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The effect of Customer Relationship Management systems on firm performance☆,☆☆

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1. Introduction

The extant literature does not thoroughly investigate the benefits of Customer Relationship Management (CRM) systems. CRM systems are different from enterprise resource planning (ERP) and supply chain management (SCM) systems in that they focus on relationships with customers. Therefore, it could be argued that CRM systems can have the greatest effect on firm performance. Thus far, the research finds evidence that CRM systems do improve customer satisfaction (Mithas et al., 2005), but implementing CRM systems does not improve stock returns or profitability (Hendricks et al., 2007). This raises the question: If there are no measurable benefits achieved while implementing CRM systems, then why do companies continue to invest heavily in them?

CRM is a strategic approach to marketing that focuses on developing and maintaining appropriate relationships with customers often with the aid of information technology (IT), or CRM systems (Payne and Frow, 2005). In their attempts to define what CRM is, Payne and Frow (2005) state that, "CRM provides enhanced opportunities to use data and information to both understand customers and cocreate value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology, and applications." Simply put, the purpose of CRM is to develop and maintain relationships with customers. This notion is supported by Coltman et al. (2011) and Krasnikov et al. (2009), as these papers show that implementing CRM management philosophies positively affects performance. However, the literature looking specifically at CRM systems is lacking in conclusive results.

Vendors that sell CRM systems boast of the numerous benefits that these systems provide such as improving profitability, customer satisfaction, sales productivity, and sales predictability (Taber, 2013). Given these benefits, it is not surprising that companies were forecasted to spend $23.9 billion on CRM systems in 2014 (Gartner, 2014). However, it is surprising that the academic literature identifies few tangible benefits of CRM systems given the large investments and capabilities of the systems. It is possible that many companies overestimated the benefits of CRM systems, underutilized their CRM systems, inadequately trained their company staff to use CRM systems, or simply received too much information from their CRM systems (Taber, 2014).

☆ Data availability: The data used are publicly available from the sources cited in the text.
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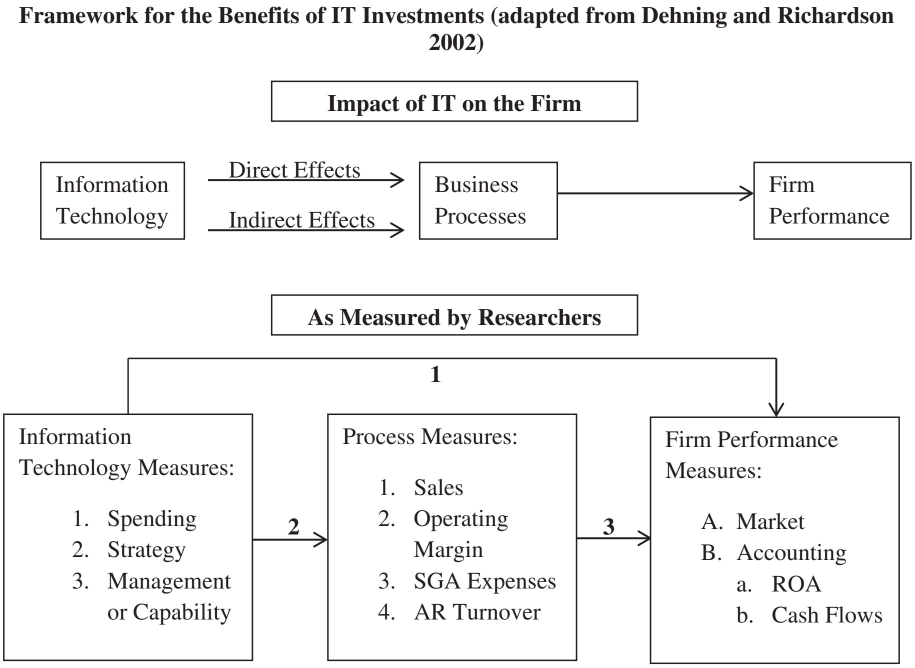

Fig. 1. Framework for the Benefits of IT Investments.
(adapted from Dehning and Richardson, 2002)

Mithas et al. (2005) find that customer knowledge increases following CRM system implementation. Similarly, other studies find that following CRM system implementation, customer satisfaction and retention improves (Boulding et al., 2005; Sutton and Klein, 2003). Conversely, other studies argue that not all customers value a relationship with firms; therefore, improving customer satisfaction does not necessarily lead to better firm performance (Danaher et al., 2008; Dowling, 2002). This notion is supported by Hendricks et al. (2007) who find no association between CRM system implementation and stock returns or firm profitability. However, given the numerous features of CRM systems, continuous, material investments by CRM adopters and the benefits for customers, we predict that there must be some measurable benefits for the firms that choose to implement them.

In examining the potential advantages of CRM system implementation, we utilize Fig. 1, adapted from Dehning and Richardson (2002) that highlights the path from IT investment to financial performance. Prior literature focuses on path number 1, or the direct effect that IT has on firm performance measures. Further, while prior literature utilizes market measures to examine firm performance, our study focuses on accounting measures of firms' performance as it is not clear that the market will respond directly to CRM system implementation, but rather to the improvements to accounting performance. While we expect that CRM system implementation will ultimately improve firm performance, we argue that one way to assess its impact is to examine whether CRM systems improve business process measures (path number 2 in Fig. 1). We argue that CRM implementation represents changes to all three IT Measures (spending, strategy, and management or capability) though the most obvious is IT spending. We also argue that a sole focus on direct performance measure improvement may be the reason why prior literature finds mixed results regarding the benefits of CRM system implementation (Hendricks et al., 2007). Therefore we first examine the effects that CRM systems have on all of the business process measures included in Fig. 1.

Based on the benefits mentioned by Taber (2013), we first examine whether CRM system implementation improves sales, sales efficiency (operating margin and selling, general, and administrative (SGA) expenses), and the ability to collect accounts receivable. Given that a primary objective of CRM system implementation is to gain new customers (Payne and Frow, 2005), CRM system implementers should be associated with an increase in sales. In addition to operational performance, we consider efficiency in supporting customer sales by examining how CRM system implementations affect selling, general, and administrative (SGA) expenses. CRM systems may allow firms to spend less in expenses for each sale made.

Prior literature finds a positive relationship between CRM system implementation and customer satisfaction (Boulding et al., 2005; Sutton and Klein, 2003). We test this from a different perspective by examining the effect of CRM system implementation on accounts receivable. If customers are more satisfied with the firm, and if communication is improved between the firm and customers due to better tracked information regarding outstanding bills, then the firms implementing CRM should be more effective at collecting accounts receivable. Therefore, we expect that accounts receivable collectability will improve following CRM system implementation.

Finally, we examine whether CRM system implementation improves overall firm performance measures (path 1 of Fig. 1), specifically return on assets (ROA) and cash flows from operations. In addition, to test if CRM systems actually help facilitate forecasting of future sales and by extension the forecasting of earnings, we examine whether the accuracy of management earnings forecasts