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A COLLABORATIVE COMMERCE FRAMEWORK FOR THE REAL ESTATE INDUSTRY

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ABSTRACT

The Internet opens up new business opportunities for the real estate industry. It provides real estate companies with new ways to collaborate with service providers, gain customer and market information, and communicate with the customer in new ways to turn the industry into a customer-centric driven modus operandi. It also makes the real-estate market more transparent, and hence more efficient. This, in turn, will create downward pressure on existing commission fees, create multiple revenue channels, and redefine the role of the agent as an intermediary.

A collaborative commerce-model framework is developed and illustrated to act as an enabler for turning these opportunities into a future reality. The collaborative model is based on a generic e-business applications framework, which incorporates Enterprise Resource Planning, Supply Chain Management, Customer Relationship Management, Selling Chain Management, and Enterprise Application Integration and Business Intelligence.

INTRODUCTION

In the traditional real estate environment, the agent is at the heart of the transaction; without an agent, it is extremely difficult to either purchase or sell a property. The agent's job is to bring sellers and buyers together and provide them with information, advice, and assistance throughout the whole property transaction. It is the agent's responsibility to help the seller establish a reasonable price for the property, plan marketing activities, and find prospective buyers. In return, the client is contractually obligated to pay the agent a commission fee, which equals a certain percentage of the sales value [1]. However, the agent also assists prospective buyers to locate new properties. In this situation, the agent researches the market and compiles a comprehensive list of properties that match the customer's demands. Once this has been done, the agent arranges for the client to go and view the selected properties. The agent then accompanies the customer and provides him with property information throughout the entire inspection process. Furthermore, he helps to negotiate prices and moving-in dates, as well as to locate banks, insurance companies, and appraisal firms, etc. In return for the agent's assistance in completing the transaction, he receives a proportion of the commission, paid by the seller – as discussed above (ibid). In some instances, however, when there is a high market demand for properties, the buyer's agent gets commissioned directly by the buyer.

Although this business model has been around – and has seemed to work well – for several decades, it is now starting to fall apart. “Where the industry has excelled is in customer acquisition and doing deals. It has not excelled in serving customers. We look at the world from the

inside out. We look at what is good for ourselves and not at what is good for the consumer” [2]. From the customer's point of view, buying or selling a property has been an extremely long and cumbersome process. The purchasing experience has involved spending hours in the car, driving from house to house in order to find a suitable match – taking up valuable time for the potential buyer. Furthermore, buyers and sellers have also had to trust agents to act in their best interest – they themselves have had little control over the transaction. Information has been “closely guarded by the real estate community, and the only alternative for consumers [has been] to represent themselves” (ibid).

The key point is that the traditional business model has created very limited value for the customer. The agent has guarded property information as much as possible, simply to take advantage of the market. With internet-enabled customers, the business model is changing. This paper develops a collaborative commerce framework for the real estate industry, highlighting some of the features of the changing business model. Before outlining the functions of such model, a number of current internet activities in the real estate sector are summarized.

REAL ESTATE ACTIVITIES ON THE INTERNET

Last year alone, companies invested a total of \$500 million in online real estate services and analysts now estimate that there are more than 500,000 real estate Web sites on the Internet [11], [18]. Empowered by the internet, customers can access property data, view related pictures and take 3D virtual tours. At Bovision (www.bovision.com), for example, visitors can view up to five different film clips of each property – featuring different views and angles. Other firms also provide information such as home layout indications and registered plans, details concerning zoning and rates, and locality maps with schools, transport, and shops etc. in order to help the visitor find a suitable house. “You get more information from the Internet in just one hour than it would have taken a week to accumulate 10 years ago” [7]. However, some companies do more than list property and neighborhood information on their sites. Century21.com, Homestore.com, and Homeroute.com, for example, have realized that the Internet can be used in even more creative ways to heighten the level of customer service. Century21 (www.century21.com), for example, guides the client throughout most of the relocation experience. To begin with, the site helps the customer calculate how much money can be spent on a new property, taking into account the present income level, taxes, existing debt payments, etc. The site also features a mortgage calculator, and helps with the decoration of the new home. The ‘Century21 Home Planner’ enables customers to visualize the property,

and experiment with designs before even moving in. The application provides suggestions as to where the furniture should be placed, based on information such as the location of windows, phone jacks, doors and electrical outlets etc. Furthermore, the company can also suggest momentary living arrangements; disconnect and reconnect utilities; and provide free installation of security systems. Homestore.com (www.homestore.com) propagates the slogan: "Everything Home on the Internet." They developed a portal which links the customer to most parties needed in the transaction, such as finance and insurance companies, moving firms, remodeling and maintenance services etc. [9]. Homeroute.com (www.homeroute.com) provides a similar service, but in addition allows its customers to inquire about houses that are not even on the market yet. It says: "We help make your dream house. your house!" (www.homeroute.com). Through the software "Dream Track", customers can register their interest in a particular house – which is not on the market – and receive instant information by email as soon as the owner decides to sell. It gives people the opportunity to place offers before the property even reaches the market.

Although these companies show that the Internet can be used to serve customers in new ways, the real estate business model shows still far greater promise in creating a 'one-stop' shopping experience for the customer. With the Internet as a business platform, "there are endless new opportunities for partnerships and new ways of thinking about the business" [11].

Before discussing the e-business enabled collaborative commerce- model for the real-estate market, it is useful to review some basic e-business developments and how they may impact the real estate industry.

E-BUSINESS APPLICATIONS AND REAL-ESTATE

The E-Business Distribution System

The e-business distribution model threatens the existence of agents in the service industry. The trend of eliminating these intermediaries, with the help of the Internet, is referred to as 'disintermediation' [20]. The e-business model for the real estate environment does not encourage automatic purchases over the Internet. "Homes aren't commodities, and no matter how good the virtual-tour technology gets, it will never reach the point where you'll buy a home like you buy a book at Amazon.com with a one-click purchase" [9]. After all, a home purchase is one of the most emotional and expensive transactions people make in a lifetime. The e-business model can, however, enable companies to facilitate the transaction for the customer by:

- Speeding up the transaction process
- Detect problems in the transaction faster and collaborate to solve them
- Enable e-supply chain members to work together to create customized 'packages.'

First of all, an e-supply chain for the real estate industry can significantly speed up the transaction process. All companies, needed to fulfill the transaction – real estate agencies, mortgage firms, appraisal firms, moving companies, legal advisors, etc. –, can all cooperate and

work towards one common goal – to help the customer complete the transaction. The customer can view homes, apply for mortgages, and order inspection services, at the same time [19]. This model can, therefore, significantly reduce the time needed to complete a transaction. Furthermore, the e-supply chain members can also detect problems faster and collaborate to solve them. If the moving-in date, for example, has to be postponed for a significant period of time, due to the restoration of a damaged entity – discovered by the house inspection team –, the e-supply chain members can immediately inform the customer of the problem. They can then help the customer deal with this inconvenience by automatically proposing properties he could rent in the meantime. Moreover, the real estate e-supply chain members can also work together to create customized 'packages', such as 'Purchase this villa and you get a 10 percent price reduction at our moving firm, 12 months pool and gardening care, and free interior design advice.'

Electronic Customer Relationship Management (eCRM)

Electronic customer relationship management (eCRM) is the concept of leveraging technology to enhance customer relationships via the Internet, and includes techniques such as:

- Customized and personalized web sites and e-mails,
- Assistance over the web, and
- Online rewards

Web Customization and Personalization

Customers who have to go through Web page after Web page with irrelevant information just in order to reach something of personal interest are likely to get impatient and leave the company's site. In order to avoid this situation, many companies allow their customers to set up web sites that match their own interests and needs. This is called web customization [25].

For the real estate transaction, this would translate into the creation of personal web folders. Real estate companies can use personal folders to help clients coordinate and facilitate their online search for properties (www.homestore.com). It is not always easy for clients to remember everything about properties and, as such, they may often have to go back and try to find the information all over again. With these folders, customers can collect property information, pictures, telephone numbers, details about open houses, maps, etc., throughout the company's site and save it all on one single web page. They do no longer have to use the search engine every time they desire to view a particular property. Some companies, however, take the web customization-strategy one step further; they personalize the web site 'on the fly' [14]. These companies do not require visitors to fill in questionnaires with personal information; they create personalized visits by using cookies. "A cookie is a small code left on the user's computer that [looks] up information on an e-business's database. This code retrieves information such as past actions, search interests, or past purchases, which can be used to personalize the site" [14]. Real estate companies can also use web personalization to enhance customer relationships. By using cookies to find out what

type of properties the client has looked at in the past, the company can provide him with a web site that matches his interests. The personalized web site could feature information about new properties on the market, current mortgage rates, insurance offers, and security system information etc. – everything that the customer may have looked at in the past. The personalization strategy aims at providing customers with relevant information every time they log onto the site. After all, detailed information about fancy villas is worthless to a person who is currently looking for his first flat.

Personalization techniques are not limited to Web sites; a company can also employ personalized emails to target customers [23]. If a customer visits a site and looks at a specific property several times, but never inquires further because of the listed price, the real-estate company can use email personalization to inform the customer as soon as the list price changes. Companies can also send out personalized emails to visitors and inform them as soon as new properties – matching their demands – appear on the market. This enables companies to serve customers even when they are not on their site. Personalized emails can also be used to let people know how the transaction is coming along once it has been set in motion.

By employing customization and personalization strategies, a company can create more intimate customer relationships. However, when companies personalize web sites they may – at times – deal with rather sensitive customer information [25]. Consequently, companies have to be careful of the way they use this strategy. They have to know which information to collect, how to use it, and how to inform their customers – if at all – of their information gathering activities. After all, if companies are caught invading customers' privacy, they do not build relationships; they break them [24]. As such, this strategy should be used with caution.

Web Assistance

Apart from personalization, many companies also implement customer support modules on their site to assist troubled visitors. The online real estate company, ZipRealty.com (www.ziprealty.com), for example has a 'Live Help' button on its site, which enables visitors to chat with an operator in real time [8]. In order to receive personal assistance, the visitor can simply choose from a list of operators, enter the name of the desired one, and then wait for a connection. Within seconds, the operator sends a chat message to the visitor asking him how he can be of assistance. Products, like this one, allow online real estate companies to provide a personal touch to the customer service. It enables the operator to provide the client with instantaneous information about properties, 'push' web pages to him, or update him about the status of a transaction – all in a personalized manner.

This product is very valuable to the company when the number of customers, who demand assistance, is relatively small. However, as the web site traffic increases, there is a chance that the system can become overloaded, as

operators are unable to deal with all the queries. In this case, the real estate company could turn to a system that is based on Artificial Intelligence (AI). "AI is a set of software tools that enables computers to think like humans to solve problems. It enables computers to learn and refine knowledge gained from experience"

(www.uga.edu/caes/AI/glossary.htm#ai). As such, particular questions could be responded to without the help of an operator. In the case when the computer would not be able to respond to a question, the system could automatically re-route the customer to a trained operator. Web assistance is essential for this industry. Due to the fact that the real estate transaction is very emotional and extremely expensive, customers demand that they receive utmost service [3].

Online Reward Programs

Real estate companies can also employ reward programs to lure their visitors to do business with them. The online real estate company, Century21, uses a reward program called 'Air Miles'. This program rewards customers with two air miles for every US\$1,000 property they buy or sell through their site (www.century21.com). Customers can collect these miles to receive free rewards, such as car rentals, long distance calling, weekend trips, and more.

A COLLABORATIVE COMMERCE-FRAMEWORK FOR THE REAL ESTATE INDUSTRY

E-Business Applications Framework

In the web-enabled business model, the business model becomes customer-centric, or demand-chain driven, rather than supply-chain driven which is currently the case. The major components of a comprehensive demand-chain driven, and e-business enabled, management framework are illustrated in Figure 1[13].

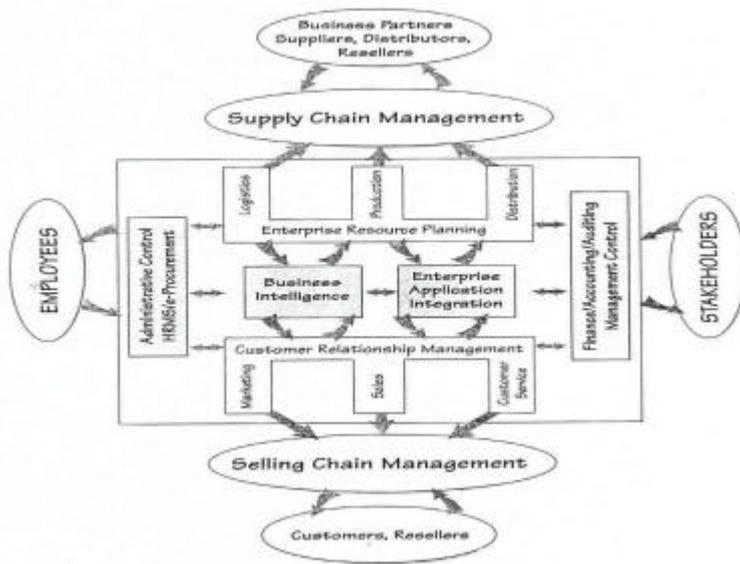


Figure 1. E-Business Applications Framework
 (Source: Kalakota and Robinson, 2001, 440)

So far, many online real estate companies have experimented with separate components of this model. This paper presents a more comprehensive collaborative commerce-framework by integrating various components, as illustrated in Figure 1, to create additional value for the customer. Some of these components will be briefly discussed below.

Enterprise Resource Planning (ERP)

ERP is a software system that “integrates key business and management processes to provide a sky-level view of what’s going on in [the] organization” [22]. Let’s imagine, for example, that a new client signs up with the real estate company to sell his house. As soon as a new file is opened, the ERP system can automatically inform the relevant departments of the need to:

- Create a virtual tour of the property,
- Take property pictures,
- List the property online as well as in traditional media, and
- Send out a personalized ‘thank you for using our company’ email, etc.

As the transaction progresses, and these tasks are completed, the ERP system can help employees update the client’s file, which in turn creates new process requirements. For example, as soon as the advertising campaign is up and running – both on the Internet and in traditional media – the ERP system can automatically send out an invoice to the customer, charging him for the

service (if applicable). This way, the company can coordinate activities and perform different tasks simultaneously, instead of approaching them one by one in a chain-like manner.

The Internet can also help companies integrate their ERP systems across supply chain members [16]. For the real estate industry, this means the creation of an extended enterprise – composed of real estate agents, appraisal firms, insurance companies, and banks etc. – all linked together through the Internet. This business environment leads us to the integration of supply chain management concepts in the overall management framework.

Supply Chain Management

Supply chain management is one concept the real estate business model has lacked in until now. Even though Homestore.com uses the Internet to link customers to the sites of partner companies, there is no real cooperation among them. Consequently, customers are forced to deal with each company separately. In order to move towards a more desirable one-stop shopping experience, real estate companies have to form closer relationships with various business players, thereby moving towards a collaborative commerce model.

The collaborative commerce, or c-commerce, model describes an interactive community where personnel, business partners, and customers are joined together by the Internet to collaborate and expand business relationships [5]. It integrates business activities with all other supply chain participants to create an extended enterprise, which acts towards one common goal: to complete the transaction for the customer.

This is how it can work for the real estate industry. As soon as a new customer contacts a real estate company – in order to buy or sell a house -, a new customer file is opened. With the help of the Internet and the appropriate technology, the company could then trigger all required activities, which may include requests for mortgage rates, house inspections, insurance information, security system installations, etc. As such, this collaborative community allows the supply chain participants to jointly handle real estate transactions. Realty Plus Online Inc.’s (www.realtyplusonline.com), for example, has developed a back-office system called closeyourdeal.com. This product targets online real estate companies who desire to work together with service companies to create a ‘one-stop’ shopping experience for customers. “With closeyourdeal.com, real estate agents, buyers, sellers, title and settlement companies, lenders, appraisers, inspectors, and attorneys can easily collaborate in a secure Web environment” (www.closeyourdeal.com). This emerging real estate c-commerce model is shown in Figure 2.

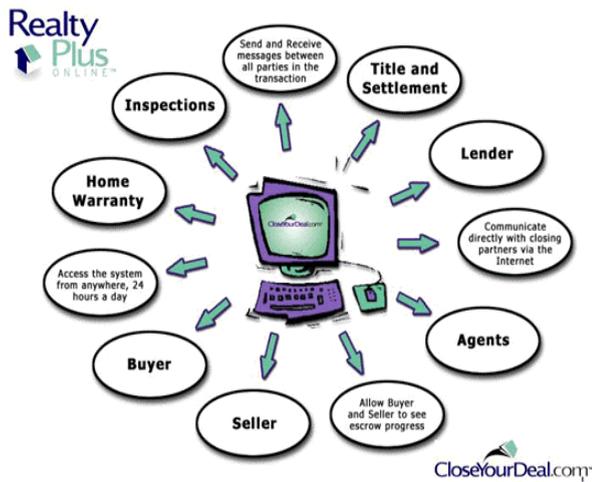


Figure 2. C-Commerce Model for the Real Estate Industry
(Source: Realty Plus Online Inc., www.realtyplusonline.com/19.asp)

All closeyourdeal.com participants can send messages, share documents, and jointly manage transactions over the Web. "This saves time, lowers costs, and improves efficiency" (www.closeyourdeal.com). Each company receives only the information necessary for its specific task, and can start processing the order as soon as it is notified. Furthermore, all partners can track the deal and see how it progresses.

The most important characteristic of this c-commerce system, however, is that it allows the customer to get more involved in the transaction. The customer can access up-to-date information about the transaction twenty-four hours a day and see how it advances. "Allowing [customers] to see the status of their deals makes all participants in a transaction more accountable and [it] promotes better communication between clients and service providers" [21]. For security reasons, the platform is protected by firewalls. On September the 18th, 2000, the Realty Plus Online Inc. launched its system on a national level – throughout the United States. The CEO of the company described this event as "an important milestone for the real estate industry. This step demonstrates that the real estate industry is ready to accept online transaction solutions" [12]. Currently, more than 4,200 real estate agents and service companies use the system to enhance business performance (www.closeyourdeal.com).

Although closeyourdeal.com is a groundbreaking development – which allows companies to collaborate with each other from coast to coast in the U.S.– it has not yet considered the possibility to use the c-commerce environment for linking companies globally. The c-commerce model can enable companies in different countries to collaborate with each other, whenever needed, to allow customers to complete deals across borders. The following scenario illustrates how this business model would work.

Let's assume that a Belgian customer contacts an 'international' online real estate company – which can deal with customers in almost any language – with the desire to buy a holiday home in Spain. As soon as the company receives the customer's request, it would contact a Spanish real estate agency, which would provide it with

the needed property listings over the Internet. This system allows the customer to view properties in Spain, without having to deal with the local agency. When the customer finds a house he likes, he can put in a request over the Internet. The online company and the Spanish agency can then collaborate via the c-commerce community to handle the transaction. They can organize open houses, arrange for house inspections, help their clients settle on a price, etc. Because the Spanish company has the cultural knowledge and understands the market, it could also help the online company inform the buyer about Spanish tax laws, insurance necessities, and local neighborhood information, etc.

Not only does this business model facilitate the transaction for the customer; it also benefits both the online real estate company and the Spanish agency. The international online company can provide its customers with listings and assistance throughout the entire world, thus improving its level of service. At the same time, the Spanish company can increase sales by making it easier for foreign customers to conduct business. Naturally, the two companies would have to split the commission in a pre-established manner in order to create an incentive for collaboration. Aside from enabling companies to increase the level of collaboration with supply chain members; it also makes it easy for companies to locate new partners and suppliers through "reversed auctions" to locate the most attractive service providers, such as professional photographers, ad-agencies etc.

All these players offer relatively standardized services, which make them suitable for the reversed auction model. With the development of a real estate e-supply chain, the industry is finally showing signs of efficiency.

Customer Relationship Management

Whereas the ERP and SCM applications deal with back-office processes, customer relationship management targets the front-office, its main focus being to deliver the right knowledge to the right customers at the right time. This can be achieved with personalization techniques, web assistance, and incentive programs discussed earlier. "CRM applications focus on the administrative aspects of a company's sales, marketing, and service efforts, they generally do not directly enhance the customer's buying experience" [13, p.206-207]. This is where Selling Chain Management enters the picture.

Selling Chain Management

The concept of selling chain management aims to improve the way clients can purchase and sell properties via the Internet. Its focus is on the buying process, not the sales process, enhancing the buying process and making it faster for both customers and salespeople. Traditionally, customers and sellers have had to rely on the real estate agent to accomplish this mediating task. However, with the Internet as a channel, buyers and sellers can now locate each other without the help of the agent. Taken a step further, they may even use an e-auction site to settle the price tag of properties. The E-auction model is built on the idea that with the right technology, sellers and buyers can come together via the Internet and settle prices of properties without even leaving their homes [15]. One

company that has put theory into action to allow customers to participate in online property auctions is 1roofrealty.com (www.1roofrealty.com). “We have created 1roofrealty.com because we think the process of finding, buying, and selling real estate is far too difficult, confusing, time consuming, and expensive. In short, it is a trade in need of a fearless and intelligent company to revolutionize the industry. The public needs valuable and effective service, lots of choices, and most of all, lower commission prices. We believe the public has waited long enough; the time for 1roofrealty.com has arrived” (www.1roofrealty.com).

1roofrealty.com aims to increase efficiency in the real estate transaction by allowing customers to handle the deal by themselves via the Internet.

For a person who desires to sell a property, the company offers very favorable conditions. In addition to assisting the seller with traditional advertising campaigns and organizing open houses, 1roofrealty.com also creates a Web page with a 360 degree virtual tour of the house, detailed property information, and links to partners who provide online school reports, maps, and community information [17]. Furthermore, it allows the seller to set up an e-auction on his site and enable interested buyers to place bids online.

This is how the model works. At the start of the auction, the seller announces a closing time, which informs everybody of the duration of the auction. From this point onward, the buyers can place bids on the site and access the e-auctions twenty-four hours a day to see how it progresses. When the seller receives an interesting offer, he is not obliged to wait until the auction closes to accept it; he can put the auction into ‘countdown’. At this moment, all bidders are automatically notified of the seller’s interest in the particular bid and a new closing time is posted on the site. This allows all buyers to place last minute bids before the auction closes (www.1roofrealty.com).

When the auction comes to an end, 1roofrealty.com does not remove the property from the site straight away. Instead the company only posts the word ‘pending’ on the site. As a result, visitors can continue to take virtual tours and get information about the property until the deal is completely finalized. This way, the company minimizes the seller’s time spent ‘off market’ in a situation when a deal falls through.

Through this e-auction model, 1roofrealty.com allows its customers to settle the price of properties without involving an agent. However, because the parties negotiate prices all by themselves in this environment, the company also provides online pricing assistance for the ones who desire it. On April the 18th, 2000 the company announced the use Domania.com’s (www.domania.com) ‘Home Price Check’ service (1roofrealty.com, 2000). This product enables customers to view previous sale prices of properties in a certain area, find out the sale price of a specific house, or search for houses within a specified price range (www.1roofrealty.com). This product empowers online visitors to compare property prices and learn about the real estate market – an absolute requirement for people who plan to participate in an auction. “1RoofRealty and Home Price Check are a

perfect complement. With the combination of our services, homeowners will know when to sell, where to buy, and will save time and money in the process” (1roofrealty.com, 2000).

1roofrealty.com argues that its e-auction is “a better way to sell homes, as it makes the buying process easier and ultimately nets the most competitive price for the seller” (1roofrealty.com, 2000). It also gives buyers a fair chance on the market. All the interested buyers can see the bids as they are placed on the Internet and they know what they have to offer in order to make the house their future home. There is no risk of being overbid without knowing about it. This e-auction model brings house shopping to a new level. Many customers will still want to visit properties and view them in person before entering into a transaction [15].

Buying a new home is, after all, a very emotional experience and it also involves a lot of money. “Buying a home [is] a dream, and it’s personal. You need the human element” [19]. As such, the Internet will not eliminate the need for open houses. However, due to the fact that the Internet enables customers to research the market, view pictures, and take 3D virtual tours, without leaving their houses the e-business model can significantly reduce the amount of time customers spend in the car looking for a suitable house. The necessary research – together with the bidding and closing processes – can now be handled over the Internet. As such, this business model provides today’s time conscious customers with increased value.

Administrative Control

From the previous discussions, it is clear that the mediating role of the real estate agent as an intermediary is about to change fundamentally if additional value is to be created for the customer. Under the assumption that some mediating needs will remain, such as the organizing of open-house visits, the Internet enables agents to put their agendas – together with all the needed documents and contact numbers – online [6]. The agent’s job is further facilitated by the recent development of wireless personal digital assistants (PDA). These are small handheld electronic devices, which make it possible to access the Internet no matter where one is located [10]. The PDA does not require telephone lines or cables to log on to the Internet. Instead, it uses radio frequency – just like a mobile phone – to access the Internet. Through the use of the Internet and these wireless devices, real estate agents can view property listings, make appointments through emails, download files, etc – all this while being out of the office. This enables the agent to be more efficient as he does not have to be tied to the desk in order to receive updates on the clients’ transactions. The Internet allows the real estate agent to access information at any time and anywhere he likes. In a service industry, where customers desire up-to-date information, this is of tremendous importance.

The next section describes how the components described earlier can be integrated to create a unified collaborative-commerce model.

Enterprise Application Integration and Business Intelligence

EAI focuses on linking all systems – both within and between companies – together, thereby helping the real estate community integrate ERP systems, CRM modules, and online applications between all e-commerce participants, in order to provide a free flow of information between their disparate systems. For example, it can link CRM modules together with an e-auction system. This interconnectivity would allow the company to include e-auction information in the web personalization strategy. As a visitor logs on to the site, the company could inform him of ongoing auctions that match his profile and past search interests. Furthermore, the company could also link the e-auction application with the respective ERP-module, informing the relevant service companies as soon as an e-auction is closed.

As EAI ties all aspects of the e-business together, it also plays a big role in another application, namely Business Intelligence. “Business Intelligence is the processes and procedures that collect, manage, mine, and analyze the data generated by an enterprise, resulting in information with strategic value” [4]. It is based on the belief that only by collecting and analyzing data – and consequently turning it into knowledge – can companies find the best ways to serve customers and make decisions.

With the help of EAI, the real estate company can ensure that data is collected from all systems within the company – as well as within the partnered and franchised entities – and entered into a database where it can be analyzed for trends. This data could include:

- The kind of properties clients are interested in,
- The areas that people want to move to,
- Demographics of customers,
- Movements of interest rates,
- Movements of property prices in general,
- Taxation data, property laws, valuations, zoning requirements, and
- Unemployment rates, crime rates, climate, etc. in different locations.

By collecting such data, the real estate company can come to understand the market and its customers better. It can figure out which sort of properties its customers are most interested in by recording their purchase patterns. It can look for relationships between customer demographics and the type of properties they buy. If there is a strong correlation at any point, the company can use this information to more successfully recommend houses to future customers. It can also study the characteristics of the real estate market – such as interest rates – to predict in which direction the industry will head. If the interest rates increase, it becomes more expensive to borrow money and, as such, people become more reluctant to purchase houses in such periods. The real estate company could then try to combat such a down swing by charging customers reduced commission fees, or by employing an attractive rewards program.

DISINTERMEDIATION AND FEE-STRUCTURE PERSPECTIVES

The collaborative commerce model described earlier may impact the commission structure of the real-estate industry

in more than one way, aside from more efficient transaction costs. Today’s commission rates have rarely reflected the level of service provided, and will become much more competitive once the industry becomes more transparent. Instead of charging clients a commission rate for helping them to sell a house, other companies such as DoItYourself (www.diyhomesales.com.au) charge a much more modest fee for simply listing the property with them. This company charges the seller a fixed fee of AU\$1,495 – much less than the average commission fee in the industry – in order to list his property with information, pictures, and a 3D virtual tour on its site. It also helps the seller to establish a reasonable price for the property, place ads in traditional newspapers, and send out leaflets to people in the neighborhood. The seller pays the fee either when he sells his house or after nine months – whichever comes first. However, once he has paid, the company provides service for as long as it takes to sell the property. This business model includes a franchising strategy, where franchisees are obligated to pay a certain percentage for every deal they close as well as for every new property they, themselves, list.

In addition, the real estate company would also be able to make money off its collaborative relationships. Due to the increased customer traffic that the listings would attract, the real estate company would be able to promise service companies increased business potential if they enter into a collaborative agreement. The real estate company would give them access to more customers – most of whom desire their kind of service at some point in the future – on one single web site. In return for the provision of increased business opportunity, the real estate company would demand a commission fee for each transaction that it helps these companies to close. This model will work for the first movers in the industry, after strong ‘branding’ of the service. However, after that, many small intermediaries will disappear. This is where the disintermediation will be evident. As such, real estate companies would diversify the channels in which they would generate revenue.

CONCLUSION

The Internet opens up new business opportunities for the real estate industry. It provides real estate companies with new ways to collaborate with service providers, gain customer and market information, and communicate with the customer in new ways to turn the industry into a customer-centric driven modus operandi. It also makes the real-estate market more transparent, and hence more efficient. This, in turn, will create downward pressure on existing commission fees, create multiple revenue channels, and redefine the role of the agent as an intermediary.

A collaborative commerce-model framework as outlined in the paper may become an enabler for turning these opportunities into a future reality.

REFERENCES

- [1] Crowston, Kevin, Steve Sawyer, and Rolf Wigand. “Investigating the Interplay Between Structure and Technology in the Real Estate Industry.” <http://crowston.syr.edu/real-estate/aom.html> (5 Jan. 2001).

- [2] Evans, Blanche. "How the Real Estate Industry Opened the Door For Fee-for-service." *RealtyTimes* 5 May 2000.
http://www.realtytimes.com/rinteractive/20000505_feefor_service.htm (5 Jan. 2001).
- [3] Evans, Blanche. "Is the Real Estate Industry in A Value Crisis?" *RealtyTimes*. 24 Nov. 2000.
http://www.realtytimes.com/rtnews/printtrpages/20001124_valuecrisis1.htm (5 Jan. 2001).
- [4] Foley, John. "A Closer Look: E-Business Meets Business Intelligence." *InformationWeek*. Sept. 27, 1999.
<http://www.informationweek.com/754/54uwjf.htm> (26 March 2001).
- [5] GartnerGroup. "GartnerGroup Identifies 'C-Commerce' Supply Chain Movement: An Emerging Trend in Collaborative Web Communities." Gartner Interactive. 16 Aug. 1999.
- [6] Gibbs, Mark. "Desperately Seeking Organization." *Real Estate Technology Magazine*. 2000-2001.
<http://www.car.org/newsstand/technology/0001/article13.html> (24 Feb. 2001).
- [7] Glink, Ilyce. "The Virtual Future of Real Estate." *CBS News*.
http://www.cbsnews.cbs.com/now/story/0,1597,184069_412,00.shtml (27 Feb. 2001).
- [8] Goldstein, Michael. "Service With a Click." *Real Estate Technology Magazine*. 2000-2001.
<http://www.car.org/newsstand/technology/0001/article7.html> (24 Feb. 2001).
- [9] Hawkins, Kevin. "Real Estate's Next Big Thing." *Real Estate Technology Magazine*. 2000-2001.
<http://www.car.org/newsstand/technology/0001/article3.html> (24 Feb. 2001).
- [10] Hofmann, Michelle. "Realtors Do it Without Wires." *Real Estate Technology Magazine*. 2000-2001.
<http://www.car.org/newsstand/technology/0001/article4.html> (13 Jan. 2001).
- [11] Inman, Bradley. "The E Players." *Real Estate Technology Magazine*. 1999-2000.
<http://www.car.org/newsstand/technology/9900/article8.html> (8 Nov. 2000).
- [12] Inman, Bradley. "CloseYourDeal Goes National." *Inman*. 18 Sept. 2000.
<http://www.inman.com/InmanStories.asp?ID=20904&CatType=R> (13 Feb. 2001).
- [13] Kalakota, Ravi and Marcia Robinson. *E-business 2.0; Roadmap for Success*, Addison-Wesley Longman, 2001.
- [14] Kleindl, Brad Alan. *Strategic Electronic Marketing: Managing E-Business*, South-Western College Publishing, 2001.
- [15] Krasner, Jeffrey. "Web Site Lets Buyers Bid on a House Right From Home." *1roofRealty*. 22 March 2000.
<http://www.1roofrealty.com/aboutus/news/wsj322.htm> (27 Feb. 2001).
- [16] Latamore, Berton G. "ERP in the New Millennium." *APICS*, June 1999, 28-32.
- [17] Lutz, Warren. "Everything under one Roof?" *Inman*. 28 March 2000.
<http://www.inman.com/InmanStories.asp?ID=18333&CatType=R> (15 Sept. 2000).
- [18] Oldham, Jennifer. "Home Buying on the Web Still a Tough Sell." *LA Times*. 6 Aug. 2000.
<http://www.latimes.com/cgi-bin/print.cgi> (6 Feb. 2001).
- [19] Patton, Susannah. "Home Shopping Network." *CIO Magazine*. 1 Sep. 2000.
http://www2.cio.com/archive/090100_homeshop_content.html (2 Feb. 2001).
- [20] Radosevich, Lynda and Dylan Tweney. *Infoworld*. "Retooling Retail." 22 March 1999.
http://internet.idg.net/crd_internet_70508.html (4 Nov. 2000).
- [21] Rismedia. "CloseYourDeal Deal a Big Deal." *Rismedia*.
<http://www.rismedia.com/news.page/24/11912/> (3 Jan. 2001).
- [22] Slater, Derek. "What is ERP?" *CNN*. 28 May, 1999.
<http://www.cnn.com/TECH/computing/9905/28/erpent.idg/index.html> (24 Aug. 2000).
- [23] Sweat, Jeff and Rick Whiting. "Instant Marketing." *InformationWeek*. 2 Aug. 2000.
<http://www.informationweek.com/746/mkt.htm> (15 Sept. 2000).
- [24] Sullivan, Dan. "Protect Customers' Web Privacy." *E-Business Advisor*. April 2000: 28-33.
- [25] Utsler, Jim. "Hello (Your Name Here): Web Customization and Personalization Create Repeat Customers, but Also Raise Privacy Concerns." *iSeries Magazine*. Nov. 2000: 52-55.

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