing body of literature on the intersection of e-commerce and strategic management.

LITERATURE REVIEW

Role of SMEs

The SMEs could be defined as the "non-subsidiary, independent firms which employ fewer than given number of employees. This number varies across countries" (OECD, 2005). In this manner, in the European context, an SME is an enterprise that consists of less than 250 employees and in the US context this number is doubled to 500 employees. More specifically, in the context of Saudi Arabia, the SMEs are defined as "any enterprise with an independent commercial registration that has less than 249 employees, and less than SAR 200 million as revenue" (see SMEA, 2017).

The role and contribution of the Small and Medium Enterprises (SMEs) in the economy of a developing country has been ever growing for the last couple of decades (Yilmaz et al., 2016; Alzahrani, 2018; Alzaabi et al., 2021). This is why the number of SMEs has been increases substantially in these days, particularly, in the Kingdom of Saudi Arabia alone this number has crossed 1.5 million. These SMEs contribute more than 25% to the GDP of Saudi Arabia and this number is expected to

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cross 35% by the end of 2030 (Vision 2030, 2016). Most of these enterprises are now digitally transforming and embracing the e-commerce technology in their businesses. In order to leverage e-commerce's opportunities and address its challenges, organizations must adapt their business plans and strategies. Among the many benefits of e-commerce, it enhances the operational efficiency, reducing cost of business, increasing the customer satisfaction, and improvement in the performance of these SMEs are some of the prominent advantages for which the SMEs would implement it (Lee et al., 2015). However, it is also crucial to have a compatibility of e-commerce with the business strategies of these SMEs. Saudi Arabia, as well as other emerging economies, have experienced significant transformations. E-commerce research remains relevant as it assists in identifying strategies and practices for adapting to this dynamic environment.

Strategic Management of Business

Many researchers have attempted to define the business strategy according to their own context and environment. For instance, earlier, Andrews (1971) stated that a business strategy is the patter of decisions in a business that reveals the objectives or goals of a business and sets the strategies to achieve them in an efficient and effective manner to benefit all the stakeholders. Similarly, Porter (1980) defined a strategy in a more concise manner and referred to it as the defensive or offensive actions which are taken in order to compel and hence provide the business with an enhanced rate of returns on the business' investments. In this context, three aspects of the strategic management have been reported by Porter (1998). These included the focus strategy, differentiation strategy, and cost leadership strategy. However, researchers have emphasized more on the cost leading and differentiation strategies (See Dess & Davis, 1984 and Zheng, 2001), as these strategies enable the businesses to compete globally and perform efficiently in the market (Porter, 1998). Digitalization has now become the integral part of the overall strategic management of the businesses. Consequently, the later work of Porter (2001) in context of strategic management was greatly influenced by the integration of internet and information technology in the business strategies. The invention and adoption of digitalization have shifted the focus of the management of the businesses entirely and they are now more inclined to adopt the e-commerce for the purpose to remain in the competition with their counterparts (see Marcelo Torres et al., 2014). Therefore, the businesses have adopt the e-commerce in their strategic management as they must aim to create value differentiation in the market place. As each business is unique in its nature, hence, it needs to formulate their own business strategies, allocate resources and operations to cope with e-commerce (Helms et al., 2008). By the virtue of business strategies, the businesses achieve their organizational goals and remain competitive in the market (Porter, 1998; Lee et al., 2015). From the existing literature, the businesses could find and adopt any of the perspectives for adopting a business strategy such as "positioning approach" (Porter, 1980), the "resource-based approach" (Wernerfelt, 1984), the "diffusion of innovations approach" (Rogers, 1995), and the "dynamic capability approach" (Teece et al., 1997).

Contemporary researchers have also suggested that the organizations have to reevaluate how they manage their business strategies in the era of e-commerce due to

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the rapid evolution of e-commerce. According to Hofacker (2020), mobile e-commerce platforms play a critical role in transforming e-commerce, and Ratten (2021) emphasizes the growing influence of emerging technologies like blockchain and artificial intelligence. Aral et al. (2019) propose redefining business strategies in e-commerce contexts, since conventional theories fail to capture the nuances of virtual work environments. Wang and Zhang (2018) argue that e-commerce disrupts traditional organizational structures, forcing organizations to adopt flexible, adaptive systems. Saran and Chaudhuri (2021) emphasize the importance of communication, leadership, and trust-building when managing remote teams in e-commerce, while Li and Zhang (2020) emphasize cross-cultural management, particularly in international e-commerce. E-commerce organizational behavior has been managed using adaptive leadership (Montani et al., 2020), which emphasizes the ability of leaders to adapt to changing circumstances and promote innovation, whereas Saraswat and Garg (2021) emphasize the use of artificial intelligence to optimize e-commerce teams in various aspects. The importance of autonomy, clear communication, recognition, and a sense of belonging in virtual work environments is identified by Guo et al. (2019). As a result, organizations must adapt their strategies, leadership, and culture to succeed in managing organizational behavior in e-commerce, emphasizing agile leadership, innovative technologies, and a strong commitment to ethical and social responsibility.

E-commerce in Saudi Arabia

Due to the absence of the required legal, financial, and physical infrastructure, e-commerce adoption in developing nations differs greatly from that in industrialized nations. E-commerce models designed for developed countries are often inapplicable and not relevant to developing countries (Gibbs, Kraemer and Dedrick, 2003; Hemple and Kwong, 2001; Molla and Licker, 2005). The majority of businesses in developing countries are small, so e-commerce adoption may be easier, but it may also indicate that e-commerce investment is not sufficiently funded (Goode and Stevens, 2000). In Saudi Arabia, e-commerce has grown rapidly due to businesses adopting digital strategies and entering online marketplaces. This growth is attributed to mobile technology and the internet, according to Alotaibi et al. (2020). Despite e-commerce, Saudi Arabia has unique cultural, regulatory, and economic factors that influence how companies manage their organizational behavior.

Customers can also learn more about a product by reading reviews left by prior buyers. Some online retailers have created applications and websites with engaging and animated demonstrations to entice visitors to visit their online stores. Saudi Arabia, one of the world's richest nations and one of the top three oil producers, frequently worries about the risks associated with its monoeconomic reliance on crude oil. The nation's leaders have worked to diversify the economy since the 1970s (Albassam, 2015). Currently, the government has focused on Information and Communications Technology (ICT) as a way to redirect the economy, especially in the digital age (Esmail, 2018). In 2004, Saudi Arabian banks made their first attempt at online banking payment (Alfuraih, 2008). The ease with which online payments can be made is essential to fostering ecommerce development in Saudi Arabia (AlGhamdi, 2013). To support the country's economy, SAMA established the SADAD payment system in 2004. To facilitate online transactions, collections, and

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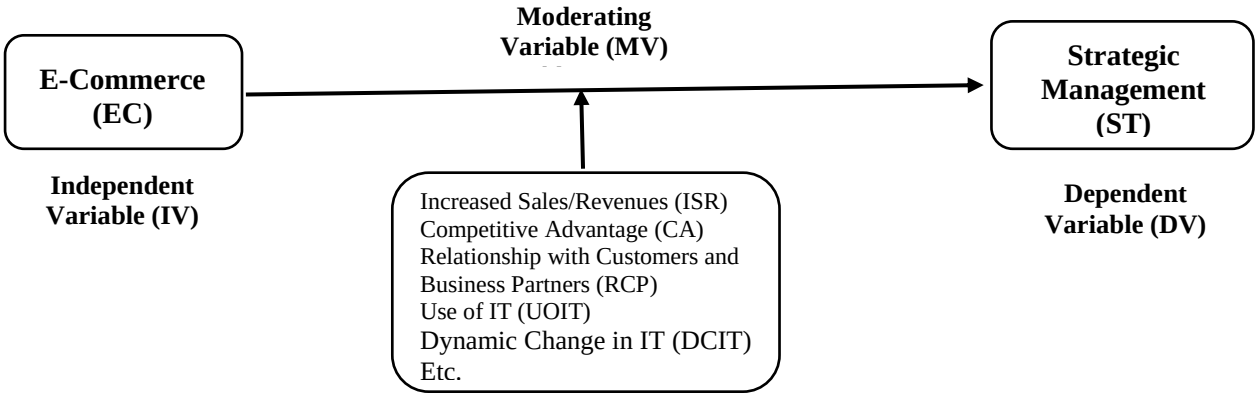
presentation of bills (SADAD, 2020), the SADAD was established. With the government and Saudis supporting electronic transactions, they have become the norm. Online transactions are inevitable because millions of foreigners troop into the country every year for religious pilgrimage, work, and other reasons. Saudi Arabian large businesses use ICT services to deliver prompt and efficient services, though the adoption of e-commerce by consumers is at a low (Alqahtani et al., 2018; AlArfaj et al., 2019). Hence, it is the high time for the medium size businesses to adopt e-commerce for the purpose to not only compete in the market but it is even crucial for their survival.

Conceptual Framework of the Study

May research studies have indicated a significant relationship between e-commerce and strategic management of the businesses (see for instance, Gunasekaran et al., 2002; Oudan, 2010; Lee et al., 2015; Yilmaz et al., 2016; Alzaabi et al., 2021 among others). In addition, the literature also shows that this relationship is moderated by some other factors (see Porter, 2001; Ramanthan et al., 2012; Awa et al., 2015; Hamad et al., 2018). According to these studies, the potential moderator include increased sales, competitive advantage, nature of relationship with customers and business partners, the application of information technology, and the dynamic changes. Hence, the current study will account for all these moderators and proposes the following model (see figure 1):

Figure 1: Proposed Model of the Study



Source: Authors' own generated figure based on the literature reviewed

METHODOLOGY

A quantitative approach was used to test the study topics and conceptual framework. Therefore, a survey of Saudi Arabian SMEs in 2022 provided the data for this study. Questionnaires were utilized to determine what influences e-commerce on SMEs' strategy and to forecast what elements modify this relationship. Based on the data demonstrating the actual shift in SMEs' organizational behavior, it offers some advice to policymakers and small business owners in Saudi Arabia and other Middle Eastern nations.

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Data Collection

A three-part survey was designed to gather demographic data, business information, and questions regarding the relationship between e-commerce and business strategy. These three types of questions included the Likert scale questions along with 5-levels of agreements, category questions were given where the respondents could place their answers against the category available to them, and few questions were given against the "yes" or "no" options. The pilot survey was administered to the academicians interested in the area of e-commerce and the owners of the SMEs. This helped us to make some necessary changes to our questionnaire and also improved the validity and reliability of the instrument. Hence, a healthy coefficient of 0.841 for Cronbach's alpha was obtained.

Sample Size

In context of present study, the sample was decided to include respondents from the owners, managers, and employees of the selected SMEs in Saudi Arabia. Moreover, the total number of respondents in both sample and population was decided based on the table suggested by Krejcie and Morgan (1970). Hence, as the rough figure of the existing SMEs in Saudi Arabia are one million (here, the N=1,000,000) hence, as per the table, the sample should be 384. On a safe side, we distributed 500 questionnaires among the respondents using both electronic and physical mediums. As expected, we got back less than 500 filled questionnaires i.e. 340 questionnaires were retrieved (which constitutes about 69% response rate). More precisely, 332 valid and complete questionnaires were furnished, whereas eight of the questionnaires being defective were excluded from investigation. According to Neuman (2005) the response rate could be calculated by taking the total number of responses received and dividing it by the total number in the given sample and subtracting the non-eligible and non-reachable responses which were nighty percent. Though the response rate of fifty percent and even lower up to 35% are also deemed acceptable for social sciences research where the respondents are representative of organizations (Barunch & Holtom, 2008).

Data Analysis

Survey results were analyzed using descriptive statistics to describe their basic features, such as frequency, tendency, and other characteristics. For testing the proposed model, step-wise multiple regression was performed to predict values and changes in dependent variables due to changes in independent variables. To determine the combination of independent predictors (variables) that best predict the dependent variable (strategic management), forward step-wise multiple regression was used. Based on the results of this study, several factors moderated the relationship between E-commerce adoption (EC) and strategic management (ST). As part of the model moderators, clients and partners are accessed (RCP), IT is used (UOIT), sales and revenues increase (ISR), IT dynamically changes (DCIT), long-term planning is carried out (LTP), access to new markets is realized (ENM) and competitive advantage is realized (CA).

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Profile of respondents

The findings indicate (see table 1) that 66% of the respondents were male, compared to 34% of females, and that the majority of the SMEs' owners and employees were under 40 years of age. Furthermore, 74% of respondents had a BSc or master's degree, making them well-educated. The respondents had relatively short work experience: only 15% had more than 15 years' experience, while 40% had less than 5 years' experience. More than 50% of the respondents (55% precisely) were the owners, merely 10% were the managers, and the rest of the respondents were belonging to the other lower cadre of workers (see the statistics in table 1).

General features of the SMEs

As presented in Table 1, majority of the respondents (i.e. 79.50%) were from the commercial SMEs; whereas, the respondents from the manufacturing SMEs were presenting only 20.50% of the sample. These statistics indicate that most of the Saudi SMEs are commercial in nature and the largest of them were real estate and transformative industries (these two collectively constituted 35% of the SMEs in the Saudi Arabia).

Table 1: Frequency and %ages by Gender, Age, Work Experience, Participant Position, Business Type, and Classification

		Frequency	(%)	Valid (%)	Cumulative (%)
By Gender	Male	218	66	66	66
	Female	114	34	34	100
By Age	Less than 30 years	99	30	30	30
	30-40 years	117	35	35	65
	40-50 years	78	24	24	89
	More than 50 years	38	11	11	100
By Work Experience	Less than 5 years	131	40	40	40
	5-10 years	97	29	29	69
	10-15 years	56	17	17	86
	15-10 years	48	15	15	100
Participant Position	Owners	183	55	52	56
	Managers	35	11	11	67
	Employees	105	32	32	99
	Others	05	02	02	100
	System	04	02	100	
Business Type					
Commercial		64	80	80	80
Industrial		08	20	20	100
Business Classification					
Food And Accommodation		30	09	09	09
Telecommunication		32	10	10	19
Construction		40	12	12	31
Real Estates		58	18	18	48
Retails And Wholesale		50	15	15	63

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Transformative Industry	57	17	17	80
Agriculture	11	03	03	84
Health Care	39	12	12	96
Others	15	05	05	100

Source: Authors' own generated table based on the data collected

Descriptive analysis of studied variables

E-commerce has changed the way SMEs approach organizational behavior, according to organizational behavior, with 65% agreeing and 8% disagreeing. E-commerce can enhance customer and partner relationships (RCP) for the majority of respondents (94%). It is therefore evident that most SMEs formulate their plans based on their relationships with stakeholders. Additionally, 62% of respondents' SMEs included Use of IT (UOIT) in their plans, showing awareness of IT's crucial role in their companies. In addition, 46% of them reported that IT and e-commerce had a positive effect on their sales. As a result, they take this into account when planning and managing their strategy. Many respondents (77%) agreed that they had changed their future planning due to dynamic changes in technology (DCIT), showing the importance of technology in all of these companies. According to 58% of the respondents, e-commerce has changed their approaches to strategic management and planning, particularly long-term planning (LTP). Therefore, we can assume that these SMEs had heard about e-commerce. Lastly, around 54% of the respondents having faith that adopting the e-commerce would bring competitive advantage to their enterprises. In fact, achieving the competitive advantage is one of the core objective of the strategic management. So, in a nut shell, these respondents had strong believes that if their enterprises adopt and stick with the e-commerce, they will get the competitive advantage in the market.

Research Model Testing

The results in Tables 2, 3, and 4 demonstrate how e-commerce adoption directly affects the strategic management of Saudi Arabian SMEs. Additionally, it has been shown that there are eight models that describe the connection between e-commerce and strategic management using a step-wise multiple LRS. 54% of the variation in Saudi SMEs' strategic management can be explained by e-commerce as an independent variable in the first model (and this variation is also statistically significant as R2 = 0.54 and $p<0.01$). The second model introduced the first moderator, "Relationship with customers and partners (RCP)." According to the analysis, the coefficients of these two factors account for almost 65% of the variation in strategic management, which is also noteworthy (i.e. R2 =0.65, $p<0.01$). By introducing the effect of first moderator to the model, the variation has be increased by almost 11% strategic management. When the "Use of IT (UOIT)" as a moderator was included in the main model (model three) and the analysis was run, then the results indicated three variables explaining the relationship with change in strategic management by 73% with statistically significant relationship (i.e. $R^2 = 0.73$, $p<0.01$) and an increase in the variation of the relationship by 8.2%. In the 4th model we included the moderating impact of the variable named "increase sales and revenues (ISR)". Hence, a four percent increase was observed in the variation and the

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coefficient of determination was increased to 77% (more precisely, $R^2 = 0.77$ and the $p<0.01$). A fourth moderator was introduced to the main model (in model five) the name of the moderator was "dynamic change of IT (DCIT)" which further increased the value for the coefficient of determination and now the model could explain up to 79% of variation in the dependent variable due to the explanatory variables. More precisely, the fourth moderator enhanced the overall significance of the model by 2% (i.e. $R^2 = 0.79$, $p<0.01$). The fifth moderator i.e. "long-term planning (LTP)" was added to our sixth main model and due to this, the variation explained by the overall model was increased to 80% from 79% (it is about 1% increase in the variation) for the relationship of e-commerce and strategic management (i.e. $R^2 = 0.80$, $p<0.01$). In addition to all preceding variables, the seventh model also consisted of the sixth moderator named as "entrance of new markets (ENM)". The inclusion of this moderator increased the variation level by 0.1% of the model's R^2 (i.e. now the $R^2 =0.81$, $p<0.01$). The eighth and final model that incorporated the final moderator called "competitive advantage (CA)" along with all previous variables increase the variation of the model up to 82% between the SMEs' e-commerce adoption and strategic management. More precisely, the statistics are now ($R^2 = 0.82$, $p<0.01$). The ßs (Beta Coefficients) for the final model factors are 0.137, 0.191, 0.148, 0.197, 0.149, 0.075, 0.119, 0.047 respectively (see table 4) and the constant is 0.001. Furthermore, based on the statistical analysis, it has been evident that the best model among all the models is the mode eight for predicting the strategic management based on e-commerce adoption. To summarize, based on the findings, it is concluded that there is a positive relationship between the strategic planning of the selected SMEs and e-commerce. In addition, all the selected moderators have also a positive and significant impact in this relationship between the dependent and independent variables. Hence, it is recommended based on the results that the Saudi SMEs are required to formulate their business strategies and planning with respect to the e-commerce environment. In this way, they will not only be capable of competing and developing their competitive advantage but also overcome the ever dynamic and changing environment's challenges.

Table 2: Model Summary Correlation Coefficient between Independent Variables and Dependent Variable (Consumer Behaviour)

Model	R	R^2	Adj. R^2	S.E. of the Est.
1	0.73	0.54	0.54	0.384
2	0.81	0.65	0.65	0.335
3	0.85	0.73	0.73	0.294
4	0.88	0.77	0.77	0.272
5	0.89	0.79	0.79	0.260
6	0.89	0.80	0.79	0.255
7	0.90	0.81	0.80	0.248
8	0.90	0.82	0.81	0.247

Source: Authors' own generated table based on the data collected

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Table 3: ANOVA for step-wise multiple regression analysis of variance and sig.

Model	ANOVA	SS	Df	MS	F-Stat	P-Value
1	Regression	56.68	1,330	56.68	383.26	0.00
	Residual	48.80		0.15		
2	Regression	68.47	2,329	34.24	304.29	0.00
	Residual	37.02		0.11		
3	Regression	77.11	3,328	25.70	297.05	0.00
	Residual	28.38		0.09		
4	Regression	81.21	4,327	20.30	273.43	0.00
	Residual	24.28		0.07		
5	Regression	83.37	5,326	16.67	245.84	0.00
	Residual	22.11		0.07		
6	Regression	84.27	6,325	14.05	215.20	0.00
	Residual	21.21		0.06		
7	Regression	85.43	7,324	12.20	197.20	0.00
	Residual	20.05		0.06		
8	Regression	85.69	8,323	10.71	174.803	0.000
	Residual	19.79		0.06		

Source: Authors' own generated table based on the data collected

Table 4: Coefficients for the independent and dependent variables and sig

	Un-STD coefficients		STD coefficients		
Model	**B**	**S.E.**	**Beta**	**T-value**	**P-value**
1 (Const.)	1.78	0.09	0.73	19.37	0.00
EC	0.46	0.02		19.58	0.00
2 (Const.)	0.80	0.12	0.69	6.38	0.00
EC	0.43	0.02		21.02	0.00
RCP	0.24	0.02	0.34	10.24	0.00
3 (Const.)	0.73	0.11	0.47	6.61	0.00
EC	0.30	0.02		13.04	0.00
RCP	0.22	0.02	0.31	10.75	0.00
UOIT	0.42	0.04	0.36	9.99	0.00
4 (Constant)	0.61	0.10	0.33	5.87	0.00
EC	0.20	0.20		8.36	0.00
RCP	0.23	0.02	0.32	11.96	0.00
UOIT	0.34	0.04	0.29	8.29	0.00
ISR	0.17	0.02	0.28	7.43	0.00
5 (Const.)	0.33	0.11	0.30	3.03	0.00
EC	0.19	0.02		8.08	0.00
RCP	0.22	0.02	0.31	12.10	0.00
UOIT	0.25	0.04	0.21	5.94	0.00
ISR	0.21	0.02	0.34	9.05	0.00
DCIT	0.21	0.04	0.16	5.65	0.00
6 (Const.)	0.35	0.11	0.25	3.27	0.00
EC	0.16	0.02		6.54	0.00

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RCP	0.20	0.02	0.28	10.74	0.00
UOIT	0.22	0.04	0.19	5.43	0.00
ISR	0.21	0.02	0.34	9.14	0.00
DCIT	0.19	0.04	0.14	5.07	0.00
LTP	0.07	0.02	0.12	3.71	0.00
7 (Const.)	-0.04	0.13	0.25	-0.03	0.97
EC	0.16	0.02		6.66	0.00
RCP	0.18	0.02	0.26	9.90	0.00
UOIT	0.16	0.04	0.14	3.70	0.00
ISR	0.20	0.02	0.32	8.90	0.00
DCIT	0.17	0.04	0.13	4.60	0.00
LTP	0.09	0.02	0.15	4.50	0.00
ENM	0.12	0.03	0.13	4.33	0.00
8 (Const.)	0.01	0.13	0.22	0.01	0.99
EC	0.14	0.03		5.32	0.000
RCP	0.19	0.02	0.27	10.15	0.000
UOIT	0.15	0.04	0.13	3.43	0.001
ISR	0.20	0.02	0.32	8.78	0.000
DCIT	0.15	0.04	0.11	3.88	0.000
LTP	0.07	0.02	0.12	3.56	0.000
ENM	0.12	0.03	0.12	4.31	0.000
CA	0.05	0.02	0.08	2.06	0.040

Source: Authors' own generated table based on the data collected

DISCUSSION

This study examined at how e-commerce usage affects company strategy, especially for Saudi Arabian small and medium-sized businesses. The potential impacts of EC, RCP, UOIT, ISR, DCIT, LTP, ENM, and CA on the dependent variable, strategic management (SM), were investigated. The data analysis provides good support for the research framework. The study found a positive correlation between the use of e-commerce and changes in strategic management. The study found that 65% of participants felt that e-commerce positively affects firms' or organizations' strategic planning, which accounts for the diversity in strategic management (R2 = 0.537, p 0.001). However, 81% (R2) of the diversity in strategic management may be explained by model eight, which incorporates moderators and e-commerce. The results of this study confirm that e-commerce has a positive impact on strategic planning and management. E-commerce affects strategic management and business planning in a significant way, as found by Porter (2001), Wang and Zhou (2009), Oudan (2010), Marcelo Torres et al. (2014), Lee et al. (2015), Yilmaz (2016), Alzahran (2018), and Alzaabi et al. (2021). Nonetheless, most of these studies have considered the context of developed countries and ignore the developing countries and particularly the cases of SMEs (as they were focused on the large companies). However, it is now evident that the application of e-commerce in the small and medium size enterprises have the same consequences whether it is a developed or developing country. This why the current study consider the context of SMEs in Saudi

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Arabia. There are many Saudi enterprises who have already adopted the e-commerce but they are facing many challenges. Though transferring the traditional strategies in accordance to digital needs have witnessed improvements with regard to increase in sales, profitability, operational efficiency, and overall performance of the enterprises. As mentioned before, in the case of SMEs these benefits are even greater such as the business is operative for 24/7, reach to the customers and providing the product and services are now possible in virtual manner, and the overall productivity and efficiency could be increased unlimitedly (see Awa et al., 2015). In addition, the marketing and promotion has become wide spread, cost of doing business has reduced drastically and communication and interaction with the customers have also been enhanced many folds (see Gunasekaran et al., 2002; Faloye, 2014). However, one cannot achieve all these benefits unless the e-commerce based strategies are embodied in the strategic management of the firm.

Research Implications

There are theoretical and practical ramifications to the current research. The majority of earlier research was done to examine how businesses might use e-commerce, with some focus on the advantages of doing so. However, the current study has mostly concentrated on how e-commerce affects Saudi Arabian SMEs' strategic management. This study has thereby added to the body of knowledge already available regarding e-commerce and corporate strategy, especially in the context of Saudi Arabia. Additionally, this study has revealed the significance of key moderators in the context of strategic management and e-commerce. Hence this research has provided a broad structure for the future studies to conduct research according to their respective contexts.

The outcomes of this research are advantageous for the organizations, management, and individuals as knowing about the nature of impact of e-commerce on the strategic management would help them to formulate their plans and strategies accordingly. In addition to the regular factors through this research they know better about the moderators. Furthermore, the SMEs would also be getting benefit in formulating their strategies with the help of findings of this study. The findings of this study would also help the policymakers and government authorities in formulating suitable initiatives and policies for corporate sector in the context of KSA. Particularly, the findings would be beneficial for developing technology based SMEs and digitalizing the existing traditional enterprises.

CONCLUSION

The e-commerce around the world and specifically in Saudi Arabia has made local and global markets extremely competitive. Therefore, in order to overcome the difficulties, they are currently encountering, SMEs should modify their strategy in accordance with these dynamic developments. Without a move to e-commerce, Saudi Arabian SMEs will find it very difficult to stay competitive given the recent increases in fees, labor, and taxes. According to the study, there is a high correlation between corporate strategy and e-commerce, and this link can be influenced by moderators. Additionally, a lot of SMEs are open to adapting their strategy to the ever-changing business environment. SMEs are taking on the challenge of e-commerce, but there are

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still certain issues that need to be resolved. Future research is advised to examine the difficulties and barriers that SMEs in developing nations face and develop strategies for effectively using e-commerce. Given that the Saudi Arabian Vision 2030 places a strong emphasis on the development and expansion of SMEs, this research can help SMEs in Saudi Arabia and other nations.

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