Customer relationship management implementation
An investigation of a scale’s generalizability and its relationship with business performance in a developing country context

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Abstract
Purpose – The purpose of this paper is to examine the generalizability of the customer relationship management (CRM) scale originally developed by Sin et al. as well as to investigate the strength of linkages between CRM implementation components and business performance in Jordan’s financial service organizations (FSOs).

Design/methodology/approach – Using a quantitative methodology, data were collected through a survey that included FSOs that are operating in the Jordanian market. The original adopted CRM scale was administered to 12 banks and 18 insurance companies that were found to be implementing CRM. An overall number of 320 questionnaires were sent to these banks and insurance companies’ top management members who were directly involved in CRM implementation and performance assessments. Exploratory and confirmatory factor analyses were used to assess the generalizability of the CRM scale developed by Sin et al. Structural path model analysis was also used to test the research hypotheses concerning the relationship between CRM implementation and business performance.

Findings – The results suggest that the CRM implementation scale originally developed by Sin et al. does generalize to a Jordanian FSOs context. The findings indicate that there is a positive and significant relationship between CRM implementation components and FSOs’ business performance comprised of financial and marketing performances. CRM organization and technology-based CRM are the strongest predictors of variations in FSOs’ business performance.

Originality/value – This paper is the first systematic research project in Jordan that is devoted to investigating the scale and components of CRM implementation in Jordan and in the Middle East.

Keywords Customer relationship management, CRM implementation, Financial services, Technology management, Business performance, Jordan

Paper type Research paper
Introduction
Drucker (1954) long held the belief that the sole purpose of businesses is to create and keep customers. This business philosophy, as Kim et al. (2004) indicate, is operationalized today through a firm’s strategy of customer relationship management (CRM). Two main drivers behind the surge of interest in CRM are advances in information technology (IT) and the increasing prominence of customer orientation as a fundamental business philosophy. This explains the increasing research attention, which the CRM concept has received, culminating into the development of a scale to measure the various dimensions of the concept by Sin et al. (2005). Business organizations of different sizes are still motivated to adopt CRM to create and manage the relationships with their customers more effectively. An enhanced relationship with one’s customers can ultimately lead to greater customer loyalty and retention and, also, profitability (Ngai, 2005). Furthermore, the rapid advancements in communications technology have greatly transformed the way relationships between companies and their customers are managed (Bauer et al., 2002). Despite such an interest in the beneficial application of CRM, there is a serious limitation inhibiting the generalizability of the CRM scale to other economies/settings, for example, emerging ones, due to lack of empirical studies investigating the applicability and generalizability of the CRM implementation scale outside the setting in which it was originally developed, which is Hong Kong. Given the importance of globalization in spreading awareness of the importance of managerial/business concepts and practices and increasing their applicability and generalizability, there is an important need to test the applicability and generalizability of the CRM scale outside Hong Kong setting so as to expand our practical understanding of the construct and its expected influence on business performance, since its generalizability to other countries, economies, and industries is problematic and cannot be straightforwardly assumed (Sin et al., 2005); a recommended research idea that is also supported by other authors seeking to expand the generalizability of newly developed conceptual scales (Neubert and Wu, 2006), and impact of particular business practices on performance (Lai et al., 2007).

The majority of work related to the conceptualization and development of a CRM measurement scale has recently taken place within an East Asian setting; namely Hong Kong and South Korea (Kim et al., 2004; Yim et al., 2004; Sin et al., 2005). This limits our understanding of the concept in global markets. Therefore, in order to provide evidence on the generalizability of the CRM scale, Sin et al. (2005) call for replicative and creative studies to be conducted on a wider scale with firms from different nations/economies in order to further assess the generalizability of the CRM scale developed by them to other business environments, including the adoption of the CRM construct in other nations. They also add that it would be useful to explore the complexities of the relationship between CRM and alternative dimensions of business performance in future studies.

Based on the preceding discussion, we must ask, are the constructs and dimensions of CRM as proposed and developed in an East Asian setting reliable and valid for business firms in other cultures or nations? In addition, is the relationship between CRM and business performance a universal phenomenon? To fill in the existing gap in the literature, this study examines the applicability of the CRM construct in an emerging economy/developing country context. We believe that an investigation of CRM in countries with varying national market environments can help to test
the generalizability of the CRM scale and enhance our overall understanding of the concept of CRM. Our study comes as a contribution in this regard, particularly from an emerging market context and, thus, is classified as a study that aims to provide empirical validation of what constitutes CRM from an emerging market perspective. This becomes important especially in light of Sin et al.’s (2005) assertion that it is no longer sufficient to advise practitioners or researchers that the key to successful marketing is through CRM, without providing information on what dimensions actually constitute relationships upon which CRM can be considered to exist. Such empirical validation is needed to provide sufficient advice as to how the CRM concept can be properly translated into a comprehensive set of concrete organizational activities conducive to CRM success (Zablah et al., 2004).

Given the diversity of today’s organizations and the increasingly global competitive environment, conceptual measures such as those of CRM should be evaluated in cultures outside the settings, in which they were originally developed, given the differences in national market conditions, such as cultural values, the pace of economic development, among others. This becomes especially important when we take into account the acknowledgement expressed by Kim et al. (2004), in that we know little about the effectiveness of CRM and how CRM benefits customers, which makes the effectiveness of CRM as a marketing tool not well understood. Consequently, from an international marketing perspective, one of the challenges facing the academic marketing research (Deshpande, 1999; Day and Montgomery, 1999; Varadarajan and Jayachandran, 1999; Akroush, 2006; Jain, 2007) is that the generalizability of the marketing models, scales, theories and concepts needs to be validated within different business cultures and countries. Moreover, the extent to which strategy-performance relationships observed in a particular business context, such the Hong Kong one in the case of the CRM scale, are generalizable in the larger international context, and/or in other market contexts, remains under researched. Based on these calls, there is a need to conduct business as well as marketing research projects in economic environments in developing countries in order to examine the generalizability and validity of such concepts internationally. We respond to these calls by testing for the first time, the generalizibility of the CRM implementation scale, which was originally developed by Sin et al. (2005), and its relationship with business performance in Jordan’s financial services industry.

Finally, as the implementation of CRM is widespread (Peppard, 2000) and more advanced (Ryals and Payne, 2001) in the financial services industry than in other industries, the findings of this study can provide some valuable and enlightening insights to organizations in other sectors. The financial services industry is in the middle of a structural change. Increasing competition and customer demands in the Jordanian financial services industry require that financial services companies operating in such an industry focus on core competencies in order to deliver better value to their customers. On the other hand, many customers demand a complete range of financial products in order to satisfy their financial needs (Geib et al., 2006). The financial services industry in Jordan is not alien to such changes, since it has gone through a lengthy process of modernization, regulation, and privatization over the past 15 years, which has opened it up to foreign and international competition and, thus, integrated it with international financial services markets and industries. This has contributed to transforming Jordan and its economy into a promising regional services center in the Middle East. For example, over the past four years, four international banks
entered the Jordanian market, and three insurance companies were also established in Jordan that operate both in the Jordanian as well as regional/international markets. Consequently, taking Jordan as an example provides an interesting warranted case against which the generalizability of the CRM implementation construct and its assumed relationship with business performance can be tested, since this takes into account differences in the economic profile between developed and emerging markets. Accordingly, this study provides international financial service organizations (FSOs) significant research and insights on the required scale, components and items of CRM implementation from the Jordanian managers' perspectives and may be a good indicator of the required CRM implementation requirements in neighboring countries in the Middle East. Consequently, differences in the economic profile between developed and emerging markets, taking Jordan as an example, provide an interesting warranted case against which the generalizability of the CRM implementation construct and its assumed relationship with business performance can be tested. Based on this discussion and CRM literature review, this research is designed to achieve the following objectives:

1. to test the generalizability of the CRM implementation scale, which was originally developed by Sin et al. (2005), in FSOs operating in Jordan;
2. to reveal the CRM implementation components in FSOs operating in Jordan;
3. to investigate the relationship between the CRM implementation components and FSOs performance operating in Jordan; and
4. to examine the most influential CRM implementation components on FSOs performance operating in Jordan.

Literature review

Philosophical foundations of CRM

The philosophical rationale behind the importance of and the need for CRM lies in the importance of cooperative and collaborative relationships between buyers and sellers. As Yim et al. (2004, p. 263) have stated, “underpinning the paradigm of CRM is the basic belief that customer relationships, like other important assets in an organization, can be effectively developed and managed.” The result of this has been argued in the CRM literature to have favorable effects on business performance and enhancing profitability (Gruen et al., 2000; Crosby and Johnson, 2001; Zikmund et al., 2003; Kennedy, 2004; Rigby and Ledingham, 2004). CRM’s emphasis on nurturing constructive and beneficial relationships between an organization and its affluent customers explains the argument in the literature that considers CRM to have its roots in relationship marketing and to share its principles, hence the reason why the terms CRM and relationship marketing are used almost interchangeably in the marketing literature (Sheth, 2000; Parvatiyar and Sheth, 2001; Payne and Frow, 2006). Sin et al. (2005) indicate that the core theme of CRM and relationship marketing perspectives revolves around their focus on individual buyer-seller relationships; that these relationships are longitudinal in nature; and that both parties benefit in the relationship established. Thus, both concepts (CRM and relationship marketing) have come to represent a business philosophy that puts the buyer-seller relationship at the center of the firm’s strategic or operational thinking. As for the emergence of these two-related concepts, relationship marketing was introduced as early as 1983, when Berry (1983)
launched the term “relationship marketing,” which he defined as attracting, maintaining, and enhancing customer relationships. The emergence of relationship marketing, as indicated by Peppers and Rogers (1993) and Payne and Frow (2006), signaled a paradigmatic shift from mass marketing to individualized or “one-to-one” marketing, where the customer and supplier engage in a mutually beneficial co-production process.

However, the focus of CRM is primarily on key customers (Christopher et al., 1991; Gummesson, 1999; Ryals and Payne, 2001). CRM’s focus on dealing with selected key customers is echoed in the CRM literature to the extent that it has come to characterize the concept and has been reflected in its purpose, as Payne and Frow (2006, p. 136) state: “the purpose of CRM is to efficiently and effectively increase the acquisition and retention of profitable customers by selectively initiating, building, and maintaining appropriate relationships with them.” Despite the pioneering role of relationship marketing in advocating the relationship-oriented approaches to marketing, as Payne and Frow (2006) indicate, however, they point out that relationship marketing has not developed as a well-identified and integrated body of research. This paved the way for the emergence of CRM as the culmination of integrating both: popular modern marketing ideas based on relationship-oriented approaches, and newly available information technologies (Langerak and Verhoef, 2003; Yim et al., 2004; Boulding et al., 2005). Although CRM has become widely recognized as an important business approach, there is no universally accepted definition of CRM (Rigby et al., 2002; Yim et al., 2004; Zablah et al., 2004; Sin et al., 2005). As such, there is still much debate over exactly what constitutes CRM. In this context, Sin et al. (2005) explain that the CRM literature lacks a theoretical, integrative framework to delineate how the CRM concept can be properly translated into a comprehensive set of concrete organizational activities conducive to CRM success. That is why a number of prominent authors in this area have called for providing theoretical assistance (Gummesson, 2002), as well as prompt conceptual and measurement attention (Fournier et al., 1998; Yim et al., 2004; Sin et al., 2005) to CRM as an emerging discipline. Otherwise, the results would be poor understanding, as well as incorrect conceptualization and measurement, which consequently lead to improper application and eventually to abandonment and death of the concept.

Many definitions of CRM have been emerging, with each successive definition supplementing the previous ones and adding more focus to the concept and delineation of its underlying principles and dimensions. An early focus in CRM definitions appeared towards IT and its role in gathering and analyzing information about customers in order to identify their needs. These emphasized the contribution of database management in this regard (Krauss, 2002; Zikmund et al., 2003). However, such definitions were often accused of being too narrow and tactical in their approach to CRM (Payne and Frow, 2005), which often did not yield the expected results in terms of substantially higher customer retention rates (Thomas et al., 2004). Other narrowly based conceptualizations of CRM included viewing it in terms of marketing initiatives, such as call centers, loyalty programs, web sites, or personalized e-mails (Kim et al., 2004; Yim et al., 2004). Broader perspectives began to emerge in a number of definitions that started to focus on considering CRM as an organization-wide effort that centered on building and maintaining profitable customer relationships by identifying and satisfying customer needs and expectations. For example, Kotler and Armstrong
(2004, p. 16) defined CRM as “the overall process of building and maintaining profitable customer relationships by delivering superior customer value and satisfaction.” Earlier, Swift (2001, p. 12) emphasized the role of communications between an organization and its customers in the context of how an organization can identify the needs and expectations of its customers, when he defined CRM as an “enterprise approach to understanding and influencing customer behaviour through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability.” On their part, Parvatiyar and Sheth (2001, p. 5) defined CRM as “a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer.” They explain that the effective implementation of CRM requires a cross-functional integration of marketing, sales, customer service, and supply-chain to enhance value delivered to customers. In light of these definitions, Boulding et al. (2005) indicate that the field of CRM seems to be converging on a common definition, which considers CRM as a strategy that is centered on managing the acquisition of customer knowledge and the intelligent use of this knowledge to develop appropriate long-term relationships with specific customers. This emerging conceptualization and understanding of the concept of CRM is in line with the so-called “customer-centric” perspective of CRM coined by Payne and Frow (2005), which is one of three perspectives under which they categorize 12 definitions and descriptions of CRM. The other two perspectives are viewing CRM “narrowly and tactically as a particular technology solution,” and perceiving it as a “wide-ranging technology,” respectively. It is the “customer-centric” perspective, Payne and Frow (2005) propose that should inform the approach followed in implementing CRM, since viewing CRM from a limited technology perspective can contribute to the failure of a CRM project (Kale, 2004; Payne and Frow, 2005). This concern is also voiced by Yim et al. (2004), who warn against solely approaching CRM from a technological perspective and, as a result, urge managers to think beyond the technological components of CRM. Enhancing relationships with customers leading to better customer loyalty and retention, as well as sales growth, can only be achieved and sustained over the medium and long-run by thinking of CRM from a more comprehensive perspective that is driven by a business philosophy that focuses on the needs and requirements of the customers. As a result, a more mature conceptualization of CRM has been reflected in various definitions of the concept that appeared in the literature, which, according to Ngai (2005), emphasize the importance of viewing CRM as a comprehensive set of strategies for managing those relationships with customers that relate to the overall process of marketing, sales, service, and support within the organization. Moreover, IT and information systems (IS) can be used to support and integrate the CRM process to satisfy the needs of the customer.

Thus, it can be argued that CRM represents a more mature and systematic approach to managing the relationship between the organization and its customers, which translates into a process whose stages or steps are reflected in Sin et al.’s (2005, p. 1266) definition of the concept as “a comprehensive strategy and process that enables an organization to identify, acquire, retain, and nurture profitable customers by building and maintaining long-term relationships with them.” The above definition of CRM put forward by Sin et al. (2005) integrates and synthesizes the work and contributions of a number of prominent authors on relationship marketing.
(Berry, 1983; Harker, 1999; Gummesson, 2002) and CRM (Jackson, 1985; Payne, 2000; Kotler and Armstrong, 2004). It also builds on the contributions of Ryals and Payne (2001), Zablah et al. (2004), and Tuominen et al. (2004), by highlighting a number of characteristics that distinguish CRM from relationship marketing, which revolve around considering CRM as more managerial in its perspective by focusing on making concerted efforts in building relationships with key customers, through attracting, maintaining, and enhancing customer relationships.

### Components of CRM

In response to the operational problem of CRM, in that no systematic attempt has been made to identify the behavioral dimensions upon which CRM can be considered to exist, two main studies were undertaken with the purpose of identifying key behavioral components that underpin successful CRM implementation. These two studies were conducted by Yim et al. (2004) and Sin et al. (2005), respectively. Both studies benefited from, and were subsequently built on, the notion put forward by Crosby and Johnson (2001), Fox and Stead (2001), Ryals and Knox (2001), and elaborated upon by Day (2003) as well as Kotler and Armstrong (2004), in that successful CRM implementation requires four key areas: strategy, people, technology, and processes, and that only when all these four works in concert can a superior customer-relating capability emerge (Yim et al., 2004; Sin et al., 2005). As a result, Yim et al. (2004) as well as Sin et al. (2005) considered CRM to be a multidimensional construct that consists of four main behavioral dimensions, which are: key customer focus (KCF), CRM organization (CRMO)/organizing around CRM, knowledge management (KM), and technology-based CRM (TBCRM). Conceptualizing CRM as a construct made up of these four components is consistent with Kincaid’s (2003, p. 41) view of CRM as “the strategic use of information, processes, technology, and people to manage the customer’s relationship with your company (marketing, sales, services, and support) across the whole customer life cycle.” It is also captured in Kim et al.’s (2004, p. 634) analysis of CRM as being “based on the premise of integrating people, processes, and technology throughout the value chain to understand and deliver customer value better.” An analysis of the main themes inherent in, and the rationales informing each of these CRM components, is discussed next.

#### Key customer focus

The main theme in the “KCF” component of the CRM construct is adherence to the needs of selected key customers, through providing personalized/customized products and/or services that meet such needs and expectations (Sheth et al., 2000; Ryals and Knox, 2001). An important condition that can enable the organization to be truly customer-focused is to adopt a cross-functional approach in the way in which it delivers value to its customers, as Payne and Frow (2006) propose. Under such an approach, cross-functional processes and capabilities represent a key means of linking the organization to its customers, instead of relying on scattered uncoordinated individual contributions from organizational functions, as argued by Webster (2002). These processes should be guided and driven by key performance objectives based on customer needs, as suggested by Ostroff and Smith (1992). In this way, the CRMO and its design is basically informed by a “KCF” philosophy, which streamlines the functioning of the organization into a value-adding whole.
CRM organization

The identification of the aforementioned four dimensions of CRM came as a result of synthesizing relevant marketing, management, and IT literature. The management literature contribution highlighted the importance of laying down the necessary managerial and organizational infrastructural elements required to support the CRM effort, through particular design choices. The aim here is to internalize the values that foster and facilitate orientation towards customers and fulfillment of their needs within the structure and culture of the organization. This can be achieved in a number of ways. For example, a team-based structure can be designed wherein a high-level of coordination and integration exists among all the different parts of the organization, with the purpose of enhancing the value-created and added to customers. Such a structure would include cross-functional teams, process teams, and customer-focused teams (Brown, 2000; Sheth et al., 2000; Ryals and Knox, 2001; Sheth and Sisodia, 2002). Also, a critical aspect pertaining to CRM is an organization-wide commitment to allocate and expend the necessary time, support, and resources required to identify and satisfy key customer needs (Nykamp, 2001; Ahmed and Rafiq, 2003; Yim et al., 2004; Sin et al., 2005). Furthermore, clear business goals that reflect a customer-centric orientation should be established, and efforts should be made to ensure that the employees possess essential skills and capabilities pertaining to how effective relationships with customers can be built and maintained, through designing effective training programs (Sin et al., 2005).

Knowledge management

Knowledge creation and knowledge utilization are the two main behavioral dimensions that often describe the basic functions of KM under a knowledge-based view of the firm (Grant, 1996; Zahra and George, 2002). Such functions are strongly related to CRM, since it is built on acquiring and analyzing information obtained from customers, and transforming that information into useful knowledge that can be exploited in ways that enhance business performance (Peppard, 2000; Sheth, 2000; Parvatiyar and Sheth, 2001; Yim et al., 2004; Sin et al., 2005; Payne and Frow, 2006). These KM functions are reflected in basic CRM activities that include: capturing customer information about their needs and preferences both directly and indirectly; developing sound mechanisms for sharing customer knowledge to facilitate concerted actions by different departments; and acting on the knowledge generated and disseminated (Sin et al., 2005). These activities correspond to knowledge learning and generation (Stefanou et al., 2003; Sin et al., 2005), knowledge dissemination and sharing (Schulz, 2001, Sin et al., 2005), and knowledge responsiveness (Kohli and Jaworski, 1990, Sin et al., 2005), respectively. All of this can enable organizational members to deliver an informed service to customers that is prompt, responsive, and based on well-utilized customer-specific knowledge (Kohli and Jaworski, 1990; Zahay and Griffin, 2004).

Technology-based CRM

IT and IS play an important role in the development of CRM (Ling and Yen, 2001; Kincaid, 2003). They represent an enabling and facilitating role in providing an infrastructural basis, which supports the CRM effort inside the organization, by managing the data required to understand customers, as indicated by Ngai (2005). This supportive role of IT includes maintaining a database as well as an accompanying...
hardware and software capability that can well enable the organization to serve its customers in an effective manner. The advances in IT provide organizations with the ability to collect, store, analyze, and share customer information in ways that greatly enhance their ability to respond to the needs of individual customers and thus to attract and retain customers (Butler, 2000). Payne and Frow (2006) point out to the increasing importance of the role of IT in enabling organizations to manage one-to-one relationships with potentially huge numbers of customers, and in assisting with the development of improved customer relationships. They call attention to the fact that organizations today have at their disposal a range of database, data warehouse, and data mining technologies, as well as a growing number of so-called CRM applications, which make it possible to gather vast amounts of customer data and to analyze, interpret, and utilize such data constructively. Such a leveraging effect of IT is exemplified in the ability of CRM applications to provide decision makers with analyzed data on customer patterns, develop prediction models, and efficiently customize and deliver value offerings to individual customers (Peppard, 2000; Vrechopoulos, 2004; Yim et al., 2004). The end result would be better customer acquisition and increased customer retention rates, which enhance business performance.

Research model and hypotheses development
This section discusses the general hypothesized relationship between CRM components and business performance, from which the hypothesized relationship between CRM components and business performance emerge. Figure 1 shows the hypothesized relationships between CRM implementation and business performance.

CRM implementation and financial performance
As Osarenkhoe and Bennani (2007) explain, CRM aims to lower costs by keeping customers rather than acquiring new ones. This has resulted in the currency of a number of terms such as customer retention, loyalty, and defection, which led to the emergence of economic arguments like customer profitability and lifetime value of customers. Hence, firms have sought to improve their financial performance (FP) by increasing their customer retention rate (Parvatiyar and Sheth, 2000; Bodenberg, 2001). This has led to the emergence of CRM as a management concept that has the potential to positively impact the cost-revenue ratio by aligning the company with its customers and focusing its resources on high-value customers, as indicated by Geib et al. (2006).

![Figure 1. The proposed research model: CRM implementation and business performance](image-url)
Effective business performance is achieved by improving the customer relationship by meeting diverse customer needs and increasing their involvement and participation in the marketing process (Sheth and Parvatiyar, 1995; Bhattacharya and Bolton, 2000; Kim et al., 2004). This leads to enhancing business outcomes such as sales, profitability, and repeat purchases (Christy et al., 1996). Hence, we can hypothesize that:

**H1.** There is a positive and significant relationship between the CRM implementation components (KCF, CRMO, KM, and TBCRM) and FSOs’ FP.

**CRM implementation and marketing performance**

Strong evidence indicated by CRM literature shows that organizations that successfully implement CRM receive CRM benefits. Consumers who develop a strong relationship with a firm and its offerings display a stronger sense of loyalty and intention to stay in the mutually beneficial relationship (Reichheld and Sasser, 1990; Smith and Barclay, 1997; Bolton, 1998; Wulf et al., 2001; Kim et al., 2004). They also continue to purchase the same products or services and other related and/or more expensive offerings (Reichheld, 1996; Henning-Thurau and Klee, 1997). Improved customer retention and loyalty also reduces marketing expenses (Reichheld, 1993; Sheth and Parvatiyar, 1995; Christy et al., 1996) because it costs less to serve loyal customers (Reichheld and Sasser, 1990; Reichheld, 1996). Hence, we can hypothesize that:

**H2.** There is a positive and significant relationship between the CRM implementation components (KCF, CRMO, KM, and TBCRM) and FSOs’ marketing performance (MP).

**Constructs measurements**

Scales used to measure the research constructs were drawn from available literature on CRM implementation, and business performance. Appendix 1 shows the research constructs measurement and items. The CRM implementation components were completely adopted from the original developers of the scale, Sin et al. (2005), who found that CRM implementation is a multidimensional construct consisting of four broad behavioral components: KCF, CRMO, KM, and TBCRM (Figure 1). Business performance measurement is a complex, multidimensional, and controversial phenomenon (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986; Venkatraman, 1990; Doyle, 1995; Clark, 1999). Operationalizing business performance is very problematic and complicated because of the existence of multiple organizational measures that have been presented by business strategy researchers (Ambler and Kokkinaki, 1997; Clark, 1999; Ambler and Riley, 2000). In our study, and consistent with previous literature (Sin et al., 2005), FSOs performance was assessed on the basis of managers’ subjective evaluation for four reasons. First, it is argued that business performance can be assessed by using management self-report assessment (subjective assessment), which has been proved to be equivalent to those of quantitative assessment (objective assessment). The accuracy of objective measures in explaining differences in performance between businesses is limited. Executives’ perceptions of performance, however, have been shown to exhibit high levels of consistency with objective measures. Second, research findings suggest that informant measures manifest less method variance than archival or historical figures, subjective assessments are strongly correlated to objective assessments of performance (Venkatraman, 1990).
Third, the literature advocated that the subjective approach is a reliable and valid method of measuring performance (Doyle and Wong, 1998). Fourth, the financial data is highly classified and confidential for FSOs in Jordan. The researchers made attempts to obtain FSOs financial data but the managers of FSOs were extremely reluctant to provide hard data.

Many researchers argue that business performance measurement should go beyond those of financial measures towards using marketing-based measures, for example, customer satisfaction and customer loyalty (Venkatraman and Ramanujam, 1986; Walker and Ruekert, 1987; Day and Wensley, 1988; Venkatraman, 1990; Doyle, 1995; Ambler and Kokkinaki, 1997). In our research, the business performance construct is operationalized using multiple items rather than using single items in order to capture the richness of this construct (Churchill, 1979). Since there has been no agreed set of specific criteria for measuring business performance, a researcher can use a specific set of criteria according to the research objectives, questions, and the marketing context in which the research is being conducted (Venkatraman and Ramanujam, 1986; Doyle, 1995; Ambler and Kokkinaki, 1997). Consequently, Clark (1999) and Ambler and Riley (2000), independently, recommend researchers use standard business performance measures rather than inventing new measures for each study. Business performance is defined as a multidimensional construct including financial and marketing-based measures (Doyle, 1995; Vorhies and Morgan, 2005). The financial measures are vital to reveal the ability of an organization’s ability to utilize its resources effectively and efficiently to achieve predetermined objectives. The marketing-based measures indicate the effectiveness of the organization in delivering value to its customers and strengthening relationships with customers (Dess and Robinson, 1984; Venkatraman, 1990). The dimensions of performance were operationalized using financial and marketing-based measures as follows:

- the financial measures are sales volume, profitability, return on investment, and market share (Dess and Robinson, 1984; Sin et al., 2005); and
- the marketing-based measures are customer relational quality, trust, loyalty and reducing marketing costs (Day and Wensley, 1988; Sin et al., 2005).

To measure business performance, each manager (respondent) was asked to assess his/her organization’s current performance in the Jordanian market relative to its major/close competitors with respect to four items of FP and four items of MP (Appendix 1). The managers’ responses were made on a five-point Likert scale ranging from “better than” to “worse than” major/close competitors.

**Research methodology**

*Research population and sample*

Our research population is the banks and insurance companies that are operating in the Jordanian market and are registered in the Central Bank of Jordan and Jordan’s Insurance Federation in 2008, respectively. There are 23 banks operating in the Jordanian market in 2008 (Central Banks of Jordan, 2008). There are 29 insurance companies operating in the Jordanian market in 2008 (Jordan Insurance Federation, 2008). Three banks and three insurance companies were not included in the research population since they were newly established (less than three years in the market) and were not able to assess the impact of CRM implementation on performance. Therefore, the research population consisted
of 20 banks and 26 insurance companies. All the banks and insurance companies were called and invited to participate in our research survey. Since all the banks and insurance companies’ headquarters are located in Amman, all of them were invited to participate in the survey. Consequently, 12 banks and 18 insurance companies agreed to be part of our survey. The researchers’ contacts with the banks and insurance companies that did not agree to participate in the surveys revealed that they are not implementing CRM or they are in the process of internal restructuring to implement CRM. Further, they are small in size and operations in the Jordanian market. However, our examination on the participated banks and insurance companies found that they are all of big and medium sizes in terms of invested capital and financial operations in the Jordanian market. Therefore, 60 percent of banks and 69.2 percent of insurance companies participated in our survey. Since the Jordanian economy has almost been liberalized and the Government of Jordan believes that the private sector takes the lead in the development process of the Jordanian economy, all the banks and insurance companies in Jordan are privately held and owned by the private sector.

Our research sample included marketing, sales, IT, CRM, quality managers, and other top management members who were directly involved in CRM implementation processes and activities and, performance assessment in banks and insurance companies. This is consistent with previous empirical studies that have been conducted in this research area (Yim et al., 2004; Plakoyiannaki, 2005; Reid and Catterall, 2005; Osarenkhoe and Bennani, 2007). This is also supported by the fact that the CRM implementation requires an interdepartmental approach rather than a CRM department approach (Payne and Frow, 2006; Osarenkhoe and Bennani, 2007). The essence of an interdepartmental approach relies on the fact that CRM implementation requires cross-functional integration with and among other departments and units in modern organizations. Therefore, multiple respondents from each bank and insurance company headquarters were included in the sample since they have a crucial effect on CRM implementation, and the unit of analysis in this study was “the manager” rather than “the organization.” This is consistent with CRM implementation literature that focused on understanding CRM implementation and its contribution to business performance from managers’ perspectives primarily. This study is designed to investigate if the CRM implementation scale developed by Sin et al. (2005) is generalizable in Jordan’s FSOs, and to examine the effect of CRM implementation on FSOs performance from “managers” perspectives rather than an “organizational” perspective. This is supported by work done in an early stage of this research where discussions with CRM and other managers in leading banks and insurance companies showed that several managers from each organization would provide concise and insightful information related to CRM implementation and performance. The rationale behind this finding, and as is argued in this research, is that choosing one manager or only CRM managers from each bank or insurance company would increase bias and exaggerate the effect of CRM implementation on performance. Those managers were chosen to participate in the study since they were able to provide sufficient data related to CRM implementation and performance.

Research instrument and data collection
Our research instrument was developed based on relevant literature review of CRM implementation and business performance which provided rich empirical material
to develop our CRM and performance questionnaire. The CRM implementation scale constructs, items and measurement, which is originally developed by Sin et al. (2005), is completely adopted in our research since it is valid, reliable, and is one of the recommended areas of future research (Sin et al., 2005). Business performance constructs measurement was also developed based on recognized literature of performance. A small section was also included in our questionnaire to study our sample’s characteristics. The research instrument was piloted using personal interviews with key CRM and other managers in FSOs to reveal ability of managers to understand it and to test its appropriateness for the research purposes. This pilot study was insightful for testing our instrument which led to making very minor alterations. The instrument was personally delivered to all the participated banks and insurance companies’ headquarters where the research objectives were explained to the contacted managers. Several in-depth interviews were carried out with CRM and other managers on leading FSOs in Jordan to get insights related to the research instrument and sampling design strategy. The primary data collection process was carried out using a highly structured questionnaire that was adapted from the current CRM implementation and performance literatures to achieve the research purposes. The research items were measured on five-point Likert-type scales ranging from 5 (strongly agree) to 1 (strongly disagree). Our research respondents were reminded three times; via personal contacts, telephone calls and e-mail, respectively. We contacted banks and insurance companies through key contacts that were established with them to administer our questionnaire. These contacts enabled the researchers to examine banks and insurance companies‘ structure to identify suitable CRM managers and other managers who participated in our survey. Jordan's Banks Society and Insurance Federation cooperated with the researchers to facilitate contacts with banks and insurance companies through providing cover letters asking them to cooperate with the researchers during the process of administering the survey. We delivered 320 questionnaires to banks and insurance companies from which 291 were returned; the response rate was 90.9 percent. The valid and usable questionnaires for data analysis were 285; 97.9 percent from the returned questionnaires.

Sample characteristics
Table I exhibits the research sample characteristics. As shown in Table I, 85.2 percent of FSOs managers are aged between 30 and 49, and 84.2 percent of them hold bachelor and graduate degrees. This would assist FSOs in implementing CRM initiatives to have successful transactions with the Jordanian customers who also fall within similar age and educational level categories. As shown in Table I, 84.9 percent of FSOs managers have obtained business education backgrounds. This indicates that FSOs focus on hiring business education managers who are, in general, business and customer-oriented. This would assist FSOs in developing and implementing successful CRM strategies since their managers are young, well educated, and motivated to make CRM successfully. Also, Table I shows that the majority of FSOs managers, 76.1 percent have experience that ranges from five to 14 years. This indicates that FSOs managers are well experienced in their business industry and would be of great help to implement CRM initiatives successfully. This holds a strategic implication that indicates that the FSOs have experienced managers to develop and implement CRM strategies.
Constructs validity

The validity of the research instrument was assessed through face validity, content validity and construct validity. The face validity was achieved through the pilot work of our research instrument with CRM and other managers in leading FSOs, as well as two academics from reputable business schools in Jordan who checked the relevance and appropriateness of our instrument to achieve our research objectives providing evidence of face validity. The fundamental issue in content validity lies in the procedures that are used to develop the research instrument (Churchill, 2001) that are:

- conducting a thorough examination on the previous empirical and theoretical work of CRM implementation and performance, upon which the operational definition for each variable was conducted, using multiple items to capture all its attributes; and

- conducting the pilot study before starting the fieldwork.

With regard to construct validity, as recommended by Hair et al. (1998), exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) are used to assess construct validity. Thus, EFA was performed to test the CRM scale components and business performance variables and to test the degree to which the items are tapping the same concept. It has been recommended that CFA, derived from structural equation modeling (SEM), is a more rigorous test of unidimensionality (Garver and Mentzer, 1999, p. 40). Thus, CFA was also utilized to confirm or refine the unidimensionality

<table>
<thead>
<tr>
<th>Managers’ age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>24</td>
<td>8.4</td>
</tr>
<tr>
<td>30-39</td>
<td>178</td>
<td>62.4</td>
</tr>
<tr>
<td>40-49</td>
<td>65</td>
<td>22.8</td>
</tr>
<tr>
<td>50-59</td>
<td>13</td>
<td>4.6</td>
</tr>
<tr>
<td>More than 60</td>
<td>5</td>
<td>1.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma (college) degree</td>
<td>45</td>
<td>15.8</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>201</td>
<td>70.5</td>
</tr>
<tr>
<td>Master degree</td>
<td>37</td>
<td>13.0</td>
</tr>
<tr>
<td>PhD degree</td>
<td>2</td>
<td>0.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational background</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business administration</td>
<td>43</td>
<td>15.1</td>
</tr>
<tr>
<td>Marketing</td>
<td>37</td>
<td>13.0</td>
</tr>
<tr>
<td>Economics</td>
<td>49</td>
<td>17.2</td>
</tr>
<tr>
<td>Accounting</td>
<td>47</td>
<td>16.5</td>
</tr>
<tr>
<td>Finance</td>
<td>66</td>
<td>23.5</td>
</tr>
<tr>
<td>Others (e.g. IT and quality)</td>
<td>43</td>
<td>15.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of experience in business</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 years</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>5-9</td>
<td>64</td>
<td>22.4</td>
</tr>
<tr>
<td>10-14</td>
<td>153</td>
<td>53.7</td>
</tr>
<tr>
<td>15-20</td>
<td>41</td>
<td>14.4</td>
</tr>
<tr>
<td>More than 20</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>100</td>
</tr>
</tbody>
</table>

Table I. Research sample characteristics
of measurements that resulted from the EFA. To assess the EFA, four commonly used assumptions were followed (Hair et al., 1998; Field, 2000): sampling adequacy (Kaiser-Meyer-Olkin measure > 0.5); the minimum eigen-value for each factor to be one; considering the sample size, factor loading of 0.40 for each item was considered as the threshold for retaining items to ensure greater confidence; and varimax rotation was used since it is a good general approach that simplifies the interpretations of factors (Field, 2000, p. 449). Statistical Package for Social Sciences shows which variables “clump together.” To assess the CFA, goodness of measurement model fit using SEM were followed (Chau, 1997, p. 318): \( \chi^2 \) (\( p \geq 0.05 \)); goodness-of-fit index (GFI \( \geq 0.90 \)); adjusted goodness-of-fit index (AGFI \( \geq 0.80 \)); normed fit index (NFI \( \geq 0.90 \)); non-normed fit index (NNFI \( \geq 0.90 \)); comparative fit index (CFI \( \geq 0.90 \)); and root mean square error of approximation (RMSEA \( < 0.10 \)). Factor loadings are the correlations of the variables with the factor, the weighted combination of variables, which best explains the variance. Higher values (e.g. more than 0.40) making the variable representative of the factor (Hair et al., 1998, p. 106).

Table II shows the results of EFA for the CRM scale components. An index of Kaiser’s measure of sampling adequacy (overall MSA = 0.844) and Bartlett’s test of Sphericity (\( p \leq 0.00 \)) suggested that factor analysis is appropriate for analyzing our data. Based on the eigen-value > 1, the four factor model explains 65.05 percent of the total variance. As shown in Table II, results of EFA indicate that the 18 items of the CRM implementation scale loaded on four factors which are similar to the same CRM implementation components developed by Sin et al. (2005). The EFA results provide general support for Sin et al.’s (2005) CRM implementation scale. After examining the pattern matrix of the EFA, all items had loadings > 0.4 and communalities > 0.5. However, the EFA results indicate that two items were deleted due to weak factor loading. The first item is from KCF component, coded as KCF4, and the second item is from CRMO, coded as CRMO5. Examining the deleted items revealed that the deletion of KCF4 is reasonable since FSOs need a higher level of interdepartmental coordination and integration in modifying their products to respond to customers’ needs. The deletion of CRMO5 is also realistic since FSOs employees’ performance measurement and reward systems are still dominated by FP (e.g. sales) rather than meeting customers’ needs. One item of the KM component, coded as KM1, loaded on the KCF component. KM1 is loaded on KCF since it is related to customer focus and using its knowledge as one of the focal points of CRM implementation in FSOs.

To confirm and validate the findings that emerged from using EFA, the four CRM implementation components were evaluated by CFA using EQS 6.1 software. Figure 2 shows the measurements models of CRM implementation components and a summary of the model goodness-of-fit. As shown in Figure 2, measures of goodness-of-fit were met. It should be noted from Figure 2 that there were non-significant loadings; this is due to the measurement model identification (Dunn et al., 1994, pp. 23-4). As shown in Figure 2, the results emerged from CFA support the findings that emerged from EFA and all items loadings well exceeded the cut-off point value 0.40. However, Figure 2 shows that only one item deleted during CFA from TBCRM, coded as TBCRM5, due to weak factor loading. The deletion of TBCRM5 item seems to be reasonable since individual customer information may not be available at every point of contact in FSOs at this stage of CRM among them. As shown in Figure 2, the modified final scale of CRM implementation consists of 15 items measuring four components in FSOs.
These findings provide general support for the original CRM implementation scale (Sin et al., 2005), which is consisted of four broad behavioral components. To further test the structure of the CRM implementation scale, a second-order factor CFA was compared to a four-factor CFA model. The CFA fit indices for the second-order factor

<table>
<thead>
<tr>
<th>No.</th>
<th>CRM implementation components</th>
<th>Exploratory factor analysis results&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>KCF</td>
</tr>
<tr>
<td>KCF</td>
<td>My organization provides customized products and services to our key customers</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>Through ongoing dialogue, we work with individual key customers to customize our offering through ongoing dialogue</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>My organization makes an effort to find out what our key customer needs</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>My organization fully understands the needs of our key customers via knowledge leaning</td>
<td>0.65</td>
</tr>
<tr>
<td>CRMO</td>
<td>Our organizational structure is meticulously (thoroughly) designed around our customers</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>My organization has established clear business goals related to customer acquisition, development, retention, and reactivation</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>My organization has the sales and marketing expertise and resources to succeed in CRM</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td>Our employee training programs are designed to develop skills for acquiring and deepening customer relationships</td>
<td>0.78</td>
</tr>
<tr>
<td>KM</td>
<td>My organization provides channels to enable ongoing two-way communication between our key customers and us</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>My organization’s employees are willing to help customers in a responsive manner, e.g. through interaction and touch points</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>Customers can expect prompt service from employees of my organization</td>
<td>0.67</td>
</tr>
<tr>
<td>TBCRM</td>
<td>My organization has the right software to serve our customers</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>My organization has the right hardware to serve our customers</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>My organization has the right technical personnel to provide technical support for the utilization of computer technology in building customer relationship</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>My organization maintains a comprehensive database of our customers</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Sampling adequacy (Kaiser-Meyer-Olkin measure &gt; 0.5)</td>
<td>0.844</td>
</tr>
<tr>
<td></td>
<td>Eigen-value for each factor</td>
<td>7.291</td>
</tr>
</tbody>
</table>

Notes: <sup>a</sup>Exploratory factor analysis results; extraction method: principal component analysis; rotation method: varimax with Kaiser normalization; rotation converged in six iterations; varimax rotation was used since it is a good general approach that simplifies the interpretations of factors.
revealed that the model provides very reasonable fit to the data (Hu and Bentler, 1999; \( \chi^2 = 162.74; \) CFI = 0.94; GFI = 0.96; RMSEA = 0.08 (Voss et al., 2003).

Construct validity for business performance. Table III shows the results of EFA that indicate that the eight items of the business performance loaded on only two factors. These factors are financial and marketing measures of performance. As shown in Table III, all items of the two factors well exceeded the cut-off point value 0.40. These results provide general support for the business performance literature review that advocated that it is a multidimensional construct. To confirm and validate the findings that emerged from using EFA, the two factors of business performance were evaluated by CFA using EQS 6.1 software. Figure 3 shows the measurement model of the business performance and a summary of the model goodness-of-fit. As shown in Figure 3, all measures of goodness-of-fit were met. The results emerged from CFA support the findings that emerged from EFA all items loadings well exceeded the cut-off point value 0.40, and the CFA model is fit. The results of EFA and CFA indicate
Exploratory factor analysis results

<table>
<thead>
<tr>
<th>Business performance</th>
<th>Exploratory factor analysis results&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FP</strong></td>
<td></td>
</tr>
<tr>
<td>FP1 Sales volume</td>
<td>0.89</td>
</tr>
<tr>
<td>FP2 Profitability volume</td>
<td>0.91</td>
</tr>
<tr>
<td>FP3 Return on investment</td>
<td>0.90</td>
</tr>
<tr>
<td>FP4 Market share</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>MP</strong></td>
<td></td>
</tr>
<tr>
<td>MP1 Customer relationship quality</td>
<td>0.89</td>
</tr>
<tr>
<td>MP2 Company's customers trust</td>
<td>0.85</td>
</tr>
<tr>
<td>MP3 Customers' loyalty</td>
<td>0.87</td>
</tr>
<tr>
<td>MP4 Reducing the required resources in performing our services, e.g. reducing time, cost of our services delivery</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Sampling adequacy (Kaiser-Meyer-Olkin measure greater than 0.5) 0.866
Eigen-value for each factor 5.241 1.610

Notes: <sup>a</sup>Exploratory factor analysis results; extraction method: principal component analysis; rotation method: varimax with Kaiser normalization; rotation converged in three iterations; varimax rotation was used since it is a good general approach that simplifies the interpretations of factors

---

Figure 3. Confirmatory factor analysis results for business performance

Table III. Exploratory factor analysis results for business performance components

<table>
<thead>
<tr>
<th>Model goodness of fit</th>
<th>Financial performance</th>
<th>Marketing performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>8.62; $p = 0.15$</td>
<td>$0.50^*$</td>
</tr>
<tr>
<td>GFI</td>
<td>0.942</td>
<td>$0.90^*$</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.890</td>
<td>$0.91^*$</td>
</tr>
<tr>
<td>NFI</td>
<td>0.956</td>
<td>$0.75^*$</td>
</tr>
<tr>
<td>CFI</td>
<td>0.979</td>
<td></td>
</tr>
<tr>
<td>NNFI</td>
<td>0.955</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.075</td>
<td></td>
</tr>
</tbody>
</table>
that the CRM implementation scale encompasses four components and business performance is multidimensional in FSOs in Jordan. These findings provide empirical evidence from a developing business environment, Jordan, to support the CRM implementation scale and business performance literature review. The importance of the EFA and CFA findings comes from the fact that this research is the first empirical work in the field of CRM, in a developing country business environment, that has investigated CRM implementation components and business performance dimensions in FSOs in Jordan.

Convergent validity is examined by using the Bentler-Bonett NFI (Bentler, 1990). All of the constructs have NFI values above 0.90. Furthermore, as shown in Figure 2, indication of the measures' convergent validity is provided by the fact that all factor loadings are significant and that the scales exhibit high levels of internal consistency (Gerbing and Anderson, 1988; Fornell and Larcker, 1981). Also, as shown in Table V, the values of composite reliability and average variance-extracted (AVE) for each construct are all above the threshold suggested by Bagozzi (1980): 0.70 and 0.50, respectively. Evidence of the measures' discriminate validity is provided based on the assessment of lower correlations between distinct constructs compared to the AVE, as shown in Tables IV and V.

**Structural analysis and findings**

After validating the research constructs, summated rating scales were formed for each construct by averaging the scores on the items belonging to each construct. Reliabilities of the constructs were satisfactory (Table V). We tested our hypotheses

<table>
<thead>
<tr>
<th>KCF</th>
<th>CRMO</th>
<th>KM</th>
<th>TBCRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.464*</td>
<td>0.663*</td>
<td>0.576*</td>
</tr>
<tr>
<td>0.464*</td>
<td>1</td>
<td>0.462*</td>
<td>0.491*</td>
</tr>
<tr>
<td>0.663*</td>
<td>0.462*</td>
<td>1</td>
<td>0.678*</td>
</tr>
<tr>
<td>0.576*</td>
<td>0.491*</td>
<td>0.678*</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table IV.** Correlations among the independent variables, the dependent variables

The independent variables

KCF \((M = 3.56,\text{ std } = 0.60)\)

CRMO \((M = 4.15,\text{ std } = 0.80)\)

KM \((M = 4.11,\text{ std } = 0.67)\)

TBCRM \((M = 3.66,\text{ std } = 0.72)\)

The dependent variables

FP \((M = 4.17,\text{ std } = 0.75)\)

MP \((M = 4.16,\text{ std } = 0.70)\)

Note: Correlation is significant at: *0.01 level

<table>
<thead>
<tr>
<th>Research constructs</th>
<th>No. of items</th>
<th>Composite reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CRM implementation components</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KCF</td>
<td>4</td>
<td>0.84</td>
<td>0.58</td>
</tr>
<tr>
<td>CRMO</td>
<td>4</td>
<td>0.96</td>
<td>0.63</td>
</tr>
<tr>
<td>KM</td>
<td>3</td>
<td>0.96</td>
<td>0.53</td>
</tr>
<tr>
<td>TBCRM</td>
<td>4</td>
<td>0.83</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>Business performance components</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP</td>
<td>4</td>
<td>0.87</td>
<td>0.64</td>
</tr>
<tr>
<td>MP</td>
<td>4</td>
<td>0.88</td>
<td>0.65</td>
</tr>
</tbody>
</table>
using a structural path model with business performance comprised of financial and MP, as the dependent variables, and the four components of CRM implementation in Figure 1, as the independent variables. The analysis procedures to test the research hypotheses required evaluating the model goodness-of-fit to check if the hypothesized model is similar to the observed data. In addition, the significance of the parameter estimates was evaluated through constants, \( \beta \) coefficients, the calculated \( t \)-values for each coefficient, and the coefficient of determination. One structural path model was run to examine the research hypotheses:

\[ H1. \] There is a positive and significant relationship between the CRM implementation components (KCF, CRMO, KM, and TBCRM) and FSOs’ FP.

Figure 4 shows the structural path model that examined the relationship between the CRM implementation components and FSOs’ business performance comprised of FP and MP. The review of the goodness-of-fit measures indicates that they well exceeded the cut-off values. The structural path findings indicate that there is a significant and positive relationship between the CRM implementation components and FSOs’ FP. Table VI exhibits results of the structural path model of CRM implementation on FSOs’ FP. In the overall model, \( R^2 \) is 0.385. Table VI shows that 38.5 percent of the variation

<table>
<thead>
<tr>
<th>Dependent variables in the regression path</th>
<th>FP</th>
<th>MP</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R^2 )</td>
<td>0.385</td>
<td>0.286</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>( \beta )</th>
<th>( t )-value</th>
<th>Sig. ( T )</th>
<th>( \beta )</th>
<th>( t )-value</th>
<th>Sig. ( T )</th>
</tr>
</thead>
<tbody>
<tr>
<td>KCF</td>
<td>0.05</td>
<td>0.83</td>
<td>0.423</td>
<td>0.08</td>
<td>1.21</td>
<td>0.231</td>
</tr>
<tr>
<td>CRMO</td>
<td>0.40</td>
<td>7.20</td>
<td>0.000</td>
<td>0.36</td>
<td>4.97</td>
<td>0.000</td>
</tr>
<tr>
<td>KM</td>
<td>0.14</td>
<td>1.98</td>
<td>0.048</td>
<td>0.36</td>
<td>4.97</td>
<td>0.000</td>
</tr>
<tr>
<td>TBCRM</td>
<td>0.15</td>
<td>2.25</td>
<td>0.026</td>
<td>0.36</td>
<td>4.97</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: \(^a\) Standardised coefficients

Table VI. Structural path models results: CRM implementation and business performance

---

**Figure 4.**
Model of the relationship between CRM implementation and financial and marketing performance
in FSOs’ FP is explained by CRM implementation components. The findings indicate that CRMO is the strongest predictor of variations in FSOs’ FP (β = 0.40, significant at: 0.000). Next, in sequence, are TBCRM (β is 0.15, significant at: 0.026), and KM (β is 0.14, significant at: 0.048). Again, KCF failed to show a significant relationship with FSOs’ FP, but maintained a positive one. Consequently, the findings and results provide support for H1:

H2. There is a positive and significant relationship between the CRM implementation components (KCF, CRMO, KM, and TBCRM) and FSOs’ MP.

Figure 4 shows the structural path model that examined the relationship between the CRM implementation components and FSOs’ MP. The structural path findings indicate that there is a significant and positive relationship between the CRM implementation components and FSOs’ MP. Table VI exhibits results of the structural path model of CRM implementation on FSOs’ performance. In the overall model, $R^2$ is 0.286. Table VI shows that 28.6 percent of the variation in FSOs’ MP is explained by CRM implementation components. The findings indicate that TBCRM (β is 0.36, significant at: 0.000) and CRMO (β is 0.19, significant at: 0.006) are the strongest predictors of variations in FSOs MP. Once again, KCF and KM failed to show significant relationships with FSOs’ MP, but maintained positive relationships. Consequently, the findings and results provide support for H2.

Results and discussion

The results of both exploratory as well as confirmatory factor analyses provide general empirical support for the original CRM implementation scale developed by Sin et al. (2005), which consists of four broad behavioral components, in the Jordanian context. More specifically, EFA resulted in the deletion of two items due to weak factor loading. The first item is from KCF component, and the second item is from CRMO. In addition, one item from the KM component loaded on the KCF component. Finally, one item was deleted during CFA from TBCRM due to weak factor loading. As shown in Appendix 1 as well as Figure 2, the modified final scale of CRM implementation consists of 15 items measuring four components in FSOs, compared with 18 items measuring the same four components in the original scale developed by Sin et al. (2005). This finding suggests that the CRM implementation scale originally developed by Sin et al. (2005) is indeed generalizable to a Jordanian FSO context with slight modifications as explained above.

The CRM implementation construct was empirically tested and found to have a significant and positive relationship with business performance comprised of financial ($R^2 = 0.385$) and marketing ($R^2 = 0.286$) performances. Thus, our study shares with the CRM literature the long-held belief that CRM is a critical success factor for business performance (Kim et al., 2004; Yim et al., 2004; Sin et al., 2005). This perhaps can be best explained through the argument made by Wulf et al. (2001), in that an organization’s investments in developing and nurturing relationships with its customers often sway customers to its favor by making them feel obliged to reciprocate such a gesture by becoming more loyal, which in turn, reflects positively on sales and profitability. Sin et al. (2005) have found that more specifically, the favorable impact of CRM on MP is larger than that on FP, especially for the financial service industry. However, our study found that CRM significantly explained more of the variance in FP ($R^2 = 0.385$), compared with MP ($R^2 = 0.286$). In the course of emphasizing the importance
of skillful arrangement and organization of all behavioral components of CRM in order for superior CRM performance to be realized, Sin et al. (2005) highlight the paramount importance of maintaining a genuine KCF to galvanize all parts of the firm to make them work in concert in an effort designed to make the firm become indispensable to customers. However, our study’s findings have shown that KCF failed to show a significant relationship with Jordanian FSOs’ performance comprised of the FP and MP. This is contradictory to the general belief in the CRM literature expressed by Sin et al. (2005), in that maintaining an overwhelming customer focus on the part of the most senior levels in the organization is essential to the success of the CRM effort and its effect on a firm’s performance. This finding also differs from that of Yim et al. (2004), whose study pointed out that “focusing on key customers” significantly affects customer satisfaction, and indirectly affects customer retention, which are two performance metrics associated with the benefits of implementing CRM on the organization.

It was also found that CRMO and TBCRM are the strongest predictors of variations in FSOs’ performance comprised of the FP and MP. A possible interpretation of this finding might be lack of senior management ownership and leadership of the CRM initiative in FSOs operating in Jordan, and solely focusing on IT-enabled CRM systems and incorporating these systems within the overall organizational structure, without taking into consideration the importance of strategically aligning such IT tools and software with an overall organizational CRM strategy that is driven by a philosophical principle based on KCF. However, such a finding should not discredit the efforts of Jordanian FSOs in the vein of implementing CRM, since the “TBCRM” component exemplifies the enabling and facilitating role of IT in providing an infrastructural basis, which supports the CRM effort inside the organization. This supportive role of IT includes maintaining a database as well as an accompanying hardware and software capability that can well enable the organization to serve its customers in an effective manner and consequently enhance its MP in terms of customer relationship quality, customers’ trust, loyalty, and increasing the efficiency with which the organization’s services are performed. In this regard, Payne and Frow (2006) point out to the increasing importance of the role of IT in enabling organizations to manage one-to-one relationships with potentially huge numbers of customers, and in assisting with the development of improved customer relationships. They call attention to the fact that organizations today have at their disposal a range of database and data warehouse technologies, as well as a growing number of so-called CRM applications, which make it possible to gather vast amounts of customer data and to analyze, interpret, and utilize it constructively.

Such a growing importance of the role of IT in CRM is consistent with Ngai’s (2005) findings arrived at as a result of an extensive review and classification of CRM literature, in that the majority of the articles reviewed by them on CRM (76 out of 205: 37.1 percent) were related to IT and IS. This shows that IT and IS play an important role in the development and implementation of CRM. In particular, the three most popular IT- and IS-related topics addressed in the CRM literature included “software, tools, systems,” “data mining,” and “KM.” Such a supportive role of IT includes database capabilities to collect and analyze customer information using statistical techniques such as data mining. This helps transform customer data into useful information and knowledge, which is considered to be a key organizational asset that is necessary
in today’s customer-centered business environment (Shaw et al., 2001; Rygielski et al., 2002). Despite this vital role of IT in supporting CRM implementation and success, viewing CRM from a limited technology perspective can contribute to the failure of a CRM project (Kale, 2004; Payne and Frow, 2005). This concern is also voiced by Yim et al. (2004), who warn against solely approaching CRM from a technological perspective and, as a result, urge managers to think beyond the technological components of CRM. They found in their study of CRM in service firms operating in Hong Kong that “TBCRM” showed no significant effect on the performance metrics of these firms. Kim et al. (2004) concludes, in this regard, that “CRM is more than a technology for managing customer information. It is a philosophy by which to guide managerial strategy” (Kim et al., 2004, p. 634). Moreover, Osarenkhoe and Bennani (2007, p. 139) state that “CRM is a strategic business and process issue, not merely a technology solution as most often conceived in practice.” This highlights the point that enhancing relationships with customers, leading to better customer loyalty and retention, as well as sales growth, can only be achieved and sustained over the medium and long-run by thinking of CRM from a more comprehensive perspective that is driven by a business philosophy that focuses on the needs and requirements of the customers.

On the other hand, CRMO emerged as the strongest predictor of variations in the FP of Jordanian FSOs, and the second strongest predictor of variations in the MP of these FSOs (Table VI). Such a finding might be due to those FSOs’ belief that central to the success of the CRM effort undertaken by the organization are the actions, which the organizing function of management entails, in terms of properly allocating the required resources and aligning the essential capabilities necessary to transform customer relationship-related objectives into a strong, profitable relationship with customers. Such a belief has been strongly supported by Yim et al. (2004), who found in their study that “organizing around CRM” exerts significant direct effects on customer retention as well as significant indirect effects on sales growth. They cite Homburg et al. (2000) in the course of explaining such an important role of CRMO, in that top management must invest resources and make concerted ongoing efforts to align all involved organizational components and resources toward a CRM orientation. Such actions undertaken under a “CRMO” effort collectively play a crucial role in achieving concrete results on the ground, which translate into financial gains that appear on the organization’s financial statements (sales volume, profitability volume, return on investment, market share). In this way, the aforementioned results suggest that only having a customer focus alone does not necessarily translate into concrete financial results for the organization, since such an orientation or attitude remains obsolete without taking proper action to capitalize on such an attitude and transform it into tangible results for the organization. This might also explain the insignificant relationship found to exist between maintaining a KCF and business performance comprised of FP and MP of FSOs in Jordan. KM, in the sense of creating an organizational learning environment that fosters acquiring and creatively using customer knowledge to support long-term relationships and, thereby, business performance, was not found in our study to have a significant relationship with the MP of FSOs in Jordan.

Conclusions
The purpose of this research was to examine the generalizability of the CRM scale originally developed by Sin et al. (2005), as well as to investigate the strength of linkages
between CRM implementation components and business performance. The results of both exploratory as well as confirmatory factor analyses provide general empirical support for the original CRM implementation scale developed by Sin et al. (2005), which consists of four broad behavioral components, in the Jordanian context. This finding suggests that the CRM implementation scale originally developed by Sin et al. (2005) is indeed generalizable to a Jordanian FSO context with slight modifications. Moreover, the CRM implementation construct was empirically tested and found to have a significant and positive relationship with business performance comprised of FP and MP.

Jordanian FSOs’ CRMO and TBCRM emerged as the most influential components of CRM impacting their performance; FP and MP. On the other hand, FSOs’ KCF and KM had no significant influence on any aspect of those FSOs’ performance (FP and MP), except for a positive and significant relationship between KM and FP. This highlights the conclusion that Jordanian FSOs seem to focus more on the organizing and technical aspects of CRM implementation, in terms of expending the necessary amount of resources and efforts deemed vital for reaping the benefits of installing a CRM system (CRMO), and giving priority to customer information acquisition and utilization. This seems to take precedence over devising an overall CRM implementation strategy that is driven by a KCF and effective management of knowledge gained from gathering and analyzing data and information gained from customers via IS and IT. Thus, Jordanian FSOs need to pay more attention to approaching CRM implementation form a more holistic perspective. This echoes one of the findings reached earlier, in that only having a customer focus alone does not necessarily translate into concrete financial results for the organization, since such an orientation or attitude remains obsolete without taking proper action to capitalize on such an attitude and transform it into tangible results for the organization. This might also explain the insignificant relationship found to exist between maintaining a KCF and the performance (FP and MP) of FSOs in Jordan.

Implications
This study can serve as an attempt to provide FSOs with practical advice as to how such organizations can build and sustain their competitiveness in an increasingly competitive sector such as theirs, which is marred by structural change and increasing competition and customer demands that require financial services companies to focus on certain core competencies in order to deliver better value to their customers. Managers will be well served to understand that the CRM components are indeed generalizable to the Jordanian emerging financial services market context with very slight modifications, which demonstrates similarity in conceptualization and practice concerning CRM Implementation components between the Jordanian context and the original setting in which the CRM construct was developed (Hong Kong). Furthermore, for the first time, FSOs managers in Jordan acquired strategic insights concerning the CRM implementation components which would help them in developing and implementing successful CRM strategies. Other service industries among developing countries could also benefit from the study’s findings. This becomes important especially in light of Sin et al.’s (2005) assertion that it is no longer sufficient to advise practitioners or researchers that the key to successful marketing is through CRM, without providing information on what dimensions actually constitute relationships upon which CRM can be considered to exist. Such empirical validation is needed to provide a sufficient advice as to how the CRM concept can be properly translated into a comprehensive set
of concrete organizational activities conducive to CRM success. In particular, CRMO (coordinating the resources and efforts required for CRM implementation) and TBCRM emerged as playing pivotal roles in enhancing the business performance of a CRM-implementing firm. From an international business and marketing perspectives, our empirical findings offered empirical insights for international organizations that are considering entering the Jordanian/Middle Eastern financial services market, through providing a deeper empirical understanding of CRM implementation components and their relationships with dimensions of business performance. This could reveal new business opportunities (e.g. increasing customer loyalty and retention through cross-selling) or provide clues in understanding financial service markets in neighbouring countries that share similar characteristics with those of the Jordanian market. From a marketing research in emerging and developing markets perspective, our paper is the first systematic research project in Jordan that is devoted to investigating the scale and components of CRM implementation in Jordan and in the Middle East.

**Contribution to CRM knowledge**

The researchers of this paper believe it has contributed to the CRM implementation literature in some perspectives. From a theoretical perspective, first, this study has addressed perceived gaps in the CRM implementation literature and responded to calls that advocated that CRM implementation lacks empirical research and there is a need to understand its components and their impact on business performance especially in emerging markets. This study has tested a valid and reliable scale of CRM implementation, which was originally developed by Sin et al. (2005), in FSOs in Jordan as an emerging market. Our major theoretical contribution is that the components of CRM implementation scale of Sin et al. (2005) are generalizable in FSOs in Jordan with slight modifications on the scale’s items due to some characteristics of FSOs in Jordan. We found that CRM implementation components are four: KCF, CRMO, KM, and TBCRM. Our study has added to the already emphasized value offered by CRM implementation for organizations in general and its contribution for business performance in particular. Second, this is one of the very few CRM implementation studies conducted in emerging markets especially in the Middle East region. In Jordan, this is the first research effort devoted to investigate CRM implementation and business performance in FSOs in Jordan. Our empirical research has extended our understanding of CRM components and their impact on business performance which have not been addressed together in previous empirical studies in Jordan. From a practical perspective, our research is the first systematic empirical project that is aimed at understating CRM implementation components in FSOs in Jordan and their impact on performance. Our findings have offered FSOs executives and managers strategic insights in relation to CRM implementation, CRM items and, more importantly, the most influential components of CRM implementation on FSOs performance. CRMO, TBCRM and KM of CRM implementation are major drivers of FSOs performance from which FSOs, CEOs and managers can greatly benefit while developing their CRM implementation initiatives and strategies. These practical and strategic insights were not available to FSOs executives and managers before conducting this research project. Finally, our empirical findings have opened up a research avenue in CRM implementation in Jordan and perhaps in other emerging markets to examine CRM implementation in different business environments and cultures.
Limitations and future research

As with any empirical study, some limitations result from trade-off decisions in research design. First, our research has addressed CRM implementation adopting a scale developed by Sin et al. (2005), who found only four components of CRM implementation. Meanwhile, CRM implementation could involve more than four components and other elements might be added. However, we used this scale in our study since it was claimed as a valid and reliable scale in a research area that lacked well established scales in which research and debate is still going on. We also found that the scale of CRM implementation of Sin et al. (2005) is valid, reliable, and is generalizable in FSOs in Jordan. A potential area of future research is to expand the four components of CRM implementation and investigate if other components could add value to its implementation and investigate their impact on business performance. Second, our study is conducted in FSOs in Jordan, which come from a single service industry, financial services. This implies that the generalizibility of this study’s findings is limited to the FSOs in Jordan and cannot be applied to other markets without a further validation. Although the generalizibility of this research is limited to FSOs in Jordan, this research is consistent with and supportive to the literature of services marketing which strongly recommended conducting research projects in single service industries (Knight, 1998; Appiah-Adu, 1999; Akroush, 2006) in order to develop a distinctive body of marketing literature for single service industries. A fruitful area of future research is to replicate our modified scale of CRM implementation on other industries (e.g. tourism, telecommunications, and even manufacturing) in Jordan and other developing and developed countries to examine the generalizibility of our modified CRM implementation scale. Third, this study has investigated the direct relationship between CRM implementation and business performance in FSOs in Jordan. A valuable area of future research is to investigate antecedents and consequences of CRM implementation and their effect on business performance. Fourth, the major focus of this study was on CRM implementation from CRM and marketing perspectives. A valuable area of future research is to examine interactions between CRM implementation and other functional areas of business and examine how they affect performance. Finally, an empirical investigation of the CRM implementation scale components and their effect on customer satisfaction and loyalty from customers perspectives could be a valuable research area in the future especially in developing countries, e.g. Jordan and the Middle East.

References


Further reading


(The Appendix follows overleaf.)

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No.

**KCF**
- **KCF 1** My organization provides customized products and services to our key customers
- **KCF 2** Through ongoing dialogue, we work with individual key customers to customize our offering through ongoing dialogue
- **KCF 3** My organization makes an effort to find out what our key customer needs
- **KCF 4** When my organization finds that customers would like to modify a product/service, the departments involved make coordinated efforts to do so (deleted during EFA due to weak loading)

**CRMO**
- **CRMO 1** Our organizational structure is meticulously (thoroughly) designed around our customers
- **CRMO 2** My organization has established clear business goals related to customer acquisition, development, retention, and reactivation
- **CRMO 3** My organization has the sales and marketing expertise and resources to succeed in CRM
- **CRMO 4** Our employee training programs are designed to develop skills for acquiring and deepening customer relationships
- **CRMO 5** Employees performance is measured and rewarded based on meeting customer needs and successfully servicing the customer (deleted during EFA due to weak loading)

**KM**
- **KM 1** My organization fully understands the needs of our key customers via knowledge learning (loaded on KCF)

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<table>
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<tr>
<th>No.</th>
<th>KM 2</th>
<th>My organization provides channels to enable ongoing two-way communication between our key customers and us</th>
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<tbody>
<tr>
<td>KM 3</td>
<td>My organization’s employees are willing to help customers in a responsive manner, e.g. through interaction and touch points</td>
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<td>KM 4</td>
<td>Customers can expect prompt service from employees of my organization</td>
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<tr>
<td>TBCRM</td>
<td>My organization has the right software to serve our customers</td>
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<tr>
<td>TBCRM 2</td>
<td>My organization has the right hardware to serve our customers</td>
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<tr>
<td>TBCRM 3</td>
<td>My organization has the right technical personnel to provide technical support for the utilization of computer technology in building customer relationship</td>
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<tr>
<td>TBCRM 4</td>
<td>My organization maintains a comprehensive database of our customers</td>
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<tr>
<td>TBCRM 5</td>
<td>Individual customer information is available at every point of contact (deleted during CFA due to weak loading)</td>
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<tr>
<th>Business performance</th>
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<tr>
<td><strong>FP</strong></td>
<td></td>
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<tr>
<td>FP 2 Profitability volume</td>
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<td>FP 3 Return on investment</td>
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<td>FP 4 Market share</td>
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<th><strong>MP</strong></th>
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<tr>
<td>MP 1 Customer relationship quality</td>
<td>Day and Wensley (1988), and Sin et al. (2005)</td>
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<td>MP 2 Company’s customers trust</td>
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<tr>
<td>MP 3 Customers’ loyalty</td>
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<tr>
<td>MP 4 Reducing the required resources in performing our services, e.g. reducing time, cost of our services delivery</td>
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