Chapter 43
Online Real Estate Demand Chain Integration

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ABSTRACT

In this paper, we propose a solution for demand chain management using APIs (application programming interfaces) integration in the online real estate. We propose online real estate management system that includes advanced modules that can be bundled together, creating differentiation and enhancing the value chain. We propose a simplified implementation architecture for an integrated demand and supply chain management system for online real estate services. We use a formal specification language for specifying the functional components of the demand chain management system and interaction with real estate entities and actors. We choose an open source Customer Relationship Management system as a platform to manage some of the online real estate modules. Other value-added modules are integrated from third-party providers using their open interfaces.

INTRODUCTION

Real estate is an information-intensive business. Agents connect buyers to sellers through control and dissemination of information (e.g., via the Multiple Listing Service, MLS). Agents have valued information skills that they bring to make both listing and sales. Since houses are expensive, not easily describable and infrequently bought or sold, most people still feel the need for assistance with this transaction from a professional. As well, these are all factors that tend to keep the transactions costs high

Nowadays, buyers and sellers can use the Internet to list and search for houses, potentially by-passing traditional real-estate agents. Thus, the mediating role of real estate agents have been reduced or eliminated because the Internet permits the buyer and seller to manage their relationship directly.

The growth of real estate commerce on the internet and the number of new sites providing real estate tools and information has also affected both real estate practices and the roles of industry players. As a result, changes in this industry will have significant impact on the interaction between the real estate system and the real estate entities.

Also, the rapid development of the internet, especially web-based information transfer between companies, their suppliers, their customers, and various service providers, has improved information management in supply chains (Johnson & Whang, 2002).

Supply management has focused on moving products and services downstream towards the customer. Demand chain management changes the emphasis towards 'customization', responding to product and service opportunities offered by specific customers or customer groups sharing particular characteristics.

The markets have become much more volatile, and under such conditions the old assumptions are not always valid. Gattorna (2010), Christopher and Holweg (2011) Harrington et al. (2011), and Ericsson (2011a) argue for a critical review and reinvention of current supply chain models.

Madhani (2015) presents various frameworks and models for understanding DCM and its key drivers.

Through a DCM approach, firms could enhance the overall efficiency by interlinking the marketing and SCM operations, and at the same time meet the long-term strategic goals and maximize CLV.

Soosay and Hyland (2015) aims to review the literature and address how well the body of knowledge on supply chain collaboration corresponds with our contemporary society pertaining to some key themes, and also to provide a discussion on areas for future research.

Donovan and Manuj (2015) explains the complex process of strategic demand management by developing a comprehensive theoretical framework that integrates research focused on diverse aspects of demand management such as product characteristics, environmental uncertainties, operational strategies, integration between supply and demand processes, and performance outcomes.

Ceren (2015) builds up a conceptual framework for sustainable demand chain management (SDCM) and calls for further research on the integration between marketing and SSCM both at the theoretical and empirical levels.

Santosa and D'Antone (2014) presents a comprehensive framework of intra-firm departmental integration and reconnect the framework to related contributions in marketing and supply chain management literature to improve the DCM approach. It outcomes refine and show the complexity of the idea of alignment (integration) between the demand and supply chains proposed by the DCM approach.

Agrawal (2012) explore various factors of DCM that would help firms in enhancing their market responsiveness capabilities in a dynamic business scenario.

Bustinza et al. (2013) aims to understand how firms manage their product and service offerings, integrating supply chain management (SCM) and demand chain management (DCM) strategies.

Madhani (2013) discusses the issues of the marketing led firms and the supply chain management (SCM) led firms. It aims to investigate between the renewed emphasis and interests in integration of marketing and SCM in the form of demand chain management (DCM).

Özcanl (2012) propose a framework for CRM on-demand system evaluation, especially for SMEs that need guidance in choosing a cost effective and reliable CRM on-demand solution among the various systems in the saturated CRM on-demand market.

Gattorna (2010) stresses that people and their behavior, and not technology, is driving the development of supply chains. Several areas of human activity along the supply chains must be examined and treated as social, economic and behavioral systems (Ericsson, 2011a).

The secret of designing superior supply chains is to start by re-segmenting customers along behavioral lines and then reverse engineer from there (Gattorna, 2010). The segmentation of customers together with product service and process differentiation to fit the segments are fundamental concepts in marketing. However, the use of marketing knowledge to guide the development of differentiated supply chains has not been overwhelming.

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