User Antecedents, CRM Implementation, and Impact on Customer Outcomes in the Jordanian Service Industry

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ABSTRACT

The implementation of customer relationship management (CRM) has become increasingly important to scholars and practitioners over the last two decades. This study examined the relationships between user antecedents, CRM implementation, and customer outcomes. Its aims were to identify CRM user antecedents, explore the impact of these antecedents on CRM implementation, and examine the connection between CRM implementation and customer outcomes: loyalty, retention, and satisfaction. A quantitative method was employed consisting of a structured questionnaire. A total of 290 completed questionnaires were returned and analyzed with structural equation modelling techniques. The results indicated there were significant positive relationships between four out of five antecedents and CRM implementation; however, an impact of user involvement was not supported by the data. CRM implementation was also found to positively affect all three customer's outcomes: loyalty, retention, and satisfaction. These findings are of practical and theoretical value to practitioners, customers, and policy makers.

KEYWORDS

CRM Implementation, Customer Loyalty, Customer Outcomes, Customer Relationship Management, Customer Retention, Customer Satisfaction, Service Industry Usage, User Antecedents

1. INTRODUCTION

In response to rapid changes in information technology (IT) and an increasingly competitive business environment, a large number of companies have implemented information system applications such as customer relationship management (CRM) over the past 10 years (Chen et al., 2020; Chiguvi & Mahambo, 2020; Cruz-Jesus et al., 2019). CRM is a strategy and technique for handling customer interactions through IT usage to automate business processes (Anshari et al., 2019). It enables companies to collect, save, access, communicate, and analyze huge amounts of data about their customers (Suoniemi et al., 2021). Its implementation has

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been driven by the fact that numerous firms, particularly those working for service industries, wish to increase their knowledge of customer loyalty, retention, and satisfaction in order to remain competitive (Barsy, 2017; Santouridis & Veraki, 2017). In line with Rahimi and Kozak (2017), Cruz-Jesus et al. (2019) asserted that the implementation of CRM strategies is a major marketing development, designed principally to generate and manage enduring customer relationships. This is expected to enable businesses to better understand their customers and retain them by providing an enhanced experience. Additionally, it attracts new customers, improves profitability, and reduces customer management expenses (Cherapanukorn, 2019; Shaon & Rahman, 2015; Tawinunt et al., 2015). CRM therefore serves to enhance the company's connections with its customers to increase its market share and does so by assimilating people, processes, and technology to improve organizational performance (Cruz-Jesus et al., 2019; Sota et al., 2020; Rahimi, 2017). Enhancing the association with customers will increase customer loyalty, retention, and satisfaction (Anshari et al., 2019; Chen et al., 2020; Ngai, 2005). Although many CRM projects fail (Jaber & Simkin, 2017; Nguyen et al., 2007), it can help managers understand the core value of customers for their organization or industry, along with their needs, wants, and views in order to improve planning and implementation (King & Burgess, 2008; Salloum & Ajaka, 2013).

Numerous organizations overspend when courting new customers and underspend when striving to retain existing customers (Kotler, 2003; Padma & Wagenseil, 2018). For instance, at least 80 percent of marketing budgets is spent on attracting new customers, while the remainder is spent on retaining customers (Momanyi, 2010; Muketha et al., 2016). Thus, customer retention is a factor to which numerous firms attach little or no importance and are therefore unable to appreciate the advantages and value that customer retention provides. Research has indicated that not all retained customers are satisfied and, in some cases, only remain with the provider because there are no alternatives. Furthermore, it is evident that not every retained customer is satisfied – which reinforces the argument that it is only a lack of alternatives that persuades customers to stay with their current provider (Eriksson & Vaghult, 2000; Parawansa, 2018).

There has been increasing interest in the field of customer management (Bhat et al., 2018). Hence, customers and customer relationships are becoming the central focus of organizations, many of which will find it considerably difficult to survive without a loyal customer base (KHOA, 2020). Consequently, numerous studies from a marketing perspective have demonstrated the benefits of customer retention within organizations (Ahmad & Buttle, 2001; KHOA, 2020). Therefore, CRM is regarded as an orientation in which the customer is the crucial element that controls the system (Appiah-Kubi, 2010; Lemon & Verhoef, 2016).

Research on the user antecedents of CRM implementation in different cultures and its effect on business performance is extremely limited, which restricts the generalizability of existing findings (Jaber & Simkin, 2017). To address this paucity of research in developing countries (including Jordan), this study examined the impact of user antecedents on the implementation of CRM and its effect on customer outcomes (loyalty, retention, and satisfaction). Few studies have elucidated these relationships, and those that have been conducted were undertaken in developed countries.

In Jordan, the economy is emerging, and several international bodies are helping the country improve its digital services to step in the digital economy platforms. For instance, in 2019, the World Bank reported that the services sector, including the ICT sector, exhibited good potential for growth and job creation, with a growth rate of 2.3 percent in the previous year. This indicates that it is one of the fastest growing sectors toward digital transformation in Jordan. Moreover, the implementation and use of CRM in the service industry brings direct benefits in terms of both financial performance and daily business activity (Gil-Gomez et al., 2020). Therefore, this study aimed to investigate the user antecedents of CRM implementation and its impact on customer outcomes in the service industry in Jordan.

2. LITERATURE REVIEW

2.1 Customer Relationship Management

CRM was originally referred to as “contact management” (Pai & Tu, 2011). It is an American concept that emerged in the 1980s, along with its extended functions such as collecting customer data and gathering useful information, which subsequently developed into the call center. According to Swift (2001), CRM is an “enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability” (p. 12). Similarly, Kotler and Armstrong (2008) claimed that CRM refers to “the overall process of building and maintaining profitable customer relationships by delivering superior customer value and satisfaction” (p. 16). Parvatiyer and Sheth (2001) described CRM as “a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and customer” (p. 5). These definitions indicate that customer loyalty, customer retention, and customer satisfaction are the main outcomes of CRM, thus becoming the primary focus of businesses and attracting the attention of scholars and practitioners.

A cross-functional supply chain, marketing, sales, and customer services are required for the effective implementation of CRM (Chen & Popovich, 2003; Farhan et al., 2018; Lambert, 2009; Payne & Frow, 2006). Jayachandram et al. (2005) described CRM as the interrelationship between three perspectives: management, marketing, and IT. Consequently, building a conceptual framework of CRM antecedents that facilitate effective CRM implementation involves the visualization of a combination of the three aforementioned perspectives from the viewpoint of both companies and customers. Although CRM development and implementation began in developed countries, it has quickly spread to developing countries (Jaber & Simkin, 2017). However, the way businesses use and implement CRM in developing countries, particularly in the Arab world, is certainly different. This study focuses on the user antecedents of CRM that affect CRM implementation and enable it to achieve three key outcomes (customer loyalty, customer retention, and customer satisfaction) in the context of developing countries.

2.2 Customer Relationship Management Implementation

Most organizations seek to increase their profits through their relationships with customers, and invest in IT to manage this relationship more effectively (Kebede & Tegegne, 2018). Kebede and Tegegne (2018) claimed that numerous benefits could be gained from implementing CRM such as reduced costs, increased revenue, and improved loyalty. Companies use CRM as a major source of competitive advantage, and to assist managers with making decisions related to customer benefits (Cruz-Jesus et al., 2019; Mohamed et al., 2014) and company’s growth (Alrousan et al., 2020). However, based on the current competitive global environment and diversity of organizations, it is suggested that CRM implementation should be evaluated in different cultures and within different countries (Akroush et al., 2011; Olavarria-Jaraba et al., 2018).

Several studies focusing on CRM implementation have identified four key areas that must be considered for successful implementation: technology, process, people, and strategy (Akroush et al., 2011; Dubey & Sangle, 2019; Sin et al., 2005; Sota et al., 2020; Rahimi, 2017). According to Cherapanukorn (2019), Hong-kit Yim et al. (2004), and Sin et al. (2005), there are also four behavioral dimensions that form part of a multidimensional construct for CRM: knowledge management, technology-based CRM, key customer focus, and CRM organization. Akroush et al. (2011) tested the generalizability of CRM implementation in the financial services industry in Jordan. Their results indicated that the scale of CRM implementation introduced by Sin et al. (2005) could be generalized to financial services organizations in Jordan. Other studies have concentrated on the critical phases of CRM implementation. For instance, Tan et al. (2002) formulated six stages for successful CRM implementation: identifying objectives, communicating, planning, designing, choosing a CRM system,

and continually improving the process. Almotairi (2010) stated that cultural issues, which necessitate changes to the system to make it more effective in developing countries, complicate CRM application.

Since various countries and regions have different CRM practices and problems, it is difficult to compare and apply the findings from other studies to companies in developing countries (El-Gohary et al., 2013). Resultantly, further research is required to examine CRM implementation in these countries, which is becoming increasingly necessary (Khashab et al., 2020).

2.3 Customer Relationship Management Implementation and Customer Outcomes

CRM implementation can help companies improve customer loyalty, increase retention rates, and enhance customer satisfaction (Das et al., 2018; Mandina, 2014). The effect of implementing CRM on customer outcomes has been addressed by numerous studies. Thus, the outcomes from the productive implementation of CRM derive from businesses communicating with customers, identifying their behavior patterns, establishing their future needs and wants (Chen et al., 2020; Maklan & Knox, 2009), creating value for customers, and resolving issues raised by dissatisfied customers (Payne & Frow, 2006).

Therefore, companies are building relationships with customers because retention expenses are lower than customer acquisition, which will likely increase customer loyalty (Sheth & Sharma, 2008; Tussyadiah, 2016). Accordingly, there is a consensus among marketing scholars that a better connection between firms and their customers will increase both customer loyalty and business profits (Suoniemi et al., 2021). Furthermore, Akroush et al. (2011) explained in their proposed model that CRM implementation measured by its four dimensions (knowledge management, technology-based CRM, key customer focus, and CRM organization) will positively impact business and marketing performances, of which customer satisfaction is the best indicator. Customer satisfaction refers to the extent to which the perceived service or product performance surpasses or matches customer expectations, and is considered a core-marketing concept (Kotler & Armstrong, 2008; Roberts-Lombard, 2020). It is a cognitive evaluation by customers of their emotional state, and results from an evaluation of their overall relationship with a company (Arcond et al., 2017). CRM systems also offer numerous benefits for organizations, including improved customer satisfaction as well as increased organizational productivity and revenue (Rababah, 2013; Roberts-Lombard, 2020).

In addition to customer satisfaction, customer retention and loyalty are the main outcomes of CRM implementation (Chen et al., 2020; Dubey & Sangle, 2019). Increasing customer retention significantly increases business profits (Saxena & Taneja, 2018; Reichheld, 1996). The objective of customer retention is to reduce the number of customer defections, increase customer loyalty, and ensure customers return (Kebede & Tegegne, 2018). Kotler and Keller (2016) defined customer loyalty as “a commitment that is held deeply to buy or support products or services that are preferred in the future, even though the influence of the situation and marketing efforts have the potential to cause customers to switch” (p. 138).

Trust refers to customers’ confidence in the dependability and honesty of a firm, and is important in establishing a long-lasting relationship with customers (Fernandes & Pinto, 2019). Bhat et al. (2018) found a strong relationship between loyalty and trust in the banking sector. The quality of the relationship with customers will therefore increase loyalty (Anshari et al., 2019; KHOA, 2020).

There is strong evidence in the CRM literature to connect successful CRM implementation with the receipt of CRM benefits in terms of customer loyalty (De Wulf et al., 2001; Kim et al., 2004; Nguyen, 2012), retention (Christy et al., 1996; KHOA, 2020), and satisfaction (Ambler & Kokkinak, 1997; Doyle, 1995). Companies that implement CRM can thus improve customer loyalty, increase retention rates, and enhance customer satisfaction (Anshari et al., 2019; Qtaish et al., 2018). For this reason, companies that actively implement CRM have achieved such outcomes (Diffley et al., 2018; Dyché, 2002; Padmavathy et al. 2012).

2.4 User Antecedents of Customer Relationship Management Implementation

To survive in a highly competitive business environment, companies focus on customers by implementing CRM. However, the implementation of CRM must be effective and yield the previously described outcomes. Studies that analyzing the antecedents of CRM implementation can be found at an organizational level (Pullig et al., 2002; Šebjan et al., 2014; Jaber and Simkin, 2017), and several researchers have also explored the adoption of CRM at an individual level from an information systems (IS) perspective (Jaber & Simkin, 2017; Wu & Wu, 2005). According to Jaber and Simkin (2017), employees' acceptance of CRM at an individual level can be explained by traditional IS adoption models such as the theory of reasoned action (Ajzen & Fishbein, 1980), the technology acceptance model (Davis, 1989), the theory of planned behavior (Taylor & Todd, 1995), the decomposed theory of planned behavior (Taylor & Todd, 1995), the unified theory of acceptance and use of technology (Venkatesh et al., 2003), and innovation diffusion theory (Rogers, 1983). For example, Avlonitis and Panagopoulos (2005) employed the technology acceptance model (TAM) to study the antecedents and consequences of CRM in sales forces. The results indicated that the perceived usefulness of CRM has the strongest influence on CRM acceptance. They also concluded that other factors could affect CRM acceptance, such as accurate expectations, innovativeness, perceived ease of use, and influence of supervisors.

Day (2002) concluded that CRM users play a key role in CRM implementation through the organizational decisions they make. Jaber and Simkin (2017) reached the same conclusion and focused on the role of employee perceptions in mediating the effect of adoption factors and CRM implementation. They found that "employees attempt to judge the salient characteristics of the innovation from an attitude towards the innovation. Without such information (i.e., employee perceptions), organizations may hesitate to invest in CRM if there is uncertainty about the benefits and costs of implementing CRM" (p. 478). In organizational contexts, employees' perceptions of CRM outcomes will influence CRM implementation (Plakoyiannaki, 2005). This suggests that employees' needs should be aligned with CRM strategies to ensure successful CRM implementation (Day, 2002; Vella & Caruana, 2012).

Numerous researchers have concentrated on the antecedents of CRM implementation from an IS point of view, along with the consequences of CRM adoption (Avlonities et al., 2005; Jaber & Simkin, 2017). They contend that the implementation of CRM should be considered an antecedent of CRM use. Avlonities et al. (2005) classified the factors that can affect CRM acceptance into three categories: social, organizational, and individual. Other factors such as training and previous experience are requisite resources and skills that could affect CRM users' behavior (Avlonities et al., 2005; Dubey & Sangle, 2019; Padilla-Meléndez & Garrido-Moreno, 2014). Training in CRM will help users understand the operation of the system and its benefits for both the company and its customers (Avlonities et al., 2005). Employees' beliefs about the system and acceptance are linked to training (Davis et al., 1989; Igbaria, 1990). Furthermore, user involvement and participation will enhance user acceptance, increase satisfaction levels, and improve their perceptions of the efficiency of the system (Avlonities et al., 2005; Padma & Wagenseil, 2018). The experience of CRM users plays an important role in CRM implementation because it influences their belief structure regarding an IS (Dubey & Sangle, 2019; Igbaria, 1990). Trust is a crucial element in managing the relationship between companies and customers (Qtaish et al., 2018).

Several studies have concentrated on examining the antecedents that impact CRM implementation in a range of industries, including the financial services (Karakostas et al., 2005) and manufacturing industries (Wu & Wu, 2005). However, empirical reviews of the antecedents and outcomes of CRM implementation are limited in developing countries. This study develops a research model and conducts cross-sectional empirical research to investigate the relationships between user antecedents, CRM implementation, and customer outcomes. Additionally, the existing research has mostly focused on how CRM implementation improves firm performance in developed countries, but only a limited number of studies have linked the three customer outcomes of loyalty, retention, and satisfaction.

Figure 1. Proposed model

Moreover, as a result of the scarcity of studies in developing countries, user antecedents remain under-examined. However, these antecedents need to be investigated from the perspective of CRM users in the service industry with respect to customer outcomes in developing countries. To achieve this, the current study utilized a combined model that included the antecedents of CRM use, CRM implementation, and customer outcomes in a service industry context in Jordan.

3. RESEARCH MODEL AND HYPOTHESES

According to the current body of literature, the conceptual research model (see Figure 1) was built upon existing links between the acceptance of CRM technology (Davis, 1989; Chong et al., 2010), the antecedents of technology adoption, the customer loyalty level (Feliks & Panjaitan, 2012; Khaligh et al., 2012), customer satisfaction level (Hanley & Leahy, 2008), and retention level (Calik & Balta, 2006).

3.1 Training

It is crucial for employees to receive training in the use of CRM. This will help users understand the operation of the CRM system and its perceived benefits for both organizations and customers (Avlonities et al., 2005; Davis et al., 1989; Dubey & Sangle, 2019; Igbaria, 1990). Training should be supported by top management through adoption encouragement and budget allocation (Guenzi & Nijssen, 2020; Padilla-Meléndez & Garrido-Moreno, 2014; Padma & Wagenseil, 2018; Papadopoulos et al., 2012). For instance, Dubey and Sangle (2019) and Chen et al. (2007) found that CRM training and CRM employee knowledge are factors that are clearly associated with successful CRM implementation. Consequently, the following hypothesis was proposed:

H1: There is a significant and positive relationship between training and CRM implementation.

3.2 User Trust

Trust is a significant factor affecting customer behavior that ensures the effectiveness of adopting certain technologies (Yang et al., 2013). Amin (2007) verified that integrity is central to the application of the system. Trust reflects customers' confidence in the integrity of the organization and could help sustain its relationship with its customers (Fernandes & Pinto, 2019). However, an element that affects trust in the technology is whether or not the system is secure (Chong et al., 2010; Roberts-Lombard,

2020). Bhat et al. (2018) found that a strong relationship between trust and loyalty increases CRM orientations. Therefore, the following hypothesis was proposed:

H2: There is a significant and positive relationship between trust and CRM implementation.

3.3 User Involvement

A large number of companies implementing new IT projects have encountered numerous problems in ensuring good usability of the final product (Redlarski, 2013). CRM initiatives can sometimes fail because the users who must work with the system do not accept it and therefore do not change the way in which they work (King & Burgess, 2008; Foss et al., 2008). Avlonities et al. (2005) argued that user involvement and participation help them accept the CRM system and its applications. Therefore, the following hypothesis was proposed:

H3: There is a significant and positive relationship between user involvement and CRM implementation.

3.4 User Experience

A user's technical experience may have a critical impact on their understanding and attitudes toward intention to use or system usage. Several studies have examined the connection between attitudes and technical experience, most of which have identified a definitive relationship (Thompson et al., 1994). Moreover, the experience of CRM users plays an important role in CRM implementation because it influences their belief structure regarding an IS (Dubey & Sangle, 2019; Cherapanukorn, 2019; Cruz-Jesus et al., 2019). Therefore, the following hypothesis was proposed:

H4: There is a significant and positive relationship between user experience and CRM implementation.

3.5 User Acceptance

A large number of studies have been conducted on IT acceptance over many decades (e.g. Davis, 1989). It is not possible for users to be involved in developing CRM software because CRM systems are normally purchased from external vendors; users generally only become involved subsequent to the installation of the system. However, it is only at this stage that minor adjustments can be made within the CRM systems and to applications (Gefen & Ridings, 2003). Pai and Tu (2011) confirmed that the acceptance of technologies such as CRM could give organizations numerous advantages. Therefore, the following hypothesis was proposed:

H5: There is a significant and positive relationship between user acceptance and CRM implementation.

3.6 Customer Outcomes

3.6.1 Customer Loyalty

Scholars and practitioners assert that customer relationships are essential if companies are to succeed in reducing costs and increasing loyalty in the contemporary business setting (Kebede & Tegegne, 2018; Suoniemi et al., 2021). Furthermore, maintaining enduring relationships with customers is crucial if companies are to survive in competitive service industries (Lindgreen et al., 2006). Sadia et al. (2011) found that customer loyalty is formed primarily by trust, staff loyalty, service quality, and switching costs. Additionally, extant studies (De Wulf et al., 2001; Kim et al., 2004; Szczepańska & Gawron, 2011) have identified a decisive connection between CRM implementation and customer loyalty. Therefore, the following hypothesis was proposed:

H6: There is a significant and positive relationship between CRM implementation and customer loyalty.

3.6.2 Customer Retention

Numerous studies have indicated that the cost of attracting new customers is greater than implementing a strategy to retain current customers (Gee et al., 2008; KHOA, 2020; Lee-Kelley et al., 2003). Calik and Balta (2006) and other researchers (e.g., Parida & Baksi, 2011) argued that customer retention can yield a number of corporate advantages, including a reduction in operational expenses, and that new customers can be won through word-of-mouth referrals, thereby increasing revenue. The goal of customer retention is to reduce the number of customer defections and complaints, and to ensure customers return (Kebede & Tegegne, 2018). Therefore, the following hypothesis was proposed:

H7: There is a significant and positive relationship between CRM implementation and customer retention.

3.6.3 Customer Satisfaction

Customer satisfaction is the best indicator for evaluating business and marketing performance (Wetsch, 2006; Tuli & Bharadwaj, 2009) and is the key driver of profits (Roberts-Lombard, 2020). Additionally, Azzam (2014) and Rahimi and Kozak (2017) highlighted the importance of CRM implementation in improving customer satisfaction. Similarly, Feliks and Panjaitan (2012) postulated that organizations that implement CRM correctly increase customer satisfaction. For instance, a study by Hanley and Leahy (2008) concluded that CRM implementation has a significant and decisive impact on customer satisfaction. Therefore, the following hypothesis was proposed:

H8: There is a significant positive relationship between CRM implementation and customer satisfaction.

4. EMPIRICAL STUDY

4.1 Research Instrument and Sample Size

To test the proposed hypotheses and model, a survey of employees and managers in Jordan was conducted to gather the necessary data. The survey questionnaire was designed based on the literature. Once constructed, it was sent to two experts in CRM in two banks and one academic expert in CRM (a PhD holder with substantial experience in CRM research). The questionnaire was then modified according to their minor comments and suggestions.

The questionnaire comprised two sections. The first gathered demographic data about the participants and the companies. Respondents were asked about the following: 1) Industry type. 2) Size of the firm. 3) Firm's customers. 4) Age. 5) Position held. 6) Education level. The second part contained questions related to the variables included in the proposed model. A seven-point scale was employed to measure the variables. The items selected were chosen from previous studies measuring each variable.

The questionnaire was distributed to employees who occupied managerial positions involving CRM implementation and outcome assessments in the two largest cities in Jordan (Amman and Zarqa). These employees worked for companies in the following industrial fields: insurance, hotels, banking, and others. They were selected because a contact person was available to facilitate the process of collecting data and these companies had also implemented CRM.

The questionnaire was administered by the researchers. Table 1 presents the demographic data for the respondents. Overall, 500 questionnaires were distributed (face to face), of which 350 were

Table 1. Demographic characteristics of the sample

Characteristics	No. of Respondents	Percent (%)
1. Firm Industry		
Insurance	88	30.3
Hotels	107	36.9
Banking	80	27.6
Others	15	5.2
Size of the firm		
< 50	20	6.9
50 – 100	155	53.5
101 – 200	82	28.3
>200	33	11.3
Firm's Customers		
Business (B2B)	65	22.4
Individual (B2C)	130	44.8
Both	95	32.8
2. Personal Age (years)		
< 25	33	11.4
26 – 35	77	26.6
36 – 45	81	27.9
> 45	99	34.1
Position held		
Top level	68	23.5
Middle level	117	40.3
First-line	79	27.2
Others	26	9.0
Education level		
Secondary/high school	55	19.0
Undergraduate	212	73.1
Post-graduate	23	7.9

returned and 290 were included in the analysis. In terms of the specific industries, the respondents were distributed as follows: 1) insurance sector: 88 completed questionnaires (30.3%); 2) hotels: 107 (36.9%); 3) banking: 80 (27.6%); and 4) others: 15 (5.2%).

Bartlett's Test of Sphericity is a statistical test employed to establish the suitability of factor analysis. It explores the entire correlation matrix, and a significance level of $P < 0.05$ is considered suitable. Table 2 indicates that the P value is below 0.001 with $\chi^2_{780} = 9216.883$. It also illustrates that the value of the Kaiser-Meyer-Olkins (KMO) test exceeds the suggested minimum value of 0.6 (0.940), which indicates small correlations between variables.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.940
Bartlett's Test of Sphericity	Approx. Chi-Square	9216.883
	df	780
	Sig.	.000

4.2 Results and Discussion

In this study, CRM implementation was hypothesized to be affected by five CRM user antecedents (training, trust, involvement, experience, and acceptance) (see The Proposed Model, Figure 1) which in turn will affect customer outcomes (loyalty, retention, and satisfaction).

Exploratory factor analysis (EFA) in the form of principal component analysis (PCA) was used to ensure that all the factors differed from each other. As shown in Table 3, the factor loading exceeded 0.4 (Nunnally, 1978) for all items after deleting the cross-loaded items on several factors that exceeded 0.5. PCA revealed the presence of nine factors with an explained cumulative variance of 75%. Consequently, all the factors in the proposed model differed from each other and were extracted.

Structural equation modelling (SEM) was then applied to analyze the structural model and its evaluation using AMOS 24. SEM was chosen due to its ability to assess causal connections between variables (constructs) with multiple evaluation items (Hair et al., 2006). Anderson and Gerbing (1988) proposed a two-step approach for SEM. The first step is to provide an approximate assessment of the measurement model, and the second is to estimate the structural model. Although SEM methodology was employed, the study must still be regarded as exploratory.

4.2.1 The Measurement Model

Within the measurement model, constructs (variables) are unobserved variables that cannot be measured directly but can be measured by variables known as indicators. Confirmatory factor analysis (CFA) was undertaken for the proposed measurement model, modified according to the values of the modification indices, and standardized residuals (Anderson & Gerbing, 1988; Byrne, 1998; Segars, 1997). A measurement model with a satisfactory model fit was obtained after the required modifications were applied. The ratio CMIN/df (2.381) was below 3.0, RMSEA (0.069) was below 0.08, and IFI (0.917) and CFI (0.916) were both above the acceptable level of 0.90.

Discriminant validity, convergent validity, and reliability were assessed to evaluate the adequacy of the measurement model. Reliability indicates the degree to which the constructs are free of error and produce consistent results. Cronbach's Alpha was applied to assess the reliability, the value of which should be over 0.7 (Nunnally, 1978). Table 4 indicates that the reliability of all constructs ranged from 0.794 (training) to 0.906 (satisfaction), indicating good internal consistency and thus high reliability of the instrument. Additionally, composite reliability (CR) was applied to assess the internal consistency of the measurement model. Table 4 indicates that the CR values of all constructs ranged from 0.800 to 0.884, which exceeded 0.7 and were thus regarded as satisfactory (Hair et al., 2006).

After obtaining the best-fitting measurement model, discriminant and convergent validities were evaluated. Convergent validity is the level to which multiple factors evaluating the same concept conform. Table 4 indicates that all item factor standardized loadings in the range of 0.735 to 0.900 were important and exceeded the suggested minimum factor loading of 0.707 (Gefen et al., 2000). Additionally, an average variance extracted (AVE) of 0.5 or higher is a good estimate that implies satisfactory convergence (Fornell & Larcker, 1981). Table 4 shows that all AVEs were in the range between 0.526 and 0.717.

Discriminant validity is the level to which the evaluations of various concepts are distinct and are present when the relationships between indicators that measure various factors are not too high; consequently, factor correlations are only of medium strength (e.g., < 0.85) (Kline, 2015). Table 5 shows that the factor correlation coefficients ranged from 0.353 to 0.804, which indicated that the nine constructs were correlated but statistically separate and thus provided powerful evidence of discriminant validity.

In summary, the reliability as well as the discriminant and convergent validity of the measurement model were all confirmed.

Table 3. Rotated component matrix

	1	2	3	4	5	6	7	8	9
SAT1	.769								
SAT2	.774								
SAT3	.732								
SAT4	.709								
SAT5	.723								
SAT6	.669								
LOY1				.616					
LOY3				.730					
LOY4				.544					
LOY5				.614					
LOY6				.529					
IMP1								.570	
IPM2								.611	
IPM3								.610	
IMP4								.563	
ACC1									.562
ACC3									.704
ACC4									.625
TRA2						.773			
TRA3						.839			
TRA4						.733			
EXP1					.707				
EXP2					.843				
EXP3					.851				
TRU1			.628						
TRU2			.791						
TRU3			.784						
TRU4			.723						
INV1							.791		
INV2							.841		
INV3							.544		
RET1		.512							
RET2		.618							
RET3		.773							
RET4		.757							
RET5		.772							

Table 4. Reliability and convergent validity

Factor	Variables	Standardized Loadings (> 0.707) ^a	AVE (> 0.5) ^a	Composite Reliability α (> 0.7) ^a	Cronbach's Alpha (> 0.7) ^a
Training	TRA2	0.815	0.661	0.800	0.794
	TRA3	0.811			
Trust	TRU1	0.774	0.627	0.870	0.868
	TRU2	0.755			
	TRU3	0.852			
	TRU4	0.782			
Involvement	INV1	0.900	0.717	0.835	0.831
	INV2	0.790			
Experience	EXP1	0.768	0.706	0.878	0.874
	EXP2	0.863			
	EXP3	0.885			
Acceptance	ACC1	0.862	0.693	0.871	0.871
	ACC3	0.803			
	ACC4	0.831			
Loyalty	LOY1	0.735	0.646	0.879	0.878
	LOY3	0.817			
	LOY4	0.837			
	LOY6	0.823			
Retention	RET2	0.810	0.647	0.845	0.838
	RET3	0.877			
	RET4	0.718			
Satisfaction	SAT1	0.751	0.526	0.884	0.906
	SAT2	0.816			
	SAT3	0.840			
	SAT5	0.832			
	SAT6	0.818			
CRM Implementation	IPM1	0.802	0.649	0.881	0.879
	IPM2	0.754			
	IMP3	0.840			
	IMP4	0.823			

^aRecommended value

4.2.2 Structural Model Analysis and Hypotheses Testing

In the second stage, structural equation modelling (SEM) was applied to evaluate the hypotheses (Figure 2). First, the overall model fit was examined. A model is considered to fit the observed data if the covariance matrix to which it implies is equal to the observed covariance matrix (Hoyle, 1995). Four common indices of fit were employed in this study (Hu et al., 1999; Ngai et al., 2007). A CMIN/

Table 5. Factor correlations

	CRM Imp	SAT	RET	LOY	ACC	EXP	INV	TRU	TRA
CRM Imp	1								
SAT	0.804	1							
RET	0.625	0.557	1						
LOY	0.789	0.719	0.73	1					
ACC	0.802	0.705	0.667	0.781	1				
EXP	0.516	0.449	0.614	0.568	0.48	1			
INV	0.463	0.44	0.592	0.43	0.487	0.413	1		
TRU	0.576	0.598	0.618	0.594	0.587	0.452	0.565	1	
TRA	0.454	0.476	0.353	0.393	0.403	0.378	0.487	0.4	1

Figure 2. Measurement model

df of below 3, IFI and CFI above 0.9, and RMSEA below 0.08 are regarded as indicators of a good fit. All goodness-of-fit statistics (CMIN/df = 2.561, IFI = 0.902, CFI = 0.901, and RMSEA = 0.073) therefore fit the data satisfactorily.

Table 6 depicts the outcome of the tests of relationships with path coefficients, P-values, and significance results. All relationships were statistically significant, except for the relationship between involvement and CRM implementation. This provides empirical support for most of the relationships in the proposed model. Experience and acceptance have a direct and significant effect on CRM implementation with $P < 0.001$. Training and trust have a direct and significant effect on

Table 6. Results of path tests

			Estimate	S.E.	C.R.	P	Comment
CRMimplementation	<---	TRA	0.072	0.039	1.833	0.067	Sig. *
CRMimplementation	<---	TRU	0.153	0.058	2.654	0.008	Sig. **
CRMimplementation	<---	INV	-0.001	0.045	-0.023	0.982	Not Sig.
CRMimplementation	<---	EXP	0.126	0.035	3.581	***	Sig.
CRMimplementation	<---	ACC	0.593	0.059	9.96	***	Sig.
LOY	<---	CRMimplementation	0.868	0.075	11.618	***	Sig.
RET	<---	CRMimplementation	0.814	0.078	10.396	***	Sig.
SAT	<---	CRMimplementation	0.864	0.072	11.927	***	Sig.

* Significant at 0.10, ** Significant at 0.05

CRM implementation with $P < 0.1$ and $P < 0.05$, respectively. Involvement has no impact on CRM implementation. However, CRM implementation has a direct and significant impact on all customer outcomes (loyalty, satisfaction, and retention) with $P < 0.001$.

As shown in Table 6, all the hypotheses were significant, except the one that relate user involvement with CRM implementation. The structural model analysis was conducted to test our hypotheses regarding user antecedents, CRM implementation, and customer outcomes. The results revealed that the antecedent variables of user training (H1) ($\beta = 0.072$, $P = 0.067 < 0.10$, accept), user trust (H2) ($\beta = 0.153$, $P = 0.008 < 0.10$, accept), user experience (H4) ($\beta = 0.126$, $P = 0.000 < 0.05$, accept) and user acceptance (H5) ($\beta = 0.593$, $P = 0.000 < 0.05$) all have significant effects on CRM implementation. However, user involvement (H3) ($\beta = -0.001$, $P = 0.982 < 0.05$, reject) was not significant. The results also indicated that the subsequent implementation of CRM has a significant effect on the customer outcomes of loyalty (H6) ($\beta = 0.868$, $P = 0.000 < 0.05$), retention (H7) ($\beta = 0.814$, $P = 0.000 < 0.05$, accept), and satisfaction (H8) ($\beta = 0.864$, $P = 0.000 < 0.05$, accept).

5. DISCUSSION

The hypothesis stating that the level of training positively influences CRM implementation was supported ($B = 0.072$, $P = 0.067 < 0.1$). In line with extant studies (e.g., Chen & Popovich, 2003; Padilla-Meléndez & Garrido-Moreno, 2014; Papadopoulos et al., 2012; Shum et al., 2008), this verifies that employees can share concepts and knowledge and form good relationships with customers as training in CRM packages was effective. Such training methods can allow organizations not only to develop a customer outcome strategy, but also to educate employees on how to effectively use CRM as a tool (Mendoza et al., 2007).

The hypothesis stating that the level of trust has a positive effect on CRM implementation was supported ($B = 0.153$; $P = 0.008 < 0.05$). This is in line with the existing literature (Law et al., 2005; Yaghoubi et al., 2017). In fact, organizations often regard trust as an important ingredient in forging successful relationships between the end-user and CRM systems, and as being extremely crucial for user-friendly orientations. Therefore, if there is mistrust between the user and CRM systems, organizations will not be able to manage the uncertainties associated with CRM project implementation.

The hypothesis stating that the level of user involvement has a decisive effect on CRM implementation was not supported ($B = -0.001$; $P = 0.982 > 0.05$). Through participation of the end-user in system requirements, organizations are able to initiate, develop, and enhance connections with users' expectations and the CRM system itself; this is likely to lead to a commitment to usage

and implementation (Shang & Lin, 2010; Sindakis et al., 2015). It is therefore surprising that this hypothesis was not supported by the data from the Jordanian service industry respondents. A possible explanation is that top management may not support user involvement in the initial stages of CRM implementation.

The hypothesis stating that the level of user experience positively influences CRM implementation was supported ($B = 0.126$, $P = 0.000 < 0.05$). Several extant studies confirm user experiences as one of the successful antecedents of CRM implementation (Dubey & Sangle, 2019; Cherapanukorn, 2019; Malthouse et al., 2013; Thompson et al., 1994). To facilitate the interaction between CRM systems and end users, organizations support end-user employees by providing relevant software packages. They also train their employees to offer various IT solutions that will enable them to build successful connections with customers. In the same vein, with respect to user antecedents, the hypothesis stating that the level of user acceptance positively influences CRM implementation was supported ($B = .593$, $P = 0.000 < 0.05$). This is in line with existing studies that suggest that user acceptance plays a critical role in the CRM implementation process (George et al., 2005; Navimipour & Soltani, 2016).

The hypothesis stating that the level of CRM implementation has a decisive impact on customer outcomes (customer loyalty, customer satisfaction, and customer retention) appears to be justified (Table 6). For instance, the hypothesis stating that the level of CRM implementation influences customer loyalty was significant ($B = 0.868$, $P = 0.000 < 0.05$), which is in line with previous research (Lam et al., 2013; Lawson-Body & Limayem, 2004; Szczepańska & Gawron, 2011). This is perhaps because the implementation of CRM provides an opportunity for organizations in the service industry to build relations with customers, which simplifies the sales cycle, while the forging of one-to-one relationships possibly encourages customer loyalty. To increase customer loyalty, the Jordanian service industry should spend more time and resources developing effective CRM implementation projects (Al-Weshah et al., 2019).

The hypothesis stating that the level of CRM implementation influences customer retention was supported ($B = 0.814$, $P = 0.000 < 0.05$). In line with previous studies (Parida & Baksi, 2011; Verhoef, 2003), CRM implementation can help reduce operational and information sharing costs and attract new customers. Consequently, this will lead to a positive change in management strategies, which will result in increased profits for service organizations.

The hypothesis stating that the level of CRM implementation influences customer satisfaction was supported ($B = 0.864$, $P = 0.000 < 0.05$). This is in line with existing literature (Hanley & Leahy, 2008; Feliks & Panjaitan, 2012; Rahimi & Kozak, 2017) indicating that a wide array of options contained within applications are integrated by CRM implementation to offer better solutions and increase customer satisfaction. Thus, the use of these options could lead to the proper sharing of information and the engagement of customers in CRM activities, which ultimately lead to satisfaction.

The results thus demonstrate that CRM implementation has a decisive effect on customer outcomes (customer satisfaction, customer retention, and customer loyalty). This result verifies the findings of previous studies (Brown & Gulycz, 2002; Coulter, 2002; Hanley, 2008). It implies that end user employees who construct a good relationship with the CRM implementation process based on trust, involvement, acceptance, and experience will enhance customer outcomes (Szczepańska & Gawron, 2011).

6. IMPLICATIONS

The extant literature reveals that numerous user CRM antecedents are closely associated with customer outcomes (satisfaction, retention, and loyalty). The current study has also found that CRM has a direct and decisive association with customer satisfaction, customer loyalty, and customer retention. CRM user antecedents are intended to have an important influence on CRM implementation. This therefore illustrates the advantages that can be attained via efficient CRM implementation through an understanding of the user antecedents that drive the process.

The study has several managerial implications. For instance, it has yielded practical results that can be deployed by managers and practitioners in the implementation of CRM, which are likely to result in positive customer outcomes with respect to satisfaction, loyalty, and retention. Such customer outcomes are helpful for the development of sustainable links with customers. This is vitally important for service industries, particularly in developing nations such as Jordan.

It is essential for companies assessing CRM applications to comprehend how their development has an impact in terms of enhancing customer satisfaction and loyalty. Experiencing the advantages of CRM applications will therefore be helpful to managers who are currently assessing or implementing CRM applications. Organizations with strong customer connections are more likely to gain advantages from CRM implementation regarding customer loyalty, satisfaction, and retention. The results also suggest that organizations need to be prepared to share their customer-related information with stakeholders to acquire an advantage from CRM implementation and its associated applications.

7. LIMITATIONS AND FUTURE WORK

Despite the valuable findings that have emerged, certain limitations in the research need to be mentioned. Firstly, CRM implementation is a lengthy endeavor that cannot be fully captured by a questionnaire, which presents a snapshot of a specific point in time. Longitudinal studies are needed to verify the efficiency of CRM implementation in a turbulent service industry. Second, the antecedents were selected from the CRM user's perspective. Future research should consider the inclusion of other perspectives such as strategic, management and technological perspectives to acquire more in-depth information regarding CRM implementation. Finally, this study only focused on the service industry. For an extensive overview of CRM implementation in the area of services, operational, knowledge and strategic levels need to be explored in depth in future work. To develop a comprehensive model, additional antecedents have to be identified and tested in an integrated model.

8. CONCLUSION

CRM is implemented by numerous businesses all over the world. However, previous research has mainly focused on CRM implementation in developed countries, with minimal emphasis on developing countries. This study contributes significantly to our understanding of CRM implementation in Jordan, which is considered a developing country.

The objective of this study was to examine the potential relationship between CRM user antecedents, CRM implementation, and customer outcomes in terms of customer satisfaction, loyalty, and retention in developing countries. This was achieved by obtaining experiential evidence from CRM users of the service industry in Jordan. User involvement as an antecedent of CRM implementation was not found to have a significant effect. However, CRM implementation was found to have an important and decisive impact on customer outcomes.

The linkages between these variables are not only important for the customer-centric management system, but also represent an important tool for managers in making decisions to support CRM implementation and to enhance CRM capabilities within the service industry in Jordan. Consequently, organizations as service providers must place greater emphasis on user involvement. Moreover, as end-users in CRM implementation, employees are not merely users of CRM systems; they are also expected to provide important inputs with regard to the requirements and development of these systems. It is therefore essential for employees to be well trained so that they can respond effectively to customers and enhance customer satisfaction, retention, and loyalty.

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