



Research Paper

FACTORS AFFECTING CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM ADOPTION IN SMALL AND MEDIUM ENTERPRISE IN PALESTINE

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Abstract

Customer relationship management system (CRM) help companies to develop and maintain customer relationship, streamlining processes eventually and improving profitability. The CRM system has gained the reputation of being a significant business tool despite the challenges faced in its successful implementation. CRM system is explained as a concept of use process, information, technology, and people to manage the organization's interactions with its customers. This study focuses on creating superior customer relationship experiences to identify the factors which affect the CRM implementation in SMEs companies in Palestine. The authors adopted a self-administered email interview to collect data from 10 SMEs experts.

Key Terms: Customer relationship management system; Palestine; small and medium enterprise; Information and Communication Technology; business

1. Introduction

Revolutionary change in the world is going through an advanced stage of knowledge and scientific development that is characterized by increased progress in all fields, especially in the field of Information and Communication Technology (ICT). ICT could provide small businesses with a strategic advantage such as customer relationship management (CRM) which could influence the achievement of goals to improve their competitive position (Mohamad et al., 2014).

Scholars and practitioners have addressed CRM since the past two decades (Kyengo et al., 2016; Williams et al., 2016), where the concept refers to the practices, strategies and

technologies used by firms and businesses for the management and analysis of customer interactions and data through the customer lifecycle, in order to achieve rapid growth in the number of organizations that integrate CRM (Davies et al., 2015).

According to Awasthi and Sangle (2012) CRM has been one of the top technological contributions to the 21st century businesses. Different definitions from different approach that have been proposed to define CRM from technical definition (narrow) to strategic definitions (broad) (Payne, & Frow 2006). Majority of the definitions are limited to the technological portion, in particular, the information system within which the data is stored (Vella & Caruana, 2012).

Moreover, CRM technology was also defined as the CRM system enabler to achieve the objectives of gathering, categorizing and saving required customer data, integration technology enables the development of customer-organization relationship through a broader information of customer behavior (Teo et al., 2006). The ultimate aim of using CRM is to enhance customer relationships that would lead to maximized revenue, profit, productivity and satisfaction of customers. Companies that have adopted CRM as a business strategy expected to grow faster than companies which did not (Ata & Toker, 2012).

Top managements recognize that customers are the core of small businesses. The success of a company relies on effective relationships management with customers. In order to meet customers' expectation; companies should adopt oriented marketing strategies to high quality relationship with customers to ensure the company's success. (Peltier et al., 2013).

The customer relationship management (CRM) is being a key strategy for both small and medium enterprise (SMEs). SMEs have to implement CRM practices into their business to achieve competitive advantage over its rivals (Mohamad et al., 2014). The adoption of CRM by small enterprises would provide them with valuable information, increased knowledge, improved relationships with customers and supplier (Williams et al., 2016; al-Shawi et al., 2011). Yet, for the CRM implementation to be successful, it is important to understand the challenging issues that surround. Some of these challenges are related to information culture and CRM security (Awa et al., 2016; Osubor & Chiemeké, 2015; Iriana et al., 2013).

SMEs should be competent since they are the back bone to the economy of the developing countries (Adam et al., 2016; Abou-Shouk et al., 2016; Ramayah et al., 2016). One way of becoming competent is through using IT application in its operation. CRM has been identified as offering IT solution to the problem. However, SMEs do face problems in employing CRM due to the absence of frameworks and the less awareness of the advantages of CRM in enhancing the organization's performance (Jaber & Simkin, 2017).

The present paper go beyond the extant of previous studies, which include information culture and security factor under the technology dimension rather than examining only on organizational and technical dimension in the CRM implementation. Thus, this study could leverage the SMEs to embark on CRM initiative. Additionally, the examination of the shortcomings in CRM implementation among Palestinian private sector employees can highlight the use of CRM systems and the way such use can be developed and enhanced. Palestinian studies of this caliber are still few and far between.

2. Literature Review

Businesses have always been concerned with their customers, as they are central to the organization activities. Several studies have been explaining the significance of CRM in organization and discovered that the effect of CRM implementation is more on the sales forces managing customer relationships, rather than selling products (Josiassen, Assaf & Cvelbar, 2014). Such as finding could boost the significance of CRM in the future (Rodriguez et al., 2018).

CRM was the fourth most used tool in business (Kyengo et al. 2016) and it holds the key of understanding to create the sustainable customer relationship, and ultimately, it is the center of obtaining and maximizing the number of loyal customers. Furthermore, the CRM strategies successful implementation and adoption provides considerable advantages to the adopting firms, including competitiveness (al-Motairi, 2009). Since its introduction in the 1990s, CRM it has gained the attention from academics and practitioners (Haenlein, 2017). CRM has permeated into every company, with its design focused on customer interaction and customer prioritization. According to Hasani et al. (2017), CRM play a key role in the companies' success or failure, as a result of which, scholars have proposed several definition for the term ranging from strategic to the more narrow technical definitions as explained by (Payne & Frow, 2006).

2.1 Definition of CRM

Chen and Chen (2004) 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. Iriqat and Abu Daqar (2017) referred to the concept as one that manages and facilitates the business processes and activities of the organization. Hence, CRM can be viewed as a strategic business and process as opposed to having a technical nature. Several definitions of CRM provided by authors in literature are listed in Table 1 in chronological order;

Table 1 Various definitions accorded to CRM

Author	Definition
Xu et al. (2002)	Methodologies, software and internet capabilities that assist the business effectively manage its relationship with the customer
Bull (2003)	Information that assists firms to comprehend the customers' needs and evaluate their behavior against the processes of operations within the firms
Ngai (2005)	An integrated system of sales, marketing, and services strategies that steers clear of viewing customers in 1 dimension
Abdullateef et al. (2010)	The ability of the organization to combine people, process and technology in the hopes of increasing the positive relationships with present and potential clients
Ernst et al. (2011)	IT-based solutions that enhance the firm-customers interaction and information exchange
Mozaheb et al. (2015)	A business strategy that concentrates on increasing customer loyalty and satisfaction
Soltani and Navimipour (2016)	The complete building and maintaining process of profitable customer relationships through the delivery of optimum customer value and satisfaction, with the overall goal of enhancing customer business relationships

Jehad et al. (2017)	A comprehensive strategy and process enabling the organization's identification, acquisition, retention and nurture of profitable customers via the development and maintenance of customer long-term relationships
Rahimi (2017)	A successful marketing strategy that assists in enhancing the performance of business along with retention and satisfaction of customers
Gadea (2018)	A technology that manages the entire relationships and interactions between the organization and its customers (present and potential) to improve business relationship

2.2 CRM as an innovation

Yang (2012) 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 (Vakola & Rezgui, 2000; Valmohammadi, 2017). 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 (Valmohammadi, 2017). Moreover, innovation is related to the firm's ability to search for novel and optimum ways for identifying, acquiring and establishing organizational tasks (al-Ansari et al., 2013; Chang et al., 2017). In this regard, a significant positive relationship exists between SMEs innovative dimension and the performance of business (Pour, 2018).

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 behaviors (acceptance/rejection). Such characteristics affect new technology adoption depending on product-specific features (Chang et al., 2017). Along with the mentioned five characteristics, security has also been identified as being part of the significant factors that influence the adoption of ICT (Sin et al. 2009; Raut et al., 2017). 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. (Jaber & Simkin 2017, Iriana et al. 2013). Table 2 reveals that CRM is an innovation as it is a new technology implemented for a more robust and profitable customer relationships.

Table 2 CRM Innovation technology

Author /Year	Title
Payne (2005)	Handbook of CRM : Achieving Excellence in Customer Management

Faed et al. (2010)	The critical success factors for implementation of CRM and knowledge management in a work setting
al-Shawi al. (2011)	Organisational, technical and data quality factors in CRM adoption - SMEs perspective
Iriana et al. (2013)	Does organisational culture influence CRM's financial outcomes?
Nguyen and Waring (2013)	The adoption of customer relationship management (CRM) technology in SMEs
Iriana et al.(2013)	Does organisational culture influence CRM's financial outcomes?
Davies et al. (2015)	The Gartner CRM Vendor Guide, 2015
Laketa et al. (2015)	Customer relationship management: concept and importance of banking secto
Varajão and Cruz-Cunha (2016)	Main Motivations for CRM Adoption by Large Portuguese companies - A Principal Component Analysis
Valmohammadi (2017)	Customer relationship management: Innovation and performance
Jaber and Simkin (2017)	Unpicking antecedents of CRM adoption: a two-stage model
Valmohammadi (2017)	Customer relationship management: Innovation and performance
González-Benito et al. (2017)	CRM Technology: Implementation Project and Consulting Services as Determinants of Success
Ahani et al. (2017)	Firm Performance through Social Customer Relationship Management : Evidence from Small and Medium Enterprises
Gamayanto and (Christian 2018)	The Development of Innovative CRM E-Commerce: The Case of Blibli.Com Indra

In a related study, Valmohammadi (2017) argues that despite CRM and innovation importance to performance, little attention has been placed on the way they work towards achieving enhanced performance. This issue is compounded by the lack of empirical evidence in the face of conceptual work which considers as a strengthening factor for innovation in the organization. In this background, one of the top challenges faced in CRM implementation is to gather heterogeneous data sources to create innovative value propositions (e.g., collecting customer data from social networks) (Diffley & McCole, 2015; Zerbino et al., 2018).

3. Research Design and Methodology

The findings of this paper is to extend the understanding of CRM implementation among SMEs. Accordingly, the researchers adopted an interpretive and qualitative approach, with the help of email interviews as the primary method of collecting data from experts in Palestinian SMEs. The present research involves a descriptive and content analysis for factors verification and to provide insight into the phenomenon under study.

The present research reveals an extensive range of frameworks and models as a theoretical basis and several variables are proposed as facilitators/inhibitors of technology (i.e. CRM) adoption and use among SMEs, the criteria used to extract the technological and organizational factors were adopted from Mukred et al. (2018). Therefore, based on Table 3 and Table 4 the following procedures were used to derive the list of broad variables into the 20 factors table 5.

- i. A thorough literature review was carried out for CRM factors extraction (see appendix B).
- ii. The variables were arranged based on their relative importance as revealed in the research findings or the frequency with which they were identified as shown below (table 3)
- iii. The factors highlighted in the theoretical analysis and the literature review were sent to CRM practitioner in SMEs choose from table 3 and add factors (if any)

Table 3 Technological factors from the literature

Technological Factors	Authors Found significant
Relative advantage	Raut et al.); Ahani et al. (2017); Chang et al.(2017 (2017); Mangula et al. (2017); al-Rousan & Jones (2016); Awa et al.(2016); Wang et al. (2016); Maduku et al.(2016); Ramayah et al.(2016); al-Harbi et al. (2016); Chavoshi et al. (2015); HOTI (2015); Ahmad et al. (2015); al-Shamaila et al. (2013); Ramdani et al. (2013); Nguye and Waring (2013); Shah Alam et al. (2011); Sanayei et al.(2010); Ramdani et al.(2009); Bandyopadhyay and Fraccastoro (2007); Oh and Yoon 2014; Hussin and Noor 2005; Sin and Noor (2005); Dedrick and West (2004); Rogers (2003) Tornatzky and Klein (1982)
Compatibility	Hasani et al. 2017; Raut et al. Ahani et al. (2017); (2017); Mangula et al. (2017); Alrousan and Jones (2016); Ramayah et al. (2016); Wang et al. (2016); al-Harbi et al. (2016); Awa et al. (2016); Wilson et al. (2016); HOTI (2015); Ahmad et al. (2015); Chavoshi et al. (2015); al-Hammadi et al.(2015; Oh and Yoon (2014); Šebjan et al. (2014); al-Shamaila et al. (2013); Nguyen and Waring (2013); Ramdani et al. (2013); Shah Alam et al. (2011); Sanayei et al. (2010); Ramdani et al. (2009); Zhu et al. (2006); Hussin & Noor (2005); Dedrick & West (2004); Rogers (2003); Tornatzky and Klein (1982)
Complexity	Chang et al. (2017; Ahani et al. (2017); Hasani et al. (2017); Wang et al. (2016); Wilson et al. (2016); Alrousan and Jones (2016); Maduku et al. (2016); Alharbi et al. (2016); HOTI (2015); al-Hammadi et al. (2015); Ahmad et al. (2015); Chavoshi et al. (2015); Nguyen and Waring (2013); Ramdani et al. (2013); Sanayei et al. (2010); Ramdani et al. (2009); Bandyopadhyay and Fraccastoro (2007); Zhu et al. (2006); Hussin and Noor (2005); Dedrick and West (2004); Rogers (2003); Tornatzky and Klein (1982)

Trialability); Mangula et al. (2017); Hasani Chang et al. (2017); Chavoshi et al. (2017); al-Rousan and Jones (2016); et al. (2015); HOTI (2015); al-Hammadi et al. (2015); al-Shamaila et al. (2013); Nguyen and Waring (2013); Sanayei et al. (2010); Ramdani et al. (2009); Zhu et al. (2006); Hussin and Noor (2005); Dedrick and West (2004); Rogers (2003)
Observability); Mangula et al. (2017); Alrousan Chang et al. (2017); HOTI (2015); al-Hammadi et al. and Jones (2016); 2015; Chavoshi et al. (2015); Nguyen and Waring (2013); Ramdani et al. (2013); Sanayei et al. (2010); Ramdani et al. (2009); Zhu et al. (2006); Hussin and Noor (2005); Dedrick and West (2004); Rogers (2003)
Technology readiness	Techakriengkrai and Tan al-Harbi et al. (2016); (2015); Oliveira and Martins (2010); Croteau and Li (2003)
cost	Awa et al. (2016); Awa et al. Ahani et al. (2017); (2016); Ramayah et al. (2016); Shah Alam et al. (2011); Tornatzky and Klein (1982)
Security	Ramayah et al. (2016); Shah Frygell et al. (2017); al-Am et al. (2011); Boon et al. (2005)
reliability); Brockman et al. (2017); Veraki and To (2017); Awa et al. (2016); Abou-Shouk et al. (2016); Nedra and Soliman (2016); Khan et al. (2016); Gao et al. (2015); Venturini and Benito (2015); Goudarzi et al. (2013); Laohasirichaikul et al. (2011); al-Shawi et al. (2011); Delone & Mclean (2003)
Trust); sou and Huang Gamayanto and Christian (2018 (2018); Iriqat and Daqar (2017); Veraki and To (2017); González-Benito et al. (2017); Cambra-Fierro et al. (2017); Hawary and al-Daihani (2016); Nedra and Soliman (2016); González-Benito et al. (2017); Hsu et al.(2016); Williams et al. (2016); Soltani and Navimipour (2016); Bahri-Ammar et al. (2015); Sulaiman et al. (2014); Wrobelet al. (2013); Nguyen and Mutum (2012); Ernst et al. (2011); Akroush et al. (2011); (Ngai 2005)
Switching cost	Iriqat and Daqar (2017); Meyliana et al. (2017); Chavoshi et al. (2015); Elkordy (2014); Reimann et al. (2009)

Perceived Usefulness

Tarhini et al. (2017; Jaber and Simkin (2017); Rodriguez and Trainor (2016); Venkatesh et al. (2016); Awa et al. (2016); Rondan-Cataluña et al. (2015); Williams et al. (2015); Šebjan et al. (2014); Ghobakhloo et al. (2012); Vella and Caruana (2012b); Vella and Caruana (2012a); Sanayei et al. (2010); Hoon and Lee (2007)

Perceived Ease of Use

Tarhini et al. (2017; Jaber and Simkin (2017); Rodriguez and Trainor (2016); Venkatesh et al. (2016); Awa et al. (2016); Rondan-Cataluña et al. (2015); Williams et al. (2015); Šebjan et al. (2014); Ghobakhloo et al. (2012); Vella and Caruana (2012b); Vella and Caruana (2012a); Sanayei et al. (2010); Hoon and Lee (2007)

Table 4

Organizational factors form the literature

Organization factor	Author
Top management support	Mukred et al. (2018; Ahani et al. (2017; Raut et al. (2017; Mangula et al. (2017); Meyliana et al. (2017); Wilson et al. (2016); Rahimi and Gunlu (2016); Nizar Hidayanto et al. (2016); wa et al. (2016); Rigo et al. (2016); Asrar et al. (2016); Wang et al. (2016); Maduku et al. (2016); Laketa et al. (2015) ; Chavoshi et al. (2015); al-Hammadi et al. 2015; Eid & el-Gohary (2014); Mohamad et al. (2014); al-Shamaila et al. (2013); Newby et al. (2014) ;Garrido-Moreno et al. (2014); Ramdani et al. (20130; Cosgun and Dogerlioglu (2012); Akroush et al. (2011) ; al-Hudhaif (2011); Lawson-Body et al. (2011); Jayasingam et al. (2010); Ramdani et al. (2009); Da Silva and Rahimi (2007); Seyal et al. (2007); Yusof et al. (2006)
IS knowledge of employees	Ahani et al. (2017); Ramayah et al. (2016); Oliveira and Martins (2011); Ghalenooie and Sarvestani (2016); Chavoshi et al. (2015); HOTI 2015; Ghobakhloo et al. (2012)
Staff ICT skills	Olszak and Kisielnicki 2018; Ecil & Sonja 2015; ewby et al. 2014; Šebjan, Bobek & Tominc 2014; Ghobakhloo et al. 2012; Alshawi et al. 2011)
Internal barrier	Abualrob and Kang (2016); al-Mabhohu and Alzaza (2015); Šebjan et al. (2014); al-Shawi et al. 2011; Oecd (2000)
size	Mangula et al. (2017); Raut et al. (2017); Ramayah et al. (2016); Wang et al. (2016); Newby et al. (2014); Mohamad et al. (2014);al-Shamaila et al. (2013); al-Shawi et al. (2011); Lawson-Body et al. (2011); Oliveira and Martins (2011)
Financial Support = financial resource	Baidoun et al. (2018); Fouad and al-Goblan (2017); Hasani et al. (2017); Maduku et al. (2016); Ramayah et al. (2016); HOTI (2015) ; Šebjan et al. (2014); Mohamad et al. (2014); Iriana et al. (2013); Peltier et al. (2013); Ramdani et al. (2013); Ghobakhloo et al. (2012); Harrigan et al. (2012); Oliveira and Martins (2011); Riyaz

(2009); Ramdani et al. (2009); Hoon Yang et al. (2007); Hoon Yang et al. 2007; Zhu and Kraemer (2005)

Social Influence	al-Alwan et al. (2018); Trybou (2017); Safie et al.(2017); Mosweu et al. (2017); Olushola and Abiola (2017); Chang et al. (2017); Mrowani (2016); Rodriguez and Trainor (2016); Rodriguez and Trainor (2016); Šumak and Šorgo (2016); Venkatesh et al. (2016); Osubor and Chiemekwe (2015); Rondan et al. (2015); Williams Rana and Dwivedi (2015); Liu et al. (2014); Baker (2014); Liu et al. (2014); Mukred et al. (2013); Pai and Tu (2011); Venkatesh and Bala (2008); Bandyopadhyay and Fraccastoro (2007)
Organizational structure	Zerbino et al. (2018); Meyliana et al. (2017); Alem et al. (2017); Mohammed et al. (2017); Kyengo et al. (2016); Asrar and Anwar (2016); Nizar & Budiardjo (2016); Nizar Hidayanto et al. (2016); Ghaleenooie and Sarvestani (2016); Duwailah and al-Debei (2015); Laketa et al. (2015); el-Kordy (2014); Šebjan et al. (2014); Šebjan et al. (2014); Wright (2013); Zeynep and Toker (2012); Ghobakhloo et al. (2012); Akroush et al. (2011); Oliveira & Martins (2011); Aurora Garrido and Padilla (2011); Abdullateef et al. (2010); Lin and Kuan (2010), Hoon Yang et al. (2007); Teo and Pan (2006); Yusof et al. (2006); Payne (2005); Dedoussis (2004); Chen and Popovich (2003); Rogers (2003); Curry and Moore (2003); al-Vesson 2002)
Cost	Raut et al. (2017); Ahani et al. (2017); Varajão and Cruz (2016); Ramayah et al. (2016); al-Rousan & Jones (2016); Maduku et al. (2016); Newby et al.(2014); Maduku et al. (2016); Rahimi and Gunlu (2016); Venkatesh et al. (2016); Mohammed et al. (2014); al-Shawi et al. (2011); Yang (2012); Yusof et al. (2006); Teo et al. (2006)
Clear project vision and scope	HOTI (2015); al-Hammadi et al. (2015); al-Ter (2015); Ahmad et al. (2015); Šebjan et al. (2014); al-Shamaila et al. (2013); Zeynep and Toker (2012); al-Hudhaif (2011); Oliveira and Martins (2011); Lin et al. (2010); al-Motairi (2009); Foss et al. (2008); Zhu and Kraemer (2005); Boon et al (2005); Zhu and Kraemer (2005)
Innovativeness	Valmohammadi (2017); Ramayah et al. (2016); Wang et al. (2016); HOTI (2015); Newby et al. (2014); Šebjan et al. (2014); al-Shamaila et al. (2013); Fazlzadeh et al. (2011)
Manager's attitude	Ramayah et al. (2016); al-Rousan and Jones (2016); Nguyen and Waring (2013);Shah Alam et al. (2011); Faed et al. (2010)
IT Infrastructure	Nam et al. (2018); Mukred et al. (2018); Diffley and McCole (2015); Elkordy (2014); al-Shamaila et al. (2013); Kim et al. (2011); Sen and Sinha (2011); Rapp et al. (2010); Payne (2005)

Table 5 Summary of integrated factors

Factors	From literature review	From the field (practitioners)
Compatibility	√	√
IT infrastructure	√	√
Top Management Support	√	√
Financial resource	√	√
Social Influence	√	√
Security	×	√
Reliability of information (information integrity)	×	√
Policies not adequate (information policies)	×	√
Refused to change (attitude)	×	√
Employees acceptance (Culture change) (complacent)	×	√
Relative advantage	√	×
Complexity	√	×
Trialability	√	×
Observability	√	×
Technology readines	√	×
Cost	√	×
Reliability	√	×
Trust	√	×
Switching cost	√	×
Perceived Usefulness	√	×
Prceived Ease of Use	√	×
IS knowledge of employees	√	×
Staff ICT skills	√	×
Internal barrier	√	×
Size	√	×
Organizational structure	√	×
Cost	√	×
Clear project vision and scope	√	×
Innovativeness	√	×
Manager's attitude	√	×

4. Results and Discussion (Important for research paper)

This study aimed to investigate the factors affecting CRM Implementation from the review of literature along with their classification are presented under the Research Design and

Methodology section. In the second part, the experts-provided factors are illustrated after which, propositions concerning the potential impact of CRM CSFs among Palestinian SMEs is explained. The variables were categorized into technological, organizational and information culture factors. The resulting factors were consolidated into 10 factors as shown in Table 6 below

Table 6 Summary of factors for the literature

context	factors
Technological Factors	Compatibility IT Infrastructure Security
Organizational Factors	Top Management Support Financial Support Social Influence
Culture factors	Information Integrity Attitude Information policies Culture change

5. Conclusion

CRM system use 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 systems flows from bottom to top, involving supply chain, internal and external customers, stakeholders and labor requirements. The CRM system creation should be customer-centered from the beginning of the System Design.

Moreover, CRM technology is characterized as costly and complex innovation and as such, it needs integrated information systems, costly infrastructure facilitation, and advanced technological skills and knowledge for its implementation and usage (Laketa et al. 2015). CRM technology helps improve organizational performance by using networking technologies to expand CRM applications to major suppliers and customers well (Chang et al. 2010).

This research contributes to both academics and business practitioners by enhancing our understanding of effective CRM implementation the criteria used to extract the technological, organizational and information factors were adopted from Mukred et al. (2018) leads to improve organizational performance, this study particularly helps management to know what it should do in order to complete CRM execution

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