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Towards a holistic perspective of customer relationship management (CRM) implementation: A case study of the Housing and Development Board, Singapore

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Abstract

Organizations have increasingly recognized the importance of managing customer relationships, and many organizations are turning to customer relationship management (CRM) to better serve customers and facilitate closer relationships with them. This paper examines the implementation of CRM at the Housing and Development Board (HDB) in Singapore. The CRM architecture (comprising operational CRM, collaborative CRM and analytical CRM) deployed at HDB reflects a holistic approach to CRM implementation that integrates three key perspectives of CRM, namely, the business, technology and customer perspectives. Drawing from the case study, we present a holistic framework for CRM that binds information technologies with business processes for the delivery of high service quality.
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1. Introduction

As companies' business strategies become more customer-oriented with the evolution of mass customization and personalized services, information technologies (IT) are used not only to serve various departments within an organization, but also to serve end-users of the organization's products and services. Specifically, the use of IT adds a new dimension to relationship marketing, known as customer relationship management (CRM) [23,31]. At its core, CRM is about acquiring customers, knowing them well, providing services and

anticipating their needs [10]. However, a problem with CRM is that it means different things to different people [40] and organizations approach CRM differently, e.g., some may view CRM as a technology tool while others may view it as an essential part of business. Hence, there is a need for a holistic approach by organizations to integrate IT with its business processes and customer service delivery. A holistic approach helps ensure that different perspectives of CRM are explicitly considered, and that operational CRM, analytical CRM and collaborative CRM complement each other.

The Housing and Development Board (HDB) is regarded in Singapore as one of the government agencies most receptive to IT. The appointment of a senior executive as Chief Information Officer (CIO) in 1999 signaled the commitment of the agency to utilize

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IT strategically. Since then, HDB has consistently leveraged IT to streamline its business processes and provide better services to its customers. Indeed, HDB is recognized as a model organization in IT implementation (evident in its many IT-related awards), having successfully carried out business process reengineering, data warehouse implementation, knowledge management implementation and CRM implementation, among many other IT projects. As a pioneer in IT implementation among public sector organizations in Singapore, HDB presents an ideal case study from which other organizations may draw useful lessons. In particular, HDB's progressive development of its CRM systems and various other IT tools for the aim of providing customers with service excellence is worth examining. This is especially so as previous research has shown that the success rate of CRM varies between 30% and 70% [37], and there is currently a lack of successful CRM case studies (especially on public organizations) reported in academic journals. In this paper, we examine HDB's success in CRM implementation as a case study, and propose a framework for CRM encompassing business, technology and customer perspectives. We also discuss the CRM architecture as operational, collaborative and analytical systems to address the need for CRM to be approached as an integrated organizational strategy encompassing both front office and backend business operations.

The paper is organized as follows. Following this introduction, we review the literature on CRM. In the process, we lay the foundation for a holistic framework of CRM that integrates the technology, business and customer perspectives of CRM. Next, we present the background description of HDB, followed by the evolution of CRM at HDB. Subsequently, we describe the components of the CRM architecture at HDB. We then analyze CRM implementation at HDB through the holistic framework and discuss its impact on the agency.

2. Literature review

2.1. Need for CRM

As the power of the seller shifts to the buyer [10,39], organizations are realizing that competing with cheaper, better or different products is not sufficient, and competitive advantage cannot be achieved by purely differentiating products alone, but through enhanced customer relationships [25]. At the same time, customers are experiencing low switching costs and could easily redirect their loyalty from one company to another [17]. Their expectations have also risen in recent years, making CRM a necessity in today's customer-driven business environment [21].

Previous research has shown that it costs more to attract new customers than retain customers because of advertising and marketing costs [22,26,27]. This means that, instead of differentiating products, organizations should differentiate customers [19] and they should shift their emphasis on market share to customer share [23].

Research has also indicated that organizations must not only retain their customers but also expand the useful lifespan of customers with the organization [42] by means of IT. Through such technologies, one-to-one relationships [23], value creation [4,34], cost containment [13], customer value analysis, product and website customization are possible on a scale that was not possible in the past [19]. According to the 80/20 rule, 20% of customers provide organizations with 80% of sales [30], which further emphasizes the need for organizations to retain and engage in long-term relationships with profitable customers to maximize profits [9].

2.2. Perspectives in CRM

CRM researchers have derived many different but closely related definitions of CRM [10,29,32]. Schultz [33] identified two forms of CRM, one related to service marketing, which focuses on the organization's capabilities to foster relationship with the customer. The other concerns using technology such as data marts and data consolidation to deal with sales force automation. Peppers and Rogers [23] considered CRM as a business strategy that is to serve as the norm. Other definitions exist, but generally, they may be categorized into three complementary perspectives: technology, business and customer. To reflect the different aspects of CRM emphasized in previous research, we adopt a holistic view of CRM that encompasses all three perspectives. In the following sections, we discuss the three perspectives in detail.

2.2.1. Technology perspective

From a technological perspective, IT are considered an enabler that allows organizations to foster closer relationships with customers, analyze customer information and provide a coherent view of the customer [10,31]. Organizations thus require an integrated information system to provide relevant, real-time and accurate information to all employees in the organization [24]. This integrated information system usually requires integration of the marketing, sales and service functions of the organization [9,25]. Hence, in this perspective, CRM is the underlying infrastructure with