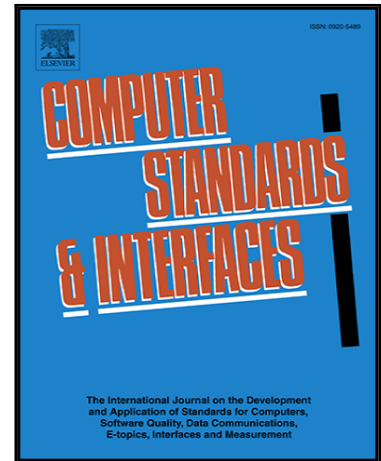


Journal Pre-proof

The Trust Model of Enterprise Purchasing for B2B e-Marketplaces

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Highlights

- This study examined the relationships existed between the trusts in commodity information and purchasing intentions by the procurement personnel of the businesses when making a desired purchase from online commodity information marketplaces.
- Trust in commodity information by procurement personnel of the enterprises was influenced by the trust in intermediaries and sellers.
- The relationship between trust in commodity information and purchasing intentions of procurement personnel of the enterprises was mediated by the perceived value.
- This finding can be used as a reference to the operators of online commodity information marketplaces and procurement personnel of the enterprises in both academic and practical areas.

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**The Trust Model of Enterprise Purchasing for
B2B e-Marketplaces**

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Abstract

Electronic commerce and online marketplaces have rapidly become critical transaction channels. Many studies of online marketing have focused on the purchasing behaviors of general buyers. However, many business to business (B2B) e-marketplaces allow professional procurement personnel from various businesses to electronically search for and purchase commodities; this facilitates price referencing and helps procurement personnel complete the tasks associated with direct purchasing functionalities. Despite this trend, few studies have examined the purchasing behavior of procurement personnel in B2B e-marketplaces. To fill this research gap, this study examines the relationships between trust in intermediaries and sellers; trust in commodity information; and the online purchase intentions of the procurement personnel in [B2B e-marketplaces](#). This study also investigates the mediating effect of perceived value on the relationship between trust in commodity information and online purchase intention. The results indicate that the relationship between trust in commodity information and online purchase is mediated by perceived value. In addition, both intermediary trust and seller trust positively and significantly influence trust in commodity information, and intermediary trust positively influences seller trust. This finding is a valuable reference for professionals working in [B2B e-marketplaces](#).

Keywords: enterprise procurement; [B2B e-marketplaces](#); trust; perceived value; purchase intention.

Introduction

The global electronic commerce (EC) industry has grown rapidly since the dot-com bubble in early 2000. It not only changes consumer behavior but also influences employee behavior (Odom et al., 2002; Tapia, 2004; Rigby, 2011). This rapid advancement in EC has exponentially increased year after year, stimulating the development of diversified business models, such as business-to-business (B2B) EC, that have contributed to the growth and availability of online purchase and enterprise operating channels (Chang & Wong, 2010). Procurement personnel are playing increasingly critical roles in decisions on enterprise procurement, and they are spending more time searching for commodity information online, browsing websites and searching for the most appropriate products for their enterprises. Websites designed to provide this type of information have developed at an explosive rate. They increase transparency by displaying relevant commodity information. [Specifically, this type of B2B e-marketplace plays an essential role as a third-party platform with the intermediary function of disseminating specific commodity](#)

information. To this end, it provides the procurement personnel of various enterprises with the commodity information they need to make effective purchasing decisions.

Numerous new styles and forms of e-marketplaces have emerged to provide secure and reliable transactions between buyers and sellers (Odom et al., 2002; Pavlou & Gefen, 2005). In B2B EC, given the comprehensive and radical development of e-marketplaces, the trustworthiness of sellers and intermediaries has become an important factor stimulating the online purchase intentions of procurement personnel (Pavlou, 2002; Chong et al., 2003; Chen & Chang, 2012). As Hong and Cho (2011) noted, a marketplace is composed of many business intermediaries who provide related services in complex business environments, and there are many sellers in this environment. Procurement personnel are typically more willing to conduct exchanges with anonymous sellers if they trust the e-marketplace. Thus, trust is a critical factor in buyers' online purchasing decisions, and many researchers have studied the role of trust in e-marketplaces (Ba & Pavlou, 2002; Jones & Leonard, 2008; Chien et al., 2012; Fang et al., 2014; Kim & Koo, 2016; McKnight et al., 2017; Alsaad, Mohamad, & Ismail, 2017; Connelly et al., 2018; Hallikainen & Laukkanen, 2018).

Most previous studies of commodity information and exchange have focused on customer to customer (C2C) or business to customer (B2C) EC activities. They have found that trust is an important antecedent to buyers' purchasing intention, in particular seller trust and intermediary trust (Hong & Cho, 2011; Chong et al., 2003; Jones & Leonard, 2008). Indeed, trust is a crucial foundation of the relationships between sellers, intermediaries, and buyers in the virtual transaction environment and influences buyers' behavioral intentions (Strader & Ramaswami, 2002; Huang & Liu, 2010; Hong & Cho, 2011; Kim & Koo, 2016; Connelly et al., 2018). In other words, when buyers decide to complete a transaction in an e-marketplace, they place trust not only in the sellers, but also in other stakeholders in the e-marketplace (Shankar et al., 2002; Hong & Cho, 2011; Fang et al., 2014). Previous studies have focused on the impacts of sellers' trust or stakeholders' trust on buyers' behavioral intentions or cooperative and performance relationships in C2C and B2C e-marketplaces (Pavlou, 2002; Chien et al., 2012). Few studies have investigated the role of procurement personnel's trust in various objects in B2B e-marketplaces and its effect on their purchase intentions.

A few studies have defined different types of trust in e-marketplaces, considered the relationships between them, and then verified their relative effects (Stewart, 2003; Hong et al., 2011; Chong et al., 2003; Jones & Leonard, 2008; Belanche et al., 2014; Chen et al., 2015; Wei et al., 2019). These studies have mainly divided trust into seller trust and intermediary trust and then investigated the influence of seller trust and intermediary trust on buyers' perceived value, behavioral intention, and derived value

when buyers browse and make purchases in the B2C or C2C EC environments (Konuk, 2018). However, many procurement personnel browse B2B e-marketplaces to obtain commodity information such as characteristics, properties, and prices. They then usually purchase a large quantity of the products for their businesses. When procurement personnel purchase commodities in [B2B e-marketplaces](#), they search for trustworthy sellers and associated intermediaries. Furthermore, trustworthy commodity information on a website enhances perceived value and helps to complete online transactions. Thus, from an organizational perspective, trust in commodity information is critical for procurement personnel. Therefore, it is necessary to clarify and then examine the different degrees of trust in various objects in the B2B e-marketplace (Stewart, 2003; Belanche et al., 2014; Chen et al., 2015; Wei et al., 2019).

Although the role of seller trust and intermediary trust has been well documented, few studies have examined trust in commodity information (Pavlou, 2002). Additionally, the relationships between trust in different objects and the verification of their impact on purchase intention have rarely been investigated in B2B e-marketplaces (Pavlou, 2002). To avoid ambiguity, it is necessary to clearly differentiate the objects of trust, namely intermediaries, sellers, and commodity information. Distinguishing between these categories prevents confusion (Jones & Leonard, 2008; Wei et al., 2019). In addition, perceived value has been identified as a crucial determinant of buyers' behavioral intentions in both B2C and C2C e-marketplaces (Chong et al., 2003; Chen & Chang, 2012; Fang et al., 2014; Fang et al., 2016). When using a [B2B e-marketplace](#), procurement personnel evaluate the utility of the products and services provided by the intermediary. The perceived value of these items is a critical factor in final purchase decisions. As procurement personnel are responsible for purchasing commodities for their companies, their purchasing behaviors are totally different from those of general buyers in e-marketplaces. It is necessary to examine whether enhancing procurement personnel's trust in [B2B e-marketplaces](#) increases their perceptions of value and purchasing intention (Chen & Chang, 2012; Kang & Sharma, 2012; Konuk, 2018).

Trust in sellers, trust in intermediaries, and trust in commodity information interact with each other. However, how this interaction affects perceived value and purchasing intentions in B2B e-marketplace environments has not been studied. Thus, this study asked the following research questions.

- (1) What is the relationship between the types of trust used by procurement personnel in [B2B e-marketplaces](#)?
- (2) What are the antecedents of the online purchase intentions of procurement personnel in [B2B e-marketplaces](#)?

This study examined how seller trust, intermediary trust, and trust in commodity information in **B2B e-marketplaces** influence each other in an organizational context. The study also explored the relationships between trust in commodity information and perceived value and purchase intentions. Further, based on the trust model proposed by Chong et al. (2003) and Hong and Cho (2011), this study investigated whether the factors that affect trust impact the purchase decisions of procurement personnel in **B2B e-marketplaces**.

The remainder of the paper is organized as follows. Section 2 provides a review of the literature on EC, the development of **B2B e-marketplaces**, and the theoretical underpinnings of the trust model. It also contains the research framework and hypotheses. Sections 3 and 4 describe the research methods and the results of the analyses, respectively. The last section summarizes and concludes the study, and discusses its contributions and managerial implications.

Literature review

With the emergence of EC, the purchasing behaviors of procurement personnel have shifted from traditional face-to-face transactions to virtual transactions. In fact, B2B EC may have had a far greater impact on exchange quantities and purchasing amounts than C2C and B2C EC. Procurement for enterprises is mainly handled by professionals who oversee procurement decisions, purchase amounts, and the quantity of goods bought, and these professionals have different behaviors than general buyers. Furthermore, if an enterprise has a clearly established purchasing process for achieving effective procurement, the enterprise's procurement personnel must follow these process requirements. Therefore, before making purchase decisions, procurement personnel spend a lot of time identifying suitable commodities and carefully reading product information on **B2B e-marketplaces**. This study examined the effects of trust, specifically seller trust, intermediary trust, and trust in commodity information, on the online purchasing intentions of procurement personnel and how they are mediated by perceived value in **B2B e-marketplaces**.

B2B e-Marketplaces

The popularity of the Internet and improvements in EC applications means that buyers and procurement personnel increasingly demand and rely on information available on the Internet (Konuk, 2018). Specifically, procurement personnel expect to obtain valuable and reliable commodity information from B2B e-marketplaces. Figure 1 shows an example of the type of commodity information available on Alibaba.com: the posting for an LCD monitor includes a product description, company profile,

image, price, shipping, manufacturer data, product rating, etc. When making purchasing decisions, procurement personnel definitely pay attention to the commodity information provided by intermediaries and sellers. Commodity information undoubtedly strongly influences the purchase decisions of procurement personnel in B2B e-marketplaces.

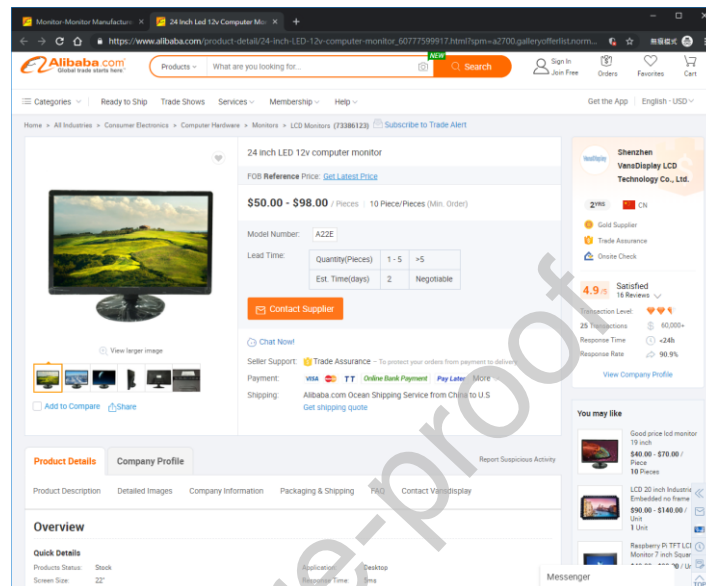


Figure 1. Example of commodity information for an LCD monitor on Alibaba.com

e-Marketplaces must not only provide the information that procurement personnel need to make purchase decisions, but also ensure that purchasers can identify the desired commodities in a timely manner, and may even aggressively push direct online purchases (Son, Tu, & Benbasat, 2006). Recently, e-marketplaces have become a critical source of commodity information, summarizing the prices, properties, and other relevant attributes of products. As a result, **B2B e-marketplaces** are rapidly developing into commodity information services for procurement personnel.

Transactions in an e-marketplace may involve a variety of links and associations between stakeholders, such as buyers, sellers, and third-party platforms or intermediaries (Chang & Wong, 2010). Consequently, as third-party platforms, e-marketplaces act as an Internet intermediary, facilitating relationships between buyers and sellers and promoting transaction flows (Son et al., 2006). These e-marketplaces have become vital for facilitating product searches and performing price comparisons. Indeed, the primary function of **B2B e-marketplaces** is to enable procurement personnel to rapidly understand the relevant market conditions and the

details of potential transactions. For this reason, this study regarded third-party platforms as intermediaries that facilitate transactions and offer information functionalities to reduce uncertainty for procurement personnel (Pavlou & Gefen 2004; Fang et al., 2016). For example, Pricegrabber.com compares relevant commodities and then provides useful purchasing decision recommendations. Alibaba.com is one of the largest B2B platforms for exchanging and sharing commodity information. Aliexpress.com is a B2B exchange platform that offers vertical search functionalities that are domain-specific search solutions for specified fields or particular topics (Battelle, 2011). Other [B2B e-marketplaces](#) that compile and produce commodity information are eWorldTrade.com, Amazon Business, ThomasNet.com, etc.

Recent studies of [B2B e-marketplaces](#) have focused on techniques to enhance the effectiveness of product searches. However, few studies have focused on the roles of different trust relationships and their interaction with perceived value. As [B2B e-marketplaces](#) are a significant source of commodity information for procurement personnel, this study used trust models for [B2B e-marketplaces](#) to explore the interactive relationships between procurement personnel and [B2B e-marketplaces](#).

Trust

Trust, as an important management issue, has attracted the attention of scholars in the fields of information management, business management, buyers' behavior, and marketing management (Mayer et al., 1995; Son, Tu, & Benbasat, 2006; Hong et al., 2011; Chang & Wong, 2010; Hallikainen & Laukkanen, 2018). Parasuraman et al. (1985) asserted that trust is vital for establishing successful service relationships, and Gefen et al. (2003) defined trust as a type of expectation, based on which opportunistic behavior will not occur in specific scenarios. Moreover, trust can be treated as a crucial belief that plays a greater role in EC than in conventional transaction environments. In particular, it motivates buyers to accept and use online services. To satisfy buyers' needs and yield satisfactory results during the processing of the online transactions, relationships between buyers and e-marketplaces must be based on mutual trust (Pavlou, 2003; Son, Tu, & Benbasat, 2006; Chien et al., 2012; Kim & Koo, 2016). Notably, Mayer et al. (1995, p. 712) defined trust as

the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.

Indeed, trust not only reduces buyers' risk and decreases the time required to identify desired products, but also increases their purchasing intentions and enhances

