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Full length article

E-marketing implementation in small and medium-sized restaurants in Palestine



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ARTICLE INFO

Article history:

Received 18 June 2017

Received in revised form

19 April 2018

Accepted 4 July 2018

Keywords:

E-marketing

Small and medium-sized restaurants

Technology Acceptance Model (TAM)

Innovation Diffusion Theory (IDT)

Technology-Organization

Environment (TOE)

Marketing performance

ABSTRACT

This study investigates the factors affecting the acceptance and implementation of E-marketing and its impact on marketing performance in small and medium-sized restaurants (SMRs) in Palestine. Potential factors were derived and conceptually-modelled for analysis based on popular technology acceptance models in literature. Three contexts (technological, organizational and environmental) with sixteen factors were hypothesized to influence E-marketing in the SMRs. Relevant data were gathered from a randomly-selected sample of 223 SMRs working in Palestine. Data were reported by participants using a self-report questionnaire. Pearson correlation and multiple linear regression were employed to analyze the collected data. The results revealed that all individual hypothesized factors have positive significant impact on E-marketing implementation. Regression models indicated that relative advantage, customer pressure and market scope have significant positive impact on implementation. The regression analysis also shows that E-marketing has a positive significant impact on marketing performance. The implications of this study which would benefit all stakeholders within the SMRs context are highlighted.

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Peer review under responsibility of Holy Spirit University of Kaslik.



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1. Introduction

Looking to the world economy in the present era, one finds that it is shifting from commodity-linked stage only to the stage of value creation, employment and economic wealth (Dehkordi et al., 2012). Such shift in the global economy is concurrently accompanied by enormous revolutions in information and communication technology (ICT) which have contributed to change the way that businesses are conducted. Marketing is one of the crucial functions employed in businesses that have been affected by such changes, leading to the emergence of the so-called electronic marketing or E-marketing (Eid & El-Gohary, 2013; Tan, Chong, & Lin, 2013; Babalola & Babalola, 2015). The E-Marketing Association defines E-marketing as “the use of electronic data and applications for planning and executing the conception, distribution, promotion and pricing of ideas, goods and services to create exchanges that satisfy individual and organizational objectives” (Bothma & Burgess, 2007, p. 19). Other definitions of E-marketing are also given in Literature Review in Section 2.

E-Marketing is becoming more essential in the present era, which is characterized by global markets, intense competition and open borders (Gilmore, Gallagher, & Henry, 2007). In addition, modern and diverse means of communication enabled customers to access to each product or service quickly without bothering about time and location (Sheth & Sharma, 2005). All these developments have made it incumbent on the institutions to consider new ways of marketing and reshape the traditional methods of it in order to maintain up its survival and occupy a competitive place among others (Ali et al., 2015; Babalola & Babalola, 2015).

Sustainability of marketing features has been affected positively from the development and use of technology (Mokhtar, 2015). The benefits that can be achieved from E-marketing are very huge. Sales growth and cost reduction are of the most important opportunities provided by the Internet – that part of the technology, which has become a widespread tool among institutions (Yannopoulos, 2011). Gilmore et al. (2007) also state other benefits of E-marketing including reaching more markets with less expenses, using E-mail to market products and reduce the need to print leaflets for products (less costs). In addition, using effective web site will help them to react with customers speaking different languages to answer their questions about products and services. Expansion of distribution channels, more valuable products, staying close to customers, listening to their demands and raising sales – are other benefits that can be cropped from E-marketing (Babalola & Babalola, 2015). Also, marketers can gain new customers, new brands, new markets, new market leaders, new market channels and marketing tools (Tiago & Tiago, 2012; Davidavičienė, Sabaitytė, Davidavičius, & Potapov, 2014). Furthermore, online activities ease the exchange of products, services, ideas and information, therefore each party fulfils his/her marketing aims (Dlodlo & Dhurup, 2013).

Although various studies have tackled E-marketing acceptance and adoption by small and medium-sized enterprises (SMEs) in developing countries, few of these studies have been conducted in the Arab countries. This shows a big gap in E-Marketing field and specifically E-marketing in SMEs (El-Gohary, 2012). Within the Palestinian context, there is a dearth of research on E-marketing. Some researchers discussed certain topics related to this field. For example, Salem (2016) has tried to examine the factors affecting the way in which the consumers interact with Short Message Service (SMS) advertising in Palestine. The big share of this research discusses Electronic Commerce (E-commerce) in a general way rather than E-marketing in specific. Another study by Herzallah and Mukhtar (2015) investigates the impact of E-commerce adoption on the organizational performance in Palestinian SMEs. On the other hand, Abualrob and Kang (2016) examined the barriers of E-commerce adoption by small businesses in Palestine and Hasan and Zulhuda (2015) have illustrated legal issues and challenges about cloud computing in E-commerce in Palestine.

The desire to know the factors affecting the achievement of a successful E-marketing as a new technology in organizations, stimulates many researchers and academics to study the use and adoption of such information technology (El-Gohary, 2010; El-Gohary, 2012). However, E-marketing is still in infancy especially in developing countries where there is a poor infrastructure, limited resources and strong competition (El-Gohary, 2012). Unfortunately, little research on E-marketing is conducted in the Arab countries, specifically Palestine which has a special particularity attributed to many economic, political, cultural and social reasons.

The purpose of this study is to investigate the factors affecting the acceptance and implementation of E-marketing and its impact on marketing performance in small and medium-sized restaurants (SMRs) working in West Bank in Palestine. Specifically, the current study utilizes technology-organization-environment (TOE) framework, technology acceptance model (TAM) and innovation diffusion theory (IDT) due to their popularity in literature for conducting studies concerning new technology and innovation adoption and acceptance. The Palestinian catering industry (including the SMRs) was chosen to be the application sector in this study because this sector is very active and booming in Palestine. More precisely, according to the last 6 years Palestinian statistical surveys, the number of internal and external tourists visiting the SMRs in Palestine has been increasing and is expected to increase more in the future (PCBS, 2011; 2012b; 2013). As a result of that, a tourist finds many SMRs distributed across all West Bank cities offering diverse meals and dishes offers for local Palestinians as well as visiting customers. To cope with the increasing competition among Palestinian SMRs, top management of these SMRs have started restructuring both traditional marketing and recently applying E-marketing methods (like social media channels) to announce and promote for their services in order to attract more customers. Besides, the catering industry in Palestine is one of the vital sectors employing many Palestinian workers in their SMRs contributing in reducing the unemployment rates among Palestinians living in a country recording high rates of unemployment (Fallah, 2014). The large number of SMRs in West Bank facilitated the conduction of this applied research where a good representative random sample could be obtained and hence the statistical results could be statistically-inferred and generalized to the entire population of SMEs working in West Bank in Palestine.

The latest ICT Business Survey of 2011 shows that there is a high variance in the variable of electronic transactions via Internet; in 2009 the percentage of institutions that have electronic commercial transactions over the Internet is 2.4%, while this ratio

becomes 11.2% in 2011 (PCBS, 2012a). Unfortunately, the Palestinian Central Bureau of Statistics (PCBS) does not have statistics on E-marketing implementation in SMRs. Such lack of statistics stimulates the researchers to conduct more research on E-marketing in these SMRs. To better understand E-marketing in these SMRs, the main factors that affect its adoption and implementation and the impact of E-marketing implementation on marketing performance from the organization level should be investigated. To this end, the ultimate goal of this research is to address the following research questions:

What are the factors affecting the acceptance and implementation of E-marketing by Palestinian SMRs?

Is there an impact of acceptance and implementation of E-marketing on marketing performance as perceived by SRMs' top management?

To successfully, address the above research questions, a thorough survey of pertinent literature and previous studies in different contexts has been conducted basically to identify the influencing factors on E-marketing adoption and implementation in SMRs. The following section presents the relevant literature within this context. The rest of this article is sequentially organized as follows: Section 2 presents a literature review about SMEs, E-marketing, some innovative-adoption models and the impact of E-marketing acceptance and implementation on marketing performance. Section 3 presents the theoretical background, suggests a conceptual framework and debates the influential factors in the suggested framework. Section 4 provides the methodology employed in conducting the study. In Section 5, the statistical data analysis is presented and the results are also discussed. Section 6 provides the practical implications of the findings. Section 7 concludes the results of this work.

2. Literature review

2.1. E-marketing

E-marketing has become a new phenomenon that has started to spread quickly and grow with the development of ICT. Its definition varies between specialists according to their views and backgrounds. Brodie, Winklhofer, Coviello, & Johnston (2007) define it as “a process through which the firm uses internet and other reactive technologies in order to interact with its customers”. While Strauss and Frost (2001) define it as “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 goals” (Strauss & Frost, 2001). For the purpose of conducting this research, the Strauss and Frost (2001) definition is used as it includes all different kinds of products, all goals of the marketing process and it focuses on an important point in achieving the goals and objectives of both parties in the marketing process (the institution and the customer). When one tries to browse the literature about the definition of E-marketing, it is clear that there is a confusion between the following concepts: E-business, E-commerce and E-marketing. The scope of each concept is different. E-marketing is part of E-commerce, while E-commerce is part of E-business (Ali et al., 2015; Dehkordi et al., 2012).

2.2. Small- and medium-sized enterprises (SMEs)

SMEs are an important pillar of the economy in any country, whether developed or developing. There is an ample evidence in the literature that proves the great role played by SMEs in the development of any country. Kuan and Chau (2001) pointed out that SMEs have contributed largely in gross national product (GDP), creating new jobs, and innovation technology in US. Carayannis, Popescu, Sipp, & Stewart (2006) mentioned that 99.8% from enterprises in Europe are SMEs, contributing in two-thirds of the workforce. Besides, SMEs account for a large proportion of the workforce in any country and contribute significantly to boost the economy and create jobs. This also highlights their role in the social system (Alrousan & Jones, 2016). Also, SMEs help in poverty reduction as stated in (Bayyoud & Sayyad, 2016). A review of the literature reveals that there is no consensus on the definition of SMEs, as their definition in the developed countries is different from that in developing countries. Moreover, even in the same country, their definition is affected by the economic situation of the country (El-Gohary, Trueman, & Fukukawa, 2008). Number of employees, total net assets, sales and investment level are the generally used standards to classify these enterprises (Ayyagari, Beck, & Demircuc-Kunt, 2007). While other researchers have used other criteria such as lawful condition, production mode, the property and the industry (Maduku, Mpinganjira, & Duh, 2016).

In Palestine, the Palestinian Central Bureau of Statistics (PCBS, 2016a) classifies enterprises into small, medium and large based on the volume of employment (number of employees) in these enterprises. More specifically, enterprises having from 1 to 4 workers are classified into very small ones and those constitute about 88.1% of total operating enterprises in Palestine while those having from 5 to 9 workers are classified into small ones and constitute about 7.6% of total operating enterprises in Palestine. On the other hand, enterprises having from 10 to 19 workers are classified into medium ones which constitute about 3.2% of the total operating enterprises whereas those having more than 20 workers constituting about 1.1% of the total operating enterprises are classified into large enterprises.

2.3. E-marketing adoption and acceptance by SMEs

Technology and telecommunications sector has witnessed unprecedented development in the recent period. Many new applications and media have emerged leading to improving the business performance in marketing activities by SMEs that have

gained promising opportunities (Gilmore et al., 2007). The web enables SMEs reaching many markets quickly and economically. It links them with new international opportunities, leading to innovative and integrated ways in dealing with the new and old customers (Eid & El-Gohary, 2013). The adoption of information technology (IT) gives enterprises many benefits. It sustains competitive features, minimizes the costs for labour and production, adds value to the products and improves business operations (Nguyen, Van Nguyen, Bui, & Nguyen, 2015a). Therefore, the adoption of a new technology has attracted the attention of researchers and decision-makers long ago. Many theoretical models of adoption and acceptance of new technology have been provided. Such models include technology acceptance model (TAM), innovation diffusion theory (IDT), theory of reasoned action (TRA), theory of planned behaviour (TPB), unified theory of acceptance and use of technology (UTAUT), resource-based theory (RBT), institutional theory (ITh.) and the technology-organization-environment model (TOE). These models differ from each other, where each model focuses on specific things that are different from others. Furthermore, every model is interested in examining certain aspects of the technology adoption process; some are interested in the external environment of the institution and others are interested in technological aspects and specifications for innovations (Shah Alam, 2009). Among the previously-mentioned acceptance models, three of them, namely, TAM, IDT and TOE, are so popular in literature for conducting studies of acceptance and adoption of new technologies. In the following discussion, brief background on these models are given.

2.4. Technology acceptance model (TAM)

TAM is considered the strongest and the most effective model in illustrating the acceptance attitude of new technology (Davis, Bagozzi, & Warshaw, 1989). It is a solid ground that can be relied upon to study the acceptance and implementation of modern technological systems (El-Gohary, 2012). TRA developed by Fishbein and Azjen in 1967 is commonly used to explain individuals' behaviours is the base of TAM (Alrousan & Jones, 2016).

Two variables, perceived usefulness (PU) and perceived ease of use (PEOU) have been considered the fundamental determinants for the customer to accept new technology (Davis, 1989). PU means the extent of a person's beliefs about the enhancement of his/her job performance when using a particular system, whereas PEOU is defined as the extent of a person's beliefs that using a particular system would be effortless. There are many studies that have tested the impact of (PU) and (PEOU) on the adoption of technological innovations. Among the studies that have proven their significant positive impact are Leong, Ooi, Chong, & Lin (2011), Al-Jamal and Abu-Shanab (2015) and Varaprasad et al. (2015). TAM has been experimented in many areas of technology and has proven its success in ability to predict and interpret behaviour towards these various systems. However, a very limited number of studies have been conducted to test TAM in E-marketing (El-Gohary, 2012). TAM has been examined by researchers for more than two decades in various technology fields and it has proven success in predicting and interpreting behaviour towards these technologies. Despite numerous attempts to develop TAM and the appearance of TAM2, TAM3 and UTAUT, TAM is still adequate and successful and still accepted widely in the field of technology adoption. Moreover, TAM2, TAM3 and UTAUT are more appropriate in examination of the adoption of technology by individuals while this research is concerned with adoption at the business level (El-Gohary, 2012).

2.5. Technology-organization-environment (TOE) framework

For successful E-marketing adoption by SMEs, Iddris and Ibrahim (2015) pointed out that successful adoption of new technology requires E-readiness. In other words, the firm must be able internally and externally to adopt, implement and make profit from that new technology. This highlights the importance of internal and external factors in the adoption process. The TOE framework developed by Tornatzky and Fleischer (1990) can be used to find out these internal and external factors. TOE is considered a comprehensive approach in ICT adoption as it contains various internal and external factors (Ramdani, Chevers, & Williams, 2013). Previous studies regarding examining IT adoption from an organizational level have admitted that TOE framework is a successful choice to be used (Alatawi, Dwivedi, & Williams, 2013). It is comprehensive because it includes all aspects related to the enterprise (technological, organizational and environmental). Furthermore, using TOE framework allows for a preferable description of the spread of innovations inside the enterprise. More precisely, TOE describes how the adoption of technological innovations is influenced by technological context, organizational context and environmental context (Tornatzky & Fleischer, 1990).

2.6. Innovation diffusion theory (IDT)

Another new technology acceptance model is innovation diffusion theory (IDT) developed by Rogers (1983). Five characteristics of innovation have been proposed to affect customers' behavioural intention (BI) to adopt innovations in IT. These characteristics are relative advantage, compatibility, complexity, trialability and observability. IDT model is a thorough framework to study an innovation and the accelerated factors of its adoption in an organization. The innovation concept has been associated with new products, ideas, services, methods, and inventions as IDT has been utilized in several areas such as marketing, economics, sociology, and technology management (Chang, 2010). Some studies have tested IDT as a technology acceptance model (Agarwal & Prasad, 1998; Zolait & Sulaiman, 2008; Phuangthong & Malisuwan, 2008). Also, Tornatzky and Klein (1982) have analyzed 75 diffusion articles. Their analysis results in that only relative advantage, compatibility and complexity are strongly-associated with innovation adoption (Giovanis, Binioris, & Polychronopoulos, 2012). On the other hand, many studies have proved that the observability and trialability are influential factors in the enterprise's adoption of ICT. From these studies that demonstrate the importance of

observability in the adoption decision are [Azam and Quaddus \(2009\)](#); [Tan, Eze, and Chong \(2009\)](#); [Seyal and Abd Rahman \(2003\)](#) and [Ramdani et al. \(2013\)](#). While other studies, that have demonstrated the importance of trialability, include [Kendall, Tung, Chua, Ng, and Tan \(2001\)](#); [Brown, Cajee, Davies, and Stroebel \(2003\)](#); [Seyal and Abd Rahman \(2003\)](#) and [Ramdani et al. \(2013\)](#). Reviewing literature regarding organizational IT adoption reveals that IDT is a popular selection in the technological context of TOE framework ([Alatawi et al., 2013](#)). IDT appears as one of the most common, vastly-agreeable between researchers and linked to IT adoption mainly. It has been tested in a very large number of studies and in a variety of technological areas ([El-Gohary, 2012](#)).

2.7. E-marketing implementation and marketing performance

Although E-marketing has become a focus of attention of many researchers, there is a paucity of literature regarding its relationship with marketing performance. Research results show a contradiction in the relationship between E-marketing and marketing performance ([Tsiotsou & Vlachopoulou, 2011](#)). [Wu, Mahajan, and Balasubramanian \(2003\)](#) and [Brodie et al. \(2007\)](#) have found a strong positive relationship between E-marketing and marketing performance, whereas [Coviello, Winklhofer, and Hamilton \(2006\)](#) have revealed that E-marketing and other modern practices are not found to influence performance. To measure the marketing performance, financial and non-financial metrics can be used ([Hacioglu & Gök, 2013](#)). The most frequently used financial metrics are profitability, sales and cash. Concerning non-financial metrics, market share, customer satisfaction, customer loyalty, and brand equity can be used to measure marketing performance ([Hacioglu & Gök, 2013](#)).

Within the context of E-marketing, a new viewpoint by researchers has been considered including other new measures for the success of marketing. More specifically, the researchers have concentrated on some measures such as traffic, visit duration, conversion rate (visit to purchase), catalogue size, sales value, number of transactions, number of users as measured by the number of registered user accounts ([Rowley, 2001](#)). Other researchers such as [Nguyen, Newby, and Macaulay \(2015b\)](#) stressed out that the rapid and effective use of the technology can be used to measure the success of this technology, with the aim of adoption is to reach a desirable result. From the indicators that can be considered to measure the successful implementation of the technology is the return on investment (ROI), increased sales, increased revenue, or an increase in the quality of products and services.

2.8. Theoretical background, conceptual framework and hypotheses

The theoretical background of this study is anchored in TAM, IDT and TOE. Based on the review of literature, this research proposes a model based on a combination of (TAM, IDT and TOE model) to have the best explanation of the factors affecting E-marketing acceptance and implementation in SMRs working in West Bank in Palestine. Consequently, in accordance with these three models, for conducting this research, the factors of accepting and implementing E-marketing in SMRs are classified into three contexts; technological context, organizational context and environmental context. The technological context includes five factors which are relative advantage (RA), compatibility (COM), ease of use (EOU), trialability (TR) and observability (OBS). The organizational context includes six factors which are top management support (TMS), organizational readiness (OR), ICT experience (ITE), organizational culture (OC), type of the product (PT) and the firm size (FS). The environmental context encompasses five factors which are industry sector (IS), support from government and IT vendors (GVS), competitive pressure (COP), customer pressure (CUP) and market scope (MS).

2.9. Technological context

This context includes the five previously-mentioned factors of technology adoption that are both now used or will be used later in organizations. This includes the organization's internal and external technologies ([Tornatzky & Fleischer, 1990](#)). The technological innovations properties are considered effective in adoption and implementation. These factors show how the enterprise will benefit both internally and externally ([Maduku et al., 2016](#)). To investigate the impact of technological factors on E-marketing acceptance and implementation in SMRs in Palestine, the general following hypothesis is formulated.

H1. The technological factors have significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine

Below, the effect of each individual factor in the technological context on the acceptance and implementation of E-marketing is investigated. More specifically, the relative advantage (RA) of E-marketing covers the benefits and advantages that can be gained from adopting and implementing E-marketing. Innovations that have obvious and not-vague features in its effectiveness – strategically and operationally– will give more enthusiasm to be adopted. Some researchers such as [Maduku et al. \(2016\)](#), [Rahayu and Day \(2015\)](#), [Nguyen et al. \(2015a\)](#), [Ramdani et al. \(2013\)](#) and [El-Gohary \(2012\)](#) have tested the RA impact on innovation adoption. They have found a positive and significant relationship between RA and innovation adoption. Based on that, this feature is considered one of the most important factors influencing E-marketing acceptance and implementation in SMRs in Palestine. Accordingly, the following hypothesis is formulated.

H1a. E-marketing RA has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

The likelihood of the innovation's adoption will be more if it is incorporated into the business operations easily. More compatibility (COM) of the innovation means less uncertainty of the possible adapter, more fitness for his/her life and then innovation becomes ordinary to him/her. Several studies have found that there is a significant correlation between COM and new technology adoption including [Wang, Li, Li, and Zhang \(2016\)](#), [Nguyen et al. \(2015a\)](#), [Ramdani et al. \(2013\)](#) and [El-Gohary \(2012\)](#). In accordance to that, the following hypothesis is formulated.

H1b. E-marketing COM has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

The behavioural intention towards innovation use is impacted by the possible adopters' realization degree that it is free from effort. This relationship between the complexity of an innovation and the behavioural intention to adopt it has been discussed much in literature at the level of individuals, but discussed little at the organizational level ([Maduku et al., 2016](#)). This study handles this gap through testing the relation between realized ease of use (EOU) and SMRs' determination to accept and implement E-marketing at the organizational level. Accordingly, we have:

H1c. E-marketing EOU has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Some innovations can be tried while others cannot. Innovations that can be split and tested will be adopted faster than those which cannot be divided. Trialability (TR) helps in understanding the innovation, how it works and then eliminating the uncertainty about it. It is positively related to its rate of adoption ([Rogers, 1995](#)). In the sequel, the following hypothesis is formulated.

H1d. E-marketing TR has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Some innovations' outcomes can be noted easily, while others are difficult to be. The relation between observability (OBS) and innovations' adoption rate is positive ([Rogers, 1995](#)). So the following hypothesis is formulated.

H1e. E-marketing OBS has significant impact (at 5% significance level) on E-marketing acceptance and implementation by SMRs in Palestine.

3. Organizational context

The organizational context means the organizational internal factors that influence the adoption of technological innovation, such as firm size, scope, ICT readiness and awareness among employees, complexity of managerial structure and financial recourses ([Tornatzky & Fleischer, 1990](#)). In the field of SMEs, the organizational factors seem to include the most factors that capture the interest and the focus of researchers ([Ramdani et al., 2013](#)). To examine the impact of this context on E-marketing acceptance and implementation in Palestinian SMRs, the following hypothesis is formulated.

H2. The organizational factors have significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Similar to the technological context, below, the impact of each individual factor within the organizational context on the acceptance and implementation of E-marketing in Palestinian SMRs is examined. Specifically, the support of top management (TMS) in the inception, use and adoption of technology seems apparent in the literature relating to the adoption of technology. It explains senior officials' conceptions and behaviours with regard to the benefits of an innovation and the value it adds to the company when it has been adopted. It assures long-term perceptions, enhanced values, commitment of resources, optimized administration for resources, creating an appropriate regulatory environment, great appreciation of self-efficacy, support to beat on hurdles and fight change. Researchers have handled it as a supportive factor in new technology adoption ([Alatawi et al., 2013](#); [Ramdani et al., 2013](#)). Accordingly, the following hypothesis is formulated.

H2a. The TMS has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Another important organizational factor in the adoption and implementation of technology is the readiness of the organization. It refers to the availability extent of the organizational resources (financial, technical and human) to adopt new technology ([Alatawi et al., 2013](#)). Organizational readiness (OR) has been examined by many researchers. [Rahayu and Day \(2015\)](#)

have found a positive and significant influence of it on SMEs' adoption of E-commerce. [Ramdani et al. \(2013\)](#) have declared that it is a significant organizational factor in determining enterprise applications (EA) by SMEs. As well, [El-Gohary \(2010\)](#) has concluded that the organizational readiness positively and significantly affects E-Marketing adoption indicating that this effect is direct or indirect. Thus, the following hypothesis is formulated.

H2b. The OR has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

There is an incremental relationship between technological knowledge and the adoption of innovations, i.e. the greater the technological know-how owned by the organization, the greater the ability to embrace new innovations. Some researchers have indicated that the most important obstacles to the adoption of innovations such as E-commerce are the inability to gain skills and technological experience as well a shortage of the necessary training. Overall, SMEs that have ICT experience (ITE) will be better able to understand the benefits that IT innovations provide and thus the adoption of these innovations will be easier and faster than that do not have. Others also link the success of the adoption of new innovations in SMEs with the executives' and employees' knowledge in these enterprises of the relationship between these innovations and business activities in it ([Ifinedo, 2011](#)). Based on this argument, the following hypothesis is formulated.

H2c. The ITE has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

The organizational culture (OC) is another major determinant of technological innovation's adoption and implementation by organizations. The adoption of the technology and its success is linked to the existence of a flexible culture that does not resist change. Owner-manager's behaviours, individuality and values are the strongest factors that impact the organizational culture in SMEs. There is a special situation in small enterprises, where key decisions are based on personal judgement, current knowledge and communication skills for managers or owners. In a related context, there must be a communication between management and staff about the change. The employee must be aware of the goal of adoption of the technology, his/her role in this process and his contribution to it ([Nguyen et al., 2015b](#)). Depending on this argument, the following hypothesis is formulated.

H2d. The OC has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

One of the important factors in new technology adoption is the product type (PT). This factor is related to the product characteristics whether tangible or intangible, requires detailed information to be provided to customers, life cycle, etc. Selling products or services online will be a more normal solution in some industries than in others. This is determined by the product's nature and by consumers and suppliers arrangements. Hence, some SMEs adopt E-marketing quicker than others ([El-Gohary, 2010](#)). For this reason, the following hypothesis is formulated.

H2e. The type of the product has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

The firm size (FS) is a vital determinant factor in E-marketing acceptance and implementation because it determines the extent of the institution's ability to provide financial and human resources that are required to adopt this technology. So the greater the size of the enterprise, the greater the ability to provide these resources and thus increasing their ability to adopt and implement the innovation ([Rahayu & Day, 2015](#)). Studies have shown that there is a difference in the ability to adopt innovations and their application between institutions depending on their size. Large institutions have an abundance of money and resources needed for adoption and are thus better able to withstand risks arising. Small enterprises, in spite of their diversity, do not adopt innovations easily. Therefore, the following hypothesis is formulated.

H2f. The FS has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

4. Environmental context

The environmental context denotes to the environment surroundings the organization with regard to business, competitors, government support, suppliers, and customers ([Tornatzky & Fleischer, 1990](#)). Its role in influencing the acceptance and implementation of the innovation cannot be denied ([Ramdani et al., 2013](#)). For this reason, the following hypothesis is formulated to examine the impact of the environmental factors on the acceptance and implementation of E-marketing on SMRs in Palestine. The following general hypothesis addresses the environmental factors.

H3. The environmental factors have significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Investigating the impact of each individual factor includes examining the impact of the industry sector (IS) on IT adoption. It has been proven that the use of technology differs between different sectors and between the sub-sectors (Ramdani et al., 2013; Alatawi et al., 2013). Ramdani et al. (2013) have examined the impact of this factor on the adoption of enterprise applications. They realized that it is influential on ICT adoption. Sectors that require much information processing such as services will adopt ICT, whereas sectors that depend on goods transportation will adopt suitable systems such as point-of-sale systems. To test the impact of industry sector, the following hypothesis is formulated.

H3a. The IS has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

A strong motivator for new technology acceptance and implementation is the government and vendor support (GVS). The capability and the willingness of the enterprise to adopt E-marketing are influenced by the government participation in this process. This participation is conducted through incentives, regulatory initiatives, laws and regulations set by the government. Also, provision of funds, encouraging banks to grant loans to SMEs, exempting those institutions from taxes, provision of appropriate training courses for the staff of such institutions and other incentives are drivers to motivate the acceptance and implementation (El-Gohary, 2010). Thus, the following hypothesis is formulated.

H3b. The GVS has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

The enterprises may find themselves compelled to adopt and implement a technology because of competitive pressures (COP), although that technology will not be useful for them. So the enterprise's positive behavioural intention towards an innovation may result from competitive pressure (Maduku et al., 2016). If any competitor begins using any innovation, the company will find a strong push towards the adoption of this innovation broadly in order to achieve many of the competitive advantages. And, thus the greater the competition in any industry, the greater the likelihood of the adoption of technological innovations (Rahayu & Day, 2015). This leads to the formulating the following hypothesis.

H3c. The COP has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

SMEs may adopt and implement a specific IT because of the pressure from its customers (CUP) or suppliers. This clearly appears in the multinational companies that force its subsidiaries and their suppliers to adopt E-commerce to link in the global production network (Rahayu & Day, 2015). It has been proved that using electronic services to satisfy customers' needs and interact with them easily is a main motivator to innovation adoption. This means that the enterprise is compelled to implement the technology because it believes that its customers expect it to do so (Maduku et al., 2016). Consequently, the following hypothesis is formulated.

H3d. The CUP has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Another influential factor in technology acceptance and implementation is the market scope (MS) of the enterprise. Zhu, Kraemer, and Xu (2003) have interpreted how market scope influences the adoption process of technology through three views. Firstly, when the scope of work is broader, internal coordination costs will increase because the nature of the work becomes more complicated administratively and needs more processing of information. Thus, the digitization of work will reduce these costs. Secondly, search costs and inventory holding costs will increase with the increase in the scope of work. Thirdly, expanding the scope of work of the enterprise will increase the need for cooperation between E-business and traditional business. As a result of the previous reasons, the following hypothesis is formulated.

H3e. The MS has significant impact (at 5% significance level) on E-marketing acceptance and implementation in SMRs in Palestine.

Marketing performance can be ameliorated by E-marketing adoption and implementation. Using technology and the modern marketing tools such as internet, E-mail, smart phones, etc., will decrease the cost resulting from doing marketing activities in a traditional way. As a result, the company will gain more profit and thus effectiveness of marketing will improve. Moreover, E-marketing acceptance and implementation will accelerate the discovery of customers' needs and speeds up communication with them. Also, after selling actions, service quality, evolving new products and customer satisfaction, will improve (Eid & El-Gohary, 2013). Accordingly, the following hypothesis is formulated.

H4. E-marketing acceptance and implementation has significant impact (at 5% significance level) on marketing performance.

Integrating the previously-mentioned three contexts and their factors associated with their formulated hypotheses together results in the conceptual framework of the study. Fig. 1 illustrates the integrated conceptual framework adopted to assess the



Fig. 1 – Conceptual framework of E-marketing in Palestinian SMRs.

factors influencing the acceptance and implementation of E-marketing and the effect of E-marketing on marketing performance in the Palestinian SMRs.

5. Methodology

5.1. Questionnaire design

To collect relevant data on acceptance and implementation of E-marketing in Palestinian SMRs, a self-report questionnaire was designed and validated by three experts in the field. Closed-questions method was used in the design of the questionnaire. This method allowed the respondents (top management of SMRs) to give quick and accurate answers to achieve the desired research purposes. The designed questionnaire consisted of five sections. The first section of the questionnaire consisted of two groups of questions. The first group was related to the respondent's demographic information such as gender, age group, qualification, years of experience in the catering industry and the respondent's nature of work in the restaurant. The second group contained questions related to the restaurant information such as restaurant's working years province name, number of employees in the restaurant and the marketing budget. Then, in the second section, some questions have been formulated to examine the extent of E-marketing acceptance and implementation and which tools are used in the sampled SMRs. A five-point Likert scale was used to measure the statements in this part. Various statements related to the factors that affect E-marketing acceptance and implementation have been carefully selected and placed in the third section. The majority of these statements have been selected from the literature from previous studies in the same field or similar fields in the literature. The aim of this section was to measure the factors that affect the research model. These statements have been placed randomly in the questionnaire to reduce systematic biases as recommended by Sekaran (2006). Finally, Section 4 included questions about the impact of the acceptance and implementation of E-marketing on the marketing performance. Then an open-ended question – as recommended by Sekaran (2006) – was added at the end of the questionnaire to give a chance to respondents to add any further information.

5.2. Study sample

SMRs are selected for the vitality and importance of this field and its rapid development in Palestine. Such development is proportional to the continuous development of the tourism sector in Palestine where the significance of this development is reflected in increasing economic growth. This is because of interrelationship between the catering and tourism sectors with other various productive and service sectors that positively affect the increase in the GDP and the employment levels as Fallah (2014) illustrates. In addition, Fallah (2014) adds that restaurants with cafes and accommodation are the most contributing to the added-value of tourism production.

The geographical coverage of this study is limited to the SMRs working in West Bank territories and does not include those working in Gaza strip as it was very hard to get reliable data from those SMRs due to disconnection between West Bank and Gaza as a result of political issues. Based on the latest 2016s statistics by the PCBS (PCBS, 2016), the total number of SMRs working in West Bank in Palestine is around 525 SMRs, which represents the population size of this study. The size of a random sample for this study

could be determined from this population using several methods. In this research, the sample size has been determined based on Eq. (1) given in Daniel and Cross (2013).

$$n = \frac{Nz^2pq}{d^2(N-1) + z^2pq} \quad (1)$$

where n is the sample size. $z=1.96$ corresponding to a 95% confidence level in the normal distribution, p is the population ratio which is probability of selecting an element from the population. A better estimate of $p=0.5$ (Daniel and Cross, 2013), which yields the largest possible size of the sample, $q=1-p=0.5$, N is the population size and d is the required error value which was taken to be 5%. Having all these values inserted in Eq. (1), one can easily find that the required sample size is around $n=222$ SMRs. To guarantee getting the required number of valid questionnaires, 48 additional questionnaires were distributed, bringing the total number to 270 questionnaires.

5.3. Data collection

The proportional stratified random sample has been adopted to collect data from the SMRs working in West Bank. As the study investigates its themes on the organizational level, one and only one questionnaire has been distributed to each sampled SMR and has been filled by one of the top management representatives (general manager or marketing manager in the SMR). Two hundreds and seventy (270) questionnaires have been distributed to ensure a high rate of response and thus obtain the required sample size. At the end of data collection, 238 of the distributed questionnaires could be restored and 15 invalid questionnaires have been excluded. Hence, the response rate of the questionnaires collection equals 82.6%.

5.4. Data analysis and results

The statistical analysis on the collected data was done using Minitab version 17.

5.5. Reliability and validity of data

To estimate the reliability of the data, Cronbach's alpha has been calculated for the main constructs in the questionnaire where all reported Cronbach's alpha values are found to be greater than 0.7, and hence, the data exhibited acceptable to excellent internal consistency. Content validity has been determined through an inclusive operation of items selection and amendment in the questionnaire's design. Because all items used for measuring the variables have been adapted from previous studies and have been modified for the situation of this study, the content validity has been considered passable.

5.6. Descriptive statistics

Table 1 presents the descriptive statistics of the sampled SMRs. Table 2 shows the descriptive statistics of E-marketing acceptance and implementation as reported by top management of the sampled SMRs accompanied with tools usually employed in E-marketing. As shown in Table 2, almost all sampled SMRs' top managers (99.5%) have affirmed the use of social media (Facebook) as the main channel for E-marketing. This result is not surprising as most of SMRs' customers have Facebook accounts and continuously follow the advertisements and promotion campaigns of SMRs. Besides, top management of SMRs prefer to use Facebook for promotional purposes because they open pages for their restaurants easily on Facebook at zero cost without being charged as well as they can respond to their customers' inquires immediately on Facebook. Other means of E-marketing, as given in Table 2, are common also for E-marketing but with lower percentages of preferences over social media. Based on the conceptual framework depicted in Fig. 1, for each factor the arithmetic mean (average) and the standard deviation of its all corresponding questions in the questionnaire were computed. Table 3 summarizes these descriptive statistics for all factors as well as those for each construct (technological, organizational and environmental) as computed from their respective factors collectively.

The average and standard deviation were also computed for the E-marketing acceptance and implementation collective questions as well as those for the marketing performance collective questions. We notice that all reported averages are greater than the score 3, i.e. participants showed positive attitude towards the E-marketing constructs, E-marketing acceptance and implementation and marketing performance. Next, more detailed statistical analysis on the significance of these attitudes is given to facilitate testing the previously-formulated hypotheses.

5.7. Correlation and hypotheses testing

The purpose of the proposed framework of E-marketing acceptance and implementation is to investigate the factors affecting the acceptance and implementation of E-marketing and its impact on the marketing performance. A thorough literature review has been performed to identify these factors. Then Pearson Correlation has been used to test the effect of these factors. The bi-variate correlations determine if each factor can significantly impact E-marketing implementation. By performing this test, the impact of each factor can be tested and measured despite its association with other foretellers. Table 4 shows the correlation coefficients

Table 1 – Descriptive statistics for the sampled SMRs.

Variable	Characteristics	Percent
Gender	Male	94.62%
	Female	5.38%
Age	18-less than 30	43.95%
	30-less than 41	35.87%
	41-less than 51	14.35%
	51-60	4.93%
	Greater than 60	0.90%
Qualification	Less than high school	5.38%
	High school	26.91%
	Diploma	15.70%
	Bachelor	49.33%
Years of experience	Postgraduate	2.69%
	1-less than 4 years	26.01%
	4-less than 7 years	25.11%
	7-10 years	22.87%
	More than 10 years	26.01%
Nature of work	Restaurant owner	38.12%
	Director of marketing/sales manager	20.18%
	General manager	33.63%
	Responsible for E-marketing activities	8.07%
Restaurant age	Less than 1 year	12.56%
	1-less than 3 years	13.45%
	3-less than 6 years	28.70%
	6-10 years	19.73%
	More than 10 years	25.56%
Province	Ramallah and Al Bireh	26.91%
	Hebron	13.90%
	Nablus	33.63%
	Jenin	10.76%
	Tulkarm	12.56%
Number of employees	Qalqilya	2.24%
	1-4	0%
	5-9	50.22%
	10-19	28.70%
	greater than 20	21.08%
Marketing budget (% from total budget)	Less than 10%	33.63%
	10-20%	23.77%
	21-30%	21.97%
	31-40%	11.21%
	41-50%	6.73%
	More than 50%	2.69%

between the independent variables and the dependent variable. The correlations between the individual independent variables and the dependent variable are all significant at significance level 5% since all p -values are less than 5%.

Depending only on Pearson correlation to test if all the independent variables jointly predict the dependent variable is not favourable. A common demonstration of variance will be missing and some factors will be less significant than others when variables are combined in the analysis. Moreover, because of this, it is preferred to use multiple regression when there is one dependent variable and numerous independent variables as recommended by [Abu-Shanab and Haider \(2015\)](#).

Table 2 – Descriptive statistics for E-marketing and acceptance implementation tools.

E-marketing tool	Yes percent	No percent	Neutral percent
E-mail	53.8%	41.7%	4.5%
Mobile	70.4%	22.4%	7.2%
Internet (web site)	73.5%	15.7%	10.8%
Social media	99.5%	0.5%	0%
Intranet	38.2%	30.9%	30.9%
Extranet	43.95%	26.9%	29.15%
Global search engines	27.8%	47.1%	25.1%
Local commercial electronic guide	77.1%	7.6%	15.3%

Table 3 – Descriptive statistics for the variables of the conceptual framework.

Variable	Number of items	Arithmetic mean	Standard deviation
Technological factors	5	3.7322	0.4053
RA	5	3.7412	0.5697
COM	3	3.8571	0.5414
EOU	3	3.8543	0.5796
TR	4	3.2764	0.583
OBS	3	3.8519	0.589
Organizational factors	6	3.6378	0.4881
TMS	4	3.7744	0.6328
OR	4	3.6386	0.6095
ITE	3	3.7108	0.6694
OC	4	3.6238	0.6317
PT	3	3.8425	0.7033
FS	3	3.2316	0.6948
Environmental factors	5	3.4222	0.4713
IS	3	3.4829	0.6799
GVS	4	2.9272	0.845
COP	3	3.4811	0.6451
CUP	4	3.6809	0.6136
MS	3	3.646	0.6956
E-marketing acceptance and implementation	8	3.7794	0.4262
Marketing performance	10	3.7816	0.5178

Table 4 – Individual correlation coefficients between dependent and independent variables.

Independent variables	Dependent variable		p
	E-marketing acceptance and implementation		
	Pearson corr.(r)		
Technological factors	0.539		0.000
RA	0.527		0.000
COM	0.378		0.000
EOU	0.356		0.000
TR	0.199		0.006
OBS	0.435		0.000
Organizational factors	0.541		0.000
TMS	0.445		0.000
OR	0.487		0.000
ITE	0.298		0.000
OC	0.425		0.000
PT	0.335		0.000
FS	0.372		0.000
Environmental factors	0.508		0.000
IS	0.427		0.000
GVS	0.281		0.000
COP	0.307		0.000
CUP	0.344		0.000
MS	0.493		0.000

Measured at 5% significant level.

5.8. Multiple regression models

As a conceptual framework is proposed, the enter method is an appropriate method for building the regression model. In the enter method all the factors are entered into the model to predict the dependent variable (E-marketing acceptance and implementation). A pure simple linear regression model has been built using the sixteen independent individual factors as regressors on the response variable (E-marketing acceptance and implementation). Model adequacy testing on the model residuals has violated the normality assumption of the residuals (errors), and hence, Box-Cox natural logarithmic transformation on the response variable has been performed to overcome this drawback in the model. Let the response variable E-marketing acceptance and implementation be denoted by Y, then the resulted regression model is given in Eq. (2).

Table 5 – ANOVA test for the regression model (significance level 5%).

Source of variability	DF	SS	MS	F-value	p
Regression	16	0.90576	0.056610	7.00	0.000
Error	106	0.85754	0.008090		
Total	122	1.76330			

Table 6 – Regression coefficients significance testing results (5% significant level).

Term	Coefficients' values (β)	t-Value	p
Constant (intercept)	0.6977	8.20	0.000
RA	0.0747	3.39	0.001
COM	-0.0195	-0.73	0.465
EOU	0.0334	1.77	0.080
TR	-0.0062	-0.33	0.744
OBS	0.0138	0.71	0.477
TMS	0.0363	1.66	0.100
OR	0.0107	0.51	0.610
ITE	-0.0247	-1.17	0.245
OC	0.0090	0.35	0.730
PT	-0.0020	-0.11	0.912
FS	0.0201	1.42	0.159
IF	0.0251	1.53	0.129
GVS	0.0115	0.97	0.336
COP	-0.0275	-1.75	0.084
CUP	-0.0391	-2.09	0.039
MS	0.0519	3.10	0.002

$$\ln(Y) = 0.6977 + 0.0747RA - 0.0195COM + 0.0334EOU - 0.0062TR + 0.0138OBS + 0.0363TMS + 0.0107OR - 0.0247ITE + 0.0090OC - 0.0020PT + 0.0201FS + 0.0251IF + 0.0115GVS - 0.0275COP - 0.0391CUP + 0.0519MS \quad (2)$$

To test the significance of the multiple linear regression model, the analysis of variance (ANOVA) test has been conducted and the results are given in Table 5. The multiple regression results have exhibited a significant model of prediction with a demonstration power up to 44.03% ($R^2=51.37\%$, R^2 -adjusted=44.03%, F -value=7.00, $p=0.000 < 0.05$). Testing the significance of individual factors of the regression model has been done using the (t-test) at significance level of 5% where the testing results are tabulated in Table 6.

Results in Table 6 indicate that only relative advantage (RA), customer pressure (CUP) and market scope (MS) are important and significantly predict E-marketing acceptance and implementation. Accordingly, a revised multiple regression model has been constructed where the response variable (E-marketing acceptance and implementation) has been regressed with RA, CUP and MS. The resulted model is given in Eq. (3).

$$\ln(Y) = 0.7458 + 0.0850RA + 0.0027CP + 0.0667MS \quad (3)$$

This regression model shows that relative advantage, customer pressure and market scope explain 37.87% from the variability in E-Marketing implementation. ($R^2=38.91\%$, adjusted $R^2=37.87\%$). Table 7 summarizes the ANOVA results of the revised model, while Table 8 presents the t-testing results on the regression coefficients.

Table 7 – ANOVA results for the revised regression model (significance level 5%).

Source of variability	DF	SS	MS	F-Value	p
Regression	3	0.98907	0.32969	37.37	0.000
RA	1	0.3097	0.3097	35.11	0.000
CUP	1	0.00035	0.00035	0.04	0.843
MS	1	0.28251	0.28251	32.02	0.000
Error	176	1.55268	0.00882		
Total	179	2.54176			

Table 8 – Coefficients' values of the revised regression model (significance level 5%).

Term	Coefficients' values (β)	t-Value	p
Constant	0.7458	12.78	0.000
RA	0.0850	5.92	0.000
CUP	0.0027	0.20	0.843
MS	0.0667	5.66	0.000

Table 9 – Summary of the simple regression model of E-marketing performance.

Model	R^2				Adjusted R^2
Simple regression model	59.04%,				58.83%
ANOVA test summary					
Source of variability	DF	SS	MS	F-value	p^a
Regression	1	2.3334	2.33336	286.79	0.000
Error	199	1.6191	0.00814		
Total	200	3.9524			
Term	Coefficients' values (β)			t	p^a
Constant	0.9818			17.25	0.000
E-marketing acceptance and implementation	0.2534			16.93	0.000

^a At 5% significance level.

The values of beta coefficients indicate that relative advantage (RA) with ($\beta_1=0.0850$) positively contributes in demonstrating E-marketing acceptance and implementation and hence the corresponding hypothesis H1a is supported. Similarly, the market scope (MS) proved to have a significant positive effect on E-marketing acceptance and implementation with ($\beta_{16}=0.0667$) and hence its respective hypothesis H3e is supported. Accordingly, from all formulated hypotheses, only H1a and H3e are accepted based on the revised regression model, while other hypotheses are rejected. Now, to examine the impact of E-marketing acceptance and implementation, based on the proposed framework, H4 has been formulated. To test this hypothesis, a simple regression model was built to relate E-marketing performance (as a response) with E-marketing acceptance and implementation (as a predictor). Accordingly, the first research question of this study is answered.

Table 9 summarizes all relevant statistical analysis of this model. This simple regression model shows that E-marketing acceptance and implementation explains about 58.83% from the variability in marketing performance. In other words, the table shows that E-marketing acceptance implementation illustrates marketing performance in a very good way. As ($p=0.000 < 0.05$), H4 is supported and, hence, the second research question is answered.

6. Discussion and implications

The aim of this study is to identify the factors influencing E-marketing acceptance and implementation in SMRs in Palestine. To achieve this goal, an overall survey of the literature has been conducted to determine the main factors reported in previous studies as affecting factors. The result is a proposed theoretical framework of E-marketing acceptance and implementation that contains variety of technological, organizational and environmental factors. The proposed research framework has been tested on a random sample of SMRs. Pearson correlation results have shown that there is a positive and significant relationship between all predictors and E-marketing acceptance and implementation. While the regression analysis has shown that only relative advantage and market scope significantly affect E-marketing acceptance and implementation. The results denote that E-marketing acceptance and implementation is positively affected by relative advantage. This means that respondents who have positive conceptions to the advantages of E-marketing will have the highest probability for accepting and implementing E-marketing. This finding is consistent with Maduku et al. (2016). On the other hand, this result contradicts with Seyal and Abd Rahman (2003). The importance of this factor may be attributed to the fact that the enterprises would not adopt technology unless they witnessed a real benefit from it, such as overcoming the performance problems, gaining new business opportunities, reducing operating costs and administrative costs and absorbing business growth as well as many of the good benefits that result from technology acceptance and implementation (Ramdani et al., 2013).

Another significant factor is market scope which has a positive effect on E-marketing acceptance and implementation. This finding agrees with some studies such as Ramdani et al. (2013) who have found that MS has a significant impact on enterprise applications and Zhu et al. (2003) who have found that MS is the strongest factor in E-business adoption. But it contradicts with El-Gohary (2010). An expansive market scope means that the enterprise has many scattered markets. Thus, the technological

innovations become necessary to be able to serve these markets effectively in light of the fierce competition in global markets and this is the case in Palestinian SMRs as well. The results also showed that customer pressure does not influence E-marketing acceptance and implementation. This finding is inconsistent with [Maduku et al. \(2016\)](#), it agrees with the results of [Rahayu and Day \(2015\)](#) and [El-Gohary \(2010\)](#).

The outcomes from the multiple regression analysis have revealed that compatibility does not affect E-marketing acceptance and implementation significantly. This finding is consistent with [Rahayu and Day \(2015\)](#) and [Brown et al. \(2003\)](#), whereas this result is not consistent with the findings of [Wang et al. \(2016\)](#) and [Abu-Shanab and Haider \(2015\)](#). The reason may be that in SMRs there are very little technological applications so compatibility is not necessary. They do not bother about integrating current applications with E-marketing.

Concerning ease of use, the regression analysis elucidated that it has no significant impact on E-marketing acceptance and implementation. This result coincides with the results of [Low, Chen, and Wu \(2011\)](#) while it does not agree with the results of [Nguyen et al. \(2015a\)](#) and [Iddris and Ibrahim \(2015\)](#). The reason for this is the tremendous development in technology and strong appetite to use it, especially since the vast majority of SMRs have accepted and implemented E-marketing through social networks characterized by a large spread and easy to use. Besides, the availability of modern software packages which are ready to use and in a friendly manner.

Regarding trialability, the regression analysis showed that it has no effect on E-marketing acceptance and implementation. This result is consistent with [Azam and Quaddus \(2009\)](#). However, this result is inconsistent with [Ramdani et al. \(2013\)](#). The logical reason for this may be that the initial cost for using E-marketing is not high and they can easily get out after testing E-marketing. Observability looks ineffective in E-marketing acceptance and implementation as the results of the regression analysis showed that. This result has been supported in [Kendall et al. \(2001\)](#) but has not been supported in [Ramdani et al. \(2013\)](#). E-marketing is still a modern application in SMRs. It should be applied for a long time to judge the experiences of others and take advantage of them.

Unexpectedly, the regression analysis results yielded that the support from top management is insignificant in E-marketing acceptance and implementation. This finding matches with [Wang, Wang, and Yang \(2010\)](#) but does not match with [Maduku et al. \(2016\)](#). This result may be due to the fact that E-marketing is still in its early stage and is lacking the full support of top management. Organizational readiness has emerged as ineffective in E-marketing acceptance and implementation according to regression analysis results. This finding agrees with [El-Gohary \(2010\)](#) and [Wang et al. \(2010\)](#), while it does not agree with [Rahayu and Day \(2015\)](#) and [Ramdani et al. \(2013\)](#). In the surveyed SMRs, the majority implement E-marketing through social networks which do not need high organizational readiness.

Surprisingly, ICT experience seems not significantly impacting E-marketing acceptance and implementation. [Ramdani et al. \(2013\)](#) and [Ifinedo \(2011\)](#) have found that ICT experience does not affect technology acceptance and implementation. However, [Dholakia and Kshetri \(2004\)](#) have found that advanced knowledge of the use of technology affects the participation of SMEs in the internet implementation. Perhaps the reason for this surprising result is the simplicity of E-marketing applications used in the case of SMRs and the lack of need for such specialized expertise. Again, surprisingly, the results have shown organizational culture as insignificant in E-marketing acceptance and implementation. This result agrees with [Rapp, Rapp, and Schillewaert \(2008\)](#), while it is inconsistent with [Nguyen et al. \(2015b\)](#) and [El-Gohary \(2010\)](#). As mentioned earlier, E-marketing is still in its immature stages and employees in SMRs do not realize until now all the concepts related to it.

In regard to product type, the results of regression model exhibited it as insignificant in E-marketing acceptance and implementation. This result matches with [El-Gohary \(2010\)](#), while contradicts with [Wang et al. \(2010\)](#). The justification for such a result may be because SMRs do not rely on E-marketing heavily. They only need to communicate with customers and to disseminate some information about their meals and services.

The firm size in the regression model seems to have no impact on E-marketing acceptance and implementation. This result agrees with [Rahayu and Day \(2015\)](#), but it does not agree with [Wang et al. \(2016\)](#) and [Ramdani et al. \(2013\)](#). A possible justification for this result is that the size of the enterprise determines the extent of its ability to provide the resources needed for the implementation of E-marketing, and determines the extent of its ability to withstand the resulting risks. Because the SMRs are still in their early stages in E-marketing implementation, they still do not realize the need for many of these resources. The SMRs do not see firm size a paramount factor in E-marketing acceptance and implementation as they are mostly still at a lower level in the E-marketing implementation process.

Industry sector has not a significant impact on E-marketing acceptance and implementation. This finding goes in accordance with [Das and Das \(2012\)](#). However, it is inconsistent with [Alatawi et al. \(2013\)](#) and [Ramdani et al. \(2013\)](#). This might be because the nature of restaurants' work does not need to introduce advanced technology. As for support from government and IT vendors, multiple regression analysis has shown it as an unimportant factor in E-marketing acceptance and implementation. This result agrees with [Rahayu and Day \(2015\)](#) and [El-Gohary \(2010\)](#). However, it is inconsistent with [Das and Das \(2012\)](#). This is might be attributed to the fact that SMRs still do not realize the importance of governmental support in providing an enabling environment for information technology.

Regarding competitive pressure, the analysis showed no effect of it on the acceptance and implementation of E-marketing. This result is consistent with those in [Rahayu and Day \(2015\)](#) and [El-Gohary \(2010\)](#). However, it is inconsistent with [Das and Das \(2012\)](#). Despite the presence of strong competition among the restaurants, it seems that restaurants are not affected by the pressures of competitors. It also may indicate that restaurants emphasize other factors that lead their decision to implement E-marketing rather than simply to comply with the pressures of competitors.

Finally, the results of data analysis and hypotheses testing show that there is a positive and significant relationship between E-marketing acceptance and implementation and marketing performance. This result is consistent with the findings of El-Gohary (2010) and Brodie et al. (2007). However, this result contradicts with Coviello et al. (2006) who found that E-marketing and other types of marketing methods do not influence marketing performance.

7. Conclusions, implications, limitations and future research venues

This study aims on investigating the factors affecting the acceptance and implementation of E-marketing technology in SMRs working in West Bank in Palestine. In addition, it examines the impact of such technology on the marketing performance. To this end, an exploratory approach of research has been adopted to conduct this study. A statistically-based random sample of 223 SMRs working in different cities in West Bank has been targeted to gather the needed data. More precisely, a self-report questionnaire has been designed and distributed to top management representatives of the targeted SMRs asking them to report their perceptions on the acceptance, implementation and impact of E-marketing in their restaurants. The statistical analyses of the collected data revealed that male managers dominate female ones with a percentage of 94.62% of the respondents. This means that females do not tend to work in managing and owning restaurants or in marketing management. In assessing the most important factors that influence E-marketing acceptance and implementation, it is found that relative advantage, customer pressure and market scope are the most significant and among these factors, relative advantage has the strongest relationship with E-marketing acceptance and implementation. Also, a positive and significant relationship between E-marketing acceptance and implementation and marketing performance has been found. These findings lead to many conclusions, firstly, that SMRs lack clear strategies to adopt and implement E-marketing technology and the implementation of E-marketing is still in its infancy in Palestinian SMRs. Secondly, there is a lack of laws and regulations supporting the enabling environment of E-marketing implementation in SMRs. Thirdly, there is a clear lack of governmental technical and financial support for SMRs that implement E-marketing. Fourthly, the technological infrastructure available in SMRs is not suitable for the development and implementation of E-marketing at higher levels. Finally, the financial resources allotted for the implementation and development of E-marketing are also insufficient.

Based on these conclusions, SMRs in Palestine are highly encouraged to exert more efforts to achieve the maximum benefits from E-marketing implementation in the most efficient ways possible. More specifically, SMRs should work hard to develop successful and viable E-marketing strategies and consider upgrading of E-marketing implementation as part of their future visions. Also, the Palestinian government should cooperate with the SMRs to create a supportive enabling environment for E-marketing implementation. There is also an important role of E-marketing service providers since they have to be collaborators with SMRs, as well as the Ministry of Communications and Information Technology and the Ministry of the Economy that must make efforts to support the successful implementation of E-marketing.

Although this research uses a multi-perspective framework to recognize the main factors that have effect on E-marketing implementation in Palestinian SMRs, it has some limitations which in turn leave the door open for other researcher to conduct future studies in this field. More specifically, one limitation of this research could be that needed data was only collected from SMRs. To have a better understanding of E-marketing acceptance and implementation and to increase generalizability of the results across the country, future studies covering other sectors of SMEs should thus be performed and preferably including other geographic regions. Another limitation is that the data used in this research is only quantitative data. So it would be better to conduct future studies on qualitative data to listen to the views of respondents about factors affecting the implementation of E-marketing via focus groups and not only considering factors highlighted in literature. This process may reveal other unmentioned factors. One more last limitation is that the study ignored the correlations among the independent factors (regressors) in the regression models. More sophisticated non-linear regression models may be investigated in a future study.

Conflict of interest

The authors of the article confirm that they are no conflict of interest in the submitted article.

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