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Trust Antecedents, Trust and Online Microsourcing Adoption: An Empirical Study from the Resource Perspective

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ABSTRACT   The online microsourcing marketplace is a new form of outsourcing that is organized over online platforms for the performance of relatively small service tasks. Microsourcing offers a more flexible way to hire contract workers or to outsource. Prior research indicates the importance of individual-level trust when choosing providers in online sourcing marketplaces. We argue that institution-based trust is also crucial for online microsourcing adoptions. Drawing on a trust framework adapted from prior literature, this paper uncovers the trust-building mechanisms in online microsourcing marketplaces, as well as the marketplace-related attributes for online microsourcing adoption. The proposed research model is tested with a data set collected from the clients of a typical marketplace in China – zhubajie.com. The findings suggest that perceptions of resource-based attributes of a marketplace, together with the perceived effectiveness of its intermediary role, can help to build trust towards the marketplace, enhancing trust towards the community of providers and driving the intent to adopt online microsourcing. Thus, this paper confirms the roles of online marketplaces as both the resource pool and the transaction intermediary from the perspective of clients. Finally, this paper not only indicates the relevance of resource theories in understanding this new trend in outsourcing, but also suggests the importance of trusted relational governance in governing online microsourcing transactions.

Keywords

Microsourcing, institution-based trust, online microsourcing marketplaces, resource theory, marketplace attributes

0

1. INTRODUCTION

Online microsourcing is a new form of outsourcing that uses online platforms for making small deals for the provision of globally sourced services, including website development, programming, legal services, creative design, etc. [38, 43]. Carmel [6] viewed this phenomenon as the "commoditization of process" for services from the e-marketplace and termed it "microsourcing", given that most of the outsourcing deals are for small tasks and services [17, 23, 36]. It is gradually becoming a mainstream method of outsourcing for personal users, entrepreneurs, small business owners [51], and even large companies like Google, GEICO, and ESPN [68]. There are dozens of well-known online microsourcing platforms, including vWorker.com, E-lance.com, Guru.com, CrowdSpring, InnoCentive, Odesk, etc. According to Smartsheet.com [65], over two million service providers registered on the 10 major online sourcing websites between the years 2000 and 2009, with over $700 million paid to the providers. Another recent industry report indicates an accelerating growth in the global online microsourcing market, noting that over 65 different categories of microsourcing tasks have been deployed by enterprises via online platforms [47].

Although reasons for firms to outsource have been thoroughly explored in the literature [16], the underlying mechanism influencing online microsourcing adoption is not yet fully understood. Traditional outsourcing studies leaned heavily toward larger transactions and focused more on the dyadic client-provider relationship when studying outsourcing decisions (e.g., [29, 40]). The current online microsourcing research has also examined the client-provider dimension [58], indicating the importance of client-provider trust for online microsourcing decisions (e.g., [23-24]). Considering the culture of rather low trust online [24], marketplaces have become indispensable for online sourcing transactions, providing a reliable and secure environment. Thus, the study of online microsourcing decisions needs to look into the client-marketplace dimension, especially since institutional trust toward a marketplace deserves special attention [26, 52].

In this paper, we attempt to gain a deeper understanding of the influencing mechanisms of online microsourcing decisions by considering the impacts of the marketplace. Two specific research questions

1

are addressed using a trust-based theoretical framework [48]: (1) What are the key decisional attributes of the marketplace for microsourcing decisions? and (2) How do these attributes collectively drive clients to use online microsourcing? Since this study concentrates on online microsourcing marketplace (OMM) clients, we rely mainly on the outsourcing literature to identify the key antecedent variables.

This paper will attempt to make a number of contributions to existing studies. Firstly, it studies outsourcing decisions from a triadic relationship of clients, providers, and marketplaces. In particular, it considers the influence of the marketplace. Thus, it not only complements traditional outsourcing research but also provides a useful supplement to open sourcing research that focuses on the client-community relationship [1]. Secondly, it proposes a trust-based framework to uncover the driving mechanisms for online microsourcing decisions. Finally, it extends to service transactions [52] the findings of current online marketplace studies that focus on product exchanges and illustrates the importance of trust-based relational governance [28] for sourcing transactions in online marketplaces.

Next, Section 2 introduces the emergence of online microsourcing and presents a theoretical framework for online microsourcing decisions. Section 3 discusses the research model and hypotheses. Section 4 describes the research methodology. Section 5 presents the results. Section 6 provides key findings and discussion in terms of theoretical contributions, managerial implications and limitations. Finally, section 7 concludes.

2. LITERATURE REVIEW AND THEORETICAL DEVELOPMENT

2.1. The Emergence of Online Microsourcing Practices

The emergence of online microsourcing is a distinct change in the way services are provided to organizations [43]. In addition to traditional outsourcing forms like domestic outsourcing and offshoring [61], outsourcing can also occur via these small, short-term and discrete services delivered and mediated by online platforms. Table 1 summarizes changes in outsourcing features when going from traditional outsourcing to microsourcing. Particular attention is needed on the role of online platforms, which provide both the online exchange environment and governing mechanisms.

2

Table 1: Traditional Outsourcing vs. Online Microsourcing		
Outsourcing Nature	**Traditional Outsourcing**	**Online Microsourcing**
Context	Offline and interorganizational	Virtual, open, and online
Market	Small, with a few large players	Large, with plenty of small players
Relationship Structure	Dyadic: clients & providers	Triadic: clients, providers, & platforms
Strategic Value	Relatively stable and strategic	Flexible and non-strategic
Contract Value	Usually very large	Usually small
Contract Period	Long term: usually a few years	Short term: usually a few weeks or months
Communication	Meetings, memos, liaisons, email, etc.	Online communication via IT infrastructure
Governance Foundation	Legal contracts	IT-enabled institutional mechanisms
Relational Governance	Trust, relational norms, mutual dependence, etc.	Trust in Marketplace, Trust in the community of providers, etc.

Source: Adapted from [63]

Three types of stakeholders are involved in online microsourcing practices, constituting a triadic outsourcing relationship. *Service clients* are individuals and/or organizations sourcing their service needs online. They usually publish service needs online, attracting providers to bid, contest or submit quotes. *Service providers* offer services and expertise online. Service providers participate in online microsourcing by placing a bid, running a contest or sending a quote via an online platform. Finally, *online platforms* are the online places where both service clients and providers can meet, offer and apply for outsourcing opportunities, carry out service exchanges and manage post-service activities. Current online microsourcing platforms can be further categorized into two major types (see Appendix D in the supplement file for detail). We focus on the first platform type, the *online marketplace*, acting as the service exchange intermediary between the very large group of global service providers and potential clients. The online marketplace model allows clients to choose providers for a variety of services by evaluating their quote, experience and expertise. Examples of the online marketplace model are Elance, vWorker, Odesk and Guru. The online programming marketplace described in the studies of Gefen and Carmel [23-24] is a prominent example of a microsourcing marketplace dedicated to IT services. We do not focus on the second platform type, the *online community*, which usually offers services to clients in terms of the whole community of providers. Providers are called to participate in a contest for a simple project or a subtask decomposed from a complex project, concentrating on a few areas of services with

the ability to complete complex projects, e.g., CrowdSpring for creative design services, and TopCoder for IT services. Our research model could be expanded to the second model.

2.2. Theoretical Framework of Online Microsourcing Decisions

An online marketplace is an online virtual place where buyers (clients) and sellers (providers) make transactions using internet technologies [52]. Online microsourcing marketplaces (OMMs) are a kind of online sourcing marketplace where buyers post tenders for small sourcing projects and where providers then bid on these projects [24]. Prior studies indicate online purchasing decisions within an online marketplace are collectively driven by three broad themes – aspects of the technology [25], trust-related factors [48], and characteristics of the marketplace [52]. Among them, trust is a key issue in many contractual business relationships and a determining force in OMMs [24]. OMMs behave in a manner characteristic of a low trust culture where people are reluctant to do business with strangers [24]. In such circumstances, clients need to rely first on the marketplace to overcome their reluctance to hand over services to unknown providers. Thus, we employ a trust-based framework that is appropriate for studying client decisions in OMMs.

As shown in Figure 1, we adapt the trust framework of McKnight et al. [48] to OMMs. Their framework is more applicable for e-vendors and individual buyers, whereas this study focuses on the adoption of organizations in OMMs. Thus, the adapted framework should take into account both the impacts of the online marketplace and relevant organizational behavior within the marketplace. This is achieved by combining concepts from both the online marketplace research [52] and outsourcing research [37, 61] into the framework.

In Figure 1, trusting beliefs lead to trusting intentions, which then lead to trust-related behaviors [48]. A truster who has trusting intentions is willing to depend, or intends to depend, on the trustee. Two types of trustees (marketplaces and service providers) exist here, suggesting two trusting intentions: *Trust in Marketplace* and *Trust in the Community of Providers*.
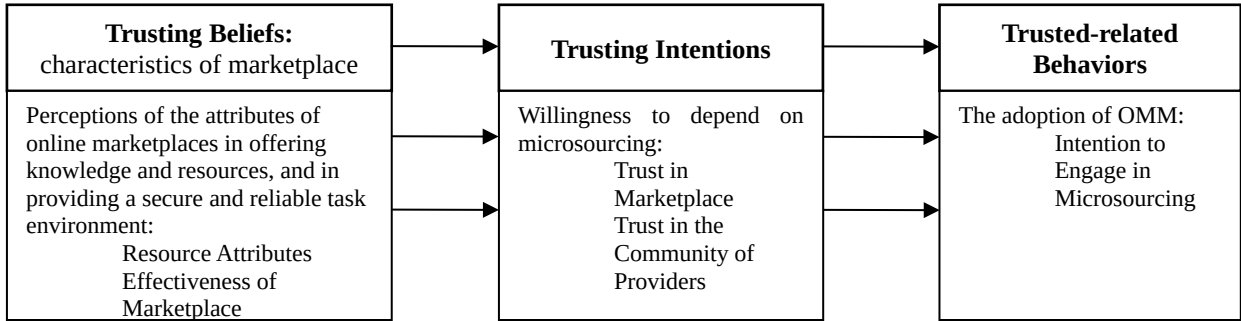
4

Trusting Beliefs: characteristics of marketplace	**Trusting Intentions**	**Trusted-related Behaviors**
Perceptions of the attributes of online marketplaces in offering knowledge and resources, and in providing a secure and reliable task environment: Resource Attributes Effectiveness of Marketplace	Willingness to depend on microsourcing: Trust in Marketplace Trust in the Community of Providers	The adoption of OMM: Intention to Engage in Microsourcing

Figure 1: A Trust-based Framework for Online Microsourcing Adoption

Prior outsourcing research has examined the role of trust towards service providers from the perspective of the dyadic client-provider relationship [29, 40, 59]. However, in the context of online microsourcing, the third component of the online marketplace plays a critical role in governing online service exchanges between clients and providers. So, attention is needed on individuals' level of trust toward this institutional environment – online marketplaces. We terms this as *Trust in the Marketplace*, defined as the willingness of a firm to depend on a specific online marketplace to look for resources and capabilities and to make service exchanges with online service providers. Trust in the Marketplace is a type of trusting intention at the institutional level (marketplace). According to the trusting logic specified by McKnight et al. [48], trusting intentions lead to behavioral intention. Therefore, clients' intentions to participate in online microsourcing with an online marketplace should depend on their trusting intentions towards the marketplace. *Trust in the Community of Providers* is a type of institution-based trust according to Pavlou and Gefen [52]. It represents the trusting intentions towards online service providers, defined as the willingness of a firm to depend on a community of providers from a specific online marketplace to fulfill its service requirements [29, 52]. It reflects the dyadic client-provider relationship but with a concentration on the collectivity of a community of providers endorsed by a marketplace [52]. This type of one-to-many trust fits with the actual situation of online microsourcing, where clients often need to interact with unknown providers from an online marketplace, thus, their behavioral intention are affected by their trust towards the community [21].

Our emphasis on institutional-based trust makes a good complement to the study of Gefen and Carmel [24], which looked at the direct client-provider relationship, noting that in the low trust culture of

OMMs, prior contractual relationships (business familiarity) dominate when clients try to choose providers. In the low trust culture of OMMs, institution-based trust is needed to make clients feel comfortable with using online microsourcing, so they can then consider how to choose specific providers.

A truster who has trusting beliefs believes that the trustee (e.g. a specific online marketplace) has attributes that will benefit the truster [48]. Trusting beliefs reflect the clients' perceptions of some specific attributes of the marketplace. Among the variety of trusting beliefs in the literature, we focus in the next section on trusting beliefs that are specific to OMMs.

2.3. Trusting Beliefs: Characteristics of an OMM

As online sourcing platforms, OMMs, on one hand, provide the necessary environment for safeguarding service exchanges [1, 19], and on the other hand, act as external resource agents upon which the companies can rely to more easily find flexible service solutions. Following Gefen and Pavlou [26], we examine the perceived (not actual) characteristics of OMMs because it is each client's own perceptions of OMMs that shape his/her transaction decision making.

The first OMM attribute in our research model will be the *Perceived Effectiveness of Marketplace* (PEM), which, according to the literature [18, 26], is defined as "the extent to which a client believes that appropriate conditions are in place to facilitate successful transactions with the community of sellers in an online marketplace". Online marketplaces, owned by third parties, act as the intermediaries of online transactions between clients and providers, collecting, processing, and disseminating information via the internet among the community of clients and providers to facilitate online transactions [52]. The intermediary role of online marketplaces is realized through the establishment of institutional mechanisms, including searching for information, rating systems, comment systems, arbitration services, escrow payments, etc. These institutional mechanisms, when joined together, constitute a reliable and secure transaction environment, in which fair values and benevolent behavior are encouraged, whereas opportunistic behavior and violation of the community's rules and norms will be restricted or punished. The building of a reliable and secure macro environment is vital for online transactions. Its importance has also been observed in online service exchanges, e.g., the open source service networks [19] and the

6

Open Sourcing Service (OSS) community [1, 45]. When service clients perceive that online marketplaces are effective in terms of their intermediary roles [52-53], they will feel more confident about online transactions within them. The perceived effectiveness of the institutional environment becomes a vital source for institution-based trust.

OMMs also provide a resource role, viewed as the external pool of knowledge and resources [42]. Thus, the capabilities of an OMM in providing relevant resources and knowledge and in facilitating the knowledge transferring processes should also be considered. Our view of an OMM as an external pool of resources and knowledge is in accordance with both OSS research [1, 7] and open service network research [19]. The former views the online OSS community as a large pool of skilled providers with which firms can collaborate for software development, and the latter views the open service network as the place where the members can access shared strategic resources. Thus, the resource perspective of outsourcing decision [37, 61] suggests the importance of resource-based attributes, and the relevance of two theories for studying online microsourcing decisions: the resource-based theory (RBT) and the resource-dependency theory (RDT). We identify four resource attributes for our model in the following subsections.

2.3.1. RBT-related Perceptions

The RBT [5] views a firm as a collection of capabilities and resources. When exposed to ever-changing and unpredictable environments, firms often prefer to keep core resources in-house and obtain complementary resources from an external source [31]. The ability to quickly acquire, deploy and integrate external resources becomes a key determinant to maintaining a competitive posture. Thus, when managers look for resources from the external environment, e.g., an OMM, two RBT-related perceptions emerge [61]: perception of resource complementarity, labeled as *Perceived Resource Complementarity* (*PRC*), and perception of resource utilization, labeled as *Perceived Resource Utilization (PRU)*.

Perceived Resource Complementarity refers to the extent to which a client believes that an OMM can provide complementary resources to current in-house resources. If a firm's resources and capabilities fail to fulfill its needs, it enters into the external environment for the desired heterogeneous resources [33,

7

39]. These acquired resources from the outsourcing marketplace are often viewed as non-strategic, but necessary, resources that are a good complement to core resources. By sourcing via an OMM – representing communities of thousands of providers in many diversified areas – firms can find and obtain their desired complementary resources to fill the resource gap. For instance, over an OMM, a small IT company can find the needed resources of marketing, design and legal services, all of which are not considered the core business. Evidence of these characteristics of OMMs can also be found in the feedback of the clients. For example, *"we think of this site as an extension of our team. Whenever we need some expertise, say with social media, internet marketing, event production, or website development, we go straight to this site." – Quoted from* a service client at Elance.com.

Perceived Resource Utilization is defined as the extent to which a client believes that resources from an OMM can be efficiently and effectively utilized [61]. Resource Utilization is one of the important decision attributes in the application sourcing decisions of Application Service Providers (ASP) and domestic outsourcing [61]. To maintain a competitive advantage, an organization has to obtain and integrate outside resources efficiently. Since outsourcing involves the processes of knowledge sharing, transferring and integration between firms and providers, the integration of knowledge and capabilities can be key to a firm's competitive advantage [32]. In traditional outsourcing, the integration can be facilitated by close collaboration and the embedded social relations between firms and providers [59, 71]. However, due to the lean and anonymous nature of online microsourcing, it is impossible to attain the same high degree of social embeddedness as in traditional outsourcing. So, in online microsourcing, Resource Utilization depends on the knowledge sharing and transferring capabilities that the marketplaces provide via their information and communication technologies.

2.3.2. RDT-related Perceptions

RDT argues that actions by organizations are also affected by external conditions in the environment [2-3], since a firm must obtain resources from its external environment to be able to survive. This creates dependencies among organizations [69], increasing the level of the firm's dependence on the external environment. To avoid the lock-in problem [4], firms need to evaluate the available resources and

the environment before outsourcing [37]. According to RDT, two trusting beliefs arise [61]: *Perceived Resource Availability* (PRA) - the extent to which a client believes that the environment, e.g., an OMM, has sufficient resources and capabilities, and *Perceived Resource Suitability* (PRS) - the extent to which a client believes the available resources and IT infrastructures are suitable for the needed communication and coordination to carry out the service process.

Resource Availability reflects the abundance of critical resources offered by the environment [15]. When making a decision to enter into a resources exchange relationship, one key factor to consider is whether there are enough competent vendors available from the outside environment [61]. Applied to online microsourcing, the Resource Availability of an OMM reflects the extent of its external resources and its knowledge pool of firms. By connecting with an OMM, companies--especially the smaller firms and start-ups--are able to access thousands of external service providers, leverage desired resources and capabilities, and therefore, gain the ability to more flexibly respond to their external environment.

Resource Suitability reflects the nature of the resources and the marketplaces to be used for communication and coordination purposes. Extensive knowledge sharing, transferring and integration between firms and providers requires suitable telecommunication technologies and networking structure to be in place to facilitate the knowledge sharing process. Resource Suitability is one of the most important factors when making decisions regarding outsourcing options like the Application Service Provider (ASP), domestic outsourcing and the use of offshore resources [61]. In the case of online microsourcing, service and information exchanges between firms and the providers are completely remote and virtual, and are mediated by the marketplaces. In traditional outsourcing and offshoring, the effectiveness of exchanges can be reinforced by establishing joint project teams [59], day-to-day interaction routines [49], or other social mechanisms like shared values, norms, and trust [29, 59]. However, these exchange reinforcement methods become ineffective for online microsourcing, which involves remote providers and temporary relationships. Thus, the effectiveness of exchanges of services, information and knowledge relies heavily on the communication and collaboration IT infrastructure provided by the intermediary, such as status reports, chats, file versioning, etc. By relying on these remote

9

communication and collaboration tools, firms can monitor and control project activities, enable important information exchanges and facilitate knowledge transfer and integration processes [65].

In sum, we identify five trusting beliefs: beliefs regarding four resource attributes (Perceived Resource Complementarity, Perceived Resource Utilization, Perceived Resource Availability and Perceived Resource Suitability), as well as the Perceived Effectiveness of Marketplace. Their relationship with trust is explored in the research model presented next.

3. RESEARCH MODEL AND HYPOTHESES

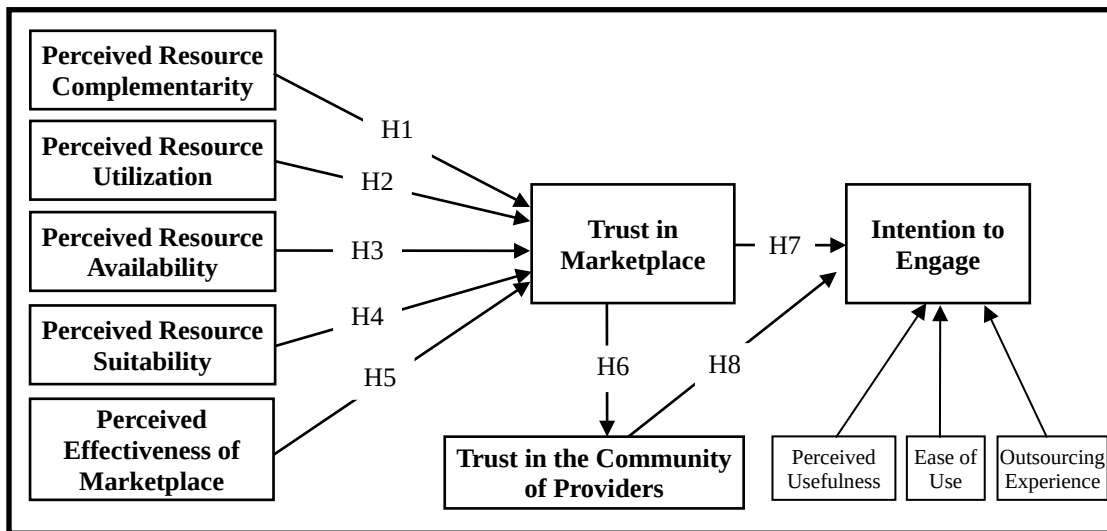Figure 2 depicts our research model based on the theoretical framework discussed above.

Figure 2: Research Model of Online Microsourcing Marketplace

3.1. Perceptions of Marketplaces and Institutional Trust

McKnight et al. [48] indicated that trust-related behaviors follow trusting intentions (*Intention to Engage* in trust-related behaviors with a Web vendor), which follow trusting beliefs (perceptions of the vendor's attributes). Similar logic is applicable for online microsourcing. Trusting beliefs (perceptions of specific online marketplace attributes) lead to trusting intention towards the marketplace, which in turn results in trust intention towards the community of providers from the marketplace and behavioral intention. As discussed above, the marketplace attributes considered for this study include the perceived

10

Resource Complementarity, *Resource Utilization*, *Resource Availability*, *Resource Suitability*, and *Effectiveness of Marketplace*.

RBT indicates firms enter into the external marketplace for resources [33, 39]. These acquired resources are often viewed as non-strategic but necessary resources that are a good complement to core resources. Through outsourcing, a firm can integrate and deploy both internal and external resources to maintain or improve its competitive advantage [61]. By sourcing via OMMs, firms can easily locate and acquire their desired complementary resources to fill the resource gap. Thus, the perception of *Resource Complementarity* will affect the willingness to depend on the marketplace as a source of the required complementary services. The more a firm perceives an online marketplace to have the ability to supplement its internal resources, the more it is willing to depend on this marketplace to fulfill its sourcing requirements. Accordingly:

H1: *Perceived Resource Complementarity has a positive impact on Trust in Marketplace.*

Resource utilization is one key decision attribute in the application sourcing decisions of both the Application Service Provider (ASP) and in domestic outsourcing [61]. To maintain its competitive advantage, a firm must be able to quickly acquire and integrate resources from the external environment [8, 61]. In online microsourcing, the effectiveness of resource utilization depends on the project management tools, collaboration technologies, and knowledge transferring capabilities that the marketplaces provide. An online marketplace must exhibit the ability to improve the effectiveness of the process of *Resource Utilization*. The more an online marketplace can demonstrate its ability to help increase *Resource Utilization*, the more firms will come to depend on this marketplace for outsourcing. Accordingly:

H2: *Perceived Resource Utilization has a positive impact on Trust in the Marketplace.*

Resource availability reflects the abundance of resources offered by the environment [15]. When making a decision to enter into an exchange relationship with another firm for resources, one key factor to consider is if the firm can provide enough resources [61]. Applied to online microsourcing, resource availability reflects the capacity of an OMM to offer resources and knowledge. By connecting to an

11

OMM, companies have the ability to gain access to an external group of providers, leverage desired resources and capabilities, and therefore gain the ability to more flexibly respond to their external environment. The more resources an OMM has, the more firms would depend on it for resources. Thus:

H3: *Perceived Resource Availability has a positive impact on Trust in the Marketplace.*

Extensive knowledge sharing, transferring and integration between firms and providers also requires having suitable communication technologies and practices in place to facilitate the knowledge sharing process [32, 61]. For online microsourcing, the service and information exchanges between firms and providers are completely remote and virtual, and are completely mediated by the marketplaces. Thus, the effectiveness of exchanges of services, information and knowledge relies heavily on the communication and collaboration capabilities provided by the online marketplaces. Resource suitability is considered another key attribute for outsourcing options like ASP, domestic and offshore resources [61]. Thus, the perception of Resource Suitability of an online marketplace will influence the willingness to rely on the marketplace for sourcing of services. Accordingly:

H4: *Perceived Resource Suitability has a positive impact on Trust in the Marketplace.*

The most basic role of an online marketplace might be that of a transactional intermediary between clients and providers [52]. Via the established IT-enabled institutional mechanisms, online marketplaces create a reliable and secure macro environment [19], which helps to build an atmosphere of trustworthiness and benevolence [59]. If an online marketplace or platform is perceived to be effective in facilitating and protecting online transactions, a client will believe the overall transaction environment will be favorable for doing business. Accordingly:

H5: *Perceived Effectiveness of Marketplace has a positive impact on Trust in the Marketplace.*

3.2. Institutional Trust

Previous studies did not differentiate trusting towards the marketplace with those towards the providers (sellers) (e.g., [52]). However, these two constructs are different. The former represent clients' willingness to depend on the third parties that facilitate and mediate online exchanges, and the latter is more about the willingness to depend on another party that is directly involved in a transaction

relationship. Trust transference logic [67] indicates that trust may be transferred to another entity from an industry association, a place, or some other entity. In an online context, trust can transfer from the online medium (i.e. the website), where the buyers and sellers meet, to an individual seller [67]. By participating in a trusted online marketplace, the seller community signals to buyers their trustworthiness [52, 64].

Thus, trust of an OMM can transfer to the community of those providers associated with that marketplace. By providing a framework to facilitate transactions, trustful marketplaces can lower social uncertainty, making it possible to nudge unwilling sellers into socially acceptable behavior [22, 52]. By participating in a trusted OMM, the providers imply that they will abide by the institutional rules imposed by the intermediary, sending buyers positive signals about their benevolent behavior. Thus,

H6: *Trust in the Marketplace increases a firm's Trust in the Community of Providers.*

3.3. Trust and Intention to Engage in Online Microsourcing

Trust can be considered to be a necessary condition of relational governance [29-30]. Trust-based governance creates an open architecture facilitating needed exchanges of services and information when the exchanges would be hard to contractually specify beforehand [59, 70]. Trust also enables a partnership to adjust to unforeseen challenges by facilitating shared benefits between partners. Thus, trust positively influences the commitment to the client-provider relationship. Trust is viewed as a key social mechanism which helps to overcome exchange problems and enables online interactions [1, 19]. In e-commerce, trust allows the consumer to avoid undesirable potential behaviors of the e-vendor thereby encouraging online business activities by reducing the social complexity confronting a consumer [22, 54].

In an OMM, firms also face extensive social uncertainty, not knowing what to expect of the community [52]. In addition, the formal controlling mechanisms become ineffective [29]. Hence, both Trust in the Marketplace and Trust in the Community of Service Providers should mitigate negative perceptions and should encourage online transactions. Therefore,

H7: *Trust in the Marketplace increases a firm's Intention to Engage in an outsourcing relationship with a specific OMM.*

H8: *Trust in the Community of Providers increases a firm's Intention to Engage in an outsourcing relationship with a specific OMM.*

13

3.4. Control Variables

The research model incorporates three control variables related to the technology, the website's *perceived usefulness* and its *ease of use*, as indicated by the Technology Acceptance Model [11-12], which can partly explain online purchase intentions [25]. *Outsourcing experience* is also included since it might have an impact on adoption.

4. RESEARCH METHODOLOGY

4.1. Measurement Development

The resource-based attributes have not been operationalized in the literature yet. However, conceptual discussions are scattered throughout various studies [8, 37, 61] and in their referent theories. We adopted a two-phase strategy for scale development. First, we conducted a literature review to deductively identify new items [35]. To ensure both content validity and face validity [10, 50], the selected items should: (1) mirror the construct's definition; (2) cover different dimensions of the construct; and (3) appear in previous literature.

In the second phase, using the items developed in the first phase as the basic theoretical codes, we conducted a qualitative content analysis of the texts of customer feedback collected from 43 clients over 4 platforms. The aims were to: (1) confirm the newly developed items; (2) examine the content validity of items; and (3) identify new items that may have been overlooked in the first phase.

In the coding process, we first assigned the basic theoretical codes to the customer feedback text line by line; if no existing code could be assigned to a line, we searched for an added new code that could apply to one of the theoretical constructs. To ensure consistency [14], the coding was undertaken by two researchers independently at first, followed by a joint discussion to compare findings, clarify discrepancies and reach agreement.

The final content analysis result is in Table 2. The 22 codes used for content analysis are listed in detail in Appendix A (see the supplement file). The numbers indicate the total number of times a code was assigned to a platform. As illustrated in Table 2, all items are assigned at least once in the sample, with the

majority of items being assigned more than three times. No new codes arose, indicating the content validity of the newly developed items since they sufficiently covered the theoretical constructs. Items which are mentioned very few times may be considered problematic. These asterisked problematic items were still retained within the survey for further analysis. The variables were modeled indirectly with the direct measurement items, so they were latent, reflective constructs.

Construct	Items/Subject (See Appendix A)	Number of times items is assigned				
		vWorker (19)	Elance (12)	Guru (3)	Odesk (9)	Sum (43)
Perceived Resource Complementarity	PRC1	1	4	0	5	10
	PRC2	3	5	2	6	16
	PRC3*	2	1	0	1	4
	PRC4	2	3	1	2	7
Perceived Resource Utilization	PRU1	1	0	1	3	5
	PRU2	7	3	1	4	15
	PRU3	6	4	1	4	15
	PRU4	6	2	1	4	13
Perceived Resource Availability	PRA1	2	2	1	5	10
	PRA2	1	2	1	2	6
	PRA3	0	4	2	3	9
	PRA4	1	0	0	5	6
	PRA5*	0	1	0	0	1
	PRA6*	0	1	0	0	1
Perceived Resource Suitability	PRS1	1	0	1	1	3
	PRS2	1	0	0	1	2
	PRS3	0	0	2	2	4
	PRS4	0	0	1	1	2
Perceived Effectiveness of Marketplace	PEM1	3	2	2	0	7
	PEM2	2	0	1	0	3
	PEM3	6	0	2	6	14
	PEM4*	0	1	0	0	1

Table 2: Qualitative Content Analysis Results for Item Development

Note: * problematic items due to few mentions in contrast with other items for the same construct

4.2. Data Collection

We sought out key contacts from firms that have already been involved in online microsourcing. Collecting data from such "key informants" [29, 62] is appropriate, since respondents can provide information on group or organizational properties. Data was collected from the largest OMM in China - zhubajie.com. Founded in 2006, zhubajie.com now has about 11 million service providers, who have completed about 3.5 million projects that are worth over 5.8 billion RMB (.9 billion US dollars). Hence, zhubajie.com represents a typical OMM and should be a suitable site for data collection.

A research invitation was published as a project asking clients to respond to the survey via zhubajie.com for two weeks in August 2014. Participants were offered a small monetary reward and a brief report on current research. Respondents provided a screenshot of their site profiles to ensure that they were actual and active company clients. Ultimately, out of all 431 responses, 379 valid responses were obtained after removing invalid responses; the valid response rate is 87.9%.

Table 3. Demographic Information of Respondents and Firms (n = 379)				
Characteristics	Frequency	Percentage	Mean	Std. Dev.
Title of Respondents				
Microsourcing Liaison/Supervisor	243	64.1%		
Middle Manager	97	25.6%		
Senior managers and Business Owners	32	30.0%		
Not Provided	7	0.80%		
Tenure (year)	-	-	3.8	0.9
Outsourcing Experience (year)	-	-	2.5	1.2
No. of Employees				
< 50	157	41.5%		
50 – 200	138	36.4%		
> 200	69	18.3%		
Not Provided	14	3.8%		
Average Outsourcing Project Value (RMB)				
< 200	123	32.5%		
200 – 1000	183	48.2%		
> 1000	61	16.1%		
Not Provided	12	3.2%		
Frequency of Use				
Several times a week	84	22.1%		
Several times a month	97	25.7%		
Once a month	59	13.5%		
Less than once a month	127	33.6%		
Not Mentioned	12	3.1%		

Table 3 contains the demographic information regarding the respondents and their firms. About 41% of the clients are small firms (less than 50 employees), and 80.7% of the projects are under RMB 1000 (about $160). (The profile of our data is consistent with the study of Gefen and Carmel [23], which used a unique data set, provided by RentACoder, yielding an early detailed description of an OMM.) The average tenure and online sourcing experience of respondents was 3.8 years and 2.5 years, respectively, and over 90% of them were senior managers or had managing experience with online microsourcing, confirming they were qualified to respond regarding their firms and their online sourcing decisions. Over 60% of the respondent firms outsourced at least once a month via the site, indicating active involvement

in microsourcing. Because the data was collected via publishing a project over the website, we had no control over who received the message, and thus cannot assess the response rate. However, no significant difference was found between the distribution of average project value in our data and that reported by the platform, indicating that non-completion bias is not a major concern.

5. DATA ANALYSIS AND RESULTS

The Partial Least Squares-Structural Equation Model (PLS-SEM), which includes both factor analysis and linear regression, was employed for structural model analysis. It is better suited to theory building research in contrast to covariance-based structural equation modeling (SEM) [9, 27], placing fewer restrictions on multivariate distributions, residual distributions, and sample size. Thus, considering the relatively small sample size and explorative nature of this study, we used PLS-SEM.

A minimum sample size check employing the methods indicated by Westland [73] ensured our sample size is adequate, enabling accurate estimation and adequate statistical power. Two algorithms were developed to determine the lower bounds on sample size in Structural Equation Modeling, using 1) a function of the ratio of indicator variables to latent variables, or 2) a function of minimum effect, power and significance. Using the sample size calculator for SEM developed by Soper [66], we conducted an *ex posteriori* test by setting the "anticipated effect size" with the minimum observed correlation efficient (0.33) to see whether the sample size is sufficient for the current study. The recommended minimum sample size is 141, which is well below the sample size (n=379) of the current study.

5.1. Measurement Model

5.1.1. Model Assessment

The model was first refined by omitting the measurement items that had high cross loadings or low loadings. 30 items were retained for the eight principal constructs, as shown in Table 4. Problematic items identified during the scale development phase, the asterisked items in Table 2, were deleted via the item refining analysis. Construct internal reliability was assessed by checking the composite reliability

scores and Cronbach's alpha. As shown in Table 4, they are all above 0.70, indicating satisfactory internal reliability.

Table 4. The Assessment of Measurement Model for Principal Constructs

Constructs	# of Items	Composite Reliability	Cronbach's alpha	AVE	Std Loadings
Perceived Resource Complementarity	3	0.87	0.77	0.68	PRC1 (0.87) PRC2 (0.85) PRC4 (0.77)
Perceived Resource Utilization	4	0.92	0.88	0.73	PRU1 (0.87) PRU2 (0.85) PRU3 (0.86) RU4 (0.85)
Perceived Resource Availability	4	0.90	0.85	0.70	PRA1 (0.84) PRA2 (0.83) PRA3 (0.87) PRA4 (0.81)
Perceived Resource Suitability	4	0.90	0.84	0.68	PRS1 (0.84) PRS2 (0.84) PRS3 (0.83) PRS4 (0.79)
Perceived Effectiveness of Marketplace	3	0.88	0.80	0.71	PEM1 (0.77) PEM2 (0.90) PEM3 (0.86)
Trust in Marketplace	5	0.91	0.88	0.67	TIM1 (0.85) TIM2 (0.89) TIM3 (0.83) TIM4 (0.84) TIM5 (0.80)
Trust in the Community of Providers	3	0.92	0.86	0.79	TIC1 (0.88) TIC2 (0.89) TIC3 (0.89)
Intention to Engage	4	0.92	0.89	0.75	ITE1 (0.85) ITE2 (0.89) ITE3 (0.88) ITE4 (0.84)
Note: All item loadings are significant at 0.01. Items are in Appendix A.					

Table 5. Correlations of Latent Variables and Evidence of Discriminant Validity

		1	2	3	4	5	6	7	8	9	10
Perceived Resource Complementarity	1	**.83**									
Perceived Resource Utilization	2	.59	**.86**								
Perceived Resource Availability	3	.50	.61	**.83**							
Perceived Resource Suitability	4	.34	.46	.49	**.83**						
Perceived Effectiveness of Marketplace	5	.53	.68	.58	.50	**.84**					
Trust in Marketplace	6	.54	.67	.73	.55	.66	**.82**				
Trust in the Community of Providers	7	.46	.54	.56	.42	.54	.69	**.89**			
Intention to Engage	8	.54	.62	.57	.52	.63	.76	.61	**.86**		
Ease of Use	9	.33	.46	.42	.41	.39	.43	.41	.46	**.92**	
Perceived Usefulness	10	.48	.55	.58	.49	.52	.58	.46	.59	.39	**.80**
Note: Bolded diagonal elements are the square root of average variance extracted (AVE).											

Convergent validity was established by having adequate internal reliabilities (> .70), high AVE (average variance extracted) scores (> .50), and significant item loadings (> 0.7) onto their respective constructs (Table 4). As shown in Table 5, the square root of the AVE for each construct (diagonal term)

exceeded the correlation coefficients between the construct and other constructs (off-diagonal terms), establishing discriminant validity, so the construct measures are empirically distinct.

5.1.2. Common Method Variance Assessment

Since our self-reported data may suffer from common method variance (CMV), several procedures were undertaken to reduce and assess the effects of CMV. First, we followed Podsakoff et al. [56] for the instrument design and data collection procedures. Second, we performed ad-hoc statistical analysis to assess the influences of CMV. Two approaches were used: Harman's single factor test [56] and the marker variable approach [60]. Both tests indicate that CMV is not a big concern for this study (see Appendix B in the supplement file for details).

5.2. Structural Model

Figure 3 presents the structural model results. The bootstrapping method [9] was used to test the significance level of each path in the model. Some constructs are relatively highly correlated (see Table 5), so the results may suffer from multicollinearity. The degree of multicollinearity for the independent variable can be measured by the variance inflation factor (VIF), which was calculated via WarpPLS and reported in Appendix C (see the supplement file). All the VIFs for the concerned constructs are below the rule of thumb of 10 (or the conservative value of 5) [34], indicating that multicollinearity is not a serious concern for the study.
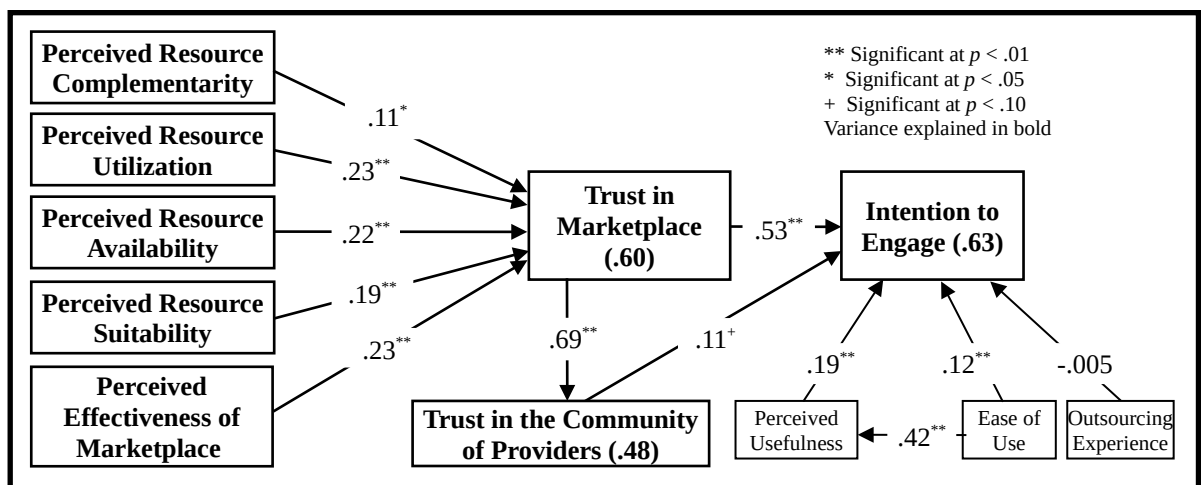

Figure 3: PLS Results of Structural Model

19

As expected, supporting hypotheses H1-4, all four resource-based perceptions contribute positively and significantly to *Trust in the Marketplace*: *Perceived Resource Complementarity* ($\beta = 0.11$, $p < 0.05$); *Perceived Resource Utilization* ($\beta = 0.23$, $p < 0.01$); *Perceived Resource Availability* ($\beta = 0.22$, $p < 0.01$) and *Perceived Resource Suitability* ($\beta = 0.19$, $p < 0.01$). Further, supporting H5, *Perceived Effectiveness of Marketplace* has a significant positive effect on *Trust in the Marketplace* ($\beta = 0.23$, $p < 0.01$). Collectively, these five attributes of online marketplaces account for almost 60 percent of the variance explained in *Trust in the Marketplace*.

As hypothesized, *Trust in the Marketplace* contributes significantly and positively to *Trust in the Community of Providers* ($\beta = 0.69$, $p < 0.01$), confirming the trust transference logic. Almost 48 percent of the variance of *Trust in the Community of Providers* can be explained by *Trust in the Marketplace*, supporting H6.

Finally, the *Intention to Engage* is significantly influenced by *Trust in the Marketplace* ($\beta = 0.53$, $p < 0.01$), allowing for the control variables effects. H7 is supported. The influence of *Trust in the Community of Providers* ($\beta = 0.11$, $p < 0.10$) is not as significant as *Trust in the Marketplace.* H8 is supported at the 0.10 significant level. Collectively, these two trust constructs can account for about 59% of the variance explained for *Intention to Engage* after removing the effects of the control variables.

6. DISCUSSION

Our research results indicate that increases in the perception of five key attributes of an OMM – *Resource Complementarity*, *Resource Utilization*, *Resource Availability*, *Resource Suitability* and *Effectiveness of Marketplace*– enhance clients' trust in the specific OMM. Thus, the present study confirms the roles of marketplaces in online microsourcing in line with what we have argued above: they not only act as the transaction intermediary – in the intermediary role; but also provide the external pool of resources and knowledge for firms – in their resource role.

Prior outsourcing research focused on mega-sourcing [23], and thus paid considerable attention to the dyadic outsourcing relationship between clients and providers. The interactions between clients and the external outsourcing market were often neglected. However, online microsourcing is typically

20

characterized by small, sometimes one-shot, transactions. Without an OMM, it might be costly, and likely necessary, for a client to maintain a long-term strategic relationship with its providers. Clients tend to rely on the marketplace to manage the relationship with its external providers. Thus, this study shows that the interactions between clients and the online marketplace deserve more attention.

Second, we extend the use of a trust framework to understanding online microsourcing adoption [48]. Trust-based frameworks have been widely used for studying e-vendors [22, 48] and online marketplaces [52-54], but not for service exchanges. This study suggests that clients' trusting beliefs (their perceptions of the five attributes of OMMs) help to build up clients' *Trust in the Marketplace* (institution-based trust). This in turn leads to *Trust in the Community of Providers* and their adopting intentions, even when considering the effects of the technology. Thus, our findings suggest that trust is as important for online service exchanges as for online product transactions.

Third, the findings show that firms' intentions to engage in online microsourcing largely rely on two specific types of trusting intentions at the institutional level, i.e. *Trust in the Marketplace* and *Trust in the Community of Providers*. These two types of trust are associated with two kinds of trustees: the marketplaces and the service providers. Our observation on the role of *Trust in the Community of Providers* is consistent with online e-commerce marketplace studies [52]. Moreover, this study also suggests the importance of another type of institution-based trusting intentions – *Trust in the Marketplace*. Our results show that trust in the marketplace not only enhances *Trust in the Community of Providers,* but also encourages online microsourcing adoption. Thus, *Trust in the Marketplace* becomes the most important prerequisite of online transactions. Without the presence of *Trust in the Marketplace*, *Trust in the Community of Providers*, who may be new and unknown, will not exist. Our research on these two trusting intentions indicates that institution-based trust is as important as individual-level trust [24] for client adopting intention in an OMM. So, this complements the OMM research of Gefen and Carmel [23-24], now highlighting that trusting intentions toward the marketplace also deserve special attention. However, it should be noted that *Trust in the Marketplace and Trust in the Community of Providers* are highly correlated (.69) and thus may not be treated as completely independent concepts. The hypothesized

21

Fourth, outsourcing research [1, 19, 28, 29, 40, 59] indicates that trust is one of the most effective social mechanisms available to facilitate cooperation between firms and providers, emphasizing the importance of trust for relational governance of outsourcing in an online context [29, 59]. As for online microsourcing, the client-provider relationship is fully mediated by the marketplace, and therefore is governed by the marketplace. Thus, trust in the marketplace combines with trust in the community of service providers to constitute the foundation of relational governance of online microsourcing, thereby helping to overcome exchange problems and ultimately enabling online microsourcing activities. This trust-based relational governance also deserves more attention.

Fifth, our results confirm the importance of the marketplace in the triadic outsourcing relationship including clients, providers and marketplace. Due to the lack of trusting conditions between clients and providers online, online marketplaces have become necessary to bridge the gap. Thus, unlike the study of Gefen and Carmel [23-24] that focused on the dyadic client-provider relationship, this study looks into the triadic outsourcing relationship. We examine the client-marketplace relationship by assessing the attributes of the marketplace and their relationship with *Trust in Marketplace*, and examine the client-provider relationship with *Trust in the Community of Providers*. However, this does not imply that the individual level client-provider relationship is not important. A client still needs to assess the relationship with the providers when selecting which one will be used for sourcing services. So, this study is a good complement to the study of Schwarz et al. [61], who examine the influences of decision attributes in selecting an outsourcing option from the ASP (Application Service Provider), offshore outsourcing, or domestic outsourcing.

6.1. Contributions to Theory

The present research makes a few important contributions to the literature. Firstly, we conduct a comprehensive study on client adopting intention in OMMs by concentrating on the impacts of the marketplace and by looking into the triadic sourcing relationship of clients, providers and marketplace.

22

Online marketplaces play a critical role in managing sourcing relationships when "the global (outsourcing) marketplace dynamic seems to be moving toward greater diversification in sourcing and smaller, more manageable, contracts" [23]. While previous studies focus on mega-outsourcing deals and the dyadic client-provider relationship, this study investigates smaller outsourcing deals from the vantage point of entrepreneurs and small firms and concentrates on the triadic sourcing relationship. Our research notes that beyond the client-provider relationship, the marketplace itself also deserves special attention in OMMs. Thus, this study extends both existing outsourcing research and OMMs studies [23-24].

Second, this research outlines a trust-based theoretical framework for understanding clients' adoption of OMMs. The framework is adapted from prior research and applied to a new context – OMMs. This research confirms the effectiveness of this framework in the new service-oriented context. Moreover, in addition to the role as a transaction intermediary, this study indicates four more resource-based attributes of marketplaces that are relevant for online microsourcing decisions, given the resource nature of the marketplaces. Thus, we extended and complemented existing online marketplace studies.

In particular, our framework makes a clear distinction between trusting beliefs and trusting intentions, and identifies two more types of trust at the institutional level: Trust in the Marketplace and Trust in the Community of Providers. Prior studies restricted institutional trust to the category of trusting beliefs, e.g., s*tructural assurance* [48] and *trust in intermediary* [52], and did not separate out trust toward the marketplace.

According to the logic of the Theory of Reasoned Action [20], trusting beliefs (toward a trustee) lead to trusting intentions (toward the same trustee). Thus, trust in the intermediary and other beliefs in a markeplace should result in trust intentions toward the markeplace, which, in turn, could be transferred to other trustees associated with the marketplace, i.e., the community of providers. Our research also confirms the importance of institution-based trust for client adopting intentions in OMMs. Both institution-based trust and individual-level trust are crucial in online marketplaces. Thus, our framework paints a clearer picture of the trust logic for understanding clients' behavioral intentions in online marketplaces.

23

Third, this research has identified and examined four resource-based perceptions of OMMs by applying two theories of resources: the RBT [5] and RDT [55]. Both theories have been widely used in previous outsourcing studies which focused on large companies [16, 61]. Both theories are also relevant for the study of online microsourcing decisions, but the resource dependency theory appears to be slightly more relevant. Thus, this study provides several new implications for outsourcing theories. The first implication is for RBT. Our observation is consistent with Wade and Hulland's [72] call to increase the application of the RBT perspective to firms in the IS community. It indicates that this call is still necessary for online microsourcing decisions. Next, our findings suggest the importance of RDT, contradicting the study of Schwarz et al. [61], who declared RDT as the least important theoretical lens for traditional outsourcing decisions. However, RDT might be a suitable theoretical lens for studying global online outsourcing marketplaces. Finally, this study indicates the relevance of resource-based theories for Online Microsourcing Marketplaces. Thus, the application of resource-based theories can also be extended to other forms of online services networks that are similar to OMMs, such as the online microsourcing community, the OSS (Open Sourcing Service) community [1], and open source service networks [19].

Fourth, this study indicates the importance of the governance role of marketplaces for online microsourcing. According to Schwarz et al. ([61], pp. 773-4), "the nature of outsourcing has changed in recent years, from a small marketplace with a small number of key competitors, to a global marketplace, where firms are coordinating and collaborating with one another in unprecedented ways. This suggests that more emphasis should be placed on how these collaborations and interactions can be governed, and on the importance of outsourcing governance tools." This study suggests a viable solution – online marketplaces – for the governance of these small and discrete outsourcing deals. The IT-enabled governance tools (institutional mechanisms) established by online marketplaces, e.g. escrow services, feedback systems and arbitration services, combine two types of institutional trust to create the necessary environment for online service exchanges.

Fifth, this study also suggests the importance of relational governance for the success of online microsourcing. Relational governance relies on relational elements for the maintenance of exchange relationships between firms, and can be seen as an effective complementary governance mechanism to a formal contract [57]. Unlike the findings of traditional outsourcing research, which emphasize the direct relationship between clients and providers, we emphasize the importance of the marketplace in governing online service transactions and the need to pay more attention to the interactions between clients and the marketplace. The online marketplace offers resources and knowledge, provides an online transaction environment, and mediates service exchanges between clients and providers. Thus, *Trust in the Marketplace* becomes the most vital relational element, providing the foundation of relational governance for online microsourcing. Future research could further explore the role of relational governance for other online sourcing practices (e.g., the OSS community or online sourcing community) by including more relational elements.

6.2. Implications for Practice

For service clients, particularly small firms and start-ups, this research suggests that online microsourcing could be a viable solution for outsourcing. OMMs provide service clients with a more effective, convenient and low-cost way to tap into a large network of previously unknown global workforces, resources and capabilities. As such, senior managers of firms should be aware of the existence and potential of online microsourcing, even if this challenges the biases of their existing mindsets. These decision makers should be prepared to harvest the benefits of this global network of talented providers [38, 44]. Moreover, according to our findings, service clients should carefully assess the five attributes of OMMs when choosing a potential online marketplace for microsourcing: (1) The ability of the OMM to complement in-house resources; (2) The utilization effectiveness of resources from the marketplace; (3) The resource abundance of the marketplace (4) The communication and collaboration capabilities; and (5) The existence of a secure and reliable exchange environment.

For the OMM providers, this research shows that Trust in the Marketplace can not only significantly increase clients' intentions to engage in online microsourcing, but also help build their

confidence in the abilities of the community of service providers. This highlights the importance of the governing role of the marketplace for the online client-provider relationship. The governance of online microsourcing is mainly realized through marketplace capabilities: the intermediary role of the marketplace between firms and providers, and relational governance based on institution-based trust in the marketplace. Trust in the marketplace largely depends on the *Perceived Effectiveness of the Marketplace* and the resource-based attributes of the marketplace. Thus, on one hand, OMM providers should increase the effectiveness of their institutional mechanisms to provide a more secure and reliable service exchange environment. On the other hand, they should improve clients' perceptions of their abilities to leverage their network of resources and capabilities, including *Resource Suitability*, *Resource Availability*, *Resource Utilization*, and *Resource Complementarity*, to build clients' trust in both the marketplace and the community of service providers.

6.3. Limitations and Future Research Directions

Like any study, this paper has a few limitations. First, the findings are based on a survey method and therefore, key procedural and contextual information may be missed. Second, the data came from only one OMM. Considering the potential contamination of self-selection, the results may be biased. Third, we mainly considered the resource nature of OMMs by drawing upon the resource-related theoretical perspective. However, other theoretical lenses might be relevant as well, e.g. the knowledge-based view (KBV) [32], transaction cost theory [74], etc. Fourth, although the common method bias was assessed and the results showed that common method variance was not a major concern, statistically, common method bias cannot be absolutely ruled out. Fifth, we mainly considered the positive factors that influence outsourcing decisions; however, other negative factors like knowledge risks [61] and transaction uncertainty [54] might be relevant, but were not included in the research model. We also did not deal with another potentially important variable - user satisfaction [13]. We did assess ease of use and perceived usefulness. User satisfaction is proposed to partially mediate the impacts of the IS-related constructs on "intention to use". Without including user satisfaction, the paths of the two trusting constructs toward "Intention to Engage" might be inflated, thus leading to type II errors.

26

Several future research directions are promising. First, most of the sourcing services in an OMM are knowledge extensive, meaning that the transactions between firms and providers will involve extensive knowledge exhanging activities. This might be a challenge for clients to manage providers remotely. Thus, future research could study OMMs by employing a KBV lens. Second, this study focused on business services rather than physical products, which have been examined in traditional e-business research. Using this perspective, we could examine traditional e-business topics such as trust in the new context of service exchanges. Third, this study only examined online microsourcing based on the data obtained from the marketplace model. We have argued that the proposed trust framework is also applicable for the online microsourcing community (e.g., TopCoder). Thus, its application in that arena needs to be examined in a future study. Moreover, future research can also explore how the collective actions of geographically diverse individual providers could be combined to carry out a large and complex IT project [19, 46]. Finally, this study explored online microsourcing from the client perspective. Future research could approach this from the perspective of service providers.

7. CONCLUSIONS

This paper investigated a recent addition to the outsourcing arena – microsourcing with service providers via online marketplaces. We outlined a trust-based theoretical framework to gain a deeper understanding of the factors influencing the success of the service exchanges in OMMs. In sum, this study sheds new light on both outsourcing and online marketplace research. First, it reexamines the institutionalization of trust in OMMs, thereby complementing existing e-commerce studies by examining the marketplaces that focus on service exchanges. Next, it looks into a new type of outsourcing – online microsourcing – using the resource perspective, thereby introducing a new landscape of outsourcing in addition to those covered in previously published studies. Then it suggests an effective way to govern microsourcing relationships in a global marketplace, that is, the combination of IT-enabled institutional mechanisms (in the intermediary role) and trust-based relational governance (institution-based trust). Finally, it indicates that a triadic outsourcing relationship including clients, providers and the marketplace should be considered for online microsourcing instead of only focusing on the dyadic client-provider

relationship. Online marketplaces play the most important role within the triadic relationship in governing the service exchanges between clients and providers.

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