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WEB ELEMENTS AND STRATEGIES FOR SUCCESS IN ONLINE MARKETPLACES: AN EXPLORATORY ANALYSIS

Éléments et stratégies Web pour réussir dans les places de marché en ligne : une analyse exploratoire

Completed Research Paper

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Abstract

Among the most prominent and fastest-growing markets on the Internet are online marketplaces. The leader and main exemplar of this type of market is eBay. In this paper, we provide a comprehensive examination of the salient website elements and strategies as success factor in online marketplaces. In this exploratory analysis, we report on the behavior of different types of sellers and their distinct approaches for achieving their desired goals. The conceptual framework for this examination is based on marketing mix theory and its synthesis with competitive heterogeneity theory, allowing us to formulate a success model for sellers operating in this market. The conceptual model is empirically tested by the random collection of over 2000 auction listings from eBay’s Motors Division spread over a period of six months. Our results bring to light the presence of different types of sellers in this market, and the differences in website designs and strategies they use for success in this market.

Keywords: Online marketplaces, Online auto auctions, Seller types, Individual sellers, Dealers, Power sellers, Power dealers, eBay Motor, website design, selling strategies, trust, communication, 5P Theory, marketing mix theory, competitive heterogeneity theory

Résumé :

Les places de marché en ligne connaissent une croissance rapide et font partie des marchés les plus populaires d’Internet. Dans cet article, nous analysons le comportement de différents types de vendeurs et les différents moyens employés pour atteindre leurs objectifs. Le modèle conceptuel proposé dans cette étude est fondé sur la théorie du marketing mix et celle de l’hétérogénéité concurrentielle. Le modèle est testé sur des données recueillies auprès des utilisateurs d’eBay.

Introduction

The success of the e-commerce business model has fostered the development of business web portals. Web portals provide an electronic equivalent to shopping malls and industry-specific markets (Kennedy and Coughlan 2006). Web portals started in late 1990s as a simple ‘information gathering service or search engine’ such as AOL, MSN and Yahoo (Mahadevan 2000), and have evolved into a more sophisticated structure of online shopping malls. Online marketplaces have pushed the boundaries further by creating communities of sellers and buyers who interact in a fluid, complex, open, and loosely-regulated environment. Bakos (1998) identifies the functions of markets as (i) assisting interactions between buyers and sellers, (ii) providing an infrastructure to facilitate business transactions (payment, logistics, communication, and trust-building factors), and (iii) providing, and in some cases enforcing, rules (legal and regulatory). While online marketplaces provide these functions, they have unique features, making them distinct from traditional markets and exchanges. These unique features could be observed in eBay, a prominent example of today’s online marketplaces. (1) *Rapid Growth in Size*: In 1998, eBay had 1 million users. In the fourth quarter of 2007, the number of users reached 272 million and the number of listings reached 610 million (eBay 2007). As of end of December 2007, eBay products were listed under 27,000 different sub-categories. eBay currently operates in 34 countries (2) *Value*: In 2007, eBay had a consolidated total revenue of \$7.6 billion, a 28% increase over the previous year (eBay 2007). (3) *Reach*: The population reach of eBay is 16% of the world’s population (more than one billion) and 69% of the U.S. population (internetworldstats.com -June 2006). People spend more time on eBay than on any other online site (eBay, 2007a). (4) *Sellers*: In the last quarter of 2007, the number of stores hosted by eBay reached 532,000 worldwide. In 2006, more than 724,000 Americans report that eBay is their primary or secondary source of income, and another 1.5 million individuals supplement their income by selling on eBay (ACNielsen International Research 2005). There is no question that eBay is a global online marketplace. It is therefore important to understand how to succeed in this complex online marketplace.

While there has been a surge of research on online marketplaces with an emphasis on the role of trust, psychological contract violation, feedback mechanisms, fraud, and consumer behavior (for example, Bapna, Goes and Gupta 2004, Nikitkov and Bay 2008, Pavlou and Fygenson 2006, Pavlou and Gefen 2005), there has been inadequate analysis of online marketplaces from the seller's perspective. Considering the growing global importance of online markets, there is insufficient knowledge about the web-design elements and strategies that contribute to the success of different types of sellers (business and non-business) who participate in online marketplaces. We attempt to address these gaps in an exploratory analysis of the eBay marketplace. This study contributes to the literature by addressing the following research questions: What are website elements and strategies that contribute to the success of sellers in the online marketplace (with eBay as the focus)? And, do seller types have significant moderating roles on the saliency of such web elements and strategies?

To answer these research questions, we focus on eBay’s U.S. motor division as an exemplar of online marketplaces with a focus on online auto auctions, and develop a conceptual model for identifying the potential website elements and strategies as success factors in this online marketplace segment. In doing so, we rely on a synthesis of competitive heterogeneity theory and marketing mix theory as the overarching theory. To empirically test the conceptual model, we captured information on exchanges (auctions), and tested the model in the online marketplace.

This paper makes multiple contributions by providing insight into the complex and multi-faceted profiles of sellers, and the business strategies and web design elements that contribute to their success in online marketplaces. This work is one of the first to provide a relatively comprehensive picture of web-design elements and strategies as success factors in this market. The proposed model simultaneously examines multiple aspects of online marketplaces and their effects on sellers’ success. This research increases the awareness of businesses and individuals operating in this market about the web design elements and strategies that contribute to their success. Since an increasing number of individuals rely on online marketplaces for their income, and bricks and mortar businesses have an increasing interest in using online marketplaces as an alternative market channel, this study provides a roadmap for success in this economy. Furthermore, our findings could be generalized to other web-based structures, in which sellers and buyers participate in competitively open, large scale, and fluid transactions.

Theory

A market is an “interface” between buyers and sellers, which could be viewed from different perspectives (Cetina 2006). From the economist's perspective, a market consists of “independent agents equipped with a set of

preferences, technological opportunities, and an endowment of wealth” operating in the market to maximize their utility (Cetina 2006, p. 553). Buyers and sellers search for the latest information, and supply and demand are considered the ideal mechanisms for achieving market equilibrium. Online marketplaces have come closest to the realization of an ideal market from the economist's perspective, where buyers and sellers arrive at mutually acceptable transactions based on the supply and demand. The two most popular online marketplaces are eBay and Amazon auctions, where buyers bid against each other to purchase an item from a seller. Online auctions can be categorized as B2B, B2C or C2C. The focus of this study is the elements of success for sellers, who may be a businesses or individuals. In eBay, for example, there are various types of sellers and buyers (ACNielsen International Research 2005, eBay 2006, 2007b). Individuals occasionally participate in the market for short periods either to sell or buy specific products. The majority of research on online auctions concentrates on these types of actors. However, as eBay has evolved into a global online marketplace, multiple types of sellers have become active in this marketplace. There are brick-and-mortar (B&M) sellers, which frequent the online marketplace to collect information, identify prospective buyers, and make a sale. There are also individuals who, as a small business, regularly buy and sell in the market. The level of seller experience, size and sophistication varies greatly, depending on the nature and duration of their market activity, resources and alternative market channels.

In this work, we distinguish sellers by type: dealers, power sellers, power dealers, and individual sellers. Firstly, there are business sellers and individuals sellers. This distinction is well recognized in B2C and C2C, where B refers to business sellers and the first C in C2C refers to individual sellers. Secondly, business sellers could be categorized based on their primary market channel: B&M versus pure online retailers (Dennis et al. 2002). In our case, dealers have B&M as their primary market channel and the Internet is not an integrated part of their business model, limiting their online sales. Online retailers or e-retailers, on the other hand, are those who do not have a B&M presence, and the Internet (eBay in our case) is their primary market channel (Kennedy and Coughlan 2006). These sellers are categorized as power sellers. A hybrid of dealers and power sellers are those who actively participate in both B&M and online—true multi-channel dealers, called power dealers. The difference between power dealers and power sellers is that the former type has a B&M presence and the latter type sells only online. We investigate whether the type of seller moderates the relationships between the antecedents of success in eBay.

For the theoretical development of this paper, we rely on marketing mix theory to present a comprehensive framework to examine multiple aspects of online marketplaces simultaneously. We provide a synthesis of marketing mix theory 5Ps with the competitive heterogeneity theory as the overarching theory guiding our conceptualization. We also draw from media richness theory and online trust literature for specific paths.

Arguably the most popular framework for market success is the marketing mix theory that identifies the mix needed to succeed in a market. The basis of this theory was first articulated by Neil Bordon in 1953, as the president of AMA, who identified twelve controllable factors that the successful operation in a market requires (van Waterschoot and van de Bulte 1992). McCarthy (1960) simplified the factors into four Ps: product, promotion, price and placement, which have become widely popular in marketing education and practice (Constantinides 2006). There have been numerous extensions, discussions, and reinterpretations of the 4Ps (see, for example, Hakansson and Waluszewski 2005, Grönroos 1997, English 2000). The 4Ps mix has been extended to include people as a fifth P, which involves private and public communications and trust-building activities to manage relationships (van Waterschoot and van de Bulte 1992). Hakansson and Waluszewski (2005) argue that the Ps in a market mix are heterogeneous resources that should be developed and fostered dynamically in order to meet customer needs.

Having the adequate level of Ps requires resources. The resource-based theory (RBT) of firms argues that firms succeed in the market because of their unique and valuable resources which are not easily substitutable or imitable by their competitors (Barney 1991). The competitive heterogeneity theory (CHT) extends the concept of resources to market-based capabilities, and argues that the heterogeneity of sellers' resources in satisfying customers' needs leads to differentiation in profitability and success in the market (Hoopes et al. 2003, Peteraf and Bergen 2003). CHT addresses some of the criticisms and shortcomings of RBT (see, for example, Priem and Butler 2001). In CHT, firms' resources are defined in terms of how they contribute to satisfying the needs of potential customers. The heterogeneity of market-based resources could be measured by their contributions to the 5Ps mix. Thus, CHT and its synthesis with the marketing mix theory is a powerful framework to identify and categorize sellers' website elements and strategies that are critical for their success.

Online trust or seller reputation is a crucial aspect of conducting business in online marketplaces. The impersonal nature of online business transactions compared to offline buyer-seller relationship further intensifies the reliance on online trust mechanism (such as eBay feedback mechanism) to reduce risk and uncertainty. Multiple studies have

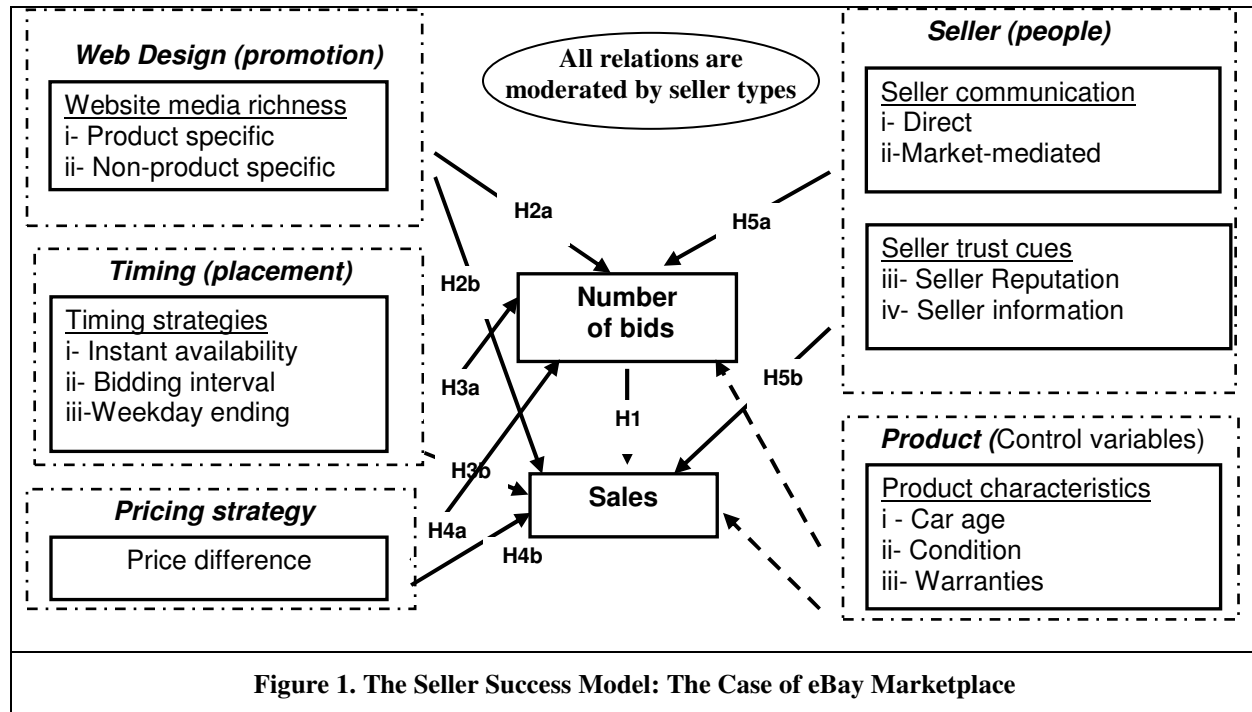
General Topics

addressed role of trust in such markets (Ba and Pavlou 2002, Gefen et al. 2003, McKnight et al. 2003, Pavlou and Gefen 2004, Lee et al. 2007). While these researchers have mainly focused on trust building for e-retailers, we extend their work by investigating the effect of online trust mechanisms for different types of sellers participating in an online marketplace. By identifying seller types, we can critically analyze how consumers perceive the value of online trust mechanisms as moderated by seller type.

We argue that the variability of success in the online marketplace is a function of the heterogeneity of competitive resources, particularly the 5 Ps of the marketing mix theory. However, the nature of the mix needs to be adjusted to the special features needed for operating in the online marketplace. Hence, we discuss the salient resources that are critical for success within these five categories. The *promotion* mix (P1) reflects the ways a product is brought to the attention of potential buyers. It also has its own characteristics, such as methods and frequency of promotion. The *placement* mix (P2) refers to how and when the product is made accessible to the customer. The *price* mix (P3) reflects the secondary instrument of exchange (where product is primary), which has its own characteristics, such as method and deadline of payment, discounting, and bundling prices. The *people* mix (P4) involves the nature of relationships established with the customer through communications and trust building. The decisions in this mix relate to personal communications and the emotional aspects involved customer relationship management. The *product* mix (P5) identifies instruments of exchange and include not only products but also services that may accompany the product, such as branding or warranties. We use these five categories as the guiding structure to identify the salient website elements and strategies that influence success in the online marketplace.

The Conceptual Model

In this research, we identify the potential website elements and strategies that are salient to the success of sellers in online marketplaces. In order to provide a specific context in this conceptualization, we focus on website elements in eBay-Motors division's online auto auctions. The model is presented in Figure 1.



The Moderating Roles of Seller Type

Different types of sellers have different set of competitive advantages and strategies to achieve success in the online marketplace. Furthermore, sellers have varying degrees of capabilities and resources to differentiate themselves and achieve success as proposed by the competitive heterogeneity theory (Hoopes et al. 2003, Peteraf and Bergen 2003).

Sellers operating only through online channels (power sellers and individual sellers) are perceived to have multiple competitive advantages such as low operational cost, inventory build up and access to wider markets (Afuah and Tucci 2001). Sellers with B&M presence (dealers and power dealers) have a well established distribution network, experience, an already existing customer base, and physical assets than can successfully exploited and integrated with online channel to take advantage of multi-channel approach (Afuah and Tucci 2001) in addition to spillover effect between offline and online channels (Ward 2001). Based on theory of competitive heterogeneity, we argue that heterogeneity in sellers resources and capabilities lead to differentiation in their web elements and strategies thus leading to variability in market success of sellers (Hoopes et al. 2003, Peteraf and Bergen 2003). Thus we argue that seller types have moderating roles as discussed in the hypotheses.

Dependent Variables: Sales and Number of Bids

Traditionally the success of a seller is measured by their profit and market share (Narver and Slater 1990), both of which are dependent on the completion of sale. In some of the auction studies, sale above the market fair value is used as a measure of success (Ba and Pavlou 2002; Resnick et al. 2006). However, in many cases, including motor vehicles, the market fair value depends on the geographical location of the market. Furthermore, for a seller who needs cash right away, the utility of a quick sale may be the most important attribute, more important than selling above a given market price. In other words, participants (both seller and buyer) have internal price references, and the sale reflects the fact that the sale price has surpassed this internal reference. Completing the transaction is a more concrete measure of success in the online marketplace. This measure is robust in that it reflects the satisfaction of both parties in a voluntary trade. Hence, we consider completion of sale as a measure of success.

Number of bids is another measure success from multiple perspectives. Since there are different sellers in online marketplaces, completion of transaction may not be the sole objective of every participant. For sellers intending to sell items in an online marketplace, the number of bids indicates the intensity of interest for the product in the market. Some sellers, such as B&M businesses, may participate to test the market for their products, generate leads for negotiation and sales outside the online marketplace. In these cases, generating a high number of bids could be considered a measure of success. According to eBay "Help Center", eBay allows sellers the opportunity for cost effective sales and lead generation. Marketing in eBay Motors generates a high volume of leads (ebizautos 2008). Generation of leads is an integral and important part of running a business, especially in context of business sellers. In the words of a car dealer from Ohio "It cost us \$500 to bring a customer to our showroom, through eBay-Motor we are able to generate 5-10 leads for just \$40" (\$40 is the cost of listing on eBay). Thus a higher number of bids indicates that the seller has more potential buyers who have expressed their intention to buy. This provides sellers with the chance to sell their products at a higher price and gives them the opportunity to negotiate and sell outside the online marketplace. Therefore, number of bids is also a measure of success.

Relationship of Bids and Sales

A bid indicates an explicit intention to buy, and is a pre-cursor of a sale. When buyers place bids, they participate in an open negotiation process (Rothkopf and Harstad 1994). This negotiation is part of what Kalakota and Whinston (1997a, 1997b) call pre-purchase interaction. Bidding for an item could be considered an explicit expression of intention prior to buying the item, called *implementation intention*. Based on the theory of implementation intentions (Gollwitzer 1999), implementation intention is a plan for a conditional goal-directed response: "Whenever situation x arise, I will initiate the goal-directed response y!" (p. 493). This theory has been used by Pavlou and Fygenson (2006) to extend the theory of planned behavior (Ajzen 1991) in the context of e-commerce. Bidding is an implementation intention in that the buyer makes the implied condition that "if my price is accepted, I will buy the item." This expressed intention is stronger than internal resolution, since it has a clear and almost automatic response to the seller acceptance. Another positive impact of attaining higher number of bids is based in "herd behavior bias." The social psychological research (Latane 1981) postulates that individuals are affected by others' opinions when forming their own. This argument is reflected in the findings by Dholakia and Soltysinski (2001), who observe that bidders tend to participate in auctions with existing bids rather than those with zero or negligible bids—a "herd behavior bias." Bajari and Hortacsu (2003) too observe that there is a relationship between the success of an auction and number of bidders. We argue that while this relationship holds for all seller types, it should be stronger for power sellers and power dealers since they operate in the online market regularly and have a more extensive selection of products in the market at any point of time. The bids for their products could cause cross-product herd bias, giving the perception that they are sellers who have bargain prices.

General Topics

H1. Sale is positively associated with the number of bids, and more so in the case of power sellers and power dealers.

Web Design (P1: Promotion)

Due to the virtual nature of online marketplaces, web design and contents play an important role in both informing the online buyers about the product and providing cues about the nature and abilities of the seller. Online sellers draw on signaling as a means to demonstrate their ability and intentions (Porter 1980). Due to the inherent asymmetry of information in an online environment, consumers employ observable signals (such as web design and information) to form opinions about unobservable features such as product quality (Kirmani and Rao 2000). Pavlou et al. (2007) argue that a website's perceived informativeness reduces a web consumer's privacy concerns. Information could be presented using multiple media, pictures, audio, graphics and animation to create positive image of a product and brand (Edell and Staelin 1983). Kwon et al. (2002) observe a differentiated relationship between website design and a consumer's intention to bid. Melnik and Alm (2002) argue that images of non-homogeneous products (such as coins) could increase the willingness to bid. Ottaway et al. (2003) suggest that pictures invoke stronger beliefs in consumers than textual claims. In the online marketplace such as eBay, sellers are provided a standard level of multi-media tools to present information about their products (Anderson et al. 2007). We postulate that sellers by providing product specific multi-media information about their products will receive a higher number of bids and will be more successful in selling their products. Through the use of standard multimedia templates, eBay has successfully automated the design elements for all types of sellers conducting business on eBay marketplace (Oppong et al. 2005), thus allowing even novice sellers a quick entry point and a leveled playing field (Rodgers and Negash 2007). As a consequence all sellers are able to create professional looking websites for listing their products with ease.

H2a-i. Product specific multimedia richness will positively influence the number of bids for all types of sellers.

H2b-i. Product specific multimedia richness will positively influences sale for all types of sellers.

Media richness theory argues that businesses should select communication media that are appropriate for their task complexity (Johnson and Payne 1985, Daft et al. 1987). Simon and Peppas (2004) have tested the media richness theory in the context of product complexity and website richness. They found that in the case of complex products, online users prefer media rich websites. Suh (1999) reports that for simple products like books, the presence of extensive media richness delays consumer decision-making and lowers consumer satisfaction, whereas Simon and Peppas (2004) observe that for complex products (such as diamonds, jewelry and cars) consumers display a positive attitude and a higher level of satisfaction when presented with richer multimedia environment. Similar patterns were observed by Lynch and Ariely (2000). Cars are complex products that require extensive explanations of information related to the completion of a sale (such as shipping information, terms of sale, financing, tax information). We argue that sellers will be more successful in increasing the number of bids and eventual sale if they have multimedia contents beyond the product related information. Furthermore, since individuals sellers are mostly one-time sellers, they need to provide more detailed information about terms of sale, shipping information as well as extra information that may help in establishing their legitimacy and completing a sale.

H2a-ii. Non-Product specific multimedia richness will positively influence the number of bids, and more so in the case of individual sellers.

H2b-ii. Non-Product specific multimedia richness will positively influences sale, and more so in the case of individual sellers.

Timing Strategy (P2: Placement)

In the online marketplace, placement and availability are related to the timing strategy, which include the instant-availability option, length of the auction and type of ending day for the auction—weekend or weekday. Thus sellers have a range of strategies available in an online marketplace to induce positive outcomes (Anderson et al. 2007).

Instant availability or the buy-now option on the seller's website allows for the purchase of an item at a pre-specified price, which terminates the auction immediately (Mathews 2003). This strategy allows the seller to provide both a bargaining process through open bidding, and the possibility of immediate purchase if the buyer provides a sufficiently high bid (Mathews 2004, Lucking-Reiley et al. 2006). Exercising this option reduces the buyer's anxiety and is considered more desirable for risk averse sellers (Hidvegi et al. 2006). Mathews (2004) has shown that when time matters for sellers, they will offer the buy-now option at low enough prices to motivate buyers to exercise the option. Standifird et al (2004) have found that in the case of American Eagle silver dollars, eBay

buyers do not exercise the buy-now option even when the price is set below the prevailing market price. They attribute this counterintuitive finding to the entertainment or hedonic value of engaging in the bidding process.

This study includes online auctions that have buy-now-option. We argue that for such auctions, the possibility that one buyer could terminate the bidding process at anytime dissuades buyers from making the time and cognitive investment to bid for the item and monitor its process. Such reluctance on the part of potential buyers reduces the number of bids and reduces the chance of a successful sale. This argument is in line with the findings that only risk-averse and impatient participants are interested in the buy-now option. We also argue that this negative influence is more pronounced for power sellers and power dealers who are actively and regularly participate in eBay market since they become known for offering instant availability, making bidders less willing to bid for their products.

Hence, we posit that

H3a-i. Presence of instant availability is negatively associated with the number of bids, and more so in the case of power sellers and power dealers.

H3b-i. Presence of instant availability is negatively associated with sale, and more so in the case of power sellers and power dealers.

Bidding Interval or length of auction (3, 5,7,10, 21 days) is another timing strategy that the seller can exercise in the online marketplace. Conflicting arguments exist in literature as to the impact of the bidding interval on the number of bids and likelihood of sale. There are studies that have found the length of auction has no effect on the likelihood of sale, number of bids and price premium (Houser and Wooders 2006 , McDonald and Slawson 2002, Dewan and Hsu 2004). On the other hand, Pinker et al. (2003) argue that a longer bidding interval increases the number of bids since it allows more potential buyers to bid. Lucking-Reiley et al. 2000 also found positive relation between length of auction and final price. Yet, Ockenfels and Roth (2002a) based on “tacit collusion theory” propose that in auction formats with a fixed deadline (such as eBay and Yahoo) consumers have more incentive to bid towards the end of an auction. This observation was empirically confirmed by multiple studies (Ockenfels and Roth 2002b, Schindler 2003, Wilcox 2000). Bajari and Hortacsu (2003) report that 50% of bids are placed during the last 10% of the length of auction, and the winning bid comes even later. Thus majority of bidding takes place toward the end of an auction (Schindler 2003, Wilcox 2000). Bajari and Hortacsu (2003) provide another explanation for late bidding phenomenon by employing common value auction (Wilson 1977). They observed that for products whose value (such as quality and condition) is difficult to judge in an online environment, different consumers derive different perceived value for the product. By bidding early a buyer may signal the true value of product causing competing bidders to revise their perceived value and also bid higher. Thus consumers wait until the end of an auction to place their bids. The above explanation also finds support in the data (Bajari and Hortacsu 2003, Ockenfels and Roth 2002b). A lengthy bidding interval increases the waiting time and is detriment for buyers since the item will not be available during the bidding interval. Hence based on consumer bidding pattern, we hypothesize that seller’s auction listing may become less competitive with a longer length of auction, making a long bidding interval less conducive to increasing the number of bids or successful sale. We also argue that this association is more pronounced for power sellers and power dealers, since they regularly operate in the marketplace, and could become known for offering lengthy auction intervals, leading buyers to avoid bidding on their products.

H3a-ii. A lengthier bidding interval is negatively associated with the number of bids, and more so more so in the case power sellers and power dealers.

H3b-ii. A lengthier bidding interval is negatively associated with sale, and more so more so in the case power sellers and power dealers.

The ending day is another placement strategy for the seller since the majority of buyers wait until the end of the bidding interval to place their bids. There is inadequate research on the effect of ending day on the success in the online marketplace. According to the Pew Internet (2004), 23% of Americans go online from places other than home and work. Furthermore, 41% of individuals access the Internet at work (Zona 2000). There is more opportunity in the U.S. to access the Web from work-related places. Such an access will not be easy to monitor or prevent. While the weekends may be occupied with home, family, and social life, the accessibility of the Internet at the workplace makes it easy to place bids or monitor the bidding process during the course of the working day. Furthermore, it is conceivable that potential buyers may check the physical appearance of the product over the weekend (if such an access is possible) and then bid on it during the weekdays and monitor the progress of bids during the day. Hence, we postulate that the ending day of the bidding interval is a salient seller timing strategy, and ending the bidding interval over the weekday may produce a more successful outcome. We also argue that this association is more pronounced for power sellers and power dealers, since they regularly operate in the marketplace, and could become known for offering weekday ending days, leading buyers to bid more often for their products.

General Topics

H3a-iii. Ending the bid on a weekday is positively associated with a higher number of bids, and more so in case of power sellers and power dealers.

H3b-iii. Ending the bid on a weekday is positively associated with sales, and more so in case of power sellers and power dealers.

Pricing Difference Strategy (P3: Price)

We define price difference as the difference between the actual sale price (or the last bid received in case of non-sale) and the seller's starting price. Pricing is one of the most important seller strategies in the online marketplace. Buyers are mostly bargain hunters who expect to get a good price through their participation in bargaining through bidding. Sellers desire to sell at the highest price. The bidding process allows the two sides to converge on price. In this process, each side has an internal reference price. There is a large body of research on the definition and conceptualization of internal reference price (see, for example, Compeau and Grewal 1998 for a review), and is defined alternatively as fair price, acceptable price range, average price, and the price last paid. It is normally a price at which the transaction would become acceptable for the individual. This internal reference price is dynamic, and may change as new information becomes available or new circumstances arise.

Sellers have a starting minimum price below which bids are not accepted. The starting price could be set at a very low value or closer to the seller's internal reference price. Furthermore, the online marketplace seller's internal reference price could be made explicit by specifying the reserve price for the item. This price is not observable by potential buyers, but buyers are informed if a reserve price is set for the item. The actual sale price is the realization of the seller's internal reference price. Large price differences indicate that sellers had set the starting prices low compared to their internal reference prices. It has been observed that low-priced promotion lowers consumer's internal reference and is perceived as a bargain (Kamins et al. 2004, Compeau and Grewal 1998). Therefore, a relatively lower starting price (as compared to the seller's internal reference price) in the online marketplace could generate more bids since buyers perceive it as a bargain. Hence,

H4a. Higher price difference is positively associated with the higher number of bids for all types of sellers.

On the other hand, when the internal reserve price is too far from the starting price, the bidders have to increase their bids far more in order to go above the sellers' internal reference price. This decreases the probability of a successful sale. Hence, a higher price difference has a negative influence on sale. This negative influence is more pronounced for power sellers and power dealers, who are active and regular sellers in the market. Consistently having high price differences as a strategy hurts their chances of successful sale more than those who participate only occasionally in the market.

H4b. Higher price difference is negatively associated with sale, and more so in the case of power sellers and power dealers.

Seller (P4: People)

Communication

The simple face-to-face interactions of the old days have evolved into complex and multi-tiered exchanges, which include direct and market-mediated communications (Hakansson and Waluszewski 2005). Communication facilities are more critical in the online marketplace than traditional markets since they are the first point of one-to-one contacts between potential buyers and sellers in the online marketplace. The high quality of communication media makes it possible for sellers to be responsive in order to provide accurate and prompt customer service in all stages of transactions (Lee and Lin 2005). Responsiveness is perceived by buyers as a key factor for service quality and satisfaction (Kim and Lee 2002). It is observed that sellers' ability to provide personalized service gratifies a customer more than product quality and price (Santos 2003). Literature also suggests that the presence of features like FAQ and phone number increase online traffic and sales (Lohse and Spiller 1998a and 1998b). We, therefore, argue that the presence of communication media that facilitate a prompt response (such as phone, email and fax) has a positive influence on the number of bids and sales. We argue that the availability of direct communication is more effective for business sellers, since business sellers can provide their publicly available business phone, email, and fax without the fear of losing their privacy or receiving unwanted contacts. Furthermore, by providing multiple channels for direct communication, business sellers enable buyers to contact them with ease and speed (Enders and Jelassi 2000).

H5a-i. The availability of media for direct communication with the seller is positively associated with the number of bids, and more so in case of business sellers.

H5b-i. The availability of media for direct communication with the seller is positively associated with sale, and more so in case of business sellers.

In the online marketplace, the market structure mediates the communication between the buyer and seller. Therefore, the seller could be contacted through the portal without providing direct contact information. We argue that providing the capability to contact the seller indirectly also has a positive influence on the number of bids and success in sale. Since individual sellers need to protect their privacy and avoid unwanted future communications, market-mediated communication is more effective for individual sellers.

H5a-ii. The availability of media for market-mediated communication with the seller is positively associated with the number of bids, and more so in case of individual sellers.

H5b-ii. The availability of media for market-mediated communication with the seller is positively associated with sale, and more so in case of individual sellers.

Seller Trust Cues

Trust has been shown to be one of the most important factors in online transactions (Gefen et al. 2003, Luo 2002, Pamer et al. 2000, Pavlou and Gefen 2004, Song and Zahedi 2007, Zahedi and Song 2008). Sellers' characteristics act as a source of trust that impacts consumer beliefs about sellers' trustworthiness and ability prior to a business interaction (Gefen et al. 2003, McKnight et al. 2002, Song and Zahedi 2003). In the online marketplace, we identify two sources of trust: (1) a seller's reputation profile based on the feedback mechanism and time registered on eBay (i.e. seller's age on eBay), (2) a seller's voluntary disclosure of information (about themselves) on their websites. These sources induce trust in potential customers that a seller will complete the transaction as promised (Standifird 2001). According to the trust literature, individuals tend to rely on the opinions of others to form their trust beliefs. Thus, a reputation established by parties external to an entity (Standifird et al.1999) carries a value for a consumer when interacting with that entity (Gefen 2000). In the online marketplace, feedback is a public evaluation of a seller and establishes its reputation within the community. Ba and Pavlou (2002) consider eBay's feedback forum as a reputation system where buyers evaluate sellers based on their experience with a seller. The feedback mechanism is a key element of online trust and is widely used in online commerce. The eBay feedback mechanism allows buyers to examine sellers' past business transactions. However, a seller has the option to walk away from low feedback (negative reputation) and start with a new seller ID (McDonald and Slawson 2002). A high feedback level (positive reputation) maintained over a long period of time demonstrates a seller's ability to consistently follow through with the business transactions, which form a strong trust cue.

The published literature provides contradicting results as to the effect of reputation on price and the success of an auction. Pavlou and Dimoka (2006) report that buyers' text comments influence trust and price premium. Bajari and Hortascu (2003) also observed a similar phenomenon. In contrast, Standifird (2001) noted only a mild relationship between seller reputation and auction success, whereas other studies (Ariely and Simonson 2003, Kauffman and Wood 2006) report no correlation between online reputation (feedback) and online success. In sum, the literature is still far from convincing as to the effect of seller reputation on price premium and online success. Positive reputation is built as a seller continues to operate in the market and build positive feedback ratings. While the results are contradictory, we choose to follow the arguments presented by Pavlou and Dimoka (2006). We also argue that due to built in-brand equity (power sellers) or real world presence (dealers and power dealers), business sellers by nature signal higher trustworthiness and better reputation as compared to individual sellers (Bruce et al. 2004). Since individual sellers are irregular participants in the market, buyers need stronger trust cues in order to transact with them. For such sellers, a good reputation is critical for their success, Hence,

H5a-iii. Seller reputation profile is positively associated with the number of bids, and more so in case of individual sellers.

H5b-iii. Seller reputation profile is positively associated with sale, and more so for individual sellers.

Sellers in the online marketplace could walk away without providing the product as promised in the transaction. Sellers could provide information about themselves in order to enhance buyers' trust. Seller information may include address, details about B&M business (for dealers and power dealers), years active in the community, non-eBay websites, company information, company logo, vision and work ethics, details about customer service and prices offered and other products offered online or in offline stores. Since business sellers can provide more detailed information about their business, we posit that the availability of seller information is more effective in their case. Hence, we posit that

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H5a-iv. The availability of seller information is positively associated with the number of bids, and more so in case of business sellers

H5b-iv. The availability of seller information is positively associated with sale, and more so in case of business sellers

Product Characteristics (P5: Product): Control Variables

Several product attributes should be controlled for their impact on the number of bids and sale. Product is considered “the basic source involved in the exchange process” (Hakansson and Waluszewski 2005, p. 113) that includes not only the salient aspects of the product (or service) in the market, but also additional services that come with the product, such as warranties and post-sale services. In the context of cars, the salient product characteristics include age, type (used or new), mileage and warranty.

Data

In order to test the proposed model, data was collected from auctions conducted on the eBay-Motors division. Using the eBay-motor division allowed us to capture various types of sellers, including dealers (Brick & motor), power-sellers, power dealers and individual sellers. There was adequate information on eBay online auctions that allowed us to identify sellers by type. Furthermore, the eBay-motor division provided us with an opportunity to study a variety of presentation styles and tools employed by different types of sellers for heterogeneous types of product with a wide range of prices.

Table 1. Variable Definitions		
Variable	Items	Type*
Dependent variables:		
Sales	Product was sold or not	B
No. of bids	Bids received on a single listing	C
Website media richness		
Product specific	Number of product images	C
	Length of product description	C
Non-product specific	Number of non-product images	C
	Length of non-product information	C
Timing strategy		
Instant availability	Buy-now option is available	B
Bidding interval	Length of auction in days (3, 5, 7, 10, 21).	C
Weekday ending	Whether the listing ended on a weekday	B
Pricing strategy		
Price difference	Difference between last bid or winning bid and starting bid	C
Seller communication		
Direct communication	Seller provided his phone, email or Fax number	C
Market-mediated communication	Seller listed replies to question from potential bidders	B
Seller trust cues		
Seller reputation	Percentage of seller's positive feedbacks	C
	Number of months registered on eBay (time registered on eBay)	C
Seller information	Presence of About-Me	B
*B=Binary, C=Continuous		

The data was collected for a period of six months in 2006. To collect data randomly and efficiently, a ‘spider’ written in VB was employed. A number of variables had a fixed format that could easily be captured and others needed to be parsed by a Cleaner program. Writing the Cleaner program involved the extensive analysis of 100 auctions to account for all the different formats used by sellers. After each round of cleaning data (260 at a time), we manually checked the cleansed data to ensure that all variables were correctly captured. A text mining technique was

used to categorize sellers into individual and three types of business sellers (dealer, power seller, and power dealer). The categories were mutually exclusive.

Measurement and Descriptive Analysis

Table 1 (above) reports variable definitions. The categorization of variables follows the conceptual model. Out of 2,193 cases, 1,097 were individual sellers, 644 were dealers, 130 were power-sellers and 322 were power-dealers. The unbalanced number of observations for seller types was due to the fact that data was collected randomly and seller types were determined based on the text mining process. Table 2 shows the descriptive statistics.

Variables	Individual Sellers (n=1097)		Dealers (n=644)		Power Sellers (n=130)		Power Dealers (n=322)	
	Mean	Stdev	Mean	Stdev	Mean	Stdev	Mean	Stdev
	or %		or %		or %		or %	
Sales	30%		21%		31%		17%	
No. of bids	13	11	13	11	14	11	13	11
Website media richness								
Product pictures	17	17	12	11	24	33	12	9
Product description	46,434	67,657	60,347	37,462	68,944	92,653	69,479	40,805
Non-product pictures	15	3	18	7	21	18	18	8
Non-product information	44,299	5,712	44,390	4,556	47,282	6,147	44,401	3,007
Timing strategies								
Instant availability	24%		34%		40%		55%	
Bidding interval	7	1	7	2	8	2	8	2
Weekday ending	27%		41%		28%		40%	
Pricing strategy								
Price difference (\$)	7,358	11,254	11,003	14,596	7,902	11,496	12,214	12,724
Seller communication								
Phone	63%		90%		77%		90%	
Email	25%		77%		39%		77%	
Fax	7%		49%		26%		69%	
Market-mediated comm.	21%		8%		18%		4%	
Seller trust cues								
Positive feedbacks (%)	86	33	91	26	99	0.5	99	0.6
Time registered (months)	36	26	32	23	55	22	57	17
Seller information	7%		27%		32%		67%	

Estimation Results

We applied structural equation modeling (SEM) using Partial Least square (PLS version 3.0). PLS is considered best suited for complex models (Chin et al. 2003). The main reason for using PLS to estimate our conceptual model was the presence of formative items and single item constructs (Bolton and Lemon, 1999 Matthew et al. 1998, Djurkovic et al. 2004). Some constructs we used were single-item measure. Single-item measures are particularly useful when variables are objectively (as opposed to subjectively) measured, for which only one item will suffice, such as instant availability, weekday ending and price difference. The model was estimated for each seller type as well as all sellers (using the pooled data set) as reported in Table 3.

Table 3. Estimated Model for Seller Type

Variables	<u>Individual Seller</u>		<u>Dealers</u>		<u>Power-Sellers</u>		<u>Power Dealers</u>		<u>All Sellers</u>	
			Bids	Sales	Bids	Sales	Bids	Sales	Bids	Sales
No of Bids		.21***		0.23***		0.28**		0.31**		.23***
Website media richness										
Product specific	.01	.03	.05	-.01	.09	-.13	-.03	.01	.02	.03
Non-product specific	.11**	.06	.04	.14**	.09 [†]	.08	.10 [†]	.01	.11**	.07*
Timing strategies										
Instant availability	-.15***	-.27***	-.17***	-.28***	-.20*	-.48***	-.35***	-.36***	-.20***	-.28***
Bidding interval	-.04 [†]	-.05 [†]	-.05	-.02	-.07	-.08	-.07*	-.03	-.06*	-.04*
Weekday ending	-.03	.02	.05 [†]	-.02	.09 [†]	-.04	.07 [†]	.07	.02+	.01
Pricing strategy										
Price difference	.49***	-.11***	.44***	-.10*	.43***	-.28**	.43***	-.18**	.45***	-.11***
Seller communication										
Direct communication	.05	-.02	.03 [†]	-.05	.09	.19**	.04*	-.14*	.06**	.01
Market-mediated com.	.06*	.04 [†]	.03	.02	.14 [†]	.01	.07	-.03	.05*	.04+
Seller trust cues										
Seller reputation	.05*	.13***	.04	.07	.01	.09	.04	.07	.06*	.07**
Seller Information	.01	.01	.05 [†]	.01	-.10	-.04	.07 [†]	.04	.04*	.01
Product										
Manufacturer warranty	-.08**	-.04 [†]	.07	.10**	-.07	-.05	.09*	.02	-.10**	-.10**
Condition (miles, used)	.16***	0.08**	.17***	.21***	-.21 [†]	-.05	.13**	-.01	.14***	.09***
Car age	0.07**	0.06*	0.20*	-0.04	-0.02	-0.05	0.07	0.08	.04+	.01
R-square	.28	.23	.29	.29	.45	.43	.52	.35	.26	.23

***p<0.001;** p < 0.01; * p < 0.05; [†]p< 0.10

Model Fit.

The R² values for the dependent variables bids and sales are .26 and .23 for the all-sellers model, which is lower than explanatory power of the seller-moderated estimated models. The R² values for the dependent variables bids and sales are .28 and .23 for individual sellers, .29 and .29 for dealers, .45 and .43 for power sellers and .52 and .35 for power dealers. The R² values show an acceptable level of explanatory power. However, the results show that the explanatory power of the model is moderated by seller type, since seller-specific models have more explanatory power for power sellers and power dealers than for individual sellers or dealers.

Bids and Sales (H1)

As hypothesized, the number of bids acts as a significant predictor of sales, thus supporting H1. While this path coefficient is significant for all seller types, its value is higher for power sellers and power dealers as hypothesized, showing a greater ability by these two groups to convert bids to sales. In addition, statistical comparisons (t-test) of significant path coefficients of power sellers and power dealers with other types of sellers provide statistical support for the moderating effect of seller types. (Due to space limitation, details of t-tests are not included here.)

Website Media Richness (H2)

In H2, we hypothesized that a higher level of product-specific media richness increases the number of bids (H2a-i) and impacts sale (H2b-i). We did not find any support for this hypothesis, indicating that standard features in websites are expected by buyers and do not influence the chance of success for any seller type. Furthermore, we hypothesized that a higher level of non-product-specific media richness is associated with increased bids (H2a-ii)

and increased sales (H2b-ii). Both hypotheses were supported for the all-sellers model. The results indicate that features of non-product-specific website attract customers and increase the number of bids for individual sellers (as hypothesized). However, they do not impact the sale for individual seller. On the other hand, non-product-specific features increase sales for dealers. Since dealers sell newer cars, they have more extensive warranty information in their non-product specific contents, which may lead to more cases of success in selling. The results indicate that the impact of these website elements on seller success (# of bids and sales) is moderated by seller type.

Timing Strategies (H3)

In H3, we hypothesized that instant availability negatively impacts the number of bids (H3a-i) and sale (H3b-i). These two hypotheses were strongly supported for all seller types. Furthermore, this negative impact was more pronounced for power sellers and power dealers, as hypothesized. We also hypothesized that the bidding interval has a negative influence on bids (H3a-ii) and on sales (H3b-ii), and moderated by power-seller and power-dealer types. This relationship was supported in the all-sellers model as hypothesized and the moderating role of power sellers and power dealers was also supported. We hypothesized that ending on a weekday positively influences bids (h3a-iii) and sale (H3b-iii), and more so for the case of power sellers and power dealers. In the all-sellers model estimation, we found only a directional ($p < .10$ ¹) support for the influence of weekday ending on the number of bids (yet no statistically significant effect $p < .05$), and no support for the influence of weekday ending on sale. We found only a directional support $p < .10$ (yet no statistically significant effect $p < .05$) for the moderating role of power sellers and power dealers only for bids. Weekday ending has no influence of sale for any seller type, indicating that the ending day is not a salient timing strategy for sale.

Pricing Strategy (H4)

In H4, we hypothesized that a higher price difference should positively attract more bids (H4a), and negatively influence sale (H4b), the latter being moderated by power sellers and power dealers. Results strongly support H4a. H4b is also supported in the all-sellers model estimation as well as each seller type. Furthermore, the moderating roles of power-seller and power-dealer types were also supported.

Communication (H5, i-ii)

In H5, we hypothesized that the availability of direct channels of communication should positively influence bids (H5a-i) and sales (H5b-i), both moderated by business-sellers types. We found support for H5a-i (bids) in the all-sellers model estimation. This relation is moderated only by power-dealer type. We did not find support for H5b-i (sale) in the all-sellers estimate. We found positive moderating role by power-seller type and negative influence by power-dealer type, indicating that direct communication channels play little role in sales. The negative influence in the case of power dealers indicates that those power dealers that provide multiple channels of direct communication complete the transaction outside the eBay environment. We also hypothesized the role of market-mediated communication on bids (H5a-ii) and sales (H5b-ii) with the individual-seller type as the moderator. H5a-ii was supported for all-seller model estimation. The moderating role of the individual-seller type was also supported. We found only directional support ($p < .10$) and no statistically significant support ($p < .05$) for H5b-ii and the moderating role of the individual-seller type. This result indicates that market-mediated communication channels are helpful in generating more bids. They play a minor role, if any, in sale.

Seller Trust (H5, iii-iv)

We used two constructs to measure trust cues on websites: seller reputation and seller information. We hypothesized that higher seller reputation (positive feedbacks combined with time registered) increases bids (H5a-iii) and sales (H5b-iii), both moderated by the individual-seller type. We found support for both hypotheses bids (H5a-iii) and sales (H5b-iii), and strong statistical support for moderating role of individual-seller type for both bids and sales. This indicates that individual sellers who have a positive reputation (positive feedbacks combined with

¹ See Pavlou and Dimoka (2006) for a similar use of directional support.

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time registered) have a higher chance of success in the eBay market. Since individual sellers are occasional participants in the market, obtaining such a reputation is relatively difficult, but highly valuable. We hypothesized that the availability of seller information on the seller website positively influences bids (H5a-iv) and sales (H5b-iv), with business-seller types as moderators. We found support for H5a-iv. The dealers and power dealers moderated the H5a-iv relationship at $p < .10$ (providing directional support, but not statistical significance at $p < .05$). We found support for neither H5b-iv nor the moderating role of business-seller types. This result indicates that seller information may provide a marginal edge for those sellers who have a B&M presence (dealers and power dealers) in generating bids, since such information may serve as a trust cue, but have no influence in successful sales for any of the seller types.

Discussion

The results of descriptive analysis and structural equation modeling indicate that online marketplace sellers deploy heterogeneous approaches in their web design elements and market strategies. We categorized sellers as individual sellers and dealers, power sellers and power dealers. Our descriptive statistics indicated that the three types of business sellers (particularly power sellers) have websites with more non-product media-richness. Business sellers more frequently provide channels of direct communication, while individual sellers rely on market-mediated communication channels. The timing strategies also differ among sellers. Compared to individual and power-sellers, dealers and power-dealers more often provide instant availability and end their auction on a weekday.

The results show that the success of individual sellers in getting bids depends on non-product media richness, price difference, market-mediated communication, and online reputation. Their ability to sell depends on the number of bids, reputation and market-mediated communication. For dealers, weekday ending, direct communication and seller information are directionally helpful. However, price difference is the main factor in their ability to generate bids. To succeed in selling, dealers should have adequate bids and non-product media richness. For power sellers to succeed in getting bids, they need directionally to have non-product media richness, weekday ending, and market mediated communication channel. Price difference is the main force for generating bids for them. To succeed in sale, they need to provide multiple channels of direct communication. The success of power dealers to generate bids depends on having direct channels of communication, and providing (directionally) non-product media richness, weekday ending, and seller information. To succeed in sale, they need to have adequate bids. If they wish to complete the sale outside the market, they should provide multiple channels of direct communication. All sellers should avoid instant availability and high price differences. They need to have balanced price differences in order to generate adequate bids without hurting sales. This balancing act is one of the key strategies for success in the eBay marketplace.

Our results have implications for both theory and practice. The overall results provide support for the market mix theory, indicating that 5P categories play an important role in the website design and strategies of eBay online marketplace sellers and influence their success in this market. The results also provides support for the competitive heterogeneity theory and the importance of seller resources in satisfying the needs of potential customers, which include having non-product specific information, having adequate channels of communication, getting the product at a bargain price, and having the assurance about sellers' trustworthiness. We also found strong support for the moderating influence of seller types. This is an important finding in the study of online market places, and provides valuable insight for success in such markets.

Our results show that although price differences play a significant role in generating bids, sellers play on their strengths in the design and strategies in order to mitigate customers' perception of risk in participating in such markets. We found that product-specific media richness has little influence on bids or sales. Our results showed that providing non-product specific website media richness did result in more bids and a higher likelihood of sales. In this sense, our results extend the application of the media richness theory by differentiating between standard and non-standard richness. It is the latter type that could be considered a valuable resource in online marketplaces.

Our results also provide support for trust research in that trust cues in the form of reputation (for individual sellers) and to a lesser degree seller information (for business sellers) are important factors for success in online marketplaces. These results are in conformance with the literature on online trust (Pavlou and Gefen 2004, Resnick et al. 2004). Seller information as a trust cue is an interesting outcome. It shows that seller information may alleviate buyer anxiety about the anonymity of sellers and their potential lack of trustworthiness. This is an important finding that should be investigated further in future trust studies. Additionally, in the case of dealers and power dealers, there seems to be a reinforcement process between sellers' online and offline reputations. The

transference of offline reputations to online reputations has been observed in online banking, when established banks enter the online market (Lee 2007).

We also found that providing direct channels of communication on the website could play a role in market success. In our analysis, power sellers and power dealers enhanced their success by providing channels of communication such as email, telephone number and fax number. Of the three buyer needs (information, bargain price and trust), it seems that providing direct channels of communication plays a role in increasing trust and alleviating the fear of the unknown. Power sellers are successful models for operating in online marketplace. The inclusion of direct channels of communication on websites and the positive influence of such information shows that providing direct channels of communication could be another source for alleviating buyer anxiety and enhancing trust. This is another promising area of investigation regarding how to increase trust in online marketplaces.

Our results have immediate applications for participants (buyers and sellers) in online marketplaces, particularly those participating in eBay auctions. Our findings provide insight for these sellers. We found that setting the starting price far below the acceptable price universally attracts more bids, but leads to a lower likelihood of sale. This could be because low bids attract bargain hunters and set low buyer expectations, which cannot easily be raised to match the seller's acceptable price. The results showed that customers in the online marketplace prefer shorter bidding intervals. Also, ending the auction on a weekday attracts more bids to some extent. Furthermore, providing information about the market-mediated channels of communication on individual sellers' websites could enhance the number of bids and the chance of success in sale. We also found that seller reputation is important for the success of individual sellers, whereas providing seller information is important for business sellers. In the case of individual sellers, since verifying the accuracy of individual information is difficult, if not impossible, buyers rely on trust cues, such as feedback and the length of time an individual seller has been in the market. However, information about business sellers is easier to obtain and verify. Hence, buyers may use business seller information as a trust cue.

Our findings show that sellers in eBay may not all have the same goals. Some are in the market to sell, and others may participate to test the market and generate leads. Their goals and intentions play an important role in how they interact with potential buyers. Those who intend to generate bids and complete the deal outside the market should focus on providing direct channels of communication and provide detailed business information. Providing non-product contents could also be helpful. On the other hand, those who intend to sell in online marketplaces should address buyers' anxiety regarding vendor trustworthiness by providing evidence of reliability, such as indicating the length time they have been operating in the market, providing customer feedback, or obtaining trust designations, such as a power seller designation or other trust cues. Richness of content and media could also be a cue for the professionalism of the seller.

Conclusion, Limitations and Future Directions

In this study, we identified four types of sellers in the online marketplace: individual and dealers, power-dealers and power-sellers. Using the marketing mix theory and its synthesis with competitive heterogeneity theory, we identified the salient web elements and market strategies that could influence seller success in the online marketplace. The overarching theory led us to categorize website elements into the 5Ps of promotion, placement, pricing strategy, people, and product. In this conceptualization, we defined seller success as the number of bids and likelihood of sale. Our results supported most of the hypothesized relationships and the moderating role of seller types.

Our study has a number of limitations. Our conclusions are based on the collected data from the motor division of eBay. The market structure may be different for other product types. Our work should be repeated for other types of products and online marketplaces. This study could be extended by adding buyers' information and their perceptions about various seller types as well as buyers' cultural, social and economic conditions.

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