

Social Shaping of Enterprise System Acquisition and Development: The Influence of Reference Users in XiZi Holdings

Research-in-Progress

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Abstract

In this research-in-progress paper, we present a preliminary model of how reference users shape enterprise systems (ES) acquisition and development based on the case study of Xizi Holdings, one of the largest private enterprises in China. Our model draws on the theoretical lens of the social shaping of technology in the context of streamlining complex packaged ES adoption. The model is built on stage-wise observations of the roles that reference users play across the ES acquisition and development process. Our preliminary model identifies three intermediary mechanisms (i.e. attaching, staging and shaping of technology) that are enabled by reference users in the process of negotiating ES acquisition and development. It contributes to the existing discourse in recent IS research on the expanding role of users in influencing the development of packaged enterprise systems and their acquisition.

Keywords: Enterprise Systems Acquisition and Development, Reference Users, Social Shaping

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Introduction

Enterprise systems (ES) acquisition generally focuses on the evaluation and selection of vendors and packages, as well as the influence of users on this process (Bhatti 2014; Esteves and Pastor 2001; Shanks et al. 2003). When ill-managed, the acquisition process may impact the biography of the ES in a firm including the implementation process (Verville et al. 2005; Verville and Halington 2002). This ultimately results in poor system performance (Bhatti 2014) and limit innovation in general (Ahuja and Katila 2001). The acquisition of software that can accommodate changing business conditions is a basic tenet of ES implementation (Donovan 2001). Like the views of Peter Drucker, who commented that “*Most discussions of decision making assume that only senior executives make decisions or that only senior executives' decisions matter. This is a dangerous mistake*” (Drucker 2012, p. 19), making good decisions on ES acquisition is a crucial skill at every level of the organisation and not just at the level of top management (Gürbüz et al. 2012; Kamhawi and Gunasekaran 2009; Wang et al. 2006). Information asymmetries between users, vendors, IT manager etc. during the process can have adverse effects on ES implementation projects (Worthen 2008). On the other hand, the downside of a rigorous acquisition process is that unnecessary bureaucracy or exhaustive due diligence by stakeholders can alienate involved stakeholders and result in a flood of information, leading to “*analysis paralysis*” and delays in the strategic decision-making process (Bhatia 2007; Overby et al. 2006). Hence, a growing number of studies in information systems (IS) research refer to the key roles played by *reference users* in providing information and assurances that facilitate the evaluation of vendors (Howcroft and Light 2010; Monteiro et al. 2014; Pollock and Hyysalo 2014). From this perspective, reference users are seen to step in to fill a gap in knowledge, playing key roles in facilitating the acquisition and development of new systems.

Despite the importance of reference users in the acquisition and development phases of ES implementation, three separate bibliographical analyses on the cumulative body of ES research over the last two decades (see Eden et al. 2014; Esteves and Bohórquez 2007; Esteves and Pastor 2001) reveal that their role in the acquisition phase in particular has received little attention. These observations are attributable to a number of factors. First, ES researchers have mainly examined the implementation phase of the ES lifecycle because most projects tend to be at the implementation phase at the time of study (Esteves and Pastor 2001). Second, the strong influence of consultants in the acquisition phase makes it difficult to access information relating to the role of other stakeholders (e.g. vendor, customer and consultant). Third, the ES acquisition process is rarely subject to deep theoretical scrutiny. The factors influencing decision makers during the acquisition phase are relatively well-documented in the literature, including IT vendor comparisons (Annamalai and Ramayah 2011), cost, reliability (Keil and Tiwana 2006) and IT functionality (Gürbüz et al. 2012; Keil and Tiwana 2006). However, the role of IT in the actual process of acquisition and how reference users influence this process are rarely examined in the same study. Consequently, there is not only a lack of in-depth studies on ES acquisition and the ways in which different stakeholders may influence the process, but also a lack of understanding on how the process may vary across different contextual conditions. An in-depth study of how stakeholders' shape acquisition and development could reveal important power relations in organizations (Howcroft and Light 2006), the development of new technologies (Boersma and Kingma 2005) or influence larger economic outcomes (see Ranganathan and Brown 2006). Our study attempts to address this gap.

The research question that guides our study is: *how do reference users shape ES acquisition and development?* Although ES research represents one of the most established and mature areas in the Information Systems (IS) discipline, our study seeks to contribute to the discussion on ES acquisition and development from the perspective of social shaping. In particular, the aims of our study are twofold. First, we aim to identify the stages in which reference users shape ES acquisition and development. Second, we seek to advance knowledge of the intermediating roles played by technology and its reference users in the acquisition process. To achieve these aims, we conduct a revelatory case study of an ES acquisition and development project undertaken by Xizi United Holding Corporation (Xizi Holdings) for its 128 subsidiary companies across its 6 major business areas (i.e. elevators, boilers, heavy machinery, property, departmental stores, and aircraft maintenance). The remainder of this article is organised as follows. First, we discuss the theoretical lens of our research. Next, we present our case organisation, Xizi Holdings, and our analytical strategy. Finally, we discuss our preliminary research findings and conclude the paper with a discussion of the ongoing research.

Literature Review

In this section, we review the literature surrounding two topics that are key to our study. First, we present a review of the literature on Enterprise Systems Acquisition and Development. Next we present the theoretical lens that we will draw upon, the literature on the social shaping of technology, to describe the influence of reference users on the ES acquisition and development process.

Enterprise Systems Acquisition and Development

According to Esteves and Pastor (1999), acquisition occurs when an organisation decides to adopt an ERP system, and the vendor and ERP package have to be selected. Table 1 summarises the activities that constitute the acquisition and development process, the descriptions of those activities, as well as a number of representative studies related to each activity. Despite the maturity of ES research, scholars have called for more attempts to better understand how these activities are carried out and how the evaluation factors within the overall acquisition process are weighted (Bernroider and Stix 2006). For example, in one of the most comprehensive acquisition studies to date, Kiel and Tiwana (2006), identified the factors used by IS managers to evaluate packaged software solutions. While the study provided plenty of valuable insights, it only examined the importance of different evaluation factors in hypothetical ERP purchasing scenarios. Actual purchase decisions were not scrutinised and the effect of real external pressures imposed on organisations were not taken into account. Another case study by Damsgaard and Karlsbjerg (2010) listed seven principles to help organisations during the acquisition phase. Once again, while these principles are useful to practice, they have not been empirically validated and thus, the generalisability and effectiveness of the proposed principles remain unknown.

Table 1: Summary of ES Acquisition and Development Activities		
Activity*	Description	Representative Studies
Acquisition Approach	The approaches used to decide on a specific ERP system package and vendor.	(Bernroider and Stix 2006)
Acquisition Evaluation	Strategies used to evaluate ERP vendors in order to ensure the selection of the ERP package that best aligns with the requirements of the organisation.	(Gürbüz et al. 2012; Keil and Tiwana 2006; Wang et al. 2006)
Integration Issues	Issues that occur in the integration of emerging technologies with the ERP system.	(Bose et al. 2008; Koh et al. 2011; Madaan et al. 2012)
* Adapted from Esteves and Bohorquez (2007)		

Once a package is selected, the next phase of organisational ES adoption is the implementation process. Implementation typically consists of the configuration and customisation of the system to meet the organisation's requirements. The subsequent phase is the evolution phase which focuses on the *integration* of new technologies and the *development* of existing technologies (Esteves and Bohórquez 2007). New and existing technologies must undergo development in order to improve their functionality and to minimise the gap between the organisational requirements and the system functionality (i.e. to improve overall fit). The premise for integrating evolutionary technology with an ES is to prevent the ES from becoming a stagnant technology artefact. This is illustrated in the studies of Bose et al. (2008) and Downing (2010), who attempted to compare the benefits and challenges of no supply chain integration, non-web-based supply chain integration and web-based supply chain integration with an ERP system.

Reference Users and the Social Shaping of Packaged Enterprise Systems

Building on the concepts of social actor (Lamb and Kling 2003) and community of ES users (Koch 2005), the *reference user* is an individual user or a network of users within and across an organization that form a part of a wider packaged ES community (Monteiro et al. 2014). Reference users are not only involved in IT work within their own organisations, but interact across organisations with current and prospective adopters, as well as packaged system vendors to offer his or her organization's experience as a model or

standard for others. Reference users include wider groups (Wilson and Howcroft 2005) of users who may not have initiated the *referencing activity* or identify themselves as performing an IT role, but are drawn in when referencing activity occurs. More recently, scholars have shed light on the role of groups and users in the social shaping of technology (SST). They explain that insights from a SST perspective could reveal how new reference user roles become part of the politics of packaged software acquisition, and how reference users position themselves in relation to the vendor in order to wield influence on current and future development strategies (Pollock and Hyysalo 2014; Williams and Edge 1996). On the other hand, groups have different perceptions of ES because of its inherent richer functionality and because of main motives of politics, power, discourse and user resistance (Boersma and Kingma 2005; Usman et al. 2014). Studies have also shown how which ERP system had taken away control and power, in cases choosing to circumvent the system (Alvarez 2008; Boudreau and Robey 2005). As different interpretations assigned are to the technological artefact because of main motives, social shaping is a very relevant approach to investigate and understand the use of ES, to stem insights that can fuel the better utilization of ERP system in the post-implementation stages due to different organizational dependent contexts (Boersma and Kingma 2005; Usman et al. 2014).

The SST perspective draws attention to how innovations do not end even after the IT artefact has left the vendor's premises but is continually refined during implementation and use (Williams and Edge 1996). It emphasizes choices; shedding light on the cycles of domestication and appropriation enacted by adopters of systems to meet local organisational circumstances, as well as a wide range of actors; particularly intermediate and final users crucial in getting new systems to work-in-practice (Pozzebon and Diniz 2012). If we are to understand the development of technology as a social process, it is crucial to take the artefacts as they are viewed by the relevant groups as opposed to monolithic definitions of what constitutes success and failure (Pinch and Bijker 1987). This is because to do otherwise would simply imply that the technology is autonomous. These groups are delineated according to similarities among their interpretations of technology so that all members of a certain social group share the same set of meanings attached to a specific artefact (Howcroft and Light 2010). To do this, the application of *interpretive flexibilities* as the identification of assumptions, expectations and interests, is a useful concept for understanding how problems and solutions associated with a technology presents themselves differently to different groups of people (Pinch and Bijker, 1987). Focusing on the emergence of reference users, their roles, and how they become entwined into the politics of packaged ES acquisition and development provides us with the opportunity to understand emergent intermediating *referencing mechanisms*, which provide accounts of capacities and benefits of a packaged system. Besides reference users from organisations, the existing literature also discusses networks of business people and groups (Giaglis et al. 2002; Meehan and Jonker 2012), as well as technology users as potential intermediaries (Peng et al. 2014).

Case Study Method and Data Analysis

We selected the case research method for our study. The case method is particularly appropriate for a number of reasons. First, case research is well-suited for addressing 'how' research questions (Pan and Tan 2011; Walsham 1995) and studying processes (Gephart 2004), and our research question is a 'how' question that delves into the process of ES acquisition and development. Second, as ES acquisition and development is an inherently complex and multi-faceted phenomenon, it is more appropriate to examine the phenomenon by interpreting the shared understanding of the relevant stakeholders (Klein and Myers 1999). The selection of the case was based on two criteria. First, the case must be an organisation that has recently acquired and developed an ES because that is the phenomenon of interest in our study. Second, reference users must have played a significant role in influencing the acquisition and development process at the organisation as we are seeking to examine the phenomenon from a social shaping perspective. Based on these criteria, we found the case of an ES acquisition and development project at Xizi Holdings to be particularly appropriate for our purpose, and accordingly, selected it for our study.

Data collection spanned the period from Mid-2014 to Early 2015 and during this period, multiple field visits were made to Xizi Holdings and some of its largest subsidiaries, including Xizi-OTIS Elevator Co. Ltd, Xizi Boiler Co. Ltd and Xizi Aviation Co. Ltd in Hangzhou, China. To date, we have conducted 17 semi-structured interviews with informants who represent reference users, including the Chief Information Officer (CIO), his Chief Digital Officers (CDO), the IT Managers of Xizi Holdings, as well as

the business users in the subsidiaries (refer to Table 2 for a summary of the interviews conducted). They are knowledgeable about the internal structures, the role of IT and play key reference roles, providing the objective reality (Klein and Myers 1999) required of our study phenomena. Overall, the interviews generated over 100 pages of transcripts. Based on our literature review, we narrowed the focus of our inquiry to three pertinent themes: (1) the acquisition and development of ES across Xizi holdings and its subsidiaries, (2) the actions of the reference users, as well as (3) the development of ES as influenced by social shaping.

Table 2. Summary of Interviews

No.	Title	Department	Topics Discussed
1	CIO (3 interviews)	Xizi Holdings	Buy-in strategy, creation of new roles in company, Business IT strategy, selection of steering committee, process of integration
2	Deputy Operations Director	IS/IT Department (Xizi Holdings)	Acquisition and development strategies, relationships between parent company and holding subsidiaries, growth
3	Project Management Officer	IS/IT Department (Xizi Holdings)	Project management team, e-human resource systems and the influence of business intelligence, relationships between parent and subsidiary company
4	Operations and Maintenance Manager	IS/IT Department (Xizi Holdings)	Operations efficiency and effectiveness pre- and post-ERP in Xizi-OTIS
5	Human Resource Manager	Human Resources	E-human resource project, human resource operations
6	Deputy Finance Director and Business Intelligence Program Director	Finance	Functional areas and responsibilities, development of business intelligence program, financial systems, IT strategy, NC operations
7	Software Planner	IS/IT Department (Xizi Holdings)	Software planning development programs, IT development strategy
8	Finance Operations Officer	Finance	Financial systems and output, IT strategy, NC (Non-Compliance) operations
9	Finance Support Officer	Finance	
10	IT Infrastructure Manager	IT Department (Hangzhou Boiler)	Infrastructure and architecture
11	IT Planner (Hangzhou Boiler)	IT Department (Hangzhou Boiler)	IT planning, scope documents, SAP projects, reference projects
12	SAP Planner (Hangzhou Boiler)	IT Department (Hangzhou Boiler)	History of boiler SAP system implementation in Hangzhou Boiler
13	Software Project Manager (Hangzhou Boiler)	IT Department (Hangzhou Boiler)	Implementation of Epicor ERP
14	Head of IT	IT Department (Aviation)	Implementation of ERP, NC, PLM (Plant Maintenance) etc.

Data analysis was performed in concurrent with data collection in order to take full advantage of the flexibility of the case research approach. We used our understanding of the literature on SST as a guiding theory to examine the initial data. We performed open, axial and selective coding (Strauss and Corbin 1990) on translated notes. During open coding, we assigned conceptual labels on the data to capture activities that explain the (social shaping) process. The purpose is to reduce the data to manageable categories and to identify recurring themes. Some conceptual labels include 'interpretive flexibilities' and 'reference users', which are offered by the literature, while others are offered by the data, including 'standards' and 'function'. Next, similar concepts from open coding are linked and matched with theoretical constructs to form axial themes. Following from the above discussion, 'constructing inclusive structure' refer to one of the mechanisms for technology attaching, has not been discussed in the literature. Our approach focused on both the acquisition and development processes and outcomes within Xizi Holdings and its subsidiaries. Moving between the empirical data, our guiding theory, and related literature exposed new patterns and allowed us to develop further mappings of the coded responses. If our findings did not fit with our guiding theory, or if the propositions of the theory were unsupported by our empirical data, we conducted additional interviews to verify our findings and build an explanation iteratively (Walsham 2006). As part of our data analysis, we also adopted a combination of temporal

bracketing, narrative and visual mapping strategies to organise the empirical data (Langley 1999; Langley 2009). The event timelines (from temporal bracketing), visual maps and narratives were subsequently verified with our informants. We also drew on secondary data such as newspaper articles, books and information from Xizi Holdings' corporate website to triangulate our findings.

Case Background

Xizi Holdings is one of the largest public enterprises in China, and currently employs 30,000 people in over 128 subsidiaries across the globe. Xizi's current product lines include the manufacturing of elevators, industrial boilers, and heavy machinery, but it also owns businesses in aviation and property development. One of their largest subsidiaries is Xizi-OTIS Elevator Co. Ltd, a joint-venture company founded in March 1997 between Xizi Elevators Group and OTIS, the largest manufacturer of elevators, escalators and moving walkways in the world. Recently, Xizi became the first and only privately-owned Chinese supplier of the C919 narrow-body twin engine airliner being developed by the Commercial Aircraft Corporation of China. The C919, which will be the largest commercial airliner designed and built in China when launched, forms part of China's long-term goal to break the duopoly of Airbus and Boeing in the global commercial airliner industry. The present investment of Xizi Holdings in the ERP architecture of its organisation (including its subsidiaries) amounts to approximately US\$8 million. This significant investment has translated to national recognition for the extent of IT use at Xizi. In particular, the CIO of Xizi Holdings was recently given an award from the Chinese government recognizing him as one of the top 50 CIOs in private corporations across China.

Preliminary Findings

Preliminary analyses of our data reveal a number of interesting insights into how reference actors at Xizi Holdings and some of its subsidiaries influence the process of ES acquisition and development. For instance, the CIO of Xizi Holdings revealed that when he first arrived at Xizi in early 2010, it was apparent that despite the organisation's scale of operations, it lacked the capabilities to manage the hundreds of autonomous IT systems that its organisations under its corporate umbrella were using. Consequently, the symmetries required for overall operational efficiency were largely absent. The CIO revealed the challenge that stems from positioning of Xizi Holdings vis-à-vis its subsidiaries at the time:

"Usually you have the father [parent company] and then the son [subsidiaries]. However, Xizi is different. All our [subsidiaries] were successful and had working models to begin with. Now, there's a father [Xizi Holdings] who wants control, so the acquisition and development of systems becomes unique. Some of our subsidiaries are 30 years old, but the holdings group is only a couple of years old." (CIO, Xizi Holdings)

Due to its rapidly expanding lines of business in the early 2000s, Xizi Holdings maintained a biography of the package software in use, but all of its subsidiaries had different starting points and several new subsidiaries were about to commence or in the process of ES acquisition and development. The Hangzhou Boiler group, for example, which was founded 1956 and first acquired ES in 2002, maintained over six systems at the time.

Technology Attaching through Reference Projects (Early 2010–Mid 2012)

To initiate the enterprise-wise acquisition and development of ES, the CIO revealed the importance of anchoring ES acquisition and development to one or more reference projects. The CIO of Xizi Holdings explained:

"My strategy to convince subsidiaries to invest in ERP is through BI [Business Intelligence] first. This goes against the usual implementation trajectory of moving from transactional systems, to ERP, to BI. Only after you have BI would you realize how much data we are generating across the organisation, and how useful that data could be... I convinced the CEO in saying we are late to the game, and that we have to pay our debts of our previous inaction. That started it all." (CIO, Xizi Holdings)

By pushing through reference projects related to Business Intelligence and demonstrating tangible gains from those projects, Xizi employees developed an *attachment* to technology and the central IT

department quickly grew in stature. This created a snowball effect that paved the way for the initiation of more ambitious, high-impact IT projects. For example, the CIO initiated a mobile computing project that the CFO of Xizi had projected to cost RMB \$10 million. However, using a novel cloud-based solution, the CIO was able to deliver the project at under RMB \$3million. This again increased his influence within the organisation, and made it easier when the CIO had to convince all the organisations under Xizi's corporate umbrella of the viability of his vision for an enterprise-wide ES. The IT Infrastructure Manager of Hangzhou Boiler, another of Xizi's largest subsidiaries, described the influence of the CIO at the time:

"CIO did a fantastic job with SAP implementation at one of the subsidiaries and he's doing a fantastic job here." (IT Infrastructure Manager, Hangzhou Boiler)

The CIO also established a monthly IT forum hosted by external consultants and vendors that would be attended by representatives of all of Xizi's subsidiaries:

"We built a 'hive' mentality [that] brings out the common requirements. Then we integrate them, while allowing them to retain their own personality." (CIO, Xizi Holdings)

Similar to some of the strategies prescribed in the literature (Monteiro et al. 2014; Venkatesh et al. 2014), the CIO and his IT team quickly established consensus to institutionalise emerging technological fields. They actively interpreted the properties of the systems for prospective adopters, and cast ES as an object of consumption for others under the corporate umbrella of Xizi Holdings.

Technology Staging through Expanding Reference Roles (Late 2012–Mid 2014)

Despite the rollout of a number of high-impact reference projects, the CIO nevertheless realised that an expansion of roles for the members of his central IT team would also be required in order to secure the full commitment of Xizi's many and varied subsidiaries to ES acquisition and development. Consequently, members of the central IT team were told to make every effort to make a good impression during their reference user visits to the subsidiaries, and to introduce them to the products of the selected vendor (i.e. SAP) carefully. This strategy, akin to the arguments of Pollock and Hyysalo (2014)), underscores the notion that reference actors inhabit a space where they are independent yet aligned to a vendor. A Project Management Officer working under the CIO explained:

"When the HR system implementation came about, he [a HR manager – a reference user] was brought from HR to help. Once the systems went online, he was supposed to monitor data but his role did not prepare him for this task. So he had to learn and expand his role. His job scope had changed, and the CEO had to create a consulting role for him to include negotiation, payment, innovation, and support." (Project Management Officer)

The new responsibilities of the members of the central IT Team became that of being intermediaries of change (Hirt and Willmott 2014). These IT managers now had to mediate between the directives of the parent company, the requirements of the subsidiaries, as well as the demands of the vendor. Previously, governance of the IT departments of the subsidiaries was enacted primarily through formal controls. However, the presence of asymmetric information between the parties during implementation rendered the formal controls ineffective. This created the need for intermediation (Sahay and Ranjan 2008) and reference users had to resort to using social media to effect a number of informal controls. A HR Manager who was in the role of a reference user explained:

"As a key user, I participated in implementation to learn about SAP's HR system. WeChat [social media platform] was used to create communities in the organisation so that we can share what we learnt with the IT departments [of Xizi's subsidiaries]" (HR Manager)

With the use of social media and the emergence of new intermediaries (Grabowicz et al. 2012), the IT managers were able to *set the stage* for learning about ES acquisition and development, as well as promote its impact and benefits. This expansion in the roles of reference users with different working styles created an environment of co-specialisation:

"The result is co-specialisation. Every person has their own set of devices, Now I use an iPad, e-brochures, and it makes it easier to do what I do." (Deputy Finance Director and BI Program Director)

Technology Shaping through Pursuing Reference Identity (Late 2014–Current)

From our data, we also found that reference users not only bore uncertainties on behalf of other project stakeholders, but they also added value by brokering between IT and operations under conditions of information asymmetries (Downing 2010). The Deputy Operations Director of Xizi's central IT team explained:

“IS used to be marginalised as back offices which only appear when there's an IT problem. Previously, even the CEO thinks anything ‘electronic’ is considered our job. Now, we operate on moving targets as IT department are working to improve other units work because they are not domain/business experts. Our status has improved to being an entrepreneurial aid.” (Deputy Operations Director, IS/IT Department)

The changing nature of the systems adoption environment across the Xizi group meant that the reference users now had to take on further responsibilities in the package adoption and development process, which reinforces their identity as reference users. In particular, several quotes in the interviews illustrate the changes in the routines of ES acquisition and development:

“In the past every administrator keeps a logbook, now everyone fills a form. But now our data repositories have scheduled backups and restoration points. We have crisis response systems and situated learning system. New processes are formed.” (Operations and Maintenance Manager IS/IT Department, Xizi Holdings)

“There is group IT purchase/buying program in Xizi now, to lower TCO [total cost of ownership], to streamline support and to improve efficiency.” (IT Planner, Hangzhou Boiler)

From the data of our pilot case study, a preliminary model of the social shaping of ES acquisition and development at Xizi Holdings is presented in Figure 1.

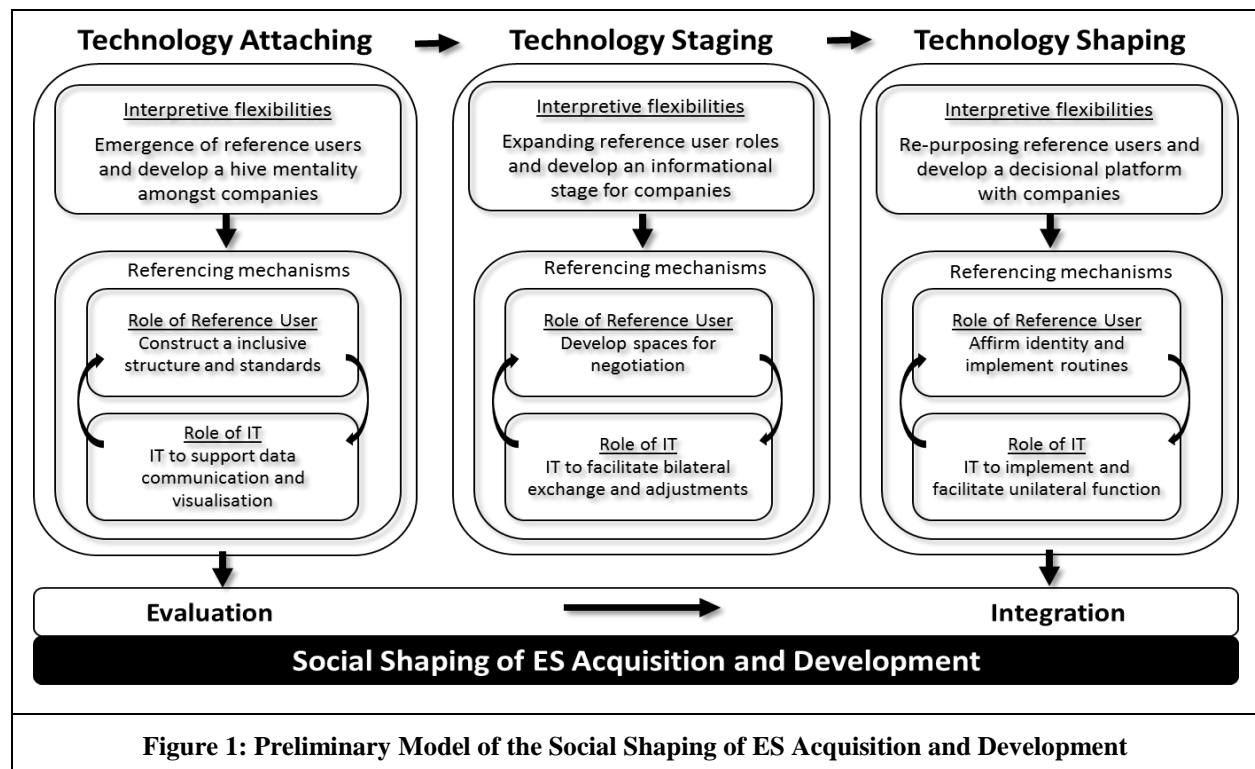


Figure 1: Preliminary Model of the Social Shaping of ES Acquisition and Development

Discussion and Concluding Remarks

Our case study sheds light on how reference users shape ES acquisition and development. Based on our data and the existing literature, we examined the role of reference users in ES acquisition and

development at the Xizi Holdings. As illustrated in our preliminary model (see Figure 1) and in line with recent calls by scholars for more efforts to elucidate the underlying *mechanisms* used by different reference actors to exert influence on technology adoption, we identified three IT-enabled mechanisms for the social shaping of ES acquisition and development, namely, (1) technology attaching, (2) technology staging and (3) technology shaping. We postulate that these mechanisms are necessary for transition from evaluation of a system to its successful integration. In our pilot study, *technology attaching* was achieved through the delivery of a reference project, *technology staging* through the creation of reference roles, and *technology shaping* through the pursuit of the reference identity. In our preliminary model and per our theoretical lens, interpretive flexibilities have an influence on the emergence and development of referencing mechanisms. Furthermore, these referencing mechanisms are continuously shaped by stakeholders' accounts of their roles and the capacities and benefits of the IT systems.

Moving forward, we hope to build on our preliminary model to formulate a process theory of ES acquisition and development from a social shaping perspective, which is lacking in the existing IS literature (Eden et al. 2014). But at this point, our preliminary model already hints at a number of potential contributions. First, we have demonstrated that the reference users' perspectives on ES acquisition and development are not only based on a reflection of their beliefs, but also on the reference projects and identities that shape decision-making behaviour and impact others (Lamb and Kling 2003; Pollock and Hyysalo 2014). The reference user can then use their knowledge to affirm the identity of the organisation, as well as their ownership of the process of which they have taken charge.

Second, our study indicates that reference users and networks of groups in organisations can function as intermediaries. As intermediaries, they are able to broker between the directives of the parent company, the requirements of the subsidiaries, as well as the demands of the vendor under conditions of information asymmetries (Sahay and Ranjan 2008). We intend to examine the role of these intermediaries in greater depth in our future work by examining their role in facilitating system and task transitions. This could potentially provide solutions to problems that arise when an organisation transitions from one ES to another, including excessive dependence on vendors and other key users, or constant unwarranted comparisons with other systems that prevent their own judgements from becoming stabilised.

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