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## **The Growth of E-Marketing in Business-to-Business Industry and its Effect on the Performance of Businesses in Pakistan: Marketing Success**

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## **Abstract**

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E-marketing technology usage continues to vary, even with widespread acceptance of the Internet by several organizations. However, there is a lack of empirical studies regarding the use of e-marketing in the small and large businesses of Pakistan and their resulting performance effects. Therefore, the purpose of this paper is to examine the technological, organizational and environmental factors on the business performance working in Pakistan by including use of e-marketing as a mediating variable. Data has collected from marketing department of 259 businesses located in several cities. Results revealed from PLS-SEM showed eight out of nine significant hypothesis directly with use of e-marketing and firm performance and also by including use of e-marketing as a mediating variable, all results found significant except market orientation. Moreover, the results of this study have key implications for the marketing field, as they strain the vital role of marketing persons in the effective implementation of e-marketing in the firms.

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**Keywords:** e-Marketing uses, technology, firm performance, manufacturing, small and large businesses

# **El Crecimiento del E-Marketing en la Business-to-Business Industry y su Efecto en el Rendimiento de las Empresas en Pakistán: Éxito del Marketing**

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## **Resumen**

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El uso de la tecnología e-Marketing sigue variando, a pesar de la extendida aceptación de Internet por parte de varias organizaciones. Sin embargo, hay una falta de estudios empíricos sobre el uso del e-marketing en las pequeñas y grandes empresas en Pakistán y sobre su rendimiento. Por eso, el objetivo de este artículo es examinar los factores tecnológicos, organizacionales y ambientales sobre el rendimiento de las empresas en Pakistán que han incluido el uso del e-marketing como una variable interviniente. Se han recogido datos de los departamentos de marketing de 259 empresas localizadas en varias ciudades. Los resultados del PLS-SEM muestran que ocho de nueve hipótesis significativas están relacionadas directamente con el uso del e-marketing y con el rendimiento de la empresa, también al incluir el uso del e-marketing como una variable interviniente, todos los resultados salieron significativos salvo la orientación de mercado. Aún más, los resultados de este estudio tiene implicaciones importantes para el campo del marketing, ya que atrae el rol vital de técnicos en marketing hacia la implementación efectiva del e-marketing en las empresas.

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**Palabras clave:** usos del e-marketing, tecnología, rendimiento empresarial, manufactura, pequeña y grande empresa

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Recently, the fact that technological change and innovation are fundamental sources of productivity and sustainable growth for a business is widely accepted (Arifin & Frmanzah, 2015; Johnson, Scholes & Fréry, 2002; Markides, 1997; O'Mahony & Ark, 2003). Accordingly, technology adoption and usage is a strategic innovation that is a novel way of engaging with competitors and of improving the financial performance of existing businesses (Ireland & Webb, 2007; Riddell & Song, 2012). Therefore, the successful adoption of technology in the firm significantly "affects industrial competitors" toward achieving growth in the firm's performance (Arifin & Frmanzah, 2015; Barney, 1991; Cornford & Smithson, 2006; Das, Majumdar, Chakrabarti & Chakrabarti, 2013; Kotler & Keller, 2006; Porter, 1985, 1990; Rayport & Jaworski, 2004).

Several studies have discussed the use of modern technology that will enhance firm performance in terms of firm productivity, financial performance, market share growth, and customer loyalty (Lopez-Acevedo, 2002; Lucia-Palacios, Bordonaba-Juste, Polo-Redondo & Grünhagen, 2013; Mutlu & Sürer, 2015). Many researchers argued that technology adoption and usage lowers the overall operational costs (Benitez-Amado, Llorens-Montes & Perez-Arostegui, 2010) by improving efficiency and increasing effectiveness (Rusli, 2012; Sabbaghi & Vaidyanathan, 2008). Furthermore, the industrial sector performance in any country is considered its economic engine, which continuously contributes to worldwide economic development.

Currently, industrial sector performance has gained considerable attention from many academicians and practitioners (Arifin & Frmanzah, 2015). Substantial interest in the field of innovation has significantly supported business operations and aided firms in enhancing their global reach. However, the recent revolution in e-marketing has notably affected the performance of businesses (Eid & El Gohary, 2013; El Gohary, 2012). Therefore, a growing number of organizations are currently using the Internet or other electronic tools to communicate with their trading partners, government institutes, customers, and end-users of their products and services (Ahmad, Rahim, Bakar & Mohamed, 2014; El Gohary, 2010, 2012).

Some studies and findings have also corroborated that a technological communication gap remains extant between the firms and their customers. Likewise, negative market trends, growing global competition, and staff with insufficient ICT skills are other factors for the firms' non-adopting behavior regarding the e-Business model, which significantly affects the relative advantage of electronic business (Morais, 2006; Tandon & Reddy, 2013). However, e-commerce in organizations is growing rapidly to cater to maximum global market shares; for example, a 120% increase in e-commerce trade has been reported in China (Fredriksson, 2013). Conversely, businesses in Pakistan remain reluctant to properly implement e-marketing despite being a cost-effective way to conduct business in this global era.

For this current research, the definition by Straus and Frost (2001) has been used to define e-marketing as follows: "The use of electronic data and applications for planning and executing the conception, distribution and pricing of ideas, goods and services to create exchanges that satisfy individual and organizational objectives". The dawn of the 21st century corresponds to the revolution of novel ideas that are radically influencing the paradigms in almost every field of human activity. However, the world has experienced the demise of severe geographical and communication segregation. In addition, as an economic event driven by technology, globalization has manifested in a shift from a world of diverse national economies to a global economy. Globalization has become a reality and a key economic factor nowadays (Noshab, 2006; Sheikh, Shahzad & Ishak, 2016; Ueasangkomsate, 2015).

In particular, Pakistan has very few businesses using e-business for online sales and promotion especially in B2C markets. Internet users in Pakistan rose to 10.3 million after the launch of 3G and LTE. The scenario that 28% of the country would have Internet access in the next five years is anticipated. However, with numerous new online projects emerging rapidly and extant businesses expecting good growth rates and improved performances, an extensive gap exists in terms of maximizing the e-commerce potential and competing with major regional players (Junaid, n.d.). Maćik, Jóźwik, and Nalewajek (2012) validated that firms are changing their structure to become globalized. According to the World Trade Organization report issued in 2016 regarding the textile growth trend,

Pakistan faces stagnation and even downfall in the overall textile growth, whereas China, India, and Bangladesh have maintained their positions, with India and China in the top three rankings.

Studies have reported mixed findings on the direct effects of e-marketing usage on firm performance. However, few evidence supports the positive impact of e-marketing on firm performance, such as firm growth (Mohamad, Building & Ismail, 2009; Raymond, Bergeron & Blili, 2005), financial gain (Johnston, Wade & McClean, 2007), and competitive advantage (Teo, 2007; Teo & Pian, 2003). The benefits achieved were inconsistent in different sectors given the sizes and regions (Johnston & Wright, 2004). However, in the same perspective, the realized benefits were positively associated with the use of e-marketing (Raymond et al., 2005; Sam & Leng, 2006). Despite all the arguments, the use of e-marketing enhances firm performance. Moreover, studies that linked these two variables are limited. Previous studies have commonly used e-business, e-commerce, and innovation as mediators of firm performance. However, e-marketing as a mediator of firm performance is still neglected by previous researchers.

Moreover, scholars have traditionally focused on western organizations. E-marketing practices increase performance and are necessary for Pakistani organizations, particularly in the textile sector (Lucia-Palacios et al., 2013; Voola, Casimir, Carlson & Anushree Agnihotri, 2012). Furthermore, Iddris and Ibrahim (2015) recommended that establishing a relationship between the use of e-marketing factors and firm performance is necessary. Therefore, the current study examines the effects of e-marketing usage on the performance of small and large businesses in Pakistan. Moreover, Pakistan has lagged in terms of Internet growth. Additionally, its textile sector has been outperformed by regional competitors. In the last few years, access to a global market has notably increased with the help of the Internet. Therefore, organizations operating in these countries are approaching foreign buyers, communicating with their trading partners, and developing ties with government departments to enhance their financial strength and market growth and to satisfy their customers by providing e-marketing services.

Literature in electronic marketing and performance of firms in developing economies is noticeably limited, and the study is extended to include the theories of the adoption and usage of new technology and further

the impact of such technology for the adoption and use of e-marketing in industries. Further, with new advancements and technologies, some privacy and security issues emerged aside from cultural difficulties, technological barriers, lack of top management support, lack of government support and trading partners, limited opportunities to negotiate on prices, and variation in languages (El Gohary, Trueman & Fukukawa, 2008; El Gohary, 2010). This finding is in accord with El Gohary (2012), who revealed that the e-marketing technology is still considered a novel idea, specifically for businesses working in developing countries that have limited funds and tough competition. Accordingly, businesses cannot afford risky investments or irrational decisions, which caused inadequate knowledge of electronic marketing technology among organizations.

## **Literature Review and Hypothese Development**

### **Technological Context and Firm Performance**

In the study by Ahmad, Rahim, Bakar and Mohamed (2014) and a few other studies have highlighted that, relative advantage positively affects the firm's performance, such as growth, financial gain and competitive advantage (Johnston et al., 2007; Qureshi, Keen & Kamal, 2010; Raymond et al., 2005; Teo, 2007). However, the current study is focused to investigate that, how the textile firms perceives those benefits which are linked with use of e-marketing such as; increase of profits & revenues, cost reduction, customer service quality, business operations stability and lastly, the development of new local and foreign market segments.

Furthermore, most of the studies have conducted a research on relative advantage in the context of the SME's and service sector of western countries and the few developing countries as well (Grandon & Pearson, 2004; Li, 2008; Molla & Licker, 2005; Rahayu & Day, 2015; Rahim et al., 2015). But limited studies has been done in the context of Pakistan and particularly the textile sector has been ignored by the researchers as it is a major sector of Pakistan as compare to other manufacturing sectors. So, to clarify the importance of relative advantage towards firm performance, an

empirical study is needed. Hence, based on the above argumentation, the recommended hypothesis of this research is:

**H1:** Relative advantage significant positively related to the firm performance.

### **Organizational Context and Firm Performance**

The extent to which CEOs impact the firm performance is considerably important to scholarly understanding of, how organizations operate; until now, this relation is poorly implicit. Previous empirical studies examined the relationship among CEOs and firm performance used adjustments, though challenging, however suffer from methodological problems, which systematically reduces the relative influence of CEOs on the performance of the firm as contrast to industry and firm effects. However, in this current study, it needs to examine that, how much variance in firm performance explained by heterogeneity in CEOs of small and large businesses in Pakistan (Mackey, 2008; Rahim et al., 2015; Varukolu, 2007).

Furthermore, most of the studies has used top management support as a predictor in the context of the SME's and service sector of western countries as well as in few emerging countries like China, India, Egypt and Taiwan (Al-qirim, 2007; Duan et al., 2012; El Gohary, 2012; Li, 2008; Molla & Licker, 2005; Prasad et al., 2001; Premkumar & Roberts, 1999; Wang et al., 2010). But, on the other hand, limited studies have been done in the context of Pakistan and particularly textile sector has been ignored by the researchers as top management participate in almost all the decisions of the firms, secondly, textile sector in Pakistan is consists of both large and SME's which are mainly owned by the individuals or by families. Thus, in order to clarify the importance of top management support towards firm performance, further empirical investigation is a major focus for current study and needs to fill this gap (PACRA, 2011; Seyal et al., 2004).

**H2:** Top management support significant positively related to the firm performance.



With regard to market orientation, market oriented firms grasp the cultural features that allows them to examine their current capabilities, antedate future capabilities and re-design processes in order to support new ones. Although, there is an evidence, for instance (Deshpande, Farley & Webster, 1993; Narver & Slater, 1990) of the relationship between MO and business performance. Therefore, MO can be a basis of competitive advantage only when, if it is rare in a company industry (Barney, 1991). With the widespread research on market orientation and its relationship with firm performance, firms are increasingly investing in market orientation because it is a capability that involves information generation within firms through external environment. MO is likely to be a rare, valuable and inimitable capability and should consequently generate competitive advantage and improve firm performance as it involves processes and skills that make it difficult for competitors to copy as suggested by RBV theory (Atuahene-Gima & Murray, 2004). Hence, based on above discussion, the suggested hypothesis is;

**H3:** Market orientation significant positively related to the firm performance

### **Environmental Factors and Firm Performance**

A study by Shaher (2012) found that small and large businesses are mainly affected by the ineffective governmental policies, such as lack of R&D and IT implementation. This implies that, IT needs vital attention and development in small and large businesses of Pakistan to avail the opportunities and get maximum market share with respect to its competitors. However, the gap in previous studies was that, they use government support as a predictor in the studies related to technology adoption (e.g. related to innovation, e-business or e-commerce, e-marketing, e-procurement, e-government) based on (Kazungu & Panga, 2015; Tam, 1998; Thatcher et al., 2006) . But very limited studies, that have investigated the impact of government support on firm performance (Shah, Warraich & Kabeer, 2012), so this is one of the issue which needs to be addressed with the role of government support on textile sector performance in the context of Pakistan. However, the results add a positive contribution to the current knowledge of

the study with the help of DOI, RBV theory and TOE framework. Hence, based on the past studies, the suggested hypothesis is;

**H4:** Government support significant positively related to the firm performance.

### **Use of E-marketing as a Mediator**

#### **Use of E-Marketing and firm Performance**

A study conducted by Mzee, Ogweno and Irene (2015) reveals that, organizations who use the E-Marketing in their businesses found that, implementation of E-Marketing is not an expenditure. It will help to communicate with the customers locally and globally. In line, the study of Rahim et al. (2015) highlights that, e-marketing technology uses differs from business-to-business, in spite of extensive acceptance of the internet in business environments. Other than that, e-marketing is a recent technology that has established considerable attention in the industry. Nevertheless, Chen and Lien (2013) claimed that, in spite of the rapid growth of new technologies, leading organizations still use them at a sluggish rate. The study of El Gohary (2012) specified that, the use of e-marketing technology is relatively a new concept, particularly for organizations working in the developing countries, who have inadequate resources and tough competition. Consequently, businesses might not afford to make un-wise investments or incorrect decisions, which caused poor up-take of e-marketing technology between firms and influence the marketing performance of the firm. Hence, on the basis of previous studies, the suggested hypothesis is;

**H5:** Use of E-Marketing significant positively related to the firm performance.

#### **Use of E-Marketing relationship with technological factors and firm performance**

In the study by Ahmad, Rahim, Bakar and Mohamed (2014) and a few other studies have highlighted that, relative advantage positively affects the firm's performance, such as growth, financial gain and competitive advantage (Johnston et al., 2007; Qureshi, Keen & Kamal, 2010; Raymond et al., 2005; Teo, 2007). However, the current study is focused to investigate that, how the textile firms perceives those benefits which are linked with use of e-marketing such as; increase of profits & revenues, cost reduction, customer service quality, business operations stability and lastly, the development of new local and foreign market segments.

Furthermore, most of the studies have conducted a research on relative advantage in the context of the SME's and service sector of western countries and the few developing countries as well (Grandon & Pearson, 2004; Li, 2008; Molla & Licker, 2005; Rahayu & Day, 2015; Rahim et al., 2015). But limited studies has been done in the context of Pakistan and particularly the textile sector has been ignored by the researchers as it is a major sector of Pakistan as compare to other manufacturing sectors. So, to clarify the importance of relative advantage towards firm performance, an empirical study is needed to test the relationship in textile sector of Pakistan to evaluate the findings (Eid & El Gohary, 2013; Haider et al., 2015; Iddris & Ibrahim, 2015; Pakistan, 2015). Thus, on the basis of past studies, the suggested hypothesis is;

**H6:** Relative advantage significant positively related to use of e-marketing.

**H7:** Use of e-marketing mediates the relationship among relative advantage and performance of firm.

### **E-Marketing uses association with organizational factors and firm performance**

In a study conducted by Haugh and Robson (2005) found that, those firms in which top management commitment is more towards adoption process are likely to adopt information technology more rapidly. Consistent with this argument, management support has a strong influence on the implementation of infusion and diffusion systems of intranet in the firms. Therefore, a

researcher claims that, management support motivates to adopt e-marketing technology by giving strength to the firm's technology to become more efficient in internal processes as well as in external communication to reduce customer and trading partner's communication gap and to increase its credibility in the market.

Next, several studies have indicated that, structure of the organizations are becoming more complex and with such density the focus has shifted to include more factors that directly impact on the use of technology within the context of organization. Further examined that, the top management factors could be essential for the success of information systems within organizations because top management support is found as a significant predictor of Internet adoption (Fink, 1998; Premkumar & Roberts, 1999; Tan & Teo, 1998; Thong & Yap, 1995). Thus, based on the past studies, the recommended hypothesis is;

**H8:** TMS significant positively related to use of e-marleting.

**H9:** Use of e-marketing mediates the relationship among TMS and performance of firm.

Besides, There is evidence that, firm capabilities influence innovation adoption (Hult, Hurley & Knight, 2004). There is also evidence that MO positively influences innovation adoption, for instance (Narver et al., 2000), argues that there is a positive relationship between innovation and MO. The current study conceptualizes E-business adoption or E-Marketing adoption/ uses as an innovation. Moreover, Wu et al. (2003) define it as "the use of internet technologies that link customers, suppliers, business partners and employees by adopting at least one of the following activities: (I) websites that offer sales transactions; (ii) customer service websites; (iii) intranets; (iv) extranets; and (v) IP electronic data interchange". Previous studies have shown that, customer orientation positively affects electronic marketing adoption. Furthermore, Han, Kim and Srivastava (1998) define customer orientation as "the adoption of a continuous, pro-active nature toward meeting customer's requirements, which is conceptually similar to MO. Thus, based on the past studies, the suggested hypotheses are;

**H10:** Market orientation significant positively related to use of e-marketing.

**H11:** Use of e-marketing mediates the relationship among market orientation and performance of firm.

### **Use of E-Marketing relationship with environmental factors and firm performance**

Government is reflected as the main factor in the adoption and uses of any innovative technology. Government pushes the firm to adopt and use B2B electronic marketplace in order to operate their marketing-activities and even though governmental intervention in Asian countries has motivated the firms to implement B2B e-business, as it was considered as an important portion of the business environment. Therefore, according to Hu, Wu and Wang (2004) a country's willingness for businesses based on electronic media fundamentally depends on the government backing: promotional activities, governmental grants and also the regulatory values for establishing digital trading environment. But, in order to see the government encouragement for e-marketing usage, an empirical study is required.

Moreover, Seyal et al. (2004) clearly highlights that, the influence of government policies and creativities has shown direct as well as indirect motivation to provide information that produces faster technology. For many companies, government has become a source of funding-infrastructure, but to see the role of government in textile sector, there is a need for more investigation. Therefore, on the recommended hypotheses is;

**H12:** Government support significant positively related to use of e-marketing.

**H13:** Use of e-marketing mediates the relationship among government support and performance of firm.

Conceptual framework

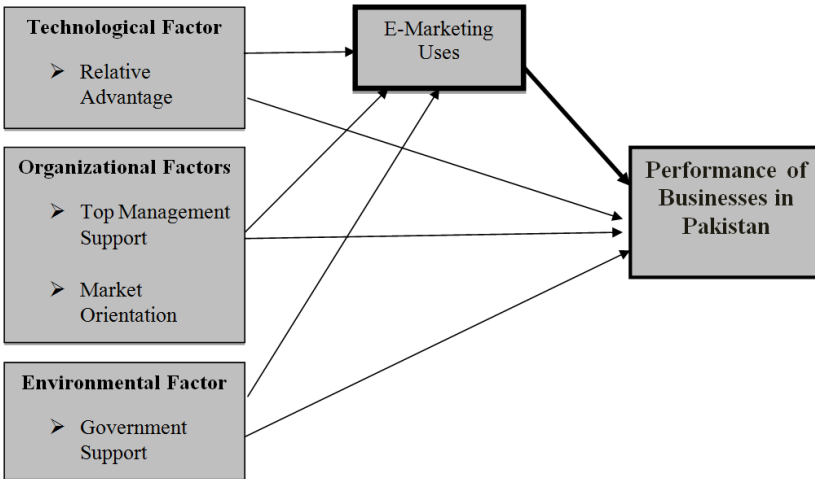


Figure 1. Framework of the Study

## Research Methodology

### Data Collection

The respondents employed for this research are the general manager marketing working in small and large firms of Pakistan. Although, the selected firms are situated in the Punjab and Sindh states of Pakistan as these two states are the main hubs for all type of business. Though, the study is focused on the manufacturing sector due to the main GDP contribution of manufacturing sector in Pakistan. According to Trade Development Authority of Pakistan (TDAP) and Small and Medium Enterprise Development Authority of Pakistan (SMEDA) (2015-2016) report, more than 1500 businesses are working in these two states, which are registered manufacturing firm of Pakistan. Though, according to the rule of thumb by (Hair et al., 2014), only 259 small and large manufacturing firms were selected from Punjab and Sindh states to fulfil the need of this research. However, by using a cluster proportionate sampling technique the firms have

been selected according to their location and numbers from particular area / cities.

Table 1.  
*Response from respondents*

<b>Response</b>	<b>Frequency/Rate</b>
No of Questionnaires	<b>481</b>
Questionnaires Received Back	<b>278</b>
Returned & Useable Questionnaires	<b>259</b>
Excluded Questionnaires	<b>19</b>
Questionnaires not received from respondents	<b>203</b>
Total Response Rate	<b>57.80%</b>
Valid Response after data entry	<b>53.85%</b>

Hence, table 1 shows that only 259 questionnaires were used for subsequent analysis that gives a valid response rate of 54% and total response of 58%. The response rate was obtained comparable to other several past studies using managers of manufacturing sector for instance, 68% by (Hassan, Mukhtar, Qureshi & Sharif, 2012) in the context of Pakistan. According to (Hair, Black, Babin, Anderson & Tatham, 2010) good sample size for the purpose of statistical or quantitative analysis must be at least 10-20 times higher than the total number of variables. Thus, the sample size of the present study is 220 according to rule of thumb suggested by Hair et al. (2014), however, researcher has received 259 questionnaires from the firms, which appear to be much suitable for statistical analysis.

### **Determination of the Sample Size**

After making an area cluster, proportionate sampling has been used with multi-stage sampling, at first stage, the researcher selected overall Pakistan country, after that, the researcher segregates the regions according to the four provinces of Pakistan, which are Punjab, Sindh, NWFP and Baluchistan, in a third step, among four provinces, two provinces were listed down which are Sindh and Punjab province. Though, Punjab and Sindh has further divided into six parts or cities, according to the manufacturing mills location mentioned in APTMA, SMEDA and APBUMA list. Moreover,

these six clusters are Lahore, Multan, Faisalabad, Gujranwala, Rahimyar Khan and Karachi. It has been identified on the basis of location (area) of the small and large manufacturing firms in Pakistan. Specifically, Punjab province has been selected because most of the agro-based firms are operating here. After that, Sindh province includes the sea port in Karachi city which is considered as the hub for imports and exports of the country. However, for the present study, a multi- stages cluster sampling method was used to collect the required number of data for analysis (Allen et al., 2003).

### **Research Measures**

The variables and items of current research have been adapted from the past literature. Though, the research questionnaire is divided into two major parts. The first part contains seven Likert-type scale items and the second part intended to get the demographic data of the respondents. The Likert scale is intended to notice the degree of response about how sturdily the respondents get agree and disagree with a specific question (Sekaran, 2006). Additionally, the aim to select 7-point Likert scale is to provide additional choices to the respondents to the internment of the better capriciousness of respondents attitude and behavior (Hinkin, 1995).

Therefore, several items have been selected, likewise, 12 item scale to measure market orientation has been adapted as given by Narver and Slater (1990). Moreover, 4 item scale to measure relative advantage and 4 items to measure top management support has been adapted from Premkumar, Ramamurthy and Nilakanta (1994). Besides, 6 item scale to measure government support has been adapted from Molla and Licker (2005). Additional, 8 item scale to measure use of e-marketing has been adapted from (Srinivasan, Lilien & Rangaswamy, 2002). Finally, 7 item scale to measure firm performance was adapted from Hooley et al. (2005).



## **Data Analysis and Results**

### **Assessment of the Measurement Model**

Before going to assess the measurement model, assumptions of multivariate analysis instructions regarding screening of the missing data and outlier's has been examined. For instance, regarding missing data, it has been revealed that, one missing value and a mean substitution is used to provide the replacement values for missing data. However, both the multivariate outlier's and the uni-variate has found in the data-set and since the variables of the current study was measured on the basis of 7-point likert scale, and even though not a single observation seems to be on extreme. Therefore, the data considered for current study has been kept for analysis.

Furthermore, the PLS-SEM technique has been used for the theory confirmation and also recommends, where the relationship may exists. However, in evaluating the model, the measurement model has undertook to insure the model reliability as well as validity. Based on PLS (SEM), the assessment of measurement model has been analysed properly by using SmartPLS 3.0 (Ringle et al., 2015). To conclude the measurement model discriminant validity, reliability and convergent validity of the measurement of constructs was observed and keenly examined. The Fig 2 demonstrates the measurement model of current study and on the basis of this, the table 4.1 has been explained.

Before examining the convergent validity, the researcher examined the loadings and cross loading of all the given items of current study variables in order to point out the problems that work as a pre-requirements for the measurement model. According to by Hair et al. (2010, p. 14), the convergent validity is attained when the factor loadings of all the items is higher than the value of 0.5 and none of the loading of any item from other constructs have the higher loadings than the one which suppose to measure. Concerning this current study, loadings are above the threshold of 0.5 as shown Table 2. Moreover, Table 4.1 explains composite reliability, average variance extracted (AVE) and Cronbachs alpha values of all the study constructs.

Moreover, according to (Fornell & Larcker, 1981; Hair et al., 2014) the AVE should be atleast 0.50 and the composite reliability must be accepted at least 0.70 and higher. However, as explained in the given Table 2, all the variables have the high reliability and the average-variance-extracted (AVE) is higher than the threshold value of 0.50 which indicates the reliability of measurement model. The current study calculated the Cronbachs-Alpha to find out, “internal consistency” of the data. Furthermore, George and Mallery (2003) provided the rule of deciding the value “alpha; “ $\alpha > 0.9$ - Excellent,  $\alpha < 0.8$ - Good,  $\alpha < 0.7$ - Acceptable”. However, according to the results of current study as mentioned in Table 4.2 clearly highlights that all variables have “Cronbachs Alpha” value more than 0.6. So this reveals that, all study variables have good consistency.

Moreover, discriminant validity was analysed to determine the model external consistency, on the basis of correlation among the latent variables, however, the value of the variables were compare with the square root of AVE’s. Finally, as explained in table 3 all the correlations among the variables are lower than square root-averages (AVEs) as which are bolded in crosswise.

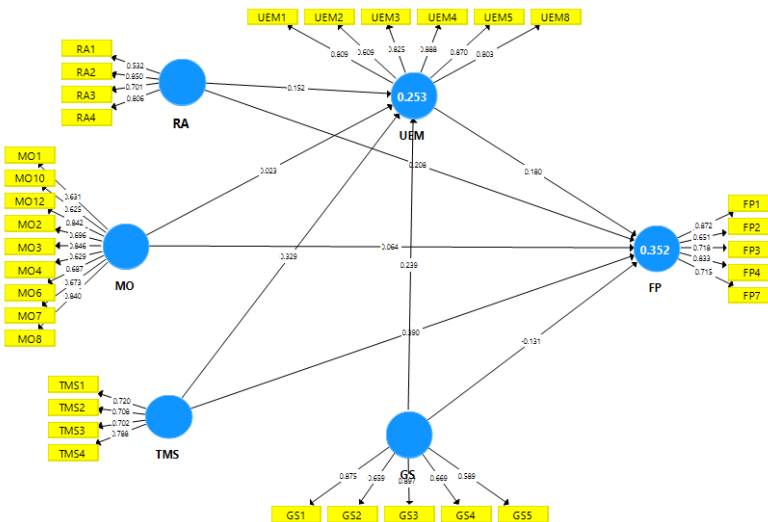


Figure 2. Measurement Model

Table 2.  
*Findings of the Measurement Model*

Construct (s)	Item (s)	Loading's	Cronbach's-Alpha	Composite-Reliability	Average-Variance Extracted
<b>Government Support (GS)</b>	GS1	0.875	<b>0.795</b>	<b>0.861</b>	<b>0.560</b>
	GS2	0.659			
	GS3	0.897			
	GS4	0.669			
	GS5	0.589			
<b>Firm Performance (FP)</b>	FP1	0.872	<b>0.821</b>	<b>0.873</b>	<b>0.581</b>
	FP2	0.651			
	FP3	0.718			
	FP4	0.833			
	FP7	0.715			
<b>Market Orientation (MO)</b>	MO1	0.631	<b>0.897</b>	<b>0.907</b>	<b>0.525</b>
	MO10	0.625			
	MO12	0.842			
	MO2	0.696			
	MO3	0.846			
	MO4	0.629			
	MO6	0.687			
	MO7	0.673			
<b>Top Management Support (TMS)</b>	TMS1	0.720	<b>0.757</b>	<b>0.820</b>	<b>0.533</b>
	TMS2	0.708			
	TMS3	0.702			
	TMS4	0.788			
<b>Relative Advantage (RA)</b>	RA1	0.532	<b>0.692</b>	<b>0.814</b>	<b>0.530</b>
	RA2	0.850			
	RA3	0.7020			
	RA4	0.806			
<b>Use of E-Marketing (UEM)</b>	UEM1	0.809	<b>0.890</b>	<b>0.916</b>	<b>0.649</b>
	UEM2	0.609			
	UEM3	0.825			
	UEM4	0.888			
	UEM5	0.870			
	UEM8	0.803			

Table 3.  
Discriminant-validity of the Constructs

	<b>FP</b>	<b>GS</b>	<b>MO</b>	<b>RA</b>	<b>TMS</b>	<b>UEM</b>
<b>FP</b>	<b>0.7623</b>					
<b>GS</b>	-0.0030	<b>0.7481</b>				
<b>MO</b>	0.1635	-0.1737	<b>0.7246</b>			
<b>RA</b>	0.3740	0.0912	0.2063	<b>0.7325</b>		
<b>TMS</b>	0.5086	0.1680	0.0693	0.2951	<b>0.7303</b>	
<b>UEM</b>	0.3620	0.3047	0.0353	0.2753	0.4160	<b>0.8058</b>

### Structural Model Assessment

After the assessment of measurement model, the structural model was assessed by using SmartPLS 3.0. However, following tests in the the structural model has took place which includes; “hypothesis testing with path coefficient and T-value, effect size and predictive relevance of the model were examined”.

### Direct Effect and Hypothesis Testing

In SmartPLS, structure model gave inner-modeling analysis of the direct association between the variables of the study icluding t-values and path coefficients. As claimed by Henseler et al. (2009), the path coefficients are similar to regression analysis and standardized beta coefficient. Wherever, the beta values are the coefficients of regression and t-values are analysed to decide the significance level of the constructs. However, on the basis of rule of thumb revealed by Hair et al. (2014), which explains that Bootstrapping method was performed (with 5000 sampling iterations for 259 cases / observations) to determine the beta-values of the coefficient of the regression and also the t-values which must be greater than 1.64 in order to considered resulted value significant. So that to use the derived results for further decision mking on the proposed hypothesis.

The main objective of current study is to weight on model evaluation by analysing the direct relationships and also to test the proposed hypothesized

relationships among the variables with the help of structural model. However, in current study nine (09) hypotheses having direct relationship's were analysed, from which seven (7) out of nine (09) were resulted supported and only two (02) were resulted not supported. Moreover, Fig 3 demonstrates the direct effect of every predictor on the dependent variable.

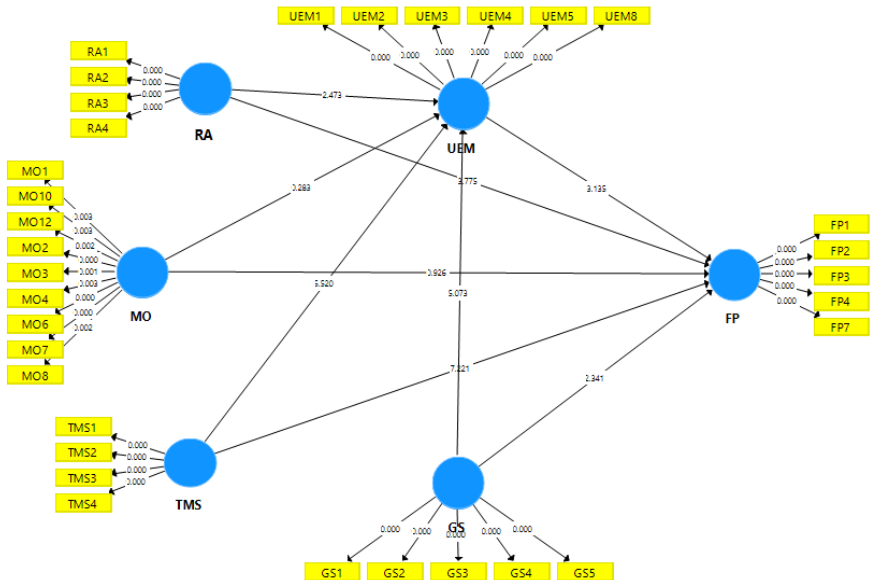


Figure 3. The Structural Model Direct Relationships

Table 4 shows that all hypotheses which has been accepted and supported must have t-value greater than the threshold value of 1.64 and those hypotheses whose t-value (s) are less than 1.64 has been rejected otherwise. Furthermore, Fig. 3 fully explains Table 4.3 and highlights the effect of all variables on the dependent variable (firm performance). The R-square value has been resulting from the output of SmartPLS explains that, bu putting all the constructs together have the propensity of influencing the changes in DV by 35%.

Table 4.  
*Summary of Direct Hypothesis Testing*

Sr-no	Hypothesis	Beta	SD	T Statistics	P Values	Decision	Effect Size	Q2	R Square
1	GS -> FP	-0.088	0.054	1.636	0.051	supported	0.023	0.183	0.352
2	GS -> UEM	0.239	0.047	5.073	0.000	supported	0.071	0.147	0.253
3	MO -> FP	0.069	0.064	1.065	0.143	Not Supported	0.006		
4	MO -> UEM	0.023	0.081	0.283	0.389	Not Supported	0.001		
5	RA -> FP	0.235	0.056	4.187	0.000	supported	0.057		
6	RA -> UEM	0.152	0.061	2.473	0.007	supported	0.027		
7	TMS -> FP	0.449	0.048	9.331	0.000	supported	0.185		
8	TMS -> UEM	0.329	0.060	5.520	0.000	supported	0.129		
9	UEM -> FP	0.180	0.057	3.135	0.001	supported	0.037		

### Mediation Model

Resampling mediation-technique (bootstrapping) has been used in current study to examines the indirect effects of each variable. Similarly, most of the studies shown that “Bootstrapping is a non-parametric re-sampling procedure” and receiving more responsiveness because this technique is considered as most potential procedure to test and analyse the effect of mediation (Zhao et al., 2010; Hayes, 2009). Furthermore, as recommended by Hair et al. (2014) that, PLS (SEM) bootstrapping technique for mediation analysis is known as best suited for quatitative studies because it is appropriate for small samples as well. However, in line with the recommendation of Hair et al. (2014), at the time of doing analysis of mediation effects, one must follow the procedure of mediation as explained by Preacher and Hayes (2004, 2008) and bootstrap the distribution of sampling of in-direct effects which works for simple as well as for multiple models. Thus, this study has examined the influence of use of e-marketing as a mediating variable by using SmartPLS 3.0 (Ringle et al., 2015) using the bootstrapping technique by doing re-sampling of 500 to determine the t-value.

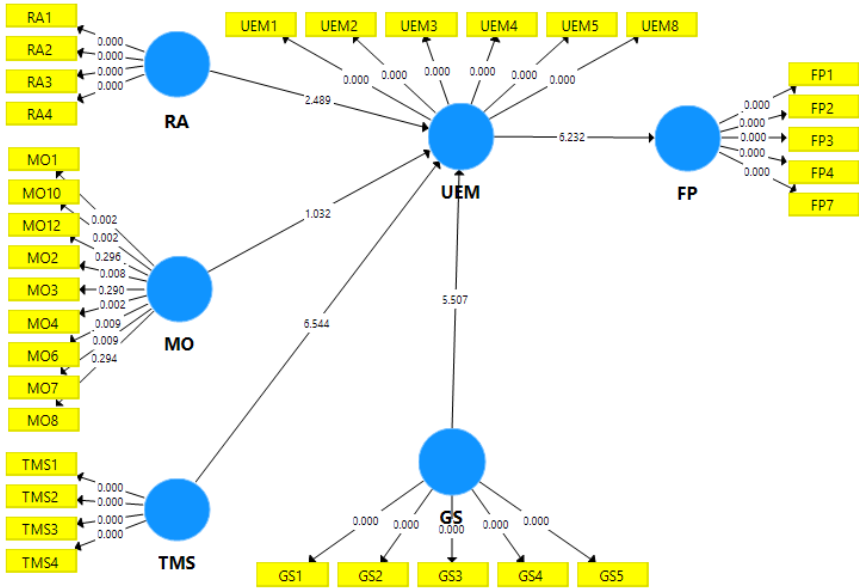


Figure 4. The Indirect Effect of Use of e-Marketing

In current study, after examining the assessment of structural model it has been found that, from four independent variables included in the structural model three independent variables which are competitive pressure, top management support and technology orientation were significantly associated with use of e-marketing and firm performance. However, Table 5 shows the results of mediation effect of use of e-marketing on the relationships between latent variables and dependent variable.

Table 5. Mediaton Results

Hypothesis	Beta	SD	T Stats	P Values	5.0%	95.0%	Results
GS -> UEM ->FP	0.0909	0.0179	5.0764	0.0000	0.0632	0.1220	Mediation
MO -> UEM ->FP	0.0346	0.0332	1.0401	0.1492	-0.0443	0.0704	No Mediation
RA -> UEM ->FP	0.0507	0.0246	2.0564	0.0199	0.0188	0.0994	Mediation
TMS -> UEM -> FP	0.1247	0.0356	3.5003	0.0002	0.0778	0.1957	Mediation

Lastly, table 5 explains that, three variables out of four shows mediation which includes government support with the t-value of 5.08, top management support with t-value of 3.50 and relative advantage with t-value 2.06, it shows significant partial mediation except Market orientation (MO) which become weak and insignificant after intervening of use of e-marketing as a mediator between the relationships.

### **Predictive Relevance of the Model**

Moreover, to test the predictive relevance of the model, current study has used blindfolding procedure as given in SmartPLS 3.0. Therefore, to assess the predictive capacity of the model blindfolding procedure was considered. Predictive relevance is also known by the denotion of Q2. Furthermore, as explained by Hair et al. (2014) that Q-value is acquired by using the blindfolding “to assess the parameter estimates” and also assess “how values are built around the model”. The results retrieved from blindfolding output through variable-score from which cross-validated redundancy has been extracted. These cross validated redundancy analysed the capacity of the model to predict the relevance of dependent variables and also explicates the quality of the overall model. Therefore, Table 6 describes the variable cross-validated redundancy. Table 6 also reveals that in four (4) column, Q2 illustrates the predictive relevance of 0.183 for firm performance (FP) and 0.150 for use of e-marketing (UEM) that confirms the model predictive relevance.

Table 6.

*Predictive Relevance*

<b>Total</b>	<b>SSO</b>	<b>SSE</b>	<b>1-SSE/SSO</b>
FP	1285	1050	0.183
UEM	1542	1314	0.150



## **Discussion and Conclusion**

The purpose of this research is to investigate the mediating role of UEM (use of e-marketing) between technological, organizational, environmental factors and the performance of small and large firms in Pakistan. Contrariwise, this research paper has identified the link between e-marketing uses and the performance of firms working in Pakistan. The important hypotheses resulted that UEM mediates the relationship among its antecedents and the performance of businesses in Pakistan. The results established that UEM by the enterprises positively impact on firm performance; hence, it can be determined that higher the e-marketing use by the businesses, higher is the probability of distended corporate performance. The results relates with past literature which explains that e-marketing uses supports to drive business performance, which contingent that adoption and use of technology like e-marketing indicates opportunities for the business which are broadly reflected as a strong driver to attain business performance (Sheikh et al., 2016).

The results of this research explains that top management support, relative advantage and government support indirectly related with the business performance through use of e-marketing as a mediation, though, after analysis the hypotheses, the research argues that UEM mediates the association between technological, organizational and environmental factors excluding one factor which is market orientation resulted insignificant also concurred with past literature (Han, Kim & Srivastava, 1998).

Awan & Zhang (2013) and Mzee, Ogwenno and Irene (2015) clarifies that electronic marketing is growing rapidly and becoming a essential tool for the businesses, although, this research has strained to examine the connotation among internet marketing uses and business performance in underdeveloped countries because there is still lack of empirical studies in this particular field. Also, e-marketing adoption to attain business performance in Pakistan is still on its infancy stage and factors such as relative advantage, top management support, market orientation and government support have yet to be explored. However, current IT infrastructure is not helpful in Pakistan to progress marketing performance, so in current situation, early adoption of technology is very important (Sheikh et al., 2016).

The other main purpose of this study is to investigate the direct relationship between technological, organizational, environmental factors with the performance of businesses in Pakistan. Therefore, on the basis of direct relationships, the research results identified that relative advantage (RA), top management support (TMS) and government support (GS) has a noteworthy relationship with use of e-marketing (UEM). Furthermore, top management support and relative advantage is positively linked with firm performance. Besides, government support has revealed significant negative link with performance of businesses in Pakistan. Regrettably, MO has resulted insignificant both directly and indirectly by inclusion of mediation. Though, the insignificant result of market orientation concurred with past literature (Han et al., 1998; Shehu & Mahmood, 2014).

Finally, this research has tried to fill the gap in the existing literature on firm performance and e-marketing usage, where prevailing clarifications have concentrated on the market characteristics, firm's technology through the awareness of e-marketing uses. Theoretically, the current research has contributed in the existing knowledge of literature and also by extending the related theories to increase the performance of businesses working in Pakistan. Conclusively, this research has enriched the literature by examining the relationship between UEM and performance of firms in dynamic process as well as in rapidly changing environment with the support of several independent variables. Besides, the practical contribution is concerned the conclusions of this research, probably facilitate the policy makers, industrialists, general manager marketing and management of manufacturing firms to develop technology related strategies more efficiently.

### **Implications**

In terms of academic implications, the research can be considered unique in the field of e-marketing in general and e-marketing in small and large businesses of Pakistan in particular. This study provides empirical evidence for the theoretical relationships hypothesized in the research framework. Specifically, it highlights the mediating role of the use of e-marketing on the relationship between technological factor which is RA, organizational

factors which are TMS and MO, environmental factor which is GS and their effect on performance of small and large businesses in Pakistan.

The first significant implication of this research in the e-marketing field is not only based on validating TOE model and DOI theory in the context of e-marketing adoption, but also the extension of these two to increase their ability to illustrate this adoption. This study proposed and examined the factors that affect the use of e-marketing by extending TOE and DOI to include factors that are more related to the performance of small and large businesses in Pakistan. However RBV is discussing about the tangible and intangible factors which are helping the firm to achieve better performance. Thus, the study helps researchers to have a deep understanding about the different relationships among RA, TMS, MO, GS with use of e-marketing as well as their relationship with small and large businesses performance directly and indirectly by use of e-marketing as a mediating variable. Consequently, it confirms that the use of e-marketing depends on the perceptions of corporate owners and marketing managers about its effectiveness.

Finally, employing the same logic and based on the same findings, as well as findings related to the current practices of e-marketing by Pakistan businesses, the Pakistan government through its ministries, agencies (Ministry of Textile, Pakistan, Small and medium enterprise development authority-SMEDA) can use the e-marketing adoption model developed within this study as well as its findings to increase the levels of e-marketing adoption, diffusion and practices by businesses to have a positive impact on Pakistan economy performance. Practically, this study has strength for managerial applications by using e-marketing in the system of manufacturing sector of Pakistan.

### **Limitations and Future Recommendation**

Despite several significant contributions highlighted in this study regarding performance of businesses in Pakistan, it has several limitations that need to be identified. Firstly, the potential limitation of this study relates to the measures of the constructs used in this research work. The variables in this study were measured as a one-dimensional variable. However, variables of

the current study can give more information if considered as multi-dimensional. Therefore, further investigation on the relationship between these variables and firm performance using multi-dimensional scale is a fertile area of research.

Secondly, the study adopted cross-sectional design for the survey in which the opinions of respondents was captured at one specific point in time. Thus, due to the cross-sectional nature of this study, it is restricted in proving causal relationships between the variables (Sekaran & Bougie, 2010). As the data was collected at one time, this might not permit the data to represent long-term behaviors of the firms. In view of these restrictions, a longitudinal study is suggested for future research. This may help researchers get more understanding on the subjected matter and validate the findings from cross-sectional studies.

Thirdly, this study examined the mediating role of the use of e-marketing on the relationship between TOE factors and performance of businesses in Pakistan. The independent variables tested in the study were confined to performance. Other factors that belong to TOE factors can be used to extend the framework proposed in the study.

For future research, the current study adopted quantitative method and rely on a single method of data collection. In other words, the questionnaire was the only instrument used in gathering the data in this study. Thus, the responses may not consistently and accurately measure the study variables. It will be of interest if future studies combine both quantitative and qualitative methods to carry out an in-depth investigation on the performance and use of e-marketing in the industry of Pakistan.

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