



香港城市大學
City University of Hong Kong

專業 創新 胸懷全球
Professional · Creative
For The World

CityU Scholars

Effects of entrepreneurship and IT fashion on SMEs' transformation toward cloud service through mediation of trust

Yu, Yan; Li, Min; Li, Xin; Zhao, Jianliang Leon; Zhao, Dingtao

Published in:
Information & Management

Published: 01/03/2018

Document Version:
Post-print, also known as Accepted Author Manuscript, Peer-reviewed or Author Final version

License:
CC BY-NC-ND

Publication record in CityU Scholars:
[Go to record](#)

Published version (DOI):
[10.1016/j.im.2017.07.001](https://doi.org/10.1016/j.im.2017.07.001)

Publication details:
Yu, Y., Li, M., Li, X., Zhao, J. L., & Zhao, D. (2018). Effects of entrepreneurship and IT fashion on SMEs' transformation toward cloud service through mediation of trust. *Information & Management*, 55(2), 245-257. <https://doi.org/10.1016/j.im.2017.07.001>

Citing this paper

Please note that where the full-text provided on CityU Scholars is the Post-print version (also known as Accepted Author Manuscript, Peer-reviewed or Author Final version), it may differ from the Final Published version. When citing, ensure that you check and use the publisher's definitive version for pagination and other details.

General rights

Copyright for the publications made accessible via the CityU Scholars portal is retained by the author(s) and/or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights. Users may not further distribute the material or use it for any profit-making activity or commercial gain.

Publisher permission

Permission for previously published items are in accordance with publisher's copyright policies sourced from the SHERPA RoMEO database. Links to full text versions (either Published or Post-print) are only available if corresponding publishers allow open access.

Take down policy

Contact lbscholars@cityu.edu.hk if you believe that this document breaches copyright and provide us with details. We will remove access to the work immediately and investigate your claim.

© 2017. This manuscript version is made available under the CC-BY-NC-ND 4.0 license <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

Effects of Entrepreneurship and IT Fashion on SMEs' Transformation toward Cloud Service through Mediation of Trust

Yan Yu, Min Li, Xin Li, Jianliang Leon Zhao, Dingtao Zhao

ABSTRACT

This study is drawn from strategic choice theory, management fashion theory, and trust research to investigate organizations' transformation toward the innovative cloud service. Regarding organizations' substantive rationality and rationalization, this study proposes that SMEs' entrepreneurial orientation and the institutional pressures received from marketplace provide motives for their transformation toward cloud services and the influential process is mediated by a complex trust building process, including trust on the cloud service related institution and trust on the cloud service artifact. A survey involving 107 Chinese SMEs was conducted to examine the research model. Our empirical research illustrates that organizations' trust building on the cloud situation and artifact plays a critical role in intervening the effects of strategic intent and institutional pressures on SMEs' transformation toward cloud service.

Keywords: Cloud Service, Innovation Adoption/Diffusion, Entrepreneurship, Institutional Pressure, Trust, Management Fashion

1. INTRODUCTION

Cloud computing is a computing paradigm in which scalable and elastic information technology (IT) capabilities are provided as a service to users, using Internet technologies. It enables convenient, on-demand network access to a shared pool of configurable computing resources (e.g. servers, storage, applications, and so forth) that can be rapidly provisioned and released with minimal management effort or service provider interaction [1]. Under this paradigm, cloud services are provided as infrastructure-as-a-service, platform-as-a-service, and software-as-a-service, among other methods. The use of cloud services is growing and will become the bulk of new IT spend.

Cloud service offers a new framework for organizations to develop their IT competence. Such a revolutionary IT innovation enables organizations to transform from the conventional mechanism of in-house development, hosting, and maintenance into a wholly new cloud service-oriented business environment. Note that the transformation represents a fundamental paradigm switch, which is different from the adoption of traditional IT artifacts or services, such as ERP, CRM, IP Phone, etc. The adoption of traditional IT artifacts or services usually occurs within organizations with major changes in the aspects of system functionalities or service levels. Differently, organizations' transformation toward cloud services is essential about whether the computational resource is located inside or outside of the organizations. Cloud service is built on a foundation of sharing and reflects a spectrum of things complementing one another. Therefore, organizations are changed from managing and controlling their own internal resources to managing interactions and relationships with a service provider and/or other users on the same service platform [2]. The unique characteristics of cloud service make it necessary to advance classic theories on IT adoption and explore new aspects that affect organizations' decision of transformation toward cloud service.

This study focuses on the transformation intention of cloud service in small and medium-sized enterprises (SMEs), as SMEs play a pivotal role in various economies [3]. In China, SMEs accounted for over 97% of the total Chinese enterprises and contributed to nearly 60% of the prime operating revenues

of the nation in 2013 [4]. More importantly, SEMs are one major market for public cloud services and benefit more from the adoption of cloud services. For example, McKinsey predicted that SMEs would make up around 65% overall public cloud market by 2015 [5]. It is argued that cloud services have many benefits and opportunities for SMEs [6], and have the potential to alleviate the historical IS challenges facing SMEs [7]. On one hand, SMEs demand advanced IT to support their business and compete in the global market. On the other hand, SMEs are often faced with IS challenges such as stretched IS management capabilities, insufficient internal IS expertise, few technically skilled employees, tight access to financial capital and few slack resources [8-10], and thus be reluctant to invest in the perpetual IT infrastructures and systems in one snapshot. Cloud service provides opportunities for SMEs to address this dilemma since it allows: (1) rapid release capability, i.e., a large pool of computing resources enables clients to access services in a short time; (2) small upfront investments for clients; and (3) flexible pay-for-use payment mechanism [11]. As such, it is expected that cloud service will increase SMEs' IT capability with a relatively low transaction cost and switch cost. However, SMEs may not fully recognize the strategic values, nor can they perform the accurate cost-benefits calculation. As a consequence many SMEs are still sitting on the fence and are contemplating whether to transform toward the cloud computing trend or not. In particular, Chinese enterprises even exhibit a lower propensity to transform toward the cloud service compared to those in developed economies, in spite of the potential attractiveness of cloud market in China [12]. This fact calls for a necessity to study SMEs' transformation intention to cloud service in emerging economies, though a few studies have investigated SMEs' adoption of cloud computing in Europe [2; 13] and Singapore [3].

Theoretically, there is a void in the thorough understanding of why and how SMEs intend to accept or resist the revolutionary innovation of cloud service. Based on the technology-organization-enterprise (TOE) framework and/or the diffusion theory of innovation (DOI), previous studies mainly attribute cloud computing adoption in SMEs to cost savings, perceived benefits, organizational readiness, competitive forces and the technological factors derived from the diffusion of innovation [3; 14]. In Weber [15] and

Kalberg [16], two distinct rationalities along a value dimension are highlighted for organizational or institutional changes, i.e., instrumental/formal rationality (a means-end rational calculation) and substantive rationality (a preference for ultimate values). Organizations act based on the instrumental rationale when they are more reflective and self-conscious, and the costs-benefits of IT innovations are calculative [17]. Thus existing studies mainly on SMEs' adoption of cloud service shed a light on the instrumental rationality [15; 16]. However, the current research exhibits a lack of richness in the Weberian view of SMEs' rationalities, each with its own purposes, processes, and mechanisms [17]. They do not touch the essence of cloud services that make organizations transform to an open system with an outward focus and with uncertainties. It is also not perfectly fit to SMEs that may not have adequate knowledge of cloud service to perform the means-end calculation. New aspects to cover other rationalities of organizations are demanded.

Consequently, we turn to explore organizations' substantive rationality that has been largely ignored in the cloud related literature. Substantive rationality orders action in relation to the past, present, or potential value postulate which implies clusters of values varying in comprehensiveness and internal utility [16]. Actions originating from a substantive rationality are based on strong, moral reasons [18]. Substantive rationality can stem from organizational ideology (e.g., entrepreneurship) and institutional pressures [17; 19]. This value rationale at a higher abstract level helps organizations to mitigate the technological and managerial uncertainties due to the open system of cloud service. Furthermore, looking at the previous variance-based models [2; 3; 13], we have little knowledge of how the factors influence organizations' decision on transforming toward cloud service. In face of uncertainty on the new IT paradigm, SMEs' transformation is a complex organizational decision process with substantive rationality. Townley [17] also underscores organizations' rationalization process in which cognitive and practical rationale are interwoven for rationality realization, e.g., justice and trust. This study aims to unfold the substantive rationality by investigating how strategic and institutional factors influence SMEs' intention of transformation toward cloud service and how this influential process is realized by trust building.

In order to advance our understanding of SME's transformation intention of cloud services, this study exploits three streams of theories, including strategic choice theory management fashion theory and trust research. We rely on the strategic choice theory to solicit the internal trigger of substantive rationality for organizations. SMEs' transformation toward cloud service needs their strategic intent to confront uncertainty. Strategic orientation in organizations that represents a strong organizational ideology provides strong reasons for their strategic choice of IT innovations. When the IT innovation such as cloud service makes a fundamental change to organizations, the IT innovation acceptance becomes a strategic choice which is beyond the choice at an operational, calculable level. Organizations with more proactive strategies (e.g., entrepreneurship) are more open to innovations [20; 21]. Thus, organizations' strategic orientation provides the internal momentum for their transformation toward cloud service.

Next, institutional pressures set rules of substantive rationality for organizations [17]. This institution based rationality is also considered as social rationality [22]. The institutional pressures should be put on the agenda, as cloud service is becoming an IT fashion. In the transformation decision, SMEs may not always be knowledgeable about cloud service and may be influenced by reference entities within the same social system [23]. They tend to imitate other organizations to lessen uncertainties. According to management fashion theory, the pressure from IT fashion (or fad) is a transitory collective belief that an IT is new, efficient, at the forefront of practice, and attracting fierce enthusiasm and attention [24]. It was found that fads will speed up organizations' acceptance of new technologies [25], especially when SMEs are uncertain about conditions concerning environmental forces, goals, and technical efficiency [26]. Kshetri [12; 27] postulates the potential of institutional pressures on the diffusion of cloud computing technologies among organizations.

Further, the realization of rationality is shaped by a complex trust building on IT innovations. Trust has been shown as one primary determinant of IT innovation acceptance and diffusion in organizations [28-30]. Trust is especially critical for SMEs' transformation decision on cloud service, regarding that cloud service is the Type III innovation in Swanson's taxonomy [31]. This type of technological

innovations may offer considerable benefits, and also expose organizations to uncertainty and managerial risk [32]. Particularly, cloud service requests organizations putting their data, applications on a third-party platform, whose operation mechanism is not transparent. Such a change increases the uncertainty for organizations' business operations. They need to build trust on technology, vendors, and the related technological governance (e.g. structural assurance). Accordingly, the organizations' strategic choice of transforming toward cloud services can be intervened by a trust-building process, in which building trust on both cloud service artifact and service vendors becomes unavoidable for SMEs to perform the cloud service driven transformation.

Considering the above three perspectives, we attempt to develop an integrated research model, which relates strategic orientation, institutional pressures, and their trust building on cloud service to explain SMEs' transformation intention toward cloud service. The model proposes that entrepreneurial orientation and institutional pressures provide momentums for SMEs to transform to cloud service and their effects are mediated by their trust building on cloud service, including the institution-based trust (i.e., trust on the cloud-oriented situation) and the trust on the cloud artifact. To the best of our knowledge, we are pioneering in conducting the empirical research on cloud service transformation in SMEs in an emerging economy.

The contribution of the paper is three-fold. First, this study investigates SMEs' cloud service transformation from both strategic choice and management fashion perspectives and sheds light on organizations' substantive rationality, adding values to the IT innovation acceptance and diffusion research as well as the rational management decision research. Second, this study reveals the mediating role of institution-based trust and IT artifact trust for organizations' transformation toward IT innovations, contributing to the IS trust research stream. Third, from a practical perspective, this study can provide some insights for cloud service vendors in the strategy of development and marketing. The results also offer organizations and the market regulators insights to manage this new IT innovation wave.

2. THEORETICAL UNDERPINNINGS

In order to understand SMEs' transformation toward cloud service with uncertainty, we critically review three streams of research: strategic choice theory, management fashion theory and trust research.

2.1 Strategic Choice Theory

The strategic choice theory [33; 34] postulates that organizations' decision largely depends on their internal strategies with substantive rationality. Business strategies are along the continuum ranging from reactive to proactive [35]. A reactive strategy is usually a response to internal and external environmental pressures through defensive attitude, while a proactive posture is presented with anticipating future regulations and trends, and engaging in initiatives to prevent negative implications. Compared with larger firms, SMEs are more vulnerable to an uncertain and complex environment. In order to survive in a competitive environment, SMEs are usually proactive to take initiatives to create opportunities and deal with potential threats. Among various initiatives, implementing innovative IT initiatives for advanced IT capability helps organizations to gain or sustain the competitiveness [36]. Thus, the receptiveness toward innovations is largely influenced by organizations' proactive strategic posture [21]. As a type III innovation [31], cloud service's acceptance needs a more proactive strategic orientation nurtured in organizations.

Strategic orientation refers to a firm's philosophy and ideology of doing business which is shown as a set of values and beliefs that guide the firm's attempt to develop the intended capabilities and achieve superior performance [37]. Strategic orientation serves as one trigger of substantive rationality for organizations. Some research has investigated how the strategic orientation influences innovation acceptance in organizations [20; 21]. A few studies go further to investigate the impact of the specific strategy of entrepreneurial orientation on innovation acceptance and diffusion [38; 39]. Furthermore, SMEs have been shown more likely to nurture an entrepreneurial orientation and take entrepreneurial strategic action [40-42].

Entrepreneurial orientation (also called entrepreneurship) reflects a proactive strategy in initiating innovative activities [43; 44]. Entrepreneurial orientation can be at an individual level and an organizational level [45]. The individual level entrepreneurial orientation is usually reflected by the style of top management teams in terms of their propensity for risk-taking, innovation, and proactiveness [43]. The organizational level entrepreneurial orientation is shaped by the organization's propensity to pursue new market opportunities and innovate in existing operations [39; 46], and is usually measured by managerial behavior as the organization engages in the entrepreneurial process [47].

2.2 Management Fashion for Innovation Acceptance

Given that innovation diffusion in reality often occurs under uncertainty, the management fashion theory argues for the impact of the external institution on organizations' innovation acceptance and the innovation diffusion [48; 49]. The management fashion is rooted in the institution theory, which claims that the institutional context will generate institutional pressures, including normative, mimetic and coercive pressures, on organization's acceptance of innovations [23]. According to DiMaggio and Powell [23], normative pressures occur primarily as a result of professionalization, and manifest themselves through trade, business, and other key organizations. Mimetic pressures occur when organizations respond to uncertainty by mimicking actions of other organizations [23]. Coercive pressures happen when organizations have to conform to formal and informal pressures exerted by those organizations they depend on [23]. Normative and mimetic pressures can be contaminated among organizations that may or may not have inter-organizational relationships. Coercive pressures hinge on the interdependent organizations with non-equivalent power, which may not be deemed as a fashion contagion mechanism.

The management fashion perspective assumes that organizations imitate with other organizations in the diffusion of innovations [49]. The institutional pressures from management fashion shape the norms of rationality and management progress in organizations. Management fashions aimed at encouraging better organizational performance either materially or symbolically. Therefore, they are perceived to be innovative, rational, and functional and have transitory values [50; 51]. An organization who neglects the

latest fashion may be “perceived as being lagging in management progress, as being peripheral to the business community, and as being undeserving of societal support” [52]. Fashions may constitute vital processes from which increasingly efficient innovations can evolve. The cost of adopting and rejecting multiple fashions in order to find a technically efficient innovation may be much lower than the returns from using the innovation. Almost every area of technical endeavor is open to the swings of fashion. Fundamental ideas of management fashion can be applied to IT fashion when limiting IT fashion research to organizational IT innovations that have significant effects in the management domain [48].

Similar with management fashion, social contagion is also derived from the institution theory. Management fashions are interventions subject to social contagion [51]. Social contagion exists when organizations feel social pressures to adopt an innovation that increases in proportion to the extent of prior adoptions. In an organizational context, the social contagion theory is concerned with institutional pressures that lead organizations to increasingly resemble with other surrounding parties and finally stimulate institutional isomorphism [48]. When social contagion is salient, the organizations’ adoption decision will be influenced not only by their economic assessment of the innovation but also by the total number of prior adoptions as well as their relationships with prior adopters [53]. Thus, social contagion results in an increasing prevalence of the focal innovation in the population under study [54]. In the IS field, a number of studies have relied on the institutional theory and demonstrated the significant effect of institutional pressures on the acceptance and diffusion of various types of information systems. For instance, Teo et al. [26] provided empirical evidence of institutional pressures on EDI adoption. Liang et al. [55] showed the influence of institutional pressures on ERP assimilation in post-implementation stage.

Cloud service is a cutting edge technology that has brought fundamental changes to IT delivery. It has been the IT fashion in recent years. According to the management fashion theory, institutional pressures from SMEs’ competitors, suppliers, and customers will stir up their institutional isomorphism and increase their intention to transform to cloud service, even if they do not have adequate knowledge of the new

technologies. When an IT innovation comes into a fashion, organizations may jump on the bandwagon by adopting it with a superficial understanding of the innovation itself [56; 57].

2.3 Trust Research

In the process of uncertainty alleviation of management fashion, trust plays an important role. It helps organizations overcome perceptions of uncertainty and risk and engage in “trust-related behaviors” with cloud service vendors and thus intend to perform the cloud service transformation. Trust is a multi-faceted concept and has been studied in various contexts. Mayer et al. [58] 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 trustors, irrespective of the ability to monitor or control that other party.” Based on the sociological literature, McKnight et al. [59; 60] further proposed the concept of “institution-based trust”, which refers to the belief that needed structural conditions are available to enhance the probability of success in an endeavor. Institution-based trust has two main components: structural assurance and situation normality [59]. Structural assurance refers to the belief that success is likely because the contextual conditions such as promises, contracts, regulations, and guarantees are in place. Situational normality is defined as the belief that success is likely because the using a specific technology is normal and comfortable within a specific setting [59].

According to McKnight et al. [59; 60], the initial trust is mainly based on trust disposition and institutional cues rather than experience or first-hand knowledge. Trust disposition is about the general propensity to trust others, which can be an inherent temperament of entrepreneurial organizations. Besides,, organizations mainly rely on their situated institutions to develop the institution-based trust on the cloud-oriented environment, when cloud service has been an IT fashion and constitutes a strong situation. In this research, we define institution-based trust on cloud service as organizational trust perceptions that needed structural conditions are available to enhance the probability of success in using cloud service, and it is also decomposed into two components, i.e., structural assurance of cloud service and situation normality of using cloud service.

McKnight et al.'s studies [59; 60] have heightened the effects of institution-based trust on the formation of trusting beliefs and trust related behavior. Paul & Gefen [30] specifically found institution-based trust help explain the proliferation of online marketplaces where inherent uncertainty arises because of separation of buyers and sellers in time and in space. Institution-based trust is also found to be one significant predictor of e-government service acceptance [61]. Following the same rationale, it is crucial for organizations to establish the institution-based trust on cloud service, including the positive belief of structural assurance and situation normality, when they pursue the cloud service transformation.

Distinguishing from the sociological framing of trust, an emerging concept of “IT artifact trust” has attracted attention in the IS field [62-67]. IT artifact trust refers to beliefs that a specific technology has the attributes necessary to perform as expected in a given situation in which negative consequences are possible, and it shapes IT-related beliefs and behavior [64]. Wang & Benbasat [63] studied the trust in recommendation agents in the e-commerce and elaborated several determinants of trust formation on this particular IT artifact. Komiak & Benbasat's [65] experiment showed the trust in the specific recommendation agent significantly increased customers' intention to adopt such IT artifact. The above studies not only imply the existence of trust in particular IT artifact and technology innovation but also proves the predictability of “trust in IT artifact” for technology innovation acceptance. According to McKnight et al. [64] , three aspects constitute IT artifact trust: helpfulness, reliability, and functionality. For cloud service, helpfulness refers to an organization's belief that cloud service will provide adequate and responsive help for organization. Reliability refers to the organization's belief that cloud service will consistently operate properly. Functionality represents the organization's belief that cloud service has the capability, functionality, or features to do what the organization needs it to.

In general, both institution-based trust and IT artifact trust are critical for organizations' transformation decision to cloud service. The non-transparence of cloud operation in the service vendors generates business and technological uncertainty, even risks, for the clients put a higher requirement on organizations' trust on the cloud-based IT artifact. The sharing of data, applications and/or infrastructures

in the unified third-party platform raises the process of organizations' trust building on the vendors as well as the cloud-oriented situation.

3. RESEARCH MODEL AND HYPOTHESES

In the literature, the strategic choice theory emphasizes the importance of strategic intent and ideology for organizations to make a strategic decision. While strategic orientation provides internal momentum for substantive rationality, the IT fashion provides strong institutional pressures for organizations' social rationalization. These internal and external forces of rationality request a realization process, i.e. a trust-building process, in which organizations can further justify the situation and the innovative IT artifacts. Accordingly, we develop a research model as shown in Figure 1. We argue that organizations' entrepreneurial orientation and the institutional pressures serve as two primary drivers, which represent the ideology-based and institution-based stimuli of substantive rationality respectively, for organizations to transform toward cloud service. More importantly, we postulate that organizations will experience a complex trust building process to realize the rationality. This trust building process, which includes both institution-based trust and IT artifact trust, will mediate the effects of entrepreneurial orientation and institutional pressures on organizations' cloud service transformation intention. We interpret details of the relationships in below.

Insert Figure 1 Here

3.1 Direct Effect of Entrepreneurial Orientation on Cloud Service Transformation

The strategic choice theory argues that capability building, as a strategic action, is the consequence of strategic initiatives pursued by decision makers in the organization [33; 34]. Transformation toward cloud service is as one important IT capability building action to improve organization's competitiveness in this digital world. It should be influenced by the strategic intent, particularly by entrepreneurial orientation. As shown in previous research, organizations with higher entrepreneurial orientation are generally

distinguished in their innovativeness, change initiation, and responsiveness [45], and more likely to embrace IT innovations.

Several studies have investigated the effect of entrepreneurial orientation on the IS innovation diffusion. Chatterjee et al. [68] claimed that entrepreneurial orientation created the conditions whereby the resources can be transferred and the managerial attention can be directed to an appropriate way of IS assimilation. Zhou et al. (2005) empirically found that entrepreneurial orientation facilitates firms' technology-based innovations. Thus, organizations' entrepreneurship is an inherent trait that drives SMEs' transition to the IT innovation of cloud service. We hypothesize that:

Hypothesis1: An organization's entrepreneurial orientation has a direct positive effect on its transformation intention toward cloud service.

3.2 Entrepreneurial Orientation Affecting the Trust Building on Cloud Service

Entrepreneurial organizations are distinguished from non-entrepreneurial ones by a series of interdependent characteristics, including proactiveness, competitive aggressiveness, risk taking and innovativeness [45; 69]. Proactiveness represents an organization acting in anticipation of future problems, needs, or change, and is often used interchangeably with competitive aggressiveness [69]. An entrepreneurial organization's proactiveness of entrepreneurs may cause it to overestimate the possibility of positive outcomes and thereby intending to make trust as a default choice [70]. Thus, entrepreneurial orientation, in the proactive side of the strategic continuum, facilitates organizations to building trust in general toward cloud service. More specifically, risk taking of entrepreneurial organizations helps them build up the institution-based trust of cloud service, while their innovativeness helps the building of the cloud artifact trust.

Risk taking suggests that entrepreneurial organizations have a higher level of trust propensity. Risk taking preference at the organizational level means organizations' propensity to engage in risky projects and preferences for bold instead of cautious acts to achieve objectives [69]. Such propensity allows the organization to recognize opportunities that may not be visible to others. Compared with

non-entrepreneurial organizations, organizations with entrepreneurship are more tolerant to the institutional environment. They are more likely to believe the structural assurance of IT innovations across situations and believe situation normality of using the IT innovations, such as using cloud service [64]. Entrepreneurial organizations tend to have a higher level of trust propensity toward using cloud service and have stronger beliefs in the security guaranteed by cloud-related institutions. Organizations with more entrepreneurship are more likely to perceive that the institution setting for cloud service is secure and normal, thus have a higher institution-based trust on cloud service. Thus, we hypothesize that:

H2a: Entrepreneurial orientation in an organization has a positive impact on its building of institution-based trust on cloud service.

Innovativeness of entrepreneurial organizations represents a willingness to go beyond existing technologies or practices and reflects a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes [69]. As entrepreneurial organizations have an open mind to innovations, they tend to have a positive interpretation of the technological innovations. Entrepreneurs' innovativeness facilitates the formation of trust beliefs about the attributes of innovative IT artifacts and the positive outcomes of using those technological innovations. Thus, we hypothesize that:

H2b: Entrepreneurial orientation in an organization has a positive impact on its building of IT artifact trust on cloud service.

3.3 Direct effect of Institutional Pressures on Cloud Service Transformation

Both management fashion theory and social contagion theory emphasize the impact of institutional pressures on the innovation acceptance and diffusion in organizations. Abrahamson & Fairchild [50] defined management fashion as a relatively transitory collective belief "disseminated by the discourse of management knowledge entrepreneurs, that a management technique is at the forefront of rational management progress." Institutional pressures are raised through the communication of knowledge, social interactions, or economic interests [49]. Communication of related knowledge about innovations from

adopters helps reduce ambiguity about the innovation [25]. Organization imitates other organizations' innovation acceptance by conforming to institutional norms in their social interaction process to appear legitimate [23; 71; 72]. From an economic interest consideration, some scholars claim that an organization imitates competitors' innovation acceptance in order to avoid competitors' competitive advantage by using the innovation [73; 74]. Communication of knowledge, social interaction, and economic interest all help potential innovation adopters to minimize the perceived risks related to innovation acceptance. Thus, we hypothesize that:

Hypothesis3: The institutional pressures on an organization have a direct positive effect on its transformation intention toward cloud service.

3.4 Institutional Pressures Affecting the Trust Building on Cloud Service

Although there is a halo effect of IT fashion, e.g., cloud service in our context, trust building is necessary for organizations to realize their substantive rationality. Wang & Ramiller [57] interpreted IT fashion from a learning perspective and emphasize the importance of organizations' community learning in the marketplace to reduce the uncertainty of any IT innovations. In general, when organizations learn more from the community, they will have more trusting beliefs on the innovation marketplace and environment [57]. In particular, this institution-based trust-building process on the IT innovation may also exist on the adoption of cloud service.

For individual organizations, they need to judge whether the structure assurance of cloud service usage reach a certain level that many organizations are willing to take the chance in adventure. More organizations transforming into cloud service makes the individual organization in the situation having a stronger sense of normality to perform the similar transformation [12]. Thus, we argue that a higher institutional pressure perceived by organizations increases their institution-based trust on cloud service, including their perception of structure assurance and situation normality of cloud service. We hypothesize that:

H4a: Institutional pressures on an organization have a positive impact on its building of institution-based trust on cloud service.

Shortage of cloud service knowledge and experience may make SMEs easier to be influenced by their customers, suppliers, and competitors in attitude toward cloud service. These organizations may cite peers' positive comments about innovations as a response to uncertainties [56]. Given that cloud service is a relatively new IT service with many uncertainties, institutional pressures may help to reduce the organizations' perception of the risks of using cloud services and increase their trust on cloud service. If an organization with limited knowledge and experience of cloud service notices that a large number of other organizations in its communication networks have already used cloud service, they may perceive that cloud service may contain good features and have the potential to create value for them. Thus, we argue that the higher institutional pressure a firm perceives from the marketplace and its communication network, the more the firm will trust cloud service as reliable, helpful and functional. We hypothesize that:

H4b: Institutional pressures on an organization have a positive impact on its building of IT artifact trust on cloud service.

3.5 Institution-based Trust for Cloud Service Transformation

Institution-based trust is critical to the success of online environment transaction. In the online transaction environment, guarantees are requested in an institutional context [30; 75]. Zucker claimed that institutional trust plays an important role in an impersonal economic environment when familiarity and similarity are absent [76]. Cloud service makes IT solutions available in an online context in which many firms are not familiar with the mechanism of operations and transaction inside the cloud, thus organizations' institution-based trust toward cloud service is vital for their transformation to cloud service. Structural assurance of cloud service usage formed by vendor protections, regulations, and other guarantees will increase organizations' confidence in using cloud service. As a result, organizations are willing to transform toward cloud service. Meanwhile, the organizations' belief that using cloud service is normal or

well in order helps organizations ease worries of a new endeavor, and thus increase their belief that using cloud service is likely to be successful. Thus, we hypothesize that:

H5: An organization's institution-based trust on cloud service has a positive impact on its cloud service transformation intention.

3.6 IT Artifact Trust for Cloud Service Transformation

In cloud service context, trust can affect organizations' transformation intention through increasing their performance expectancy as well as reducing their perceived risks [77]. Organizational users are more willing to experiment with a specific technology when they believe it has necessary attributes to support their intended behavior [64]. IT artifact trust, i.e., organizations' believe that the cloud services are helpful, reliable, and have appropriate functions, is influential for organizations' transformation intention to cloud service.

Firstly, users do expect that necessary advices can be provided to complete tasks when using technologies. Online operation environment of cloud service makes the service vendors and users separated in time and space. In this environment, adequate and responsive help for users, which represent cloud service helpfulness, is especially necessary for users to cope with service usage problems. Thus, organizations' perception of cloud service helpfulness will increase their intention to transform to cloud service. Second, context sensitive nature of online information transaction raises the importance of cloud service reliability. The more reliable of cloud service, the more cloud service can guarantee users' information security. Reliability of the cloud expedites the cloud service adoption by SMEs and increases the chances of collaboration between stakeholders in SMEs [3]. Thus, the more organizations can perceive about cloud service reliability, the more likely they will transform to cloud service. Third, users consider whether the technology has promised functionality as one important capacity of the technology. The availability of certain function or features need to perform intended tasks is one premise for them to transform to cloud service. Organizations may less likely to transform to cloud service when they are not able to easily acquire the intended functions. The more organizations can perceive about cloud service

functionality, the more likely they will transform to cloud service. All of these suggest that organizations are more likely to transform to cloud service when IT artifact trust on cloud service is higher. Thus, we hypothesize that:

H6: An organization's IT artifact trust on cloud service has a positive impact on its cloud service transformation intention.

3.7 Relationship between Institution-based Trust and IT Artifact Trust

The above two types of trust, institution-based trust and IT artifact trust on cloud service, are related. We argue that organizations' institution-based trust affects their trust on the cloud artifact. Institution-based trust focuses on the belief that supportive situations and structures tied to a specific technology provide a guarantee to the success of using the specific technology [64]. For cloud service, the related structure assurance offers organizations adequate legal, contractual, or physical support to ensure their successful use of cloud service. For example, vendor protections, service guarantees, and favorable-to-consumer legal structures may lead organizations to have more confidence in cloud service, thereby fostering their trust in the reliability of cloud-based artifact. Organizations' beliefs on situation normality of cloud service make them anticipate benefits of using cloud service and generally feel comfortable working with cloud service. Thus, we hypothesize that:

H7: An organization's institution-based trust on cloud service has a positive impact on its IT artifact trust on cloud service.

4. RESEARCH METHODOLOGY

4.1 Measures and Data Collection

We used the survey method to test our model. We adapted the measures which have been validated in prior research and did minor modifications to fit the context of this study (see Appendix A). Entrepreneurial orientation and service transformation intention were measured using a five-point Likert scale and others were measured on a seven-point Likert scale. Thereafter, the questionnaire was reviewed for content

validity by a group of IS academics. Since the survey was administered in China, we translated the English questionnaire to Chinese and then back to English to ensure translation equivalence. After we have a pool of items, we conducted card sorting to prove the content validity and refine ambiguous wording. Interviews with several managers of SMEs and experts were also conducted to refine the questionnaire. Finally, a structured questionnaire was prepared for large-scale data collection.

The survey was launched in 2013. The questionnaire was intended for Chief Executive Officer (CEO) or Chief Information Officer (CIO) of SMEs. In SMEs, the CEOs and CIOs are the key persons in IT strategy decision making process. It is reasonable to consider their attitude towards cloud service as the most representative viewpoint of investigated companies. In order to generalize the findings, we collected our data from two areas, Yangtze River Delta and Pearl River Delta, which are surrounding the metropolis of Shanghai and Hong Kong, respectively. They are the most developed areas in China with the largest amount of SMEs, which makes them good representative areas for the study. The definition of SMEs in this study adheres to that of China's National Bureau of Statistics [78], which classifies an enterprise based on its number of employees and annual sales. The classification criteria are different across industries. We post-mailed the questionnaire along with a nice cover letter and a stamped return envelope to 795 SMEs that were randomly selected from a commercial database according to the SME classification in China. As economic incentives, e.g., coupons, may not be the major concern of CEO/CIO of organizations, we indicated a summary consultation report would be provided to reward the respondents in the cover letter. Two rounds of follow-up emails were sent to the identified enterprise contacts to remind the non-response SMEs every three weeks after the initial post-mail. Finally, we received 112 responses and excluded five responses because of either incompleteness or one number ticked for all questions. Therefore, we have 107 valid responses for data analysis. The characteristics of the participating SMEs are presented in Table 1.

Insert Table 1 Here

4.2 Common method bias & Non-response bias assessment

To minimize the likely common method bias that might be derived from a single-informant method, we took several precautions based on Podsakoff et al.'s [79] recommendations. First, we provided a psychological separation in our instrument with an introduction clarified that our survey pursued examining organizational behavior while not suggesting any link among the questions. Second, we organized the questions by interspersing the items for predictor and criterion variables, therefore achieving counterbalancing to the priming effect of the questions. We also used different scales to measure the predicting variables (7-point Likert scale) and criterion variables (5-point Likert scale) to reduce the potential common method bias.

Statistically, we relied on Harman's single-factor method to assess the common method bias. This approach consider common method bias is present if a single factor accounts for the majority of the covariance in the dependent and independent variables. Our factor analysis did not exhibit a single factor while eight factors extracted with an even distribution of their explained variances. Further, a partial correlation method was used, in which the variable extracting the highest variances from the factor analysis was entered as an additional independent variable. This variable did not cause a significant change in the variance explained in the dependent variables. In sum, the above tests suggest a low level of common method bias in this research.

Following Armstrong & Overton's approach [80], non-response bias among the informants was examined by comparing early informants with late informants assuming that last informants are more similar to non-informants. A three-week period was used as the dividing point between early informants and last informants because the first reminder emails were sent to non-informants after the initial post-mails and the second reminder emails did not recall any valid responses. The results of a t-test showed no significant difference in the means of all items between the two groups. Considering the received responses by mails may have a time delay, we further conducted robustness check by testing the difference between the early 15% responses and the late 15% responses. The t-test also indicated that there is no significant differences between the means of the items in the two groups. The above tests suggested that there was no large non-response bias in the data.

4.3 Data Analysis

The data analysis was done in a holistic manner using the Partial Least Squares (PLS) with the bootstrap re-sampling procedure. The PLS technique employs a component-based approach for model estimation and is best suited for testing complex structural model. The PLS technique was selected for three reasons: (1) the PLS technique allows for the simultaneous use of reflective and formative measurements; (2) it does not impose any normality requirements on the data; (3) it has advantages to estimate the model when the sample size is small to medium sample size [81]. Following the recommended two-stage analytical procedure [82], we tested the structural relationships after assessing the measurement model.

We include three control variables that potentially affect SMEs' transformation toward cloud service. First, the experience deficiency, which is defined as the scarcity of an organization's experience on using IT and the scarcity of its collaborative experience with IT vendors, may negatively affect their intentions to adopt IT innovations [83]. Therefore, we included SMEs' experience deficiency of their online information services as one control variable. The online information services are referred to the web-based Internet services [84]. Online information service is a broader concept than the innovative cloud service to reflect SMEs' prior experience with using Internet technologies. Next, the organizations' current IT capabilities will also influence their IT adoption transforming to cloud service [85]. Thus, we included the organizations' IT personnel (measured by the number of IT employees) and IT asset (measured by the number of computers per person) as two other control variables.

In regard to the effect of industry, we conducted the ANOVA to assess the mean difference of the dependent variable across industries. The result indicated an insignificant difference of the mean value of SMEs' intention of transformation toward cloud service. Therefore, we did not create the dummy industrial variables as additional control variables during the theoretical model testing.

4.5 Measurement Validation

The measurement model analysis results for all reflective constructs are listed in Table 2 and Table 3. Validation of the measurement model for reflective construct can be conducted by examining reliability, convergent validity, and discriminant validity. Composite reliability (CR) should be greater than 0.7 and average variance extracted (AVE) should be greater than 0.5 to show construct reliability [86]. Convergent validity could be achieved by checking whether the item loadings on the respective constructs are high enough (above 0.50) [87]. Discriminant validity can be assessed by checking whether the square root of AVE is higher than the correlation coefficient between the discussed construct and other constructs [86].

 Insert Table 2 Here

 Insert Table 3 Here

As showed in Table 2, CR for all the constructs are greater than 0.7, and all AVE values are greater than 0.5. The results indicate that all the reflective variables in this study met the criteria of reliability. As shown in Table 2, all item loadings are high enough to show their good convergent validity. As showed in Table 3, all square roots of AVE are greater than the correlation coefficient between the discussed construct and other constructs, showing a good discriminate validity of all the variables. It is noteworthy that we removed the item that measured the extent of which organization were adventuresome in risk-taking projects due to its low loading value (below 0.50). The subjects may not explicitly agree that adopting

° tΔΔ ? Δ X 徒

. The rest four measures for entrepreneurship can implicitly reflect the risk propensity of organizations, e.g., the initiative of wide-ranging acts and the bold efforts in exploiting opportunity[88]. The values in Table 2 & 3 were reported after the deletion of this item.

Institutional-based trust and IT artifact trust on cloud service were regarded as two formative second-order constructs. Institutional-based trust is formed by two reflective sub-constructs: structure assurance and situation normality. IT artifact trust is formed by three reflective sub-constructs: functionality, helpfulness, and reliability. They were treated as formative rather than reflective

second-order constructs because their sub-dimensions were not interchangeable and could not co-vary [89]. For formative second-order constructs, high loadings are not necessarily true and reliability assessments such as Cronbach's alpha and composite reliability are not applicable. The weight of each item can be used to assess how much it contributes to the overall factor [90]. The weight of each formative item is shown in Figure 2.

5. RESULTS

For the structural model testing, we used a two-step hierarchical analytic method to test two models, including a baseline model and a full model. In the baseline model, only entrepreneurial orientation and institutional pressures together with control variables are included. The results show that entrepreneurial orientation and institutional pressures have significant direct effects on SMEs' transformation intention to cloud service, supporting our two basic hypotheses H1 & H3 (see Table 4).

Figure 2 presents the results of the full model testing. Table 4 summarizes the results of the tested paths for the hypotheses. The results show that entrepreneurial orientation, institutional pressures, and the trust-building process can interpret 28.1% of SMEs transformation intention to cloud service. Most hypotheses are empirically supported by the sample, except that the hypothesized relationships of entrepreneurship and IT artifact trust, institution-based trust and cloud service transformation, are found insignificant, H2b and H5 not supported. We further separately evaluated the statistical difference of some relationship pairs by adopting the method suggested by Chin et al. [81] and Pavlou & Dimoka [29]. The comparison results are also shown in Table 4. All control variables were found with insignificant effects on the dependent variables in both the baseline model and the full model.

Insert Figure 2 Here

Insert Table 4 Here

We have four key findings from the structural model assessment. The first key finding is about the significant but different influences from internal and external sources of substantive rationalities on SMEs' two types of trust building. Both organizations' entrepreneurship and their perceived institutional pressures have greater impacts on their institutional-based trust on cloud service than the IT artifact trust on cloud service. From the analysis results, we found that entrepreneurial orientation in a firm has a significant positive effect ($\beta = 0.195$, $p < 0.05$) on its building of institution-based trust on cloud service (H2a supported), but presenting an insignificant effect ($\beta = 0.088$, n.s) on the trust of cloud service artifact (H2b not supported). We infer that entrepreneurial SMEs generally tend to trust external environment surrounding cloud service, as cloud service presents a new paradigm of IT innovation and becomes an IT fashion. We also found that institutional pressures have significant positive effects on both SMEs' institution-based trust and IT artifact trust on cloud service (H4a and H4b supported). Further, institutional pressures exert a greater impact on institution-based trust ($\beta = 0.560$, $p < 0.01$) over the IT artifact trust ($\beta = 0.282$, $p < 0.01$) in significantly different magnitudes of path coefficients ($t = 2.487$, $p < 0.05$). Notably, SMEs' perceptions on the institutional pressures from their communication network can improve their trusting beliefs on the structure assurance and situation normality of transforming toward cloud service much more than their recognitions on the perception on attributes of IT innovation.

We further compared the impacts of entrepreneurial orientation versus institutional pressures on organizations' trust building. We found SMEs' perceptions of institutional pressures consistently exert significantly greater impacts on both types of trust building than their internal nurtured entrepreneurship. As shown in Table 4, institutional pressures not only present a greater impact on institution-based trust ($\beta = 0.560$, $p < 0.01$) than that entrepreneurial orientation has ($\beta = 0.195$, $p < 0.05$) in a significantly different magnitude ($t = 3.160$, $p < 0.01$), but also present a greater impact on IT artifact trust ($\beta = 0.286$, $p < 0.01$) than that entrepreneurial orientation has ($\beta = 0.088$, n.s) in a marginally significant difference ($t = 1.932$, $p < 0.1$). The stronger influence of institution pressures on the SMEs' trust building implies that SMEs are

more sensitive to the changing external environment and more likely to be involved in the IT fashion due to the social contagion in their communication network.

The second key finding is related to the distinguished roles that the two types of trust play in SMEs' transformation toward cloud service. While SMEs' institution-based trust is found to have an insignificant effect on their cloud service transformation intention (H5 not supported), IT artifact trust is found to have a significant positive effect on the SMEs' transformation intention to cloud service with a magnitude of 0.305 (H6 supported). Such results indicate that SMEs are more likely to perform the cloud service transformation when they trust the cloud artifacts have necessary attributes as they expect. Further, we found institution-based trust has a significant positive effect on IT artifact trust (H7 supported) and has an indirect impact on cloud service transformation with a full mediation of IT artifact trust. This full mediation effect implies that organizations might build trust in a sequence when they make a strategic transformation decision. They tend to first scan the cloud-oriented marketplace then turn to evaluate the technical attributes of cloud service artifact. This full mediation effect is also a plausible explanation of the insignificant H5.

The third key finding is about the prioritized contributions of the components to their corresponding type of trust. For the institution-based trust, both structure assurance and situation normality are found significantly form the concept of institution-based trust (see Figure 2). Situation normality exhibits a greater contribution to institution-based trust than structure assurance. This implies that when a management fashion on cloud service presents, SMEs care more about the normality with others rather than scanning the structure assurance of the cloud service marketplace. Such an unbalanced contribution might also be due to the sample from China, as Zhou et al. [91] have found that Chinese firms tend to behave as similar as others and adopt a mimetic strategy.

Last, when we check the contributions of three attributes to IT artifact trust, we found that helpfulness and reliability contribute significantly to IT artifact trust on cloud service, but functionality insignificantly contributes to the IT artifact trust. There are three possible reasons. (1) Helpfulness and reliability are important concerns for SMEs to mitigate the uncertainty of using IT innovations. (2) Helpfulness and

reliability are easy to be evaluated by users in a generic way, while functionality may require cloud users to have a deep thought of cloud service's specificity. (3) The functions of innovative cloud service can be plugged in a flexible way, thus SMEs may not ensure their functional needs of cloud service or may not prioritize the functionality when they build the initial trust on cloud service artifact. Nevertheless, the insignificant contribution of cloud service functionality to SMEs' trust building implies that having the right information, data and credible services is more important than the right functionality for successful deployment of cloud service.

Overall, our results indicate the mediation roles of institution-based trust and IT artifact trust that link SMEs' entrepreneurial orientation and institutional pressures to their cloud service transformation intention. The results suggest that the complex trust building is one underlying interpretive mechanism of how an organization's strategic choice and management fashion can result in IT innovation acceptance and diffusion. Trust building shapes the realization of organizations' substantive rationality stemming from their strategic orientation as well as the institutional pressures. It is noteworthy that when an organization has a strong entrepreneurship and ascertain to the IT innovation, it may directly decide to embrace the IT innovation, regarding which our results show a partial mediation effect of the trust building between entrepreneurial orientation and cloud service transformation intention. However, the effect of external stimuli from institutional pressures on SMEs' transformation intention is fully mediated by the two types of trust building. This implies that IT fashion may stimulate SMEs to keep an eye on the IT innovation of cloud service. Its effect shall stand on SMEs' trust building on the cloud service marketplace and artifact.

6. DISCUSSIONS

6.1 Theoretical Implications

This study entails three theoretical contributions to the existing literature. First, this study investigates SMEs' cloud service transformation from both strategic choice and management fashion perspectives, adding values to IT innovation acceptance and diffusion research. Fichman [48] criticized the IT innovation acceptance and diffusion research has been under the dominant paradigm that assumes organizations with a

greater quantity of “Right stuff” (e.g., needs, ability) exhibit a greater extent to adopt the IT innovations. Similarly, the extant literature of cloud service adoption is drawn on the assumption of organizations’ formal means-end rationality, ignoring the substantive rationality of organizations, especially for SMEs. This research goes beyond the dominant paradigms that highlight the determinants derived from the technologies such as the TOE framework and DOI theory when organizations are certain about the technologies. This research brings new aspects to investigate the innovative cloud service transformation by combining the strategic choice theory that emphasizes the the inherent strategic intent of organizations and the management fashion theory that acknowledges the social rationality of organizations. Organizations’ entrepreneurship can generate internal motives for organizations to embrace IT innovations, whereas IT fashion nurtures normative pressures for organizations to transform toward the IT innovation enabled business environment. In face of IT innovations with technological and/or business uncertainties, both of them help organizations to remove or mitigate the hesitation on accepting IT innovations.

Second, we compared the impacts of the two key drivers (entrepreneurial orientation and institutional pressures) on SMEs’ trusting building of cloud service and their transformation intention and found institutional pressures generally exhibit greater impacts. On the one hand, our study confirms the importance of strategic intent for IT innovation acceptance and diffusion. Organizations’ entrepreneurship exerts a strong direct impact on their strategic decision. On the other hand, our empirical investigation illustrates that management fashion takes a more significant role in provoking organizations’ transformation toward IT innovations, especially for those SMEs that may have limited IT knowledge and abilities. This finding enriches the management studies on organizational rationalization by distinguishing different sources of substantive rationality and their impacts. The substantive rationality rooted in institutional pressures play a crucial role in their acceptance of the cloud service to alleviate uncertainties. Meanwhile, the substantive rationality derived from organizational ideology (e.g., entrepreneurial orientation) is more likely to put a straightforward effect on the IT innovation acceptance.

Third, this study unfolds a mediation effect of trust building that links SMEs' entrepreneurship and institutional pressures to their transformation toward cloud service. The substantive rationality of organizations should be realized by a trust building process. Our results further suggest that such a trust building process should be considered from dual aspects. Both institution-based trust and IT artifact trust are influential for organizations' transformation toward IT innovations and they are interactive. Although trust has been extensively used to explain IT acceptance, seldom has research taken both of the aforementioned types of trust into consideration. Note that SMEs in the situation of cloud service led fashion, the institutional pressures from the community requests SMEs to establish the trust on the cloud situation, such as the situation normality and structural assurance. The institution-based trust affects organizations' trust on the cloud service artifact. The empirical results discovered there was a nested mediation path which needs a further validation through a longitudinal research. Moreover, this study empirically verifies the appropriateness of second-order conceptualization of both types of trust in cloud service context. This conceptualization validation is especially important for the emerging concept of IT artifact trust.

6.2 Managerial Implications

As the cloud service market has tremendous business potential, research on this phenomenon is of critical value. For cloud service vendors, this study has the potential to provide some insights on offering services effectively. Organizational users of cloud service and the service market regulators can also grab insights to deal with this new IT innovation wave.

First of all, service vendors should recognize the importance of providing reliable services, as trust in IT artifact has the direct impact on transformation. When a new IT innovation needs to be diffused in SMEs, IT artifact trust should be established to accelerate its diffusion. The critical role of IT artifact trust in IT innovation acceptance is of great importance for vendors, given that the artifact is mostly under the control of vendors and can be more easily improved than other factors. Specifically, since the more IT artifact trust SMEs have about cloud service the more likely they intend to transform to cloud service, it is important for

cloud service vendors to emphasize the helpfulness and reliability of their products. Helpfulness is the most important factor for IT artifact trust. To improve helpfulness, cloud service vendors should enhance communication with their customers to provide adequate, effective and responsive help. To enhance users' impression of cloud service reliability, cloud service vendors can try to receive accreditation from reputable organizations. For example, cloud service vendors can establish cooperative relationships with reputable companies in the IT service field. Cloud service vendors can also articulate clear policies for information processing and develop security technologies to alleviate organizational users' concern on reliability.

Second, cloud service vendors should pay attention to external influence outside of the organizational users, from the perspective of management fashion. The vendors should understand that institutional pressures strongly affect organizations' trust building on cloud service, especially for SMEs who may not have much knowledge on the new technology and service. IT innovation evaluation from entities participating in users' business activities is influential for users' attitude formation during the early diffusion stage of IT innovation. Accordingly, cloud service vendors should establish a win-win marketing strategy alliance with their existing users to attracting potential clients. In the same vein, cloud service vendors should also encourage their end users to exchange information with other entities in their communication network and invite potential users to promotional activities such as IT industry trade or IT professional events to facilitate communications with end users.

Third, tactically, cloud service vendors can target more proactive organizations as customers to get the initial customer base. Our study demonstrates that an organization with more entrepreneurship is more likely to accept the technological innovation and intend to transform into the new paradigm. Thus, when cloud service is in its early diffusion stage, the service vendors can first target those entrepreneurial organizations to form the management fashion of using cloud service, and then provoke faster service diffusion to other users via the social contagion mechanism. From organizational users' perspective, the effect of organizations' strategic orientation on service transformation implies the appropriateness of encouraging the organizations to cultivate entrepreneurship and to be more proactive, innovative, and

risk-taking. Such strategic orientation can help organizations to make decisions on accepting the innovative IT initiatives, as well as help to speed up the IT innovation absorption within the organizations.

For cloud service market regulators or government, our study supplies some insights of governing the cloud service market. Since institution-based trust has a significant effect on IT-artifact trust, structure assurance and situation normality should be established to facilitate IT innovation diffusion. The regulators or government can consider regulating the cloud service market by providing the trustable structural assurance such as promises, contracts, regulations, and guarantees of cloud service. The market regulators or authorized governmental department can also do some propaganda to form a strong management fashion of cloud service. As such, the organizational users may easily perceive the situation normality. Both structure assurance and situation normality will facilitate organizations' trust building on the cloud service.

6.3 Limitations

This study is not immune from limitations. First, the cross-sectional survey design constraints the extent of theories we can study. For example, our data analysis teased out a mediation effect among two types of trust which suggests a possible sequential influential path during SME's decision process: SME's inherent entrepreneurship and cloud fad led institutional pressures to SMEs' building of trust on the situation and further to their trust on cloud-based artifacts, ultimately to SMEs' intention of transformation toward cloud service. However, this finding can be only a conjecture derived from the cross-sectional data we collected. A longitudinal research design is needed to verify this plausible sequential mediation effect.

Second, the data merely collected from Chinese SMEs may limit the population generalizability of this research. Although the cloud computing market in China exhibits great attractiveness, the diffusion of the innovative cloud service is still in its early stage [12]. Many organizations might not have adequate knowledge of cloud service options. Also, China has a salient collective culture. All these might enlarge the salience of management fashion on organizations' transformation intention of cloud service in China market. The generalizability of such findings to other economies is challenged. The validations of our

research model should be based on the sample with a higher level of variety. Therefore, replication of the survey in other economies with different market conditions and national cultures would be beneficial.

Third, this study is focused on SMEs' intention of transformation toward cloud service but not cover the actual use of cloud service. Regarding the increasing number of SMEs adopting cloud services, a longitudinal research should be designed to follow SMEs' actual use after cloud service adopters reach a critical mass. A dichotomous prediction model with a mediation path can be used to further test the determinants that could affect the actual cloud service usage among SMEs and how would the influential paths might be in a different innovation diffusion stage.

7. CONCLUSION

In this research, drawing on strategic choice theory, management fashion theory, and trust literature, we developed and tested an IT innovation transformation model in the context of cloud service. Our research model explicates how institution-based trust and IT artifact trust on cloud service mediate the influences of entrepreneurial orientation and institutional pressures on organizations' transformation intention toward cloud service. Analyses based on 107 SMEs largely support the hypothesized relationships. Thus, our research adds value to IT innovation acceptance and diffusion literature as well as enriches the IS trust literature. Regarding the research context of cloud service, this study fills the research gap that little theoretical and empirical study about cloud service has been done until now. As cloud service is flourishing worldwide, the deep understanding of organizations' cloud service transformation intention in this study provides important insights for both cloud service vendors and users. Future longitudinal research to cover SMEs' post-adoption behavior on cloud service may generate more insights to understand SMEs' transformation toward the revolutionary cloud service along the innovation diffusion lifecycle.

REFERENCES

- [1] P. Mell, T. Grance, Draft NIST working definition of cloud computing, Referenced on June. 3rd (2009).

- [2] M. Carcary, E. Doherty, G. Conway, S. McLaughlin, Cloud computing adoption readiness and benefit realization in irish smes - An exploratory study, *Information Systems Management*, 31 (2014) pp.313-327.
- [3] P. Gupta, A. Seetharaman, J.R. Raj, The usage and adoption of cloud computing by small and medium businesses, *International Journal of Information Management*, 33 (2013) pp.861-874.
- [4] X. Zheng, Z. Qin, *The 2013 Yearbook of China Small and Medium Enterprises*, Enterprise Management Press, Beijing, 2014. (In Chinese)
- [5] Z. Diamadi, A. Dubey, D. Pleasance, A. Vora. (2011). *Winning in the SMB cloud: Charting a path to success*: New York: McKinsey & Company.
- [6] A. Aljabre, Cloud computing for increased business value, *International Journal of Business and Social Science*, 3 (2012) pp.234-239.
- [7] M.C. Lacity, P. Reynolds, Cloud services practices for small and medium-sized enterprises, *MIS Quarterly Executive*, 13 (2014) pp.31-44.
- [8] J. Salmeron, S. Bueno, An IT and IS industry-based classification of SMEs: An institutional view, *European Journal of Operational Research*, 173 (2006) pp.1012-1025.
- [9] K.K.Y. Kuan, P.Y.K. Chau, A perception-based model for edi adoption in small businesses using a technology-organization-environment framework, *Information & Management*, 38 (2001) pp.507-521.
- [10] C. Street, D. Meister, Small business growth and internal transparency, the role of information systems, *MIS Quarterly*, 28 (2004) pp.473-506.
- [11] M. Armbrust, A. Fox, R. Griffith, A.D. Joseph, R. Katz, A. Konwinski, G. Lee, D. Patterson, A. Rabkin, I. Stoica, A view of cloud computing, *Communications of the ACM*, 53 (2010) pp.50-58.
- [12] N. Kshetri, Institutional and economic factors affecting the development of the chinese cloud computing industry and market, *Telecommunications Policy*, 40 (2016) pp.116-129.
- [13] T. Oliveira, M. Thomas, M. Espadanal, Assessing the determinants of cloud computing adopting: An analysis of the manufacturing and services, *Information & Management*, 51 (2014) pp.497-510.
- [14] C. Low, Y. Chen, M. Wu, Understanding the determinants of cloud computing adoption, *Industrial Management & Data Systems*, 111 (2011) pp.1006-1023.
- [15] M. Weber. (1978). *Economy and Society*. In G. Roth C. Wittich (Eds). Berkeley: University of California Press.
- [16] S. Kalberg, Max weber's types of rationality: Cornerstones for the analysis of rationalization processes in history, *American Journal of Sociology*, 85 (1980) pp.1145-1179.
- [17] B. Townley, The role of competing rationalities in institutional change, *Academy of Management Journal*, 45 (2002) pp.163-179.
- [18] H. Aronovitch, Interpreting Weber's ideal-types, *Philosophy of the Social Sciences*, 42 (2012) pp.356-369.
- [19] P. Quattrone, Governing social orders, unfolding rationality, and Jusuit accounting practices: A procedural approach to institutional logics, *Administrative Science Quarterly*, 60 (2015) pp.411-445.
- [20] R.F. Hurley, G.T.M. Hult, Innovation, market orientation, and organizational learning: An integration and empirical examination, *Journal of Marketing*, 62 (1998) pp.42-54.
- [21] R.T. Frambach, N. Schillewaert, Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research, *Journal of Business Research*, 55 (2002) pp.163-176.
- [22] H. Gintis, Homo ludens: Social rationality and political behavior, *Journal of Economic Behavior & Organization*, 126 (2016) pp.95-109.
- [23] P.J. DiMaggio, W.W. Powell, The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields, *American Sociological Review*, 48 (1983) pp.147-160.
- [24] P. Wang, Chasing the hottest it: Effects of information technology fashion on organizations, *MIS Quarterly*, 34 (2010) pp.63-85.
- [25] E.M. Rogers, *Diffusion of innovations*, Free Press, New York, 1983.

- [26] H.-H. Teo, K.K. Wei, I. Benbasat, Predicting intention to adopt interorganizational linkages: An institutional perspective, *MIS Quarterly*, 27 (2003) pp.19-49.
- [27] N. Kshetri, Privacy and security issues in cloud computing: The role of institutions and institutional evolution, *Telecommunications Policy*, 37 (2013) pp.372-386.
- [28] P.A. Pavlou, Institution-based trust in interorganizational exchange relationships: The role of online B2B marketplaces on trust formation, *Journal of Strategic Information Systems*, 11 (2002) pp.215-243.
- [29] P.A. Pavlou, A. Dimoka, The nature and role of feedback text comments in online marketplaces: Implications for trust building, price premiums, and seller differentiation, *Information Systems Research*, 17 (2006) pp.392-414.
- [30] P.A. Pavlou, D. Gefen, Building effective online marketplaces with institution-based trust, *Information Systems Research*, 15 (2004) pp.37-59.
- [31] E.B. Swanson, Information systems innovation among organizations, *Management Science*, 40 (1994) pp.1069-1092.
- [32] C.M. Angst, R. Agarwal, V. Sambamurthy, K. Kelley, Social contagion and information technology diffusion: The adoption of electronic medical records in US hospitals, *Management Science*, 56 (2010) pp.1219-1241.
- [33] J. Child, Organizational structure, environment and performance: The role of strategic choice, *Sociology*, 6 (1972) pp.1-22.
- [34] J. Child, Strategic choice in the analysis of action, structure, organizations and environment: Retrospect and prospect, *Organization Studies*, 18 (1997) pp.43-76.
- [35] R.E. Miles, C.C. Snow, A.D. Meyer, H.J. Coleman, Organizational strategy, structure, and process, *Academy of Management Review*, 3 (1978) pp.546-562.
- [36] B.L. Dos Santos, K. Peffers, Rewards to investors in innovative information technology applications: First movers and early followers in ATMs, *Organization Science*, 6 (1995) pp.241-259.
- [37] H. Gatignon, J.-M. Xuereb, Strategic orientation of the firm and new product performance, *Journal of Marketing Research*, 34 (1997) pp.77-90.
- [38] S. Chatterjee, S. Chakraborty, S. Sarker, S. Sarker, F.Y. Lau, Examining the success factors for mobile work in healthcare: A deductive study, *Decision Support Systems*, 46 (2009) pp.620-633.
- [39] K.Z. Zhou, C.K. Yim, D.K. Tse, The effects of strategic orientations on technology- and market-based breakthrough innovations, *Journal of Marketing*, 69 (2005) pp.42-60.
- [40] T.M. Begley, Using founder status, age of firm, and company growth rate as the basis for distinguishing entrepreneurs from managers of smaller businesses, *Journal of Business Venturing*, 10 (1995) pp.249-263.
- [41] W.H. Stewart, W.E. Watson, J.C. Carland, J.W. Carland, A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners, and corporate managers, *Journal of Business venturing*, 14 (1999) pp.189-214.
- [42] J. Wiklund, D. Shepherd, Knowledge - based resources, entrepreneurial orientation, and the performance of small and medium - sized businesses, *Strategic Management Journal*, 24 (2003) pp.1307-1314.
- [43] D. Miller, The correlates of entrepreneurship in three types of firms, *Management Science*, 29 (1983) pp.770-791.
- [44] S.F. Slater, J.C. Narver, Market orientation and the learning organization, *Journal of Marketing*, 59 (1995) pp.63-74.
- [45] J.L. Naman, D.P. Slevin, Entrepreneurship and the concept of fit: A model and empirical tests, *Strategic Management Journal*, 14 (1993) pp.137-153.
- [46] G.T.M. Hult, D.J. Ketchen Jr, Does market orientation matter? A test of the relationship between positional advantage and performance, *Strategic Management Journal*, 22 (2001) pp.899-906.
- [47] J.G. Covin, D.P. Slevin, The development and testing of an organizational-level entrepreneurship scale, *Frontiers of Entrepreneurship Research*, 1 (1986) pp.626-639.

- [48] R.G. Fichman, Going beyond the dominant paradigm for information technology innovation research: Emerging concepts and methods, *Journal of the Association for Information Systems*, 5 (2004) pp.314-355.
- [49] E. Abrahamson, Managerial fads and fashions: The diffusion and rejection of innovations, *Academy of Management Review*, 16 (1991) pp.586-612.
- [50] E. Abrahamson, G. Fairchild, Management fashion: Lifecycles, triggers, and collective learning processes, *Administrative Science Quarterly*, 44 (1999) pp.708-740.
- [51] P.P. Carson, P.A. Lanier, K.D. Carson, B.N. Guidry, Clearing a path through the management fashion jungle: Some preliminary trailblazing, *Academy of Management Journal*, 43 (2000) pp.1143-1158.
- [52] E. Abrahamson, Management fashion, *Academy of Management Review*, 21 (1996) pp.254-285.
- [53] D. Strang, N.B. Tuma, Spatial and temporal heterogeneity in diffusion, *American Journal of Sociology*, 99 (1993) pp.614-639.
- [54] D. Strang, S.A. Soule, Diffusion in organizations and social movements: From hybrid corn to poison pills, *Annual Review of Sociology*, 24 (1998) pp.265-290.
- [55] H. Liang, N. Saraf, Q. Hu, Y. Xue, Assimilation of enterprise systems: The effect of institutional pressures and the mediating role of top management, *MIS Quarterly*(2007) pp.59-87.
- [56] E.B. Swanson, N.C. Ramiller, Innovating mindfully with information technology, *MIS Quarterly*, 28 (2004) pp.553-583.
- [57] P. Wang, N.C. Ramiller, Community learning in information technology innovation, *MIS Quarterly*, 33 (2009) pp.709-734.
- [58] R.C. Mayer, J.H. Davis, F.D. Schoorman, An integrative model of organizational trust, *Academy of Management Review*, 20 (1995) pp.709-734.
- [59] D.H. McKnight, L.L. Cummings, N.L. Chervany, Initial trust formation in new organizational relationships, *Academy of Management Review*, 23 (1998) pp.473-490.
- [60] D.H. McKnight, V. Choudhury, C. Kacmar, Developing and validating trust measures for e-commerce: An integrative typology, *Information Systems Research*, 13 (2002) pp.334-359.
- [61] F. Bélanger, L. Carter, Trust and risk in e-government adoption, *Journal of Strategic Information Systems*, 17 (2008) pp.165-176.
- [62] C.L. Corritore, B. Kracher, S. Wiedenbeck, On-line trust: Concepts, evolving themes, a model, *International Journal of Human-Computer Studies*, 58 (2003) pp.737-758.
- [63] W. Wang, I. Benbasat, Attributions of trust in decision support technologies: A study of recommendation agents for e-commerce, *Journal of Management Information Systems*, 24 (2008) pp.249-273.
- [64] D.H. McKnight, M. Cater, J.B. Thatcher, P.F. Clay, Trust in a specific technology, *ACM Transactions on Management Information Systems*, 2 (2011) pp.1-24.
- [65] S.Y.X. Komiak, I. Benbasat, The effects of personalization and familiarity on trust and adoption of recommendation agents, *MIS Quarterly*, 30 (2006) pp.941-960.
- [66] W. Wang, I. Benbasat, Trust in and adoption of online recommendation agents, *Journal of the Association for Information Systems*, 6 (2005) pp.72-101.
- [67] X. Li, T.J. Hess, J.S. Valacich, Why do we trust new technology? A study of initial trust formation with organizational information systems, *Journal of Strategic Information Systems*, 17 (2008) pp.39-71.
- [68] D. Chatterjee, R. Grewal, V. Sambamurthy, Shaping up for e-commerce: Institutional enablers of the organizational assimilation of web technologies, *MIS Quarterly*, 26 (2002) pp.65-89.
- [69] G.T. Lumpkin, G.G. Dess, Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review*, 21 (1996) pp.135-172.
- [70] G.G. Bell, R.J. Oppenheimer, A. Bastien, Trust deterioration in an international buyer-supplier relationship, *Journal of Business Ethics*, 36 (2002) pp.65-78.
- [71] G.R. Carroll, M.T. Hannan, Density dependence in the evolution of populations of newspaper organizations, *American Sociological Review*, 54 (1989) pp.524-541.

- [72] J.W. Meyer, B. Rowan, Institutionalized organizations: Formal structure as myth and ceremony, *American Journal of Sociology*, 83 (1977) pp.340-363.
- [73] E. Mansfield, Technical change and the rate of imitation, *Econometrica: Journal of the Econometric Society*, 29 (1961) pp.741-766.
- [74] M.L. Katz, C. Shapiro, Network externalities, competition, and compatibility, *American Economic Review*, 75 (1985) pp.424-440.
- [75] D.H. McKnight, N.L. Chervany, What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology, *International Journal of Electronic Commerce*, 6 (2001) pp.35-59.
- [76] L.G. Zucker, Production of trust: Institutional sources of economic structure, 1840-1920, *Research in Organizational Behavior*, 8 (1986) pp.53-111.
- [77] X. Luo, H. Li, J. Zhang, J. Shim, Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services, *Decision Support Systems*, 49 (2010) pp.222-234.
- [78] China's National Bureau of Statistics, Provisions on the standards for classification of small and medium-sized enterprises. (2012). Retrieved from: http://english.gov.cn/official/2012-01/20/content_2050104.htm
- [79] P.M. Podsakoff, S.B. MacKenzie, N.P. Podsakoff, Common method biases in behavioral research: A critical review of the literature and recommended remedies, *Journal of Applied Psychology*, 88 (2003) pp.879-903.
- [80] J.S. Armstrong, T.S. Overton, Estimating nonresponse bias in mail surveys, *Journal of Marketing Research*, 14 (1977) pp.396-402.
- [81] W.W. Chin, B.L. Marcolin, P.R. Newsted, A partial least squares latent variable modeling approach for measuring interaction effects: Results from a monte carlo simulation study and an electronic-mail emotion/adoption study, *Information Systems Research*, 14 (2003) pp.189-217.
- [82] J.C. Anderson, D.W. Gerbing, Structural equation modelling in practice: A review and recommended two-step approach, *Psychological Bulletin*, 103 (1988) pp.41-423.
- [83] D. Gefen, S. Wyss, Y. Lichtenstein, Business familiarity as risk mitigation in software development outsourcing contracts, *MIS Quarterly*, 32 (2008) pp.531-551.
- [84] J.-C. Oh, S.-J. Yoon, Predicting the use of online information services based on a modified utaut model, *Behaviour & Information Technology*, 33 (2014) pp.716-729.
- [85] K. Zhu, K. Kraemer, Post-adoption variations in usage and value of e-business by organizations: Cross-country evidence from the retail industry, *Information Systems Research*, 16 (2005) pp.61-84.
- [86] C. Fornell, D.F. Larcker, Evaluating structural equation models with unobservable variables and measurement error, *Journal of Marketing Research*, 18 (1981) pp.39-50.
- [87] B.H. Wixom, H.J. Watson, An empirical investigation of the factors affecting data warehousing success, *MIS Quarterly*, 25 (2001) pp.17-41.
- [88] G.T.M. Hult, D.J. Ketchen, Does market orientation matter?: A test of the relationship between positional advantage and performance, *Strategic Management Journal*, 22 (2001) pp.899-906.
- [89] S. Petter, D. Straub, A. Rai, Specifying formative constructs in information systems research, *MIS Quarterly*, 31 (2007) pp.623-656.
- [90] W.W. Chin, The partial least squares approach to structural equation modeling, *Modern Methods for Business Research*, 295 (1998) pp.295-336.
- [91] K.Z. Zhou, K.T. David, J.J. Li, Organizational changes in emerging economies: Drivers and consequences, *Journal of International Business Studies*, 37 (2006) pp.248-263.
- [92] V. Venkatesh, M.G. Morris, G.B. Davis, F.D. Davis, User acceptance of information technology: Toward a unified view, *MIS Quarterly*(2003) pp.425-478.

Appendix A: Research variables and measures

Constructs	Items
Cloud Service Transformation Intention (Venkatesh et al., 2003)	<ol style="list-style-type: none"> 1. Our company intends to cloud service in the next three years. 2. We predict we would use cloud service in the next three years. 3. We plan to use cloud service in the next three years.
Entrepreneurial Orientation (Naman & Slevin, 1993 and Hult & Ketchen Jr, 2001)	<ol style="list-style-type: none"> 1. We believe wide-ranging acts are necessary to achieve our objectives. 2. We initiate actions to which other organizations respond. 3. We are fast to introduce new products and services to the marketplace. 4. We are bold in our efforts to maximize the probability of exploiting opportunities. 5. We have a strong proclivity for high-risk projects (removed for structural model analysis due to the low loading value).
Institutional pressures (Liang et al., 2007)	<ol style="list-style-type: none"> 1. Some of our clients have already used cloud service. 2. Some of our suppliers have already used cloud service. 3. Some of our leading peers have already used cloud service.
Structural Assurance (McKnight et al., 2011)	<ol style="list-style-type: none"> 1. We are okay using cloud service because they are backed by vendor protections. 2. Service guarantees make it feel all right to use cloud service. 3. Favorable-to-consumer legal structures help us feel safe working with cloud service. 4. Having the backing of legal statutes and processes make us feel secure in using cloud service.
Situation Normality (McKnight et al., 2011)	<ol style="list-style-type: none"> 1. We feel totally comfortable working with cloud service. 2. We feel very good about how things going when we use cloud service. 3. We always feel confident that the right thing will happen when we use cloud service. 4. It appears that things will be fine when we utilize cloud service.
Helpfulness (McKnight et al., 2011)	<ol style="list-style-type: none"> 1. Cloud service provides whatever help we need. 2. Cloud service provides competent guidance when we need. 3. Cloud service provides very sensible and effective advice if we need
Reliability (McKnight et al., 2011)	<ol style="list-style-type: none"> 1. Cloud service is a very reliable information service mode. 2. Cloud service does not fail us. 3. Cloud service does not malfunction for us.
Functionality (McKnight et al., 2011)	<ol style="list-style-type: none"> 1. Cloud service has the functionality we need. 2. Cloud service has the features required for our tasks. 3. Cloud service has the ability to do what we want it to do.
Experience Deficiency (Gefen et al.2008)	<ol style="list-style-type: none"> 1. We have seldom used online information service before. 2. We have seldom collaborated with the online information service vendors.

Table 1: Characteristics of Participating SMEs

Business Sector	%	Employee Number	%	Annual Sales (RMB Million)	%
Manufacturing	55	0-50	54	0-1	20
Retail and wholesale	13	51-100	18	1.01-5	29
Business service	8	101-200	14	5.01-10	7
Agriculture, forestry, husbandry and fishery	7	201-500	14	10.01-20	16
Construction & Transportation	7			Above 20	14
Real estate	4				
Others	6				

Table 2: Reliabilities, AVEs, and Item loadings

Constructs	Items	Loadings	<i>t</i> -statistics
Cloud Service Transformation Intention (CR=0.936, AVE=0.829)	CTI1	0.908	35.297
	CTI2	0.892	31.106
	CTI3	0.931	49.861
Entrepreneurial Orientation (CR=0.792, AVE=0.500)	EO1	0.764	10.761
	EO2	0.528	3.455
	EO3	0.649	4.450
	EO4	0.833	15.253
Institutional Pressures (CR=0.898, AVE=0.747)	IP1	0.868	7.898
	IP2	0.870	8.117
	IP3	0.854	14.546
Structural Assurance (CR=0.910, AVE=0.717)	SA1	0.807	14.481
	SA2	0.856	23.230
	SA3	0.882	19.302
	SA4	0.840	13.449
Situation Normality (CR=0.867, AVE=0.627)	SN1	0.808	10.810
	SN2	0.899	19.632
	SN3	0.882	31.879
	SN4	0.517	3.313
Functionality (CR=0.926, AVE=0.806)	FUNC1	0.898	18.082
	FUNC2	0.918	28.176
	FUNC3	0.877	16.810
Helpfulness (CR=0.937, AVE=0.833)	HELP1	0.900	34.860
	HELP2	0.925	54.911
	HELP3	0.913	33.655
Reliability (CR=0.905, AVE=0.761)	RELI1	0.886	10.995
	RELI2	0.869	8.301
	RELI3	0.863	7.074
Experience Deficiency (CR=0.867, AVE=0.765)	ED1	-0.862	3.903
	ED2	-0.887	3.219

Table 3: Means, Standard deviations, and Correlations of Constructs

Constructs	Mean	Std. Dev	CTI	EO	IP	SA	SN	FUNC	HELP	RELI	ED	ITP	ITA
CTI	3.542	0.802	0.910										
EO	3.534	0.623	0.454***	0.707									
IP	4.931	1.078	0.367**	0.330**	0.864								
SA	4.856	1.091	0.354**	0.308**	0.463***	0.847							
SN	4.745	0.933	0.373**	0.324***	0.633***	0.697***	0.792						
FUNC	4.710	1.054	0.346**	0.164	0.506***	0.613***	0.607***	0.898					
HELP	5.056	1.085	0.474***	0.373**	0.660***	0.606***	0.737***	0.733***	0.913				
RELI	4.259	1.086	0.227*	0.156	0.435***	0.493***	0.574***	0.691***	0.514***	0.872			
ED	4.171	1.234	-0.054	-0.169	-0.036	-0.146	-0.185*	-0.121	-0.102	-0.154	0.875		
ITP	9.063	18.970	0.124	0.124	0.038	0.055	0.149	0.101	0.108	0.215	0.147	1.000	
ITA	0.620	0.437	-0.065	-0.101	0.030	-0.003	0.030	-0.074	-0.020	-0.154	0.111	-0.186*	1.000

a. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

b. The bold numbers in the diagonal row are square roots of average variance extracted.

c. CTI = Cloud service transformation intention; EO = Entrepreneurial orientation; IP = Institutional pressure; SA = Structure assurance; SN = Situation normality; FUNC = Functionality; HELP = Helpfulness; RELI = Reliability; ED = Experience deficiency; ITP = IT personnel; ITA = IT asset.

Table 4: Summary of tests of model paths and Comparison of path coefficients

Test path	β	<i>t</i> -statistic	Support?	Comparison of paths	<i>t</i> -statistic
Baseline model (Direct effects only)					
H1: EO → CTI	0.365	4.467***	Yes	EO → IBT vs. EO → IAT	1.001
H3: IP → CTI	0.246	2.853***	Yes		
Full model (Direct and indirect effects)					
H1: EO → CTI	0.259	2.508**	-	EO → IBT vs. EO → IAT	1.023
H3: IP → CTI	0.068	0.837(n/s)	-	IP → IBT vs. IP → IAT	2.487**
H2a: EO → IBT	0.195	2.198**	Yes		
H2b: EO → IAT	0.088	1.500	No	EO → IBT vs. IP → IBT	3.160**
H4a: IP → IBT	0.560	6.870***	Yes		
H4b: IP → IAT	0.282	3.601**	Yes	EO → IAT vs. IP → IAT	1.932*
H5: IBT → CTI	0.012	0.025 (n/s)	No		
H6: IAT → CTI	0.305	2.059**	Yes		
H7: IBT → IAT	0.569	8.061***	Yes		

a. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$; n/s = not significant (based on two-tailed testing);

b. To test the statistical difference between relationships, the PLS path coefficients were compared using Chin's (2003) equation, which is an adaption of the traditional *t*-test for comparing regression coefficients between independent samples.

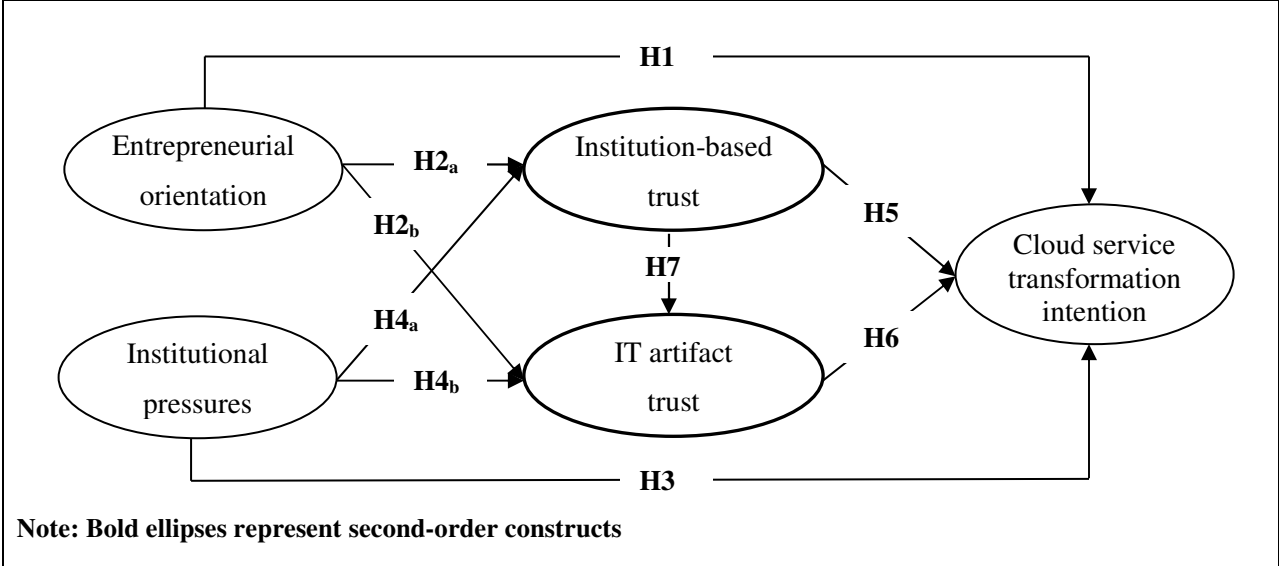
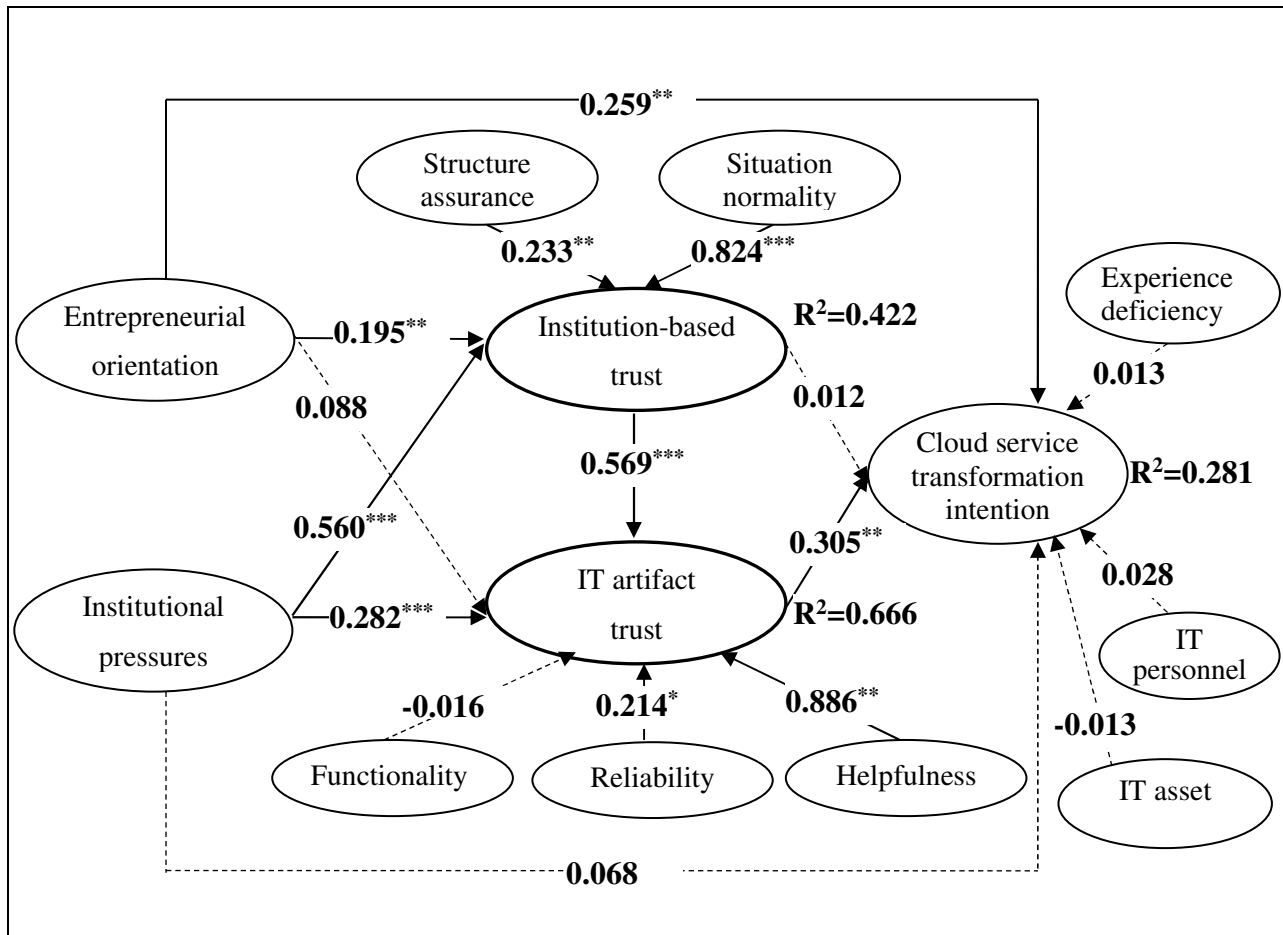


Figure 1. Research Model



Note: Bold ellipses represent second-order constructs; $***p<0.01$; $**p<0.05$; $*p<0.1$

Figure 2. Results of Structural Model Testing