

A CONCEPTUAL FRAMEWORK OF CRM ADOPTION AMONG PALESTINIAN SMES

¹OMAR HASAN SALAH, ²ZAWIYAH MOHAMMAD YUSOF, ³HAZURA MOHAMED

¹⁻³Faculty of Information Science and Technology, Universiti Kebangsaan Malaysia, 43600 Bangi,
Selangor, Malaysia

E-mail: ¹Omar_salah79@hotmail.com, ²zawiy@ukm.edu.my, ³hazura.mohamed@ukm.edu.my

ABSTRACT

Customer relationship management (CRM) is the concept of using process, information, technology, and people to manage the organization's interactions with customers. SMEs have to implement CRM practices into their business to achieve competitive advantage over its rivals. The adoption rate of CRM among SMEs in developing countries is low due to the absence of some important factors to guide the adoption of CRM. A pilot study was undertaken to investigate the effect of technological, organizational, and environmental factors on CRM adoption in developing countries, specifically in Palestinian SMEs. This study uses a quantitative approach by employing questionnaire to collect data from 35 randomly sampled participants from different managerial levels who were requested to answer questionnaire items online. Out of the 35 questionnaires distributed, 33 were returned and three questionnaires were rejected. The results show that compatibility, IT infrastructure, complexity, relative advantage, security, top Management Support, information policies, employee engagement financial resources, customer pressure and competitive pressure are capable of acting as a predictor for CRM adoption among Palestinian SMEs.

Keywords: *Customer relationship management system, Palestine; small and medium enterprise, Diffusion of Innovation (DOI), Technology–Organization–Environment (TOE), Resource-based View (RBV).*

1. INTRODUCTION

Small and medium enterprises (SMEs) are so named as an indication of their size. Thus, economists tend to divide them into classes according to some measurable quantitative indicators [1]. SMEs are the core of entrepreneurial activity and innovative entities that facilitate new business operations and play a vital role in emerging nations' economy by providing employment opportunities and boosting economic development.

SMEs should be competent since they are the backbone to the economy of developing countries [5], [6], [7]. One way of becoming competent is through using IT application in their operation. CRM has been identified as an IT solution to the problem. However, SMEs do face problems in employing CRM due to the lack of awareness of the advantages of CRM in enhancing the organization's performance [5].

In the Palestinian case, approximately 99% of the SMEs compete based on price, with only a few having direct involvement and interaction with international markets [6]. Palestine represents a distinct location on the globe coupled with different

size, age, economic situation, and political situation, being the last occupied country, where SMEs generally face several challenging situations [7].

The adoption rate of CRM among SMEs in developing countries is low since the initiative is still at its infancy [8], [9]. The initiatives has also experienced high rate of failure (70-80%) [10], [11] due to the absence of an appropriate framework to guide the adoption of CRM [12], [13]. Such a failure is also contributed by the negligence of some important factors not included such as security [14] and employee engagement [15]. In addition, "an existing organizational adoption theories were unable to include important factors, such as environmental issues, in adoption decision [16]. So that, this study seeks to propose a comprehensive framework to enhance the CRM adoption of the SMEs in Palestine. This would help providing new insights into how CRM adoption among SMEs in developing countries, particularly Palestine

2. RELATED WORKS ON CRM ADOPTION

CRM has been extensively studied and has shown to be successfully adopted by SMEs. Works

focused on varying types of relationships in the CRM field and the factors that affect the organizational structure of a company. Many factors are being studied by scholars, such as the evolution and the barriers of technology adoption and use [17]; factors contributing to CRM implementation such as trust, knowledge management, and data quality; barriers in the adoption of CRM [18]; and factors facilitating the CRM [12].

Most studies focused on developed countries like the US [8] and European countries [19]. Findings from these studies cannot be compared or applied to developing nations, because of differences in CRM practices and challenges [8], [16]. [21] found that the majority of technology adoption theories and models did not focus on developing countries and as such, they have called to examine the impact of CRM on organizations' performance to ensure proper adoption.

2.1 The Importance of CRM in SMEs

Although CRM has been identified as central to the success of SMEs, the differences in its definition have caused confusion. Scholars have defined CRM from technical definitions (narrow) to strategic definitions (broad) [22]. [23] provide a technical definition of CRM by describing it as a method that significantly uses information technology like databases and the Internet to make effective use of the process of relationship marketing. [24] referred to the concept as one that manages and facilitates business processes and activities of organizations [25]

CRM technology has the capability of integrating the entire company's marketing efforts and automates specific customer-organization relationships [26]. Moreover, the CRM system uses technology to coordinate and integrate several company aspects like marketing, sales, outstanding orders, customer-organization interactions, service and repair, unresolved issues, and customer service. It also enables the integration of the system from bottom to top, involving supply chain, internal and external customers, stakeholders, and labour requirements. The CRM system creation should be customer-centric from the beginning of system design.

Moreover, successful CRM adoption can provide innumerable benefits to the SMEs performance, including solving customer problems in a timely manner, enhancing customer satisfaction by appointing an expert to solve issues and queries, and the like [19]. Managers can use CRM to develop higher customer satisfaction levels by delivering

product performance that meets and exceeds the latter's expectations. This, in turn, enables firms to increase profitability, heighten customer relationships, collect accurate customer information and manage customer relationships efficiently by focusing on customer loyalty, all these could lead to retaining loyal customers that can maintain the lifetime value of the firms [27]

There are several technology adoption theories and model applications for CRM, but they are limited to the developed nations in their use [8], [17]. Prior studies also emphasized specific barriers to IS adoption in Arab countries, indicating a necessity to examine CRM adoption in such regions [8], [23], [24]

2.2 CRM as an Innovation

[29] referred to innovation as new ideas, processes, products/services production, acceptance and implementation. In the organizational context, it is a novel idea, product, process, system or device used to successfully provide new insights and effects to an individual, group, organization or a sector [30], [31]. In the current times characterized by the dynamic change in technology and risky markets, it is crucial for markets to improve their capabilities for innovation to meet the demands in the market and to satisfy customers, in order to maintain their competitive advantage in the long-term [31]. Moreover, innovation is related to the firm's ability to search for novel and optimum ways for identifying, acquiring and establishing organizational tasks [32]. In this regard, a significant positive relationship exists between SMEs innovative dimension and the performance of business [33].

Many studies adopted the innovation concept in light of relative advantage, observability, trialability and complexity from the perspective of DOI theory to explain novel idea/technology diffusion and the related changes in behaviours (acceptance/rejection). Such characteristics affect new technology adoption depending on product-specific features [34]. Along with the mentioned five characteristics, security has also been identified as being part of the significant factors that influence the adoption of ICT [35], [36]. Lack of security was a primary barrier to adoption regardless of the present cyber laws to protect the business environment.

Additionally, many previous innovation adoption studies have considered that CRM is an innovative and worthwhile management strategy. [37], [38]. Table 1 reveals that CRM is an innovation

as it is a new technology implemented for more robust and profitable customer relationship.

Table 1: CRM Innovation technology

Author /Year	Title
[39]	Handbook of CRM: Achieving Excellence in Customer Management
[40]	Organisational, technical and data quality factors in CRM adoption - SMEs perspective
[38]	Does organisational culture influence CRM's financial outcomes?
[41]	The adoption of customer relationship management (CRM) technology in SMEs
[13]	Customer relationship management: concept and importance of banking sector

[42]	Customer relationship management: Innovation and performance
[5]	Unpicking antecedents of CRM adoption: a two-stage model
[43]	Firm Performance through Social Customer Relationship Management: Evidence from Small and Medium Enterprises
[44]	The Development of Innovative CRM E-Commerce: The Case of Bibli.Com Indra

2.3 Factors Influencing CRM Adoption

From literature review, there are eleven factors that influence the adoption of CRM in SMEs. Three factors were adapted from the DOI model, one factor was from RBV, and another seven factors were extracted from previous studies. Table 2 provides the definitions and sources of the factors.

Table 2 Factors Influencing CRM Adoption

No	Factor	Definition	Source(s)
1	Compatibility	The degree to which an innovation is perceived as consistent with existing values, past experiences, and needs of potential adopters	[29], [31]
2	Relative Advantage	The “degree to which an innovation is perceived as better than the idea it supersedes”	[31]; [30]
3	Complexity	The level to which an innovation is viewed to be difficult to understand and use	[47]
4	IT Infrastructure	IT assets (software, hardware, and data), IT systems and their components, network, telecommunication facilities, and applications	[29], [33], [34]
5	Security	The ability to protect consumers’ information and transaction data to ensure their privacy	[35], [36] [51]
6	Top Management Support	The provided support from the top executives of the organization that facilitates the success of CRM implementation	[37],[38] [53]
7	Financial Support	The financial resource that covers all financial funds of the organization	[10],[39] [55]
8	Information Policies	A group of interconnected laws, guidelines, principles, regulations, rules, and procedures that guide the management and monitoring of the information lifecycle	[40], [41]
9	Employee Engagement	An engaged employee is aware of the business context and cooperates with their peers to enhance company performance	[42], [43], [44], [45]
10	Customer Pressure	the demands and behaviors of customers that make companies adopt new technologies	[46],[47]
11	Competitive Pressure	The level of competitiveness in the industry within which the organization operates	[37],[46], [48], [47]

These factors were drawn from an extensive range of frameworks and literature review. These factors were then evaluated by CRM practitioners in SMEs for verification and recommendation of new factors, if any (Table 5). These factors are expected to maximize the rate of CRM adoption among SMEs in developing countries, particularly Palestine.

3. METHOD

From the literature review and email interviews, an instrument was developed to examine the factors that are significant to the CRM adoption among SMEs. Data was collected using a structured questionnaire. The questionnaire was divided into seven sections as recommended by [62], in which the items were measured by a five-point Likert scale with the following ratings: 1: strongly disagree, 2: disagree, 3: slightly agree, 4: agree, and 5: strongly agree.

3.1 Ensuring Reliability and Validity of the Study

Several techniques were used to measure the reliability of the study, which were Cronbach’s alpha and convergent validity. The closer the Cronbach’s alpha value is to 1, the higher the internal consistency reliability [63]. [64] state that when an item has a Cronbach’s alpha of less than 0.60, the item should be dropped. However, an item with a Cronbach’s alpha equal to or higher than 0.60 is regarded as acceptable and can be retained. On the other hand, [65] argue that a Cronbach’s alpha of more than 0.70 is the acceptable threshold value. The reliability statistics for the questionnaire designed for this study are presented in Table 3. From the table it can be seen that all the items have relatively high internal consistency.

table 3 the reliability statistics

Constructs	Cronbach's Alpha
Compatibility	.860
IT Infrastructure	.835
Complexity	.840
Relative Advantage	.820
Security	.835
Top Management Support	.840
Information Policies	.837
Employee Engagement	.836
Financial Resources	.831
Customer Pressure	.839
Competitive Pressure	.842

To ascertain face validity, the significant factors were validated by distinguished academics from the business field. These factors were then evaluated by experts in Palestine to ensure that they are suitable for practice. The instrument (questionnaire) was validated by five local experts which comprised academics and practitioners.

3.2 Data Collection

The questionnaires were sent to 35 SMEs. The participants for this study were chosen from different managerial levels. Out of the 35 questionnaires distributed, 33 were returned and three questionnaires were rejected. A total of 30 questionnaires were used in the analysis of the pilot study. All collected data were coded, compiled, and analyzed using SPSS version 22.0. A summary of the demographic data is presented in Table 4

Table 4 Demographic Data

	Description	Frequency	Percentage
Gender	Male	22	73%
	Female	8	26%
Level of education	Diploma	10	33%
	Bachelor’s Degree	7	23%
	Master’s Degree	9	30%
	Doctorate Degree	4	13%
Type of company	Information and Communications Technology (ICT)	10	33%
	Product company	8	26%
	Service company	6	20%
	Sales company	6	20%

Position in organization	General Manager	9	30%
	Head of Department	16	53%
	Operational employees	5	16%
Number of employees in organization	5–19	11	36%
	20–49	19	63%
Years of experience	<1 year	2	6%
	1–5 years	9	30%
	5–10 years	12	40%
	>10 years	7	24%
Age	20–30 years old	6	20%
	31–40 years old	17	56%
	41–50 years old	3	10%
	51 and above	4	13%

4. CONCEPTUAL FRAMEWORK OF CRM ADOPTION

In the present study, three theories and frameworks were used to build the conceptual model, namely, Diffusion of Innovation (DOI) theory, Resource-based View (RBV), and Technology–Organization–Environment (TOE) framework.

The figure 1 below presents the DOI framework. [46] developed the Diffusion of Innovation Theory (DOI) in the middle of the 20th century, with innovation defined as ideas, customs, or objects perceived by individuals or adopting units as something new. It was contended that several innovative products’ characteristics affect their adoption, and these include their relative advantage, compatibility, complexity, divisibility, and observability

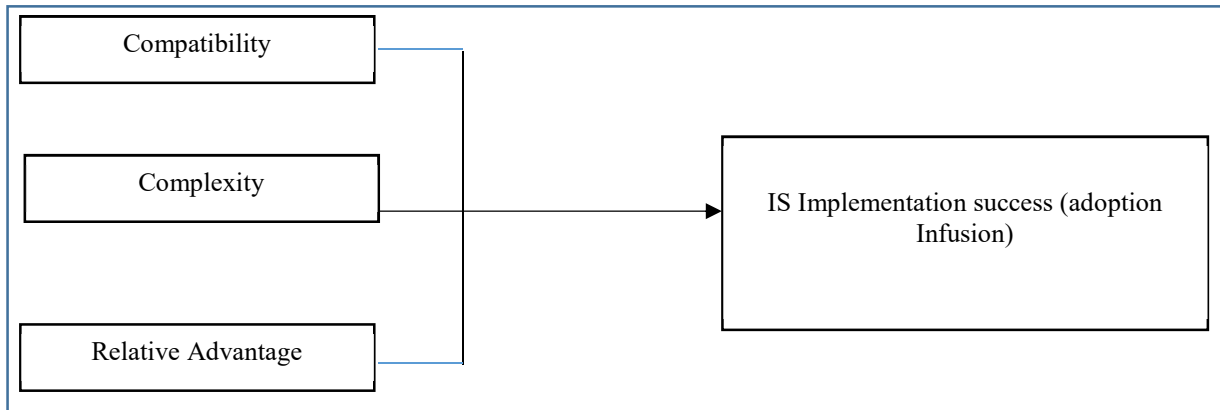


Figure 1 (Cooper & Zmud 1990) cited from “<https://is.theorizeit.org/wiki>”

The resource-based view (RBV) has been extensively used in IS and marketing literature to provide insight into the capabilities of

the firm and their effects on the firm’s competitiveness [27]. The RBV theory developed and proposed by [66] has been extensively

utilized as an underpinning theory for the examination of CRM dimensions–business performance relationship [51, 52]. The RBV provides a framework to understand how CRM provides economic value [69]. The RBV also enables researchers to shed light on the relationship among people, processes, and technologies.

In a related study, the RBV posits that resources are heterogeneously distributed throughout the firm’s units and their transference among units is costly [68]. Notwithstanding the above assumptions, it has always been debated

among academicians whether resources may truly allow the achieving of competitive advantage. Various definitions of the concept in RBV have been brought forward [15], for instance, financial resources [70], IT resources (such as accounting software and email)[67], in-house IT experts[71], human and business resources [72], and IT-related resources[73]. Among the mentioned descriptions of resources, financial resources are one of the top resources that are perceived to be a major element in SMEs performance and a critical success factor as assumed by the RBV in several studies [87], [64], [67] As shown in figure 2.

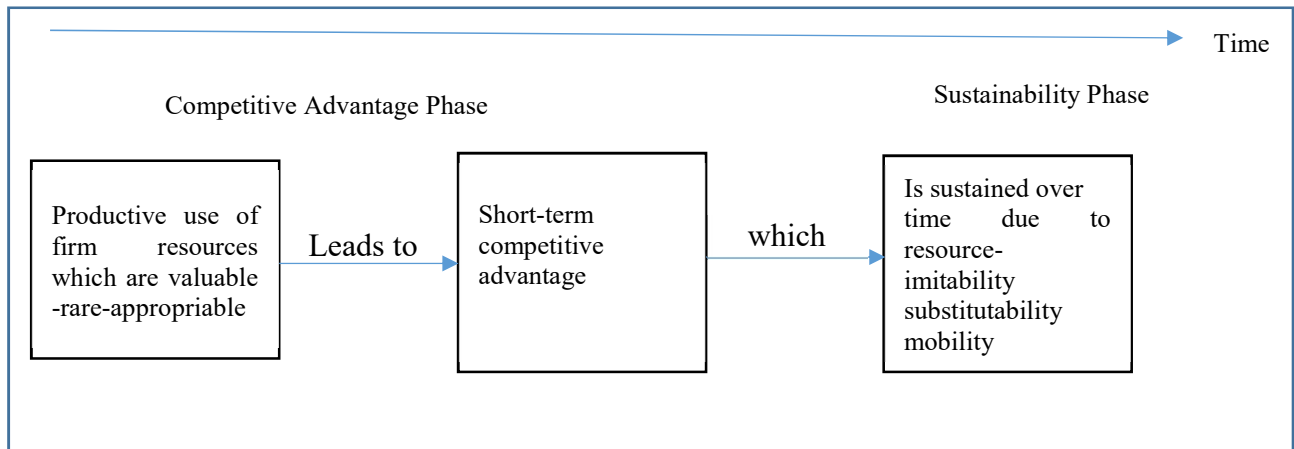


Figure 2 The Resource-Based View Over Time (Wade 2004)

Wade 2004

TOE is divided into three categories as shown in figure 3: technology, organization, and environment. The technology category addresses the technical characteristics that may influence adoption [53,55]. This category is related to the operationalization and potential to obtain benefits from the adoption capability of the organization [35]. Meanwhile, the organization category describes the nature of the organizational characteristics that may bring about or prevent system adoption [74]. For instance, centralized organizations may display adoption inclination as the top management is capable of making adoption decisions regardless of the lower management or employee [76].The higher the top management support, the smoother will be the adoption and the overcoming of difficulties faced during such adoption [77]. The environment category shows the realm within which the

business is conducted, and this covers customer pressure, competitive pressure, industry characteristics, government regulation, and supporting infrastructure [54, 60; 61]

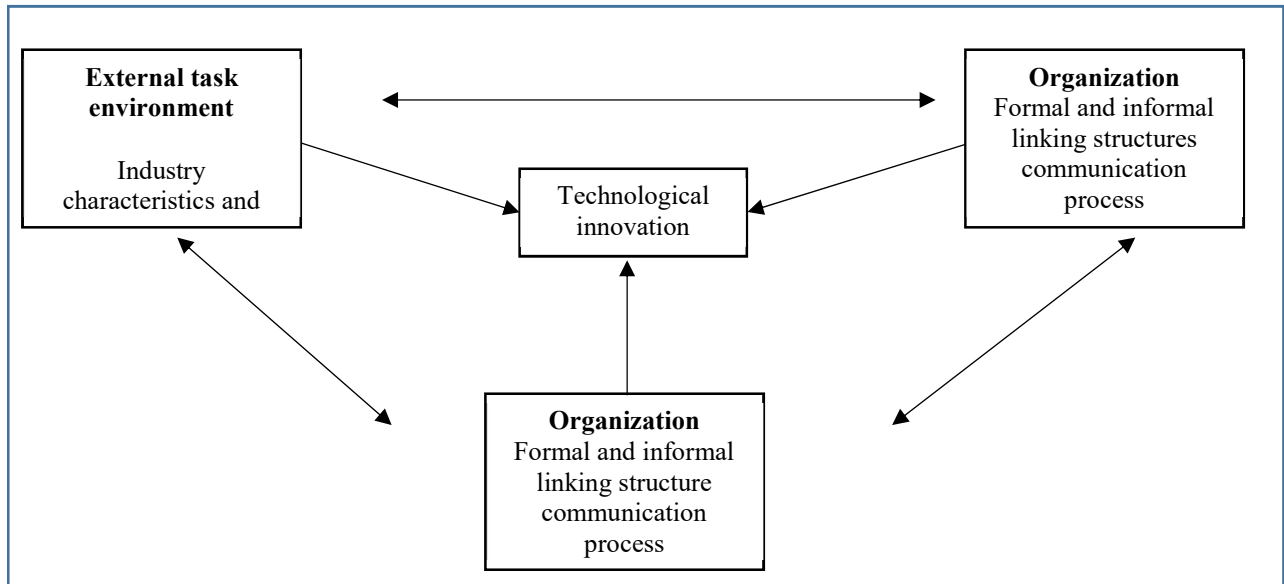


Figure 3 Technology-Organization-Environment frameworks (Tornatzky & Fleischer 1990)

Specific to this study, based on literature review and interviews conducted via emails with CRM practitioners in SMEs in Palestine (Table 3), the technology category includes five factors, namely compatibility, IT infrastructure, complexity, relative advantage, and security, while the organization category encompasses four factors, namely top management support, information

policies, employee engagement, and financial resources. Meanwhile, the environment category covers two factors which are customer pressure and competitive pressure. A conceptual framework was developed for the current study, as shown in Figure 4

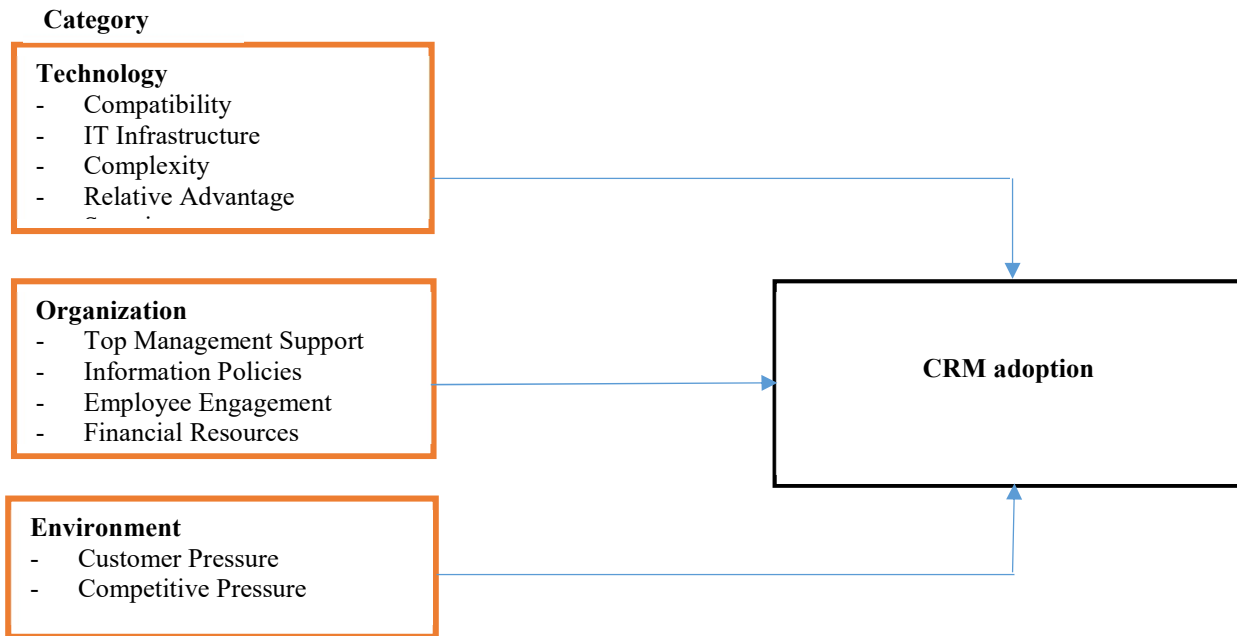


Figure 4 Conceptual framework for CRM adoption

5. RESULTS AND DISCUSSION

The results obtained from theoretical analysis, literature review, and email interview sessions are summarised in Table5

Table 5 Summary of consolidated factor

Factors	From literature review	From the field (practitioners)
Compatibility	√	√
Relative advantage	√	√
Complexity	√	√
IT infrastructure	√	√
Customer pressure	√	√
Competitive pressure	√	√
Employee Engagement	√	√
Top management support	√	√
Security	×	√
Reliability of information (information integrity)	×	√
Inadequate policies (information policies)	×	√
Refuse to change (Attitude toward adopting technology)	×	√
Information sharing	×	√
Trialability	√	×
Governmental support	√	×
Observability	√	×
Technology readiness	√	×
Cost	√	×
Reliability	√	×
Trust	√	×
Switching cost	√	×
Perceived usefulness	√	×
Perceived ease of use	√	×
IS knowledge of employees	√	×
ICT skills of staff	√	×
Internal barrier	√	×
Size	√	×
Organizational structure	√	×
Clear project vision and scope	√	×
Innovativeness	√	×
Manager’s attitude	√	×

A pilot survey was conducted to test the internal consistency and the reliability of questionnaire items. The participants were chosen from different managerial levels, ages, and years of experience, and were requested to answer questionnaire items online (Table 2). In the pilot study, 35 participants were chosen by random sampling. Each participant was asked to indicate on a five-point Likert scale with the following ratings: 1: strongly disagree, 2: disagree, 3: slightly agree, 4: agree, and 5: strongly agree. The reliability statistics for the questionnaire are presented in Table 3

This result indicates that all the items have relatively high internal consistency after dropping all items that do not meet the threshold. The variables were categorized into technological, organizational, and environmental factors. The resulting factors were consolidated into eleven factors as shown in Table 6

Table 6 Summary of factors from the Pilot Study

Context	Factors
Technological Factors	Compatibility Relative Advantage Complexity IT Infrastructure Security
Organizational Factors	Top Management Support Financial Support Information Policies Employee Engagement
Environmental Factors	Customer Pressure Competitive pressure

The findings of this study show that there is a significant relationship between compatibility, IT infrastructure, complexity, relative advantage, security, top Management Support, information policies, employee engagement financial resources, customer pressure, competitive pressure and CRM adoption among Palestinian SMEs. Methodology-wise, the questionnaire used in this study was adopted from previous researchers, while the interview sessions were conducted involves experts to ensure that they are suitable for practice.

5. PAST RELATED WORKS

Although CRM has gained significant attention, it still suffers from conceptual and methodological flaws[5] (see Section 2), [80] argues that not enough studies have been carried out on CRM for it to gain competitive advantage. Literature on CRM provides evidence on both the success and failure factors of its adoption in developing countries [26], [27]. The failure rate for CRM adoption is high[13], [28].

Mixed findings were reported on the same factors among different study contexts; for instance; [25]revealed that relative advantage, compatibility, complexity and observability (technological characteristics) have no effect on CRM adoption, while [83] argue that these factors affect the adoption and use of CRM system. So that, this study seeks to propose a CRM adoption Conceptual framework to increase CRM adoption rates in SMEs in Palestine

6. CONCLUSION AND FUTURE RESEARCH

CRM system has become an essential part of current businesses that seek to increase revenues and maintaining their performance rather than merely an option [84]. It enables firms to keep track of issues that customers face, oversee service response, and appropriate customer inquiries to expert to answer [85].

This study aimed to to investigate the success factors that affect CRM adoption among Palestinian SMEs and the relationships between them, according to the study findings, compatibility, IT infrastructure, complexity, relative advantage, security, top Management Support, information policies, employee engagement financial resources, customer pressure and competitive pressure are all significantly related to intention towards CRM adoption.

In the present study, three frameworks were used to build the conceptual framework, namely, Diffusion of Innovation (DOI) theory, The resource-based view (RBV, and Technology–Organization–Environment (TOE) framework. DOI theory, when combined with the TOE framework and RBV, provides a robust theoretical platform for SMEs to adopt green technology and examine innovation technology. This study would provide new insights on CRM adoption among SMEs in developing countries, particularly Palestine.

Moreover, this study contributes to both academics and business practitioners by enhancing the understanding of effective CRM adoption and building a greater understanding of the factors associated with the adoption of CRM. This is the first study in Palestine which will help to improve the organizational performance in SMEs.

One limitation of this study is that the sample was geographically limited to Palestine; second, the sample size was relatively small, even though it was within the testable range [86]. The findings may also be compared to other studies conducted in different contexts and provide deeper insights into the influence of the examined dimensions on the employees' intention toward CRM adoption in the context of Palestinian private firms. It would be fruitful to test whether the results hold true in other countries.

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REFERENCES:

- [1] G. Berisha and J. S. Pula, "Defining Small and Medium Enterprises : a critical review," vol. 1, no. 1, pp. 17–28, 2015.
- [2] A. Adam, J. E. Jizat, and M. A. Nor, "Internal Factors within Entrepreneurs that Influence The Acceptance and Use of Social Commerce among SMEs in Malaysia," *DeReMa J. Manaj.*, vol. 11, no. 1, pp. 35–45, 2016.
- [3] M. A. Abou-Shouk, W. M. Lim, and P. Megicks, "Using competing models to evaluate the role of environmental pressures in ecommerce adoption by small and medium sized travel agenets in a developing country," *Tour. Manag.*, vol. 52, pp. 327–339, 2016.
- [4] T. Ramayah, N. S. Ling, S. K. Taghizadeh, and S. A. Rahman, "Factors influencing SMEs website continuance intention in Malaysia," *Telemat. Informatics*, vol. 33, no. 1, pp. 150–164, 2016.
- [5] F. N. Jaber and L. Simkin, "Understanding customer relationship management (CRM) adoption in an Arab Middle Eastern context," *Behav. Inf. Technol.*, vol. 36, no. 10, pp. 1020–1036, 2017.
- [6] S. S. Sultan, "Enhancing the competitiveness of Palestinian SMEs through clustering," *EuroMed J. Bus.*, vol. 9, no. 2, pp. 164–174, 2014.
- [7] S. Baidoun, R. N. Lussier, M. Burbar, and S. Awashra, "Prediction model of business success or failure for Palestinian Small Enterprises in the West Bank," *J. Entrepreneursh. Emerg. Econ.*, vol. 8, no. 2, pp. 148–167, 2018.
- [8] M. Rodriguez, R. M. Peterson, and V. Krishnan, "Impact of CRM technology on sales process behaviors: empirical results from US, Europe, and Asia," *J. Business-to-bus. Mark.*, vol. 25, no. 1, pp. 1–10, 2018.
- [9] A. R. Alkhazali and S. Hassan, "The Effect of Customer Relationship Management System Adoption and Perception on Organization Performance: Study of Jordnian Hospital Sectors," *J. Manag. Sustain.*, vol. 5, no. 4, p. 141, 2015.
- [10] M. Ahearne, A. Rapp, B. J. Mariadoss, and S. Ganesan, "Challenges of CRM Implementation in Business-to-Business Markets: A Contingency Perspective," *J. Pers. Sell. Sales Manag.*, vol. 32, no. 1, pp. 117–130, 2012.
- [11] M. B. Ghalenoioie and H. K. Sarvestani, "Evaluating Human Factors in Customer Relationship Management Case Study: Private Banks of Shiraz City," *Procedia Econ. Financ.*, vol. 36, no. 16, pp. 363–373, 2016.
- [12] P. Williams, N. Ashill, and E. Naumann, "Toward a contingency theory of CRM adoption," *J. Strateg. Mark.*, vol. 25, no. 5–6, pp. 454–474, 2016.
- [13] M. Laketa, D. Sanader, L. Laketa, and Z. Mistic, "Customer relationship management: concept and importance of banking sector," *UMTS J. Econ.*, vol. 6, no. 2, pp. 241–254, 2015.
- [14] L. Frygell, L. Jonas Hedman, and S. Carlsson, "Implementing CRM System in a Global Organization National vs. Organizational Culture," *Proc. 50th Hawaii Int. Conf. Syst. Sci.*, pp. 4586–4595, 2017.
- [15] P. Zerbino, D. Aloini, R. Dulmin, and V. Mininno, "Big Data-enabled Customer Relationship Management: A holistic approach," *Inf. Process. Manag.*, vol. 54, no. 5, pp. 818–846, 2018.
- [16] A. H. Ngah, Y. Zainuddin, and R. Thurasamy, "Applying the TOE framework in the Halal warehouse adoption study," *J.*

- Islam. Account. Bus. Res.*, vol. 8, no. 2, pp. 161–181, 2017.
- [17] A. Almbahouh and N. S. Alzaza, “Barriers for Adoption of Cloud Computing in the Palestinian Industries,” *Eur. J. Comput. Sci. Inf. Technol.*, vol. 3, no. 4, pp. 43–57, 2015.
- [18] A. Fazlzadeh, M. M. Tabrizi, and K. Mahboobi, “Customer relationship management in small-medium enterprises: The case of science and technology parks of Iran,” *African J. Bus. Manag.*, vol. 5, no. 15, pp. 6160–6168, 2011.
- [19] R. Rahimi and M. Kozak, “Impact of Customer Relationship Management on Customer Satisfaction: The Case of a Budget Hotel Chain,” *J. Travel Tour. Mark.*, vol. 34, no. 1, pp. 40–51, 2016.
- [20] B. Ramaseshan, D. Bejou, S. C. Jain, C. Mason, and J. Pancras, “Issues and perspectives in global customer relationship management,” *J. Serv. Res.*, vol. 9, no. 2, pp. 195–207, 2006.
- [21] E. AbuShanab, J. M. Pearson, and A. J. Setterstrom, “Internet Banking and Customers’ Acceptance in Jordan- The Unified Model’s Perspective.pdf,” *Commun. Assoc. Inf. Syst.*, vol. 26, no. 23, 2010.
- [22] A. Payne and P. Frow, “Customer Relationship Management: from Strategy to Implementation,” *J. Mark. Manag.*, vol. 22, no. 1–2, pp. 135–168, 2006.
- [23] Q. Chen and H.-M. Chen, “Exploring tChen, Q. & Chen, H.-M. 2004. Exploring the success factors of eCRM strategies in practice. *Journal of Database Marketing & Customer Strategy Management*, 11(4), 333–343.
doi:10.1057/palgrave.dbm.3240232he success factors of eCRM strategies in pr,” *J. Database Mark. Cust. Strateg. Manag.*, vol. 11, no. 4, pp. 333–343, 2004.
- [24] R. A. Iriqat and M. A. M. Abu Daqar, “The Role of Customer Relationship Management on Enhancing the Customers’ Satisfaction in the Banks in Palestine,” *Mod. Appl. Sci.*, vol. 11, no. 12, p. 84, 2017.
- [25] H. omar Salah, Y. M. Z. Mohammad, and H. Mohamed, “Factors Affecting Customer Relationship Management System Adoption in Small and Medium Enterprise in Palestine,” vol. XXX, no. Xxx, pp. 1–22, 2018.
- [26] P. Harrigan, E. Ramsey, and P. Ibbotson, “Exploring and explaining SME marketing: Investigating e-CRM using a mixed methods approach,” *J. Strateg. Mark.*, vol. 20, no. 2, pp. 127–163, 2012.
- [27] M. Elkordy, “The impact of crm capability dimensions on organizational performance,” *Eur. J. Bus. Soc. Sci.*, vol. 2, no. 10, pp. 128–146, 2014.
- [28] M. Almotairi, “Evaluation of the Implementation of CRM in Developing Countries,” p. 165, 2010.
- [29] Y. F. Yang, “Service capabilities and customer relationship management: An investigation of the banks in Taiwan,” *Serv. Ind. J.*, vol. 32, no. 6, pp. 937–960, 2012.
- [30] M. Vakola and Y. Rezgui, “Organisational learning and innovation in the construction industry,” *Learn. Organ.*, vol. 7, no. 4, pp. 174–184, 2000.
- [31] C. Valmohammadi, “Customer relationship management: Innovation and performance,” *Int. J. Innov. Sci.*, vol. 9, no. 4, pp. 374–395, 2017.
- [32] Y. Al-Ansari, S. Pervan, and J. Xu, “Innovation and business performance of SMEs: the case of Dubai,” *Educ. Bus. Soc. Contemp. Middle East. Issues*, vol. 6, no. 3/4, pp. 162–180, 2013.
- [33] M. J. Pour, “How Customer Relationship Management (CRM) and Innovation Influence Business Performance Mediating Role of Innovation,” *Int. J. Cust. Relatsh. Mark. Manag.*, vol. 9, no. 2, pp. 2–5, 2018.
- [34] H. H. Chang, C. Y. Huang, C. S. Fu, and M. Tse Hsu, “Information Technology & People Article information :,” *Inf. Technol. People*, vol. 28, no. 2, pp. 366–382, 2017.
- [35] K. Sin Tan, S. Choy Chong, B. Lin, and U. Cyril Eze, “Internet-based ICT adoption: evidence from Malaysian SMEs,” *Ind. Manag. Data Syst.*, vol. 109, no. 2, pp. 224–244, 2009.
- [36] R. D. Raut, B. B. Gardas, M. K. Jha, and P. Priyadarshinee, “Examining the critical success factors of cloud computing adoption in the MSMEs by using ISM model,” *J. High Technol. Manag. Res.*, vol. 28, no. 2, pp. 125–141, 2017.
- [37] F. Jaber and L. Simkin, “Unpicking antecedents of CRM adoption: a two-stage model,” *J. Strateg. Mark.*, vol. 25, no. 5–6, pp. 475–494, 2017.
- [38] R. Iriana, F. Buttle, and L. Ang, “Does organisational culture influence CRM’s financial outcomes?,” *J. Mark. Manag.*, vol. 29, no. 3–4, pp. 467–493, 2013.

- [39] A. Payne and P. Frow, "A Strategic Framework for Customer," *J. Mark.*, vol. 69, pp. 167–176, 2005.
- [40] S. Alshawi, F. Missi, and Z. Irani, "Organisational, technical and data quality factors in CRM adoption - SMEs perspective," *Ind. Mark. Manag.*, vol. 40, no. 3, pp. 376–383, 2011.
- [41] T. H. Nguyen and T. S. Waring, "The adoption of customer relationship management (CRM) technology in SMEs," *J. Small Bus. Enterp. Dev.*, vol. 20, no. 4, pp. 824–848, 2013.
- [42] C. Valmohammadi, "Customer relationship management: Innovation and performance," *Int. J. Innov. Sci.*, vol. 9, no. 4, pp. 374–395, 2017.
- [43] A. Ahani, N. Z. A. Rahim, and M. Nilashi, "Firm Performance through Social Customer Relationship Management: Evidence from Small and Medium Enterprises," *2017 Int. Conf. Res. Innov. Inf. Syst.*, pp. 1–6, 2017.
- [44] I. Gamayanto and H. Christian, "The Development of Innovative CRM E-Commerce: The Case of Blibli.Com," *Binus Bus. Rev.*, vol. 9, no. 1, p. 29, 2018.
- [45] Y. Alshamaila, S. Papagiannidis, and F. Li, "Cloud computing adoption by SMEs in the north east of England," *J. Enterp. Inf. Manag.*, vol. 26, no. 3, pp. 250–275, 2013.
- [46] E. M. Rogers, *Diffusion of innovations*. 2003.
- [47] A. Alhammadi, C. Stanier, and A. Eardley, "The Determinants of Cloud Computing Adoption in Saudi Arabia," *Comput. Sci. Inf. Technol. (CSIT)*, pp. 55–67, 2015.
- [48] G. Kim, B. Shin, K. K. Kim, and H. G. Lee, "Journal of the Association for Information IT Capabilities, Process-Oriented Dynamic Capabilities, and Firm Financial Performance," *J. Assoc. Inf. Syst.*, vol. 12, no. 7, pp. 487–517, 2011.
- [49] M. Mukred, Z. M. Yusof, U. A. Mokhtar, and F. Fauzi, "A framework for electronic records management system adoption in the higher professional education: Individual, technological and environmental factors," *Adv. Intell. Syst. Comput.*, vol. 843, pp. 840–849, 2018.
- [50] N. F. Elias, H. Mohamed, and R. R. Arridha, "A study on the factors affecting customer satisfaction in online airline services," *Int. J. Bus. Inf. Syst.*, vol. 20, no. 3, p. 274, 2015.
- [51] M. Mukred and Z. M. Yusof, "Recent Trends in Information and Communication Technology," vol. 5, 2017.
- [52] S. a Al-Hudhaif, "The Critical Success Factors for Implementation of Customer Relationship Management in the Banking Sector of Saudi Arabia," *J. Glob. Bus. Manag.*, vol. 7, no. 1, pp. 1–7, 2011.
- [53] M. Mukred, Z. M. Yusof, U. A. Mokhtar, and N. Abdul Manap, "Electronic Records Management System Adoption Readiness Framework for Higher Professional Education Institutions in Yemen," *Int. J. Adv. Sci. Eng. Inf. Technol.*, vol. 6, no. 6, p. 804, 2016.
- [54] N. Fouad and N. Al-Goblan, "Using customer relationship management systems at university libraries," *IFLA J.*, vol. 43, no. 2, pp. 158–170, 2017.
- [55] M. Mukred, Z. M. Yusof, U. A. Mokhtar, and F. Fauzi, "Taxonomic framework for factors influencing ERMS adoption in organisations of higher professional education," *J. Inf. Sci.*, p. 016555151878313, 2018.
- [56] A. A. Aziz, Z. M. Yusof, U. A. Mokhtar, and D. I. Jambari, "A Conceptual Model for Electronic Document and Records Management System Adoption in Malaysian Public Sector," vol. 8, no. 4, pp. 1191–1197, 2018.
- [57] S. Alshourah, H. Alassaf, and M. Altawalbeh, "Roles of Top Management and Customer Orientation in Enhancing the Performance of Customer Relationship Management (CRM) in Hotel Industry," vol. 6, no. 3, pp. 233–239, 2018.
- [58] D. Jamali and A. Carroll, "Capturing advances in CSR: Developed versus developing country perspectives," *Bus. Ethics*, vol. 26, no. 4, pp. 321–325, 2017.
- [59] T. Wright, "Information culture in a government organization: Examining records management training and self-perceived competencies in compliance with a records management program," *Rec. Manag. J.*, vol. 23, no. 1, pp. 14–36, 2013.
- [60] T. Hasani, J. Bojei, and A. Dehghantaha, "Investigating the antecedents to the adoption of SCRM technologies by start-up companies," *Telemat. Informatics*, vol. 34, no. 5, pp. 655–675, 2017.
- [61] M. Mukred, Z. M. Yusof, and U. A. Mokhtar, *A Framework for Electronic Records Management System Adoption in the Higher Professional Education:*

- Individual, Technological and Environmental Factors*, vol. 843. Springer International Publishing, 2018.
- [62] U. Sekaran, "Research Methods for Business A Skill-Building Approach," 2005.
- [63] U. Sekaran, *Research methods for business*, vol. 65, no. 3. 2009.
- [64] R. Eisinga, M. Te Grotenhuis, and B. Pelzer, "The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown?," *Int. J. Public Health*, vol. 58, no. 4, pp. 637–642, 2013.
- [65] J. F. Hair, C. M. Ringle, and S. Marko, "Editorial Partial Least Squares Structural Equation Modeling : Rigorous Applications , Better Results and Higher Acceptance," vol. 46, pp. 1–12, 2013.
- [66] B. Wernerfelt, "A Resource-based View of the Firm," *Proc. SPIE - Int. Soc. Opt. Eng.*, vol. 2767, no. June 1982, pp. 204–206, 1984.
- [67] C. A. Chao and A. Chandra, "Impact of owner's knowledge of information technology (IT) on strategic alignment and IT adoption in US small firms," *J. Small Bus. Enterp. Dev.*, vol. 19, no. 1, pp. 114–131, 2012.
- [68] R. Law, D. K. C. Fong, I. C. C. Chan, and L. H. N. Fong, "Systematic review of hospitality CRM research," *Int. J. Contemp. Hosp. Manag.*, vol. 30, no. 3, pp. 1686–1704, 2018.
- [69] A. Keramati, H. Mehrabi, and N. Mojir, "A process-oriented perspective on customer relationship management and organizational performance: An empirical investigation," *Ind. Mark. Manag.*, vol. 39, no. 7, pp. 1170–1185, 2010.
- [70] M. Ghobakhloo, T. S. Hong, M. S. Sabouri, and N. Zulkifli, "Strategies for Successful Information Technology Adoption in Small and Medium-sized Enterprises," *Information*, vol. 3, no. 4, pp. 36–67, 2012.
- [71] A. Southern and F. Tilley, "Small firms and information and communications technologies (ICTs): Toward a typology of ICTs usage," *New Technol. Work Employ.*, vol. 15, no. 2, pp. 138–154, 2000.
- [72] C. Shu-Hui and L. Hong-Nan, "Antecedents and consequences of customer information quality in CRM systems: Empirical evidence from financial services firms," *Serv. Syst. Serv. Manag. (ICSSSM), 2013 10th Int. Conf.*, vol. 33, pp. 467–471, 2013.
- [73] N. Gorla, T. M. Somers, and B. Wong, "Organizational impact of system quality, information quality, and service quality," *J. Strateg. Inf. Syst.*, vol. 19, no. 3, pp. 207–228, 2010.
- [74] R. DePietro, E. Wiarda, and M. Fleischer, "The context for change: Organization, technology and environment.," *Process. Technol. Innov.*, p. 151–175., 1990.
- [75] K. Hoon Yang, S. M. Lee, and S. Lee, "Adoption of information and communication technology," *Ind. Manag. Data Syst.*, vol. 107, no. 9, pp. 1257–1275, 2007.
- [76] S. Jayasingam, M. A. Ansari, and M. Jantan, "Influencing knowledge workers: the power of top management," *Ind. Manag. Data Syst.*, vol. 110, no. 1, pp. 134–151, 2010.
- [77] R. V. Da Silva and I. (Daniel's) Rahimi, "A Critical Success Factor Model for CRM Implementation," *Int. J. Electron. Cust. Relatsh. Manag.*, vol. 1, no. 1, pp. 3–15, 2007.
- [78] T. Oliveira and M. F. Martins, "Understanding e-business adoption across industries in European countries," *Ind. Manag. Data Syst.*, vol. 110, no. 9, pp. 1337–1354, 2010.
- [79] H. O. Awa, O. Ukoha, and B. C. Emecheta, "Using T-O-E theoretical framework to study the adoption of ERP solution," *Cogent Bus. Manag.*, vol. 3, no. 1, pp. 1–23, 2016.
- [80] A. F. Al-zoubi, "The Role of Customer Relationships Management in Achieving Competitive Advantage (A prospective study on a sample of employees at banks in Irbid city) Speed Advantage," vol. 4, no. 1, pp. 137–150, 2016.
- [81] R. Rahimi, "Customer relationship management (people, process and technology) and organisational culture in hotels: Which traits matter?," *Int. J. Contemp. Hosp. Manag.*, vol. 29, no. 5, pp. 1380–1402, 2017.
- [82] L. E. Mendoza, A. Marius, M. Pérez, and A. C. Grimán, "Critical success factors for a customer relationship management strategy," *Inf. Softw. Technol.*, vol. 49, no. 8, pp. 913–945, 2007.
- [83] U. Šebjan, S. Bobek, and P. Tominc, "Organizational Factors Influencing Effective Use of CRM Solutions," *Procedia Technol.*, vol. 16, pp. 459–470, 2014.
- [84] Y.-C. Lee, N.-H. Tang, and V. Sugumaran, "Open Source CRM Software Selection

- using the Analytic Hierarchy Process,” *Inf. Syst. Manag.*, vol. 31, no. 1, pp. 2–20, 2014.
- [85] Y. Xu, D. C. Yen, B. Lin, and D. C. Chou, “Adopting customer relationship management technology,” *Ind. Manag. Data Syst.*, vol. 102, no. 8, pp. 442–452, 2002.
- [86] S. H. Mohamad, N. A. Othman, J. Jabar, and I. A. Majid, “Customer Relationship Management Practices: The Impact on Organizational Performance in SMEs of Food Manufacturing Industry,” *Eur. J. Bus. Manag.*, vol. 6, no. 13, pp. 2222–2839, 2014.
- [87] M. Wade, “<Mis Quarterly Rbv.Pdf>,” vol. 28, no. 1, pp. 107–142, 2004.