Managing User Diversity in ES Pre-Implementation through Discursive Framing: A Spatio-Temporal Analysis

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Abstract

Discursive strategy is important in engaging users when an organization-wide strategic change such as an enterprise system (ES) is introduced. Although some information systems (IS) studies have suggested the use of discursive framing, little is known about how such framing is conducted. Hence, our study aims to conceptualize discursive framing strategies by taking into account user diversity. A qualitative case study of China's largest food conglomerate, with its diversified subsidiaries, is presented. Specifically, the pre-implementation phase of an ES implementation is examined. Based on a spatio-temporal analysis of the IS context that could give rise to user diversity, this paper makes two contributions: (1) it addresses a gap in the literature by conceptualizing discursive framing strategies in managing user diversity during ES pre-implementation, and (2) it extends organizational discourse analysis through a spatio-temporal analysis of users' IS context. We conclude with guidelines for managers to anticipate and overcome potential conflicts, and offer suggestions for future research.

Keywords: Discursive framing, spatio-temporal analysis, case study, enterprise system implementation, user diversity

Managerial Relevance Statement

Our study has significant value for top management, IS managers, and change leaders who strive to implement an organization-wide strategic IS change. Previous IS studies have largely emphasized shared meaning as the goal of discursive strategy, which could be unrealistic in managing diverse users in the implementation of an enterprise system (ES). Rejecting the assumption that all users are homogenously resistant to change, our findings provide a categorization of users based on their local IS context. Moreover, our study provides guiding principles regarding discursive framing in managing the different categories of users. Based on an in-depth understanding of the users' background and concerns, managers could then tailor their communication narratives in line with the perspective of the users as recipients such that the users have a clear position of themselves in the IS initiatives and that they are more receptive to the subsequent change. Our findings can serve as a tool to help change agents such as IS managers in anticipating and managing possible reactions from diverse users.

Introduction

Discursive strategy is important in motivating, legitimizing, and enacting a large-scale strategic change [1, 2], such as enterprise system (ES) implementation [3, 4]. In information systems (IS), most studies have focused on establishing a shared meaning of the ES among change recipients in order to overcome resistance and achieve coordinated action. However, this approach is criticized as being too ideal because it is perpetuated by an underlying assumption that users are homogeneously resistant to changes [5]. In reality, users demonstrate different levels of resistance and some even promote changes [6]. Simultaneously, studies adopting the perspective of communication as a strategic control have suggested that coordinated action can be accomplished through diverse interpretations of meanings [5]. Hence, we advocate that organizations focus on diverse interpretations of meanings or unified diversity in its discursive strategy when managing diverse users during ES implementation.

Unified diversity requires that managers present multiple, simultaneous constructions of change that enable different users to attribute different meanings to the same goal [7]. Instead of a shared meaning, equifinality of meaning is sufficient for enabling a coordinated action [8]. There are a few advantages of this approach. First, it acknowledges the diversity of user's identities, which could provide the "entry point where change can be implemented with relative ease" [9 p. 579]. It instils a sense of continuity in users whether they are fearful of uncertainty or open to challenging status quo [6]. Second, the issue of divergent goals and interests that are not always best resolved through consensus can be embraced through strategies that preserve and manage these differences [7]. It allows coexistence of different goals and interests without resorting to consensus. Third, unified diversity approach "opens spaces for the co-creation of meaning within organizational discourse" [1 p. 1603], thus better engage a diversity of users.

One of the key discursive strategies in developing diverse interpretations of meanings is framing

[e.g., 10, 11]. **Framing** is a way of articulating a specific version of reality for a new strategic orientation [12]. However, theorization regarding "how" discursive framing is conducted for diverse users is lacking [3, 13]. IS studies have suggested user heterogeneity in resistance to IS, and some provide anecdotal evidence of how discursive framing is conducted during ES implementation [e.g., 10, 11]. Nonetheless, few studies explicitly and systematically examine how discursive framing is conducted considering the user diversity. Particularly, we argue that ES pre-implementation offers a suitable context for studying discursive framing. First, in the absence of a concrete plan and technological artifacts, this phase is characterized as minimally structured and abstract [14]. Hence, users often rely on the discursive description in understanding ES. Second, legitimization of an ES is a key activity in the pre-implementation phase, and it can be effectively done with a symbolic approach like discursive strategy [13, 15]. Third, discursive strategy is important in pre-implementation because early interpretations of technology tend to persist and affect the users [16].

Therefore, this paper aims to understand "how is discursive framing conducted to manage user diversity in ES pre-implementation, considering their spatial and temporal IS contexts?" Specifically, to understand user diversity, and then its impact on discursive framing, we propose to examine user differences across their spatial and temporal IS contexts for a few reasons. First, user diversity is a multidimensional construct that varies spatially and temporally. Studies have argued that the user resistance can vary spatially with users residing at different "locations", for instances hierarchical roles (managers VS users) [17], functional areas (IT department VS operational department) [18]. Users can also vary as a result of IS changes at different organizational levels, such as strategy, structure, processes, and technology [19]. IS context of users have also been differentiated along the temporal dimensions including environmental

dynamism, speed of technological change, stage of development, and imperativeness of business need to adapt to new technology [20, 21]. Due to the co-existence of these variations in the mind of those affected, we propose to adopt a spatio-temporal view in order to have a systematic analysis of user diversity. Besides, few studies have explicitly examined the effects of both spatial and temporal variations in user's IS context, thus disregarding counter intuitive situations, for instance, where users of low level of IS competence (spatial) are receptive to IS because of the potential of IS that promises an advantage in a dynamic environment (temporal).

Second, studies of organizational change and discursive strategy have noted the importance of spatiality and temporality in translating changes to users [22-24]. The effectiveness of discursive framing is determined by how a frame resonates with the users or, how it appeals to them and mobilizes them into action of change [12]. Central to the appeals is the salience of the discursive frame, which is defined as "those that are foremost on [their] mind" [2 p. 1463]. Departing from this point, organizational change studies have emphasized the use of discursive strategy that refers to spatiality and temporality in conceptualizing change such that it conveys a sense of continuity across space and time [22]. For instance, spatial and temporal metaphors that refer to "here and now" can translate change in comprehensible language.

Third, there is a call to study users' context in discourse studies and that spatio-temporal dimension forms the fundamental of a *context*. Our study echoes Fiss and Zajac's [15] suggestion that a study of framing would benefit from an investigation of *users' context* because it shapes actors' understanding of a particular phenomenon [7] and hence contributing to user diversity in change management. Because space and time form the fundamental aspects for understanding a *context* [22], adopting spatiality and temporality as the analytical categories will help us to understand the differences among users and hence an effective framing strategies [25].

To address the question, this paper presents an in-depth analysis of the pre-implementation of an ERP system in China National Cereals, Oils and Foodstuffs Corporation (COFCO), the largest supplier of agricultural products in China and a highly diversified enterprise.

Literature Review
Framing as a Discursive Strategy in Managing User Diversity
Originating from the social movement literature, **discursive framing** refers to a process of promoting a particular interpretation by "selecting some aspects of perceived reality and making them more salient in a communicating text" [26 p. 52]. In strategic change studies, this discursive process of meaning construction is used to mobilize support and gain legitimacy as a basis for change [2, 13], and it involves the framing of *issue* and *identity* [27]. Issue framing allows managers to highlight certain aspects of a change that would appeal to the interests of users while identity framing allows the (re)definition of users' role, which enables them to associate themselves with the change [8]. These are integral to finding a common ground for negotiations between the managers and users, while allowing for user diversity.

The focus of framing is often aimed at how an issue is framed (e.g. vision for change [2]). **Issue framing** refers to how particular aspects of a problem, decision, or change are selectively emphasized, downplayed, or circumscribed through social interaction in shaping the meaning of an issue [8]. One of the key focus of issue framing is *issue translation* or the establishment of a new interpretation [27]. Naming, labeling, or issue packaging are some frequently used techniques. For example, Lin and Silva [28] have shown how a purposeful construction of a project name (e.g., *Groupwork* for an e-mail system) can allow the project to resonate with the underlying values of the targeted group (i.e., management). With the label of "standardization", Leonardi [10] found a revived interest across departments because the label reintroduces ambiguity and allows them to "fold their own abstract interpretation into the term" (p. 367). In

addition, by using appropriate metaphors and symbols that connect to user's local context, managers can craft messages to present an optimistic view of a proposed change [29]. An example is the use of "photocopy" in describing the electronic scanned maps to the map owners who worried about accuracy of the digitized maps in Azad and Faraj's [11] study. In addition to issue translation, another aspect of issue framing that receives relatively less attention is what we call *issue delivery*. It has been suggested in strategic change and communication studies that issue framing is dependent not only on issue translation, but also how the interaction is performed to "guide and ground others' interpretations" [30 p. 199]. The nature of the conversations matters because it sets the scene within the context of the users, where the exchange of conversations can be embedded and thus leading to an engaging and compelling effect. In other words, it involves the ability to "tell a story in a right way" [29].

At the same time, user **identity** is subject to discursive framing [8, 30, 31]. This is less investigated in IS studies, which focuses on the effect of identity on user's stance toward technologies [24]. In doing so, many have adopted a narrow, static view of role-based identity that inherently associates identity with organizational or functional roles (e.g., managers, technologists, and users [28]). As users continue to be compared with other roles that are positioned as more receptive to IS change, the growing IT expertise of users remains sidelined [18], resulting in managers spending their efforts on the wrong issues of user resistance [6].

Identity affects how users define and relate themselves to the external reality and changes [9, 32]. Compared to the view that identity is a cognitively held belief, the notion within the discursive view, which we adopt in this study, is that identity exists as a fluid discursive object that is constructed in and through conversations [33]. Identity of users can be (re)constructed to bridge the strange with the familiar, afford norms for behavior, and develop user attachment to

changes [9]. Here, **identity framing** refers to (re)construction of identity by the interactions or narrative process that "situates a group in time and space and attributes characteristics to them that suggest specifiable relationships and lines of action" [31 p. 185]. Based on Goffman's [34] basic concept of identity that consists of how oneself represents himself or herself to others and how oneself has been represented, we argue, in correspondence, that identity framing involves identity positioning and identity avowing. That said, *identity positioning* refers to the articulation of the qualities that serve to distinguish a group of users from "others" [adapted from 32]. We also introduce the concept of *identity avowing* as the articulation of the position of a user group to make it known to others. These two mechanisms are important as they serve as the reciprocal affirmation that validates the identity of the users [35], enabling the users to foster attachment to a new role or ideology that entails acceptance of a subsequent line of action [30].

Despite the recent invigorated attention, the understanding of discursive framing is largely confined to broad descriptive accounts [30, 36]. Specifically, theorization on "how" framing is conducted to accommodate diverse users remains lacking [3]. Although different levels of user resistance have been identified, few have explicitly and systematically considered user diversity in discursive framing strategies for a strategic change such as ES implementation [13]. In this sense, the insights derived from the existing literature, such as "invoking the target groups' existing values and then aligning the changes with these values" [4], still leave us with an abstract picture in providing prescriptive advice related to discursive framing. Also, organizational and IS studies have mainly focused on "issues" as the subject of framing, neglecting identity as another framing dimension in the constitutive process of interactions [15]. Acknowledging user diversity and the potential of discursive framing, this study examines how framing is conducted to address differences among users during ES implementation.

Spatio-Temporal View of IS Context

This study examines user differences across their spatial and temporal IS contexts and the choice of theoretical perspective is explained in the Introduction. Particularly, a subjective view of space and time, or a spatial and temporal view is adopted [25]. We contend that users are different across the spatial aspect of their IS context. Existing studies have differentiated the level of user resistance by their hierarchical roles or the vertical aspect of an organization, i.e., managers and users, or by their functional areas or horizontal aspects of an organization, i.e., technologists VS users [e.g. 17, 28, 37]. From a subjective view of space, we also found that studies of user resistance have alluded to the spatial dimension in IS with the "spatial distance" between the contemporary and the envisioned IS state being transpired in the challenge to status quo or value inconsistency [38]. Extending past these existing studies that have insinuated that users are different across the spatial aspect of their IS context, our study suggests that spatial IS context can be viewed from vertical and horizontal dimensions. To do so, we draw on Purvis' work on technology assimilation that refers to the extent to which the use of technology diffuses *horizontally* across organizational projects or work processes and *vertically* by being routinized in the activities of those projects and processes [39].

The horizontal dimension of spatial IS context, or horizontal IS scope refers to the extent to which digitization takes place across functional areas, business units, or geographical regions, as well as the interdependencies within these spatial locations underpinned by IS [37, 40]. For example, an organization with an ERP system has generally implemented IS improvements across functional areas and the interdependencies among the horizontal space of functional areas are built upon IS. In other instances, organizations may implement IT for only parts of the horizontal scopes, such as a single business unit within a multibusiness organization, with little need for IS to support cross unit interdependencies. On the other hand, vertical IS scope refers to

the vertical levels where IS change can take place. It can involves organizational levels "from the most conceptual to the most concrete" [41 p. 326-327]. For example, the level of IS change can involve normative, cognitive, and procedural level [42], or cultural sphere, institutional system, power structure, organizational strategy, and technology system [43].

To conceptualize user's spatial IS context, this study characterizes user spatial differences as "high assimilation" and "low assimilation" [39]. High assimilation represents a wide and integrated diffusion of IS across horizontal space, or a diffusion of IS at a high level of organization. In the situation where technology is diffused widely across the horizontal space of an organization, there is a high proportion of the organizational units (projects, functional areas, business units, or geographical regions) that draws on the functions of IS. When diffusion occurs at a higher vertical level of an organization (e.g., cultural space as compared to procedural space), the IS elements are then much embedded in the organization and thus exert much influence in structuring user behavior. In contrast, low assimilation refers a scattered and isolated diffusion of IS across horizontal space or a diffusion of IS at a low level of change. With the limited use of IS across the horizontal space, the operations of projects, functional areas, business units, or geographical regions are relatively independent of the deployment of IS. From vertical spatial view, diffusion may also occur at a low vertical level of an organization – when IS use is limited to technical aspects such as repository or infrastructure instead of becoming meshed with operations, routines or institutional structures, it is less likely to be considered as a key element at strategic level and is thus less assimilated in the organizational context.

When faced with a new IS initiative, users of low and high assimilation IS context demonstrate different need. In a low assimilation context, IT may be implemented only at low level of organizational structure such as infrastructure as compared to strategic or cultural level (vertical),

and isolated to a single functional unit as compared to cross-functional (horizontal). This has implication on user's IT competency which then affect their familiarity to new IS initiative. In addition, we argue that the depth or the degree of IS integration also shapes their receptivity to new IS initiative. When the degree of IS integration is low, the level of IS embeddedness in established work process is relatively weaker. In approaching a new IS, users are then less likely to view the new system as an intrusion to their established routine since the effort of adjusting to changes in such a less "rigid" IS environment would be lower [44]. We argue that identity and issue should therefore be framed differently in the two spatial conditions. For users in a low assimilation IS context, they are confronted with a competing schema that demands them to go beyond their existing competencies. Hence, a narrative that affords a new identity reference is important in order to integrate their interpretive scheme with the new ones such that it minimizes the dilemma [2, 45]. Also, since they are more ready to incorporate changes with a less "rigid" IS environment, clear instructions on the next steps can be provided in order to reduce anxiety in the users. On the other hand, users of high assimilation spatial IS context possess a higher level of competency in appreciating the value of IS. Hence, a discursive strategy that shows recognition of their capability will generate resonance to their cherished identity [46]. Since they are IT competent, it is likely that fine-grained instructions are unnecessary. Having said that, the users may not welcome immediate or radical changes given that the new IS may be viewed as a disruption to their well-established, IS-integrated mode of work. As such, they can be involved as a champion rather than as mere participants in order to normalize new practices [45].

Users can also be different across temporal aspect of IS context. Our review of IS studies shows that the diversity in user reactions can be attributed to temporal factors such as a short-term focus which results in users' preoccupation with short-term inconveniences of new IS, and hence

resistance [47], or a quick and continuous technological turnover and environmental changes that lead to a short term technocratic propensity [48]. To conceptualize user's temporal IS context, this study characterizes user temporal differences as "near future" and "long now" [48].

While long now represents the user's temporal orientation that emphasizes the sustainability and long-term exploitation of an IS [48], near future refers to the emphasis on the novelty and potential embedded in future technology [adapted from 48]. We further suggest that temporal IS context is a function of multiple external and internal temporal structures [49], including speed of technological advancement, environmental dynamism, industry stability, product cycle, stage of business/IT growth, and imperativeness of business needs [20, 21, 40, 50]. Often, a near future orientation is underpinned by fast-developing technologies, a dynamic business environment, short product cycle, and being at the growth stage of a business. Drawing on studies of entrainment, this means that the users are paced by multiple, dynamic temporal structures. Because rapid variations expeditiously undermine organizations' preexisting IT-enabled competitiveness, thus rendering the strategic value of an IS short-lived, these users are compelled to adopt new IS more frequently in order to maintain, if not to renew, the pace of development [21]. On the other hand, some organizations can afford a long now orientation. The external environment of these organizations is often characterized as slow-changing due to the predictability of customer demand, low competition, fixed industry; their internal temporal environment can be stable too if the organizations are at a stable growth stage (as compared to a fast growth). Such stable environment allows organizations to preempt and fend off competitor threat with their strategic IS initiative, lengthening the lifespan of an IS application [21]. They could optimize the long term value of IS, instead of relying on frequent adoption of new IS.

When faced with a new IS, users of long now and near future IS context demonstrate different

needs. Due to the dynamism and multiplicity of temporal structures, users of near future IS context often leverage on quick adoption of new technologies for competitive advantage. There is a sense of urgency to adopt the new IS and yet uncertainty in predicting the new possibilities of IS. This affects the framing of identity and issue [2]. For near future users, an identity narrative that establishes a break with the past and an anticipation of the future can encourage users to embrace changes. The issue can be packaged in a way that shifts the users' attention from present procedures to future possibilities such that it resonates with and reinforces the agenda of the users who tend to look forward to the future values of the ES. In other words, an "alluring destination" is needed [51]. On the other hand, users of long now orientation will be less tempted to new IS because they operate in a relatively stable environment that impose less demand on technological change. Besides, attuned to regular and predictable temporal cycles, the users habitually seek for certainty and tend to extrapolate the future from past experience [49]. Hence, when they have to adopt new IS, a discursive strategy that maintains a sense of continuity works better because it alleviates the challenge to their present self [46]. Since they perceive little need to change, an alluring destination or future vision is unlikely to entice them. Instead, they need a plan with assurance of minimal deviations to existing operations [52]. Table 1 summarizes the analytical categories that form our theoretical sensitizing device.

Research Methodology
Our study adopted a case study methodology because it allows us to identify the operational links or processes that are "sticky" in a context-rich environment, providing a solution to the "how" question [53, 54]. Moreover, this methodology has been applied in the existing studies on organizational discourse [e.g., 4, 24]. Recognizing that our research aims to address an area with little prior knowledge, we adopt an interpretive approach that allows unexpected findings to emerge from the data [55]. We selected COFCO for three reasons. First, COFCO is a diverse

organization, thus rendering unified diversity as an appropriate goal in the introduction of ES. As the largest food supplier of China, COFCO is institutionally plural with a diversity of industries

Table 1. Key Constructs	
Constructs	**Description**
Identity positioning	Situating the stance of the users or attributing characteristics to the users [adapted from 32]
Identity avowing	Articulating and acknowledging the position of a set of users to make it known to others *(new)*
Issue translation	Establishing of new interpretation of the IS or highlighting a certain aspect of the ES [27]
Issue delivery	Performing the diffusion the issue or setting the scene or nature of conversations [30 p. 199]
Long now	Temporal orientation that emphasizes the sustainability and long-term exploitation of an IS [48]
Near future	Temporal orientation that emphasizes the novelty and the potentiality embedded in the future technology [adapted from 48]
Low assimilation	Scattered and isolated diffusion of IS across horizontal space or a diffusion of IS at a low level of organizations [39]
High assimilation	Wide and integrated diffusion of IS across horizontal space, or a diffusion of IS at a high level of organizations [39]

(e.g., trading, growing, producing, processing, and distributing), goals, and interests among its subsidiaries. As such, shared meaning-making approach can be ineffective at the group level. Second, the relative parity of power between the group and the subsidiaries put forth the importance of the group's discursive strategy. Although power and discourse are two dominant themes in change management, the latter is often undermined by the use of political strategies that emphasize the change agent's power over resources and process [11]. In COFCO, the autonomy of the subsidiaries circumscribes the power of the group management as the change agent, thereby highlighting the significance of discursive strategy. Third, the introduction of an ERP system to the whole organization presented an opportunity for our study. It also offers a unique chance to study the pre-implementation phase, avoiding the situation where "observations

are made on downstream results of the upstream resistance process" [38].

The ES pre-implementation phase occurred in 2012, from the idea initiation of a group-wide ERP system until a key decision was made, that is, to proceed to an invitation of tender for the system along with the commitment from the subsidiaries. Due to confidentiality reasons, we were not allowed the access to the tender process or the subsequent work arrangement that involved the vendors. Nonetheless, the concern of the "false consensus" or change in commitment among the subsidiaries, which may arise during the tender process, was eliminated because the first phase of the project was successfully implemented in April 2014. Adopting a data collection approach similar to Yeow and Sia [4], our data were collected from two sources: subjects who were intimately involved in the process and archival data (company's official website, news sources, press releases, magazines, and books) that contained stories, metaphors, and discourse related to the ES. Considering the project size and complexity, the organization adopted a progressive approach by involving only four out of 10 subsidiaries in the first stage. The selection, according to the chief information officer (CIO) of the group, was based on the subsidiaries' revenue size, imperativeness of the IS needs, and readiness. It was envisioned that after these subsidiaries implemented the system successfully, others could replicate their path.

Table 2 summarizes the interviewees. We focus on the high-level, influential members of the subsidiaries who spearhead the IT development or the operations because they mediate the communication between the group and the subsidiaries. More important, it is primarily the leaders (i.e., the Group IT team) and the more valued members (leaders of the subsidiaries) that have the power to influence the discursive framing in a project [56]; the framing of end users at the subsidiaries have little or no impact at this stage of ES implementation [4]. Thus, the level of

analysis is units, instead of individual users, and it is assumed that the user diversity within units is low. All the interviews were recorded and transcribed.

Unit	Position	Unit	Position
Table 2. List of Interviewees			
Unit	**Position**	**Unit**	**Position**
Group	Group CIO	COFCO Meat	Deputy Director
	Deputy CIO		CIO
	Group IT Executive A	Womai	General Manager
	Group IT Executive B		CIO
	Group Vice President		Sales Director
	Group Strategy Director	China Foods	Managing Director
China Agri-Industries	Finance Manager cum CIO		Finance Director
	General Manager of Production Management		CIO cum Assistant General Manager
	Deputy General Manager (Wheat Processing)		

We applied Klein and Myers's [55] principles in the study. Some examples are: (1) (principle of the hermeneutic circle) in order to have a precursory understanding of the whole context and a global understanding of the interdependent contexts of the subsidiaries [55], the interviews with the group CIO and deputy CIO were done at the beginning and the end of the data collection, (2) (principle of contextualization) on an average, our interviewees had eight years of working experience with the firm, and some of them had more than 20 years; they were able to illustrate the social and historical background of the organization, (3) (principle of interaction between researchers and subjects) an iterative interview strategy was employed; new questions were devised based on the findings from previous interviews.

We began the inductive data analysis at the time of data collection [54, 57, 58]. To derive the strategies from multiple instances (subsidiaries), our data analysis follows a four-level approach proposed by Pettigrew [59]. First, narratives about the organizational context and the communication between the group's and subsidiaries were summarized in a tabular form, forming an "analytical chronology". Second, descriptions related to our sensitizing device (Table 1) were highlighted and structured into a "diagnostic case", built around the key elements of the

research question, i.e. user IS context, and discursive framing. Specifically, we allow second-order themes (i.e. embracing-based, distancing-based) which have not been anticipated a priori to emerge from the data. Third, the diagnostic case is further analyzed such that the descriptions derived in step two are abstracted, the relationship between the user IS context and framing strategy are derived, and the emerged constructs are linked to identified theoretical dimensions. Finally, through constant comparison [60], we looked for similarities and differences across the contextual environments and framing strategies of the subsidiaries while drawing relations between them. A cross-case analysis is conducted to refine the theoretical findings.

From the reiterating process of visiting the literature and data, four framing strategies were identified. What is noteworthy here is, in applying the principle of dialogical reasoning [55], our theoretical preconceptions guiding the research design and actual findings were constantly challenged during and after the on-site visit – e.g., the social constructive perspective of framing, rather than the social cognitive view [17], was adopted after the visit. As our framework emerged, we consistently ensured alignment among the data, theory, and framework [55] until the framework was finalized (in Figure 1). To enhance the validity of findings, the rule of triangulation [61] was applied. Other than multiple data sources, we ensure the convergence of multiple interpretations by interviewees [55]. The analysis was conducted independently by each author, who would later jointly discuss the set of categories and emergent findings to reach an interim agreement. We also presented the interim findings to six to nine of our academic colleagues, half of whom also participated in the data collection, to reach a consensus, particularly when reconciling the differences between interpretations was difficult. An additional session with the Deputy CIO and Group IT team was requested at the end of the visit to validate the representativeness of our framework, particularly the two dimensions of IS context and the

characteristics of the framing strategies.

Case Description and Analysis

Founded in 1949, COFCO was one of the largest state-owned enterprises in China with over 100,000 staff members. Since 1992, COFCO has diversified its business from being a trader to become China's largest food producer. Structured into different subsidiaries, COFCO cultivated, supplied, processed, produced, and sold a variety of food products. The management of each subsidiary was independently responsible for its strategy, operations, and IT development. There was little interdependence between the subsidiaries, and the group's role was largely confined to financial performance evaluation. In 2009, in response to the country's growing concern regarding food quality, a "fully integrated value chain" strategy was proposed by the group to streamline the process of producing consumer products from agricultural yields. Hence, a group-wide ERP system was initiated in early 2012. The implementation of an ES, however, brought undesirable changes for the subsidiaries. Resistance should be managed, as expressed succinctly by the group CIO: "*You are bound to face resistance in communicating IT changes…. We have to use different promoting strategies according to the situations of the subsidiaries.*" In the following, the subsidiaries, their spatio-temporal IS context and the group's framing strategies are illustrated; interview excerpts that reflect discursive framing is underlined, and characteristics of the framing are indicated in parentheses; they will be elaborated in the Discussion section.

China Agri-Industries

Temporal IS Context in Affecting Identity and Issue Framing: China Agri-Industries was one of the COFCO's largest subsidiaries that contributed approximately 40% of the entire group's profits. It operated in the upstream of food value chain processing raw materials such as oilseed, rice, wheat, and biochemicals, which were then sold to other food processing companies. More importantly, China Agri-Industries was the leading food processor with only a few competitors

in China. Because the subsidiary has been performing well in terms of revenue generation and as IT played only a marginal role in contributing to its performance, the subsidiary was unenthusiastic about making drastic changes. This is in line with the temporal orientation of long now. It showed reluctance to implement the group-wide ERP system because the subsidiary was worried that any revolutionary IT changes would disrupt existing operations. The effect of such orientation was illustrated by the Finance Manager and CIO of China Agri-Industries:

"We may not be as good as Japanese companies in certain aspects such as food traceability. You need a huge investment for that and it does not seem to be necessary for us at this stage, considering the maturity of our market. If you demand a radical IT change forcibly, there will be a lot of problems. I am not sure about other subsidiaries, but we are not keen on a drastic change now." (identity positioning – distancing)

"We finished building more than ten factories in last two years… We are done with the foundations and we will sort out our system slowly." – Group Strategy Director

China Agri-Industries was not receptive to a radical change in the near future, given the stability in the organization's environment, industry, and revenue generation (long now orientation). According to the group's deputy CIO, "The subsidiaries' performance is evaluated based on revenue. If they are undergoing a stable growth like China Agri-Industries, there is really little motivation and no urgency to change." Instead of strategic value, they perceived uncertainties with the impending changes imposed by the large-scale ERP system. The subsidiary tended to prefer a series of gradual adjustments that were more manageable. Hence, when the group IT team introduced the ES to China Agri-Industries, it provided a clear, progressive plan for how the system would be rolled out. The group's deputy CIO described her plan with the subsidiary:

"We have to 'dismantle' the change such that it does not look dauntingly radical to China Agri-

Industries. <u>When we break down the ES into a series of small changes, it will become a progressive adjustment process for them…</u> For example, we will do <u>a pilot project with only one operating unit</u> in China Agri-Industries." (issue translation – prospective)

Spatial IS Context in Affecting Identity and Issue Framing: China Agri-Industries has six operating units that managed more than 55 factories across China. Owing to the unique operational requirements of the units and an acquisition-based development, these units inherited IT systems that did not "talk" to each other. As the group's deputy CIO said, "The operating models of these units are isolated, and there is no need for coordination." Moreover, IT was generally considered to play a supporting role. Of the 100 IT staff, 70% were responsible for desktop computer maintenance. Few areas drew on the use of IT and the confidence in managing a radical IT change was low. This is in line with the spatial IS context of low assimilation. It was critical to enhance their awareness of the IT value, in preparing for the group-wide ERP system.

"If you want people to appreciate the use of IT, you have to make them use it first. When they realize that IT can bring more convenience and efficiency and fulfil their needs, then they will be more encouraged to adopt new IT… <u>We communicate with everyone and educate them through the implementation of small systems, like the meeting room booking system</u>." – China Agri-Industries' Finance Manager (identity avowing – affording).

In China Agri-Industries, IT development was fragmented. According to Group IT Executive B, "China Agri-Industries has a financial reporting system. However, considering the capability of ERP, they are still lagging behind." The subsidiary had no experience in managing large-scale IT changes (low assimilation). As such, it expressed fear regarding the IT changes, and preferred to be led by the group's IT team. As such, in communicating the changes to China Agri-Industries, the group IT team provided leadership, acting as a mediator assembling and sharing other

subsidiaries' best practices with China Agri-Industries. In the presence of the group's deputy CIO during the interview, the finance manager of the subsidiary said:

"If the Group doesn't lead, we will not be able to do it… <u>The Group will determine the overall direction. Under the leadership, we can share and replicate the best practice [of ES implementation] from other subsidiaries, and this is most effective"</u> (issue delivery – directing)

COFCO Meat
Temporal IS Context in Affecting Identity and Issue Framing: The incorporation of COFCO Meat in 2008 reflected the strategic direction of COFCO to engage in the meat value chain, an emerging area that integrated livestock and poultry breeding, slaughtering, processing, and distribution. As a new entity, the subsidiary registered a high-speed growth. In addition to competition from incumbents (e.g. Sinograin and YiHaiKerry), COFCO Meat also faced a stiff competition from new entrants. The subsidiary's aggressive expansion plan coupled with fierce competition required the management to monitor the factories' performance closely and to collect data quickly for decision making. Hence, it saw the imperative for an integrated IS to support the expansion and was eager to implement the system (near future temporal IS context).

"After I was transferred to COFCO Meat, I realized that all the operating units have their own finance system, and I could not see what is going on at the higher levels… <u>I saw the importance of an integrated system to support the business development.</u> So, I initiated a [local ERP] project." – COFCO Meat's Deputy Director (identity positioning – embracing)

"We try to identify subsidiaries that have an urgent need for ERP. A good example is COFCO Meat. We have implemented their [local] ERP this year. We associate the discussion with the group ERP system, wherever possible." – Group CIO (identity positioning – embracing)

Because the business was in a formative stage, there was less concern about disrupting the

existing operating model, as opposed to China Agri-Industries. The company could use the opportunity to incorporate the best practices of the industry during its development. Hence, in introducing the new ERP, the group IT team incentivized the subsidiary with the future value of the integrated system (near future), as explained by the Deputy Director of COFCO Meat:

"First, you need to paint a picture. If you acknowledge the future value that I envision, then you are likely to adjust necessarily to support me in achieving the vision... Since we are involved in the early stage, we have a say in the system design. If we join in later stage, <u>it might be too late to make any changes in the system according to our needs.</u>" (issue translation – retrospective)

Spatial IS Context in Affecting Identity and Issue Framing: COFCO Meat expanded rapidly through a series of acquisitions. Fifty-nine farmhouses and factories had been established at the time of study. Nonetheless, the subsidiary was lagging behind in IT use. The farmhouses and factories inherited the old systems of previous owners, and the five operating units that governed these farmhouses and factories had disparate financial systems, resulting in a fragmented network of IT systems. It was only after two years of operations that the subsidiary formed its IT department. The subsidiary's Deputy Director lamented, "I think we are the lousiest subsidiary in IT application. We don't even have an IT department here!" (low assimilation) The management was frustrated by the delayed and inaccurate information. Despite so, the absence of a preexisting IT infrastructure and the few IT experience were articulated by the group as the right opportunity that the subsidiary could tap on to establish its proactive role in the new IS adoption, because there would be fewer issues of compatibility with existing system.

"Since COFCO Meat is weak in IT, <u>it is more likely to welcome the Group's initiative to implement the new ERP system</u>. Without a pre-existing integrated system like the one that China Foods has, the resistance is lower (identity avowing – affording)." – Group IT Executive A

The level of IT usage across its factories, farmhouses, and operating units was uneven. Moreover, the subsidiary lacked IT professionals. Given a less "rigid" IS environment or a low level of IS being embedded in work processes, users are less likely to view the new system as an intrusion to existing routine (low assimilation). Hence, the group IT team took the opportunity to involve in the implementation of the subsidiary's local ERP to prepare them for the group-wide ERP. In doing so, the group IT team devised specific guidelines for the subsidiary. The subsidiary welcomed the help from group since it could influence key decisions given its early involvement.

"We need to follow the rules imposed by the Group, including the design of product codes. The Group already has an overall plan. I will implement the [local ERP] system under the overall planning and guidance of the Group…. If there is any problem, I will definitely consult them." – COFCO Meat's Deputy Director (issue delivery – directing)

China Foods
Temporal IS Context in Affecting Identity and Issue Framing: China Foods was the third largest subsidiary of COFCO. With factories in 21 provinces and a staff of approximately 19,000, China Foods' five main operating units produced and distributed wines and spirits, gourmet foods, and convenience food under many well-known local brands. It was also the distribution partner of Coca-Cola. In a short span of development since 2007, the subsidiary has grown out of a fragmented network of disconnected IT systems across operating units to one with an integrated management system, after two rounds of subsidiary-wide ERP implementation. The subsidiary was at the stage of stable growth: unlike agricultural yields that were highly subjected to uncertain environmental conditions, brand-name food products and beverages were highly standardized products. Although China Foods operated downstream in the value chain and was thus affected by the dynamic end user market, the company has been a market leader, making it less vulnerable to competitors. These fit the conditions of a long now temporal orientation.

Despite that its leadership position was partly attributed to its IT usage, the subsidiary was cautious about implementing new technology, as transpired in the following:

"China Foods is in a fast-moving consumer goods industry which has strong demand for IT. Without the systems, they would lose sights on the inventory and sales." – Group IT Executive B

" I have been emphasizing to my IT staff that <u>what we need is not the latest technology, but what suits us most… We are not a technology company.</u>" – China Foods' Managing Director (identity positioning – distancing)

With a low incentive and urgency to adopt a new system, China Foods tended to take a position similar to that of China Agri-Industries in hoping that the new ES would not cause immediate change in its well-run operations. As such, even though China Foods was more receptive to an IT change compared with China Agri-Industries, the group IT team adopted a progressive approach for China Foods, considering their unwillingness to make another IT change that would affect the planned "longevity" of the benefits from their existing systems (long now).

"Since China Foods has just completed a large-scale ERP system implementation within the subsidiary, the changes they would have to make will definitely be more complicated compared to those that are starting from ground zero. <u>That's why we put them at the later stage of the implementation.</u>" – Group IT Executive A (issue translation – prospective)

Spatial IS Context in Affecting Identity and Issue Framing: China Foods has undergone two ERP implementations. The first large-scale (local) ERP system implementation in 2008 streamlined the procurement and supply chains across its operating units, while the second one integrated ERP system with customer relationship management and business process management modules in 2012. 112 routines were refined, reconstructed, or removed, and the

operating units, production plants, distribution centers, and sales offices were involved. With a dedicated IT department, the IT competence of China Foods was one of the strongest in COFCO. In other words, the spatial distribution of IT is characterized as high assimilation.

"Our Group CIO <u>called us the 'Deming hero' because we are the front-runners in IT development</u>. China Foods is the only subsidiary with an integrated system. Many of the subsidiaries consult us on ERP implementation since we already have about five to six years of experience." – China Foods' Assistant General Manager (identity avowing – affirming)

The use of IT in China Foods was intensive and more evenly distributed across its units. With the experience accumulated from the implementation and maintenance of approximately 40 IT systems (high assimilatin), the group IT team saw little need to use a hands-on approach with COFCO Foods. Instead, the team engaged the subsidiary by assigning it a proactive role.

"I am one of the evaluators for the Group ERP system selection…. <u>We would share our experience of IT implementation with other subsidiaries</u>, like how to manage the data and the process." – Assistant General Manager of China Foods (issue delivery – empowering)

Womai
Temporal IS Context in Affecting Identity and Issue Framing: Womai was COFCO's online business arm established in 2009. It sold food products, such as oil, grains, biscuits, juice, wine, and kitchen supplies produced by COFCO and premium suppliers from China and abroad. In describing their speed of development, the Chairman of COFCO said, "Our colleagues from Womai told me about the promotion of Womai website. I agree in favor in the first meeting. When they raised it for the second time, I was told that it is going online soon. In the third time, they gave me an url.". Leveraging its parent company's well-established brand in food production, the subsidiary quickly gained attention; it won the Top 10 E-Commerce Startups

award in 2009 and the 2009–2010 Best Food Online Shopping Platform Award. Nonetheless, Womai continued to face a dynamic environment. Fresh food was a new and emerging product in e-commerce. In addition to the threat of e-commerce incumbents, Womai faced fluctuating consumer needs, as a result of regular seasonal changes and irregular perks such as food shows or disease outbreaks. Moreover, the company needed to adapt quickly to IT advancements such as social media and mobile marketing, justifying its temporal context of near future.

"The nature of e-business evolves at a fast pace. So, we have to develop quickly to cater for the need of our business growth." – Womai's IT Director (identity positioning – embracing)

As an e-commerce firm, Womai was more open to IT changes (near future). As such, the group IT team put in less effort to convince Womai about the value of the ERP system or to present a concrete plan about how the implementation process would affect them in near term. Instead, the team highlighted Womai's innovation-seeking role in the organization and packaged the new ERP as a strategic initiative that would integrate Womai and other subsidiaries.

"On the one hand, we are an independent e-commerce operator; on the other hand, <u>we are also part of the integrated value chain that the Group hopes to realize through the new ERP system</u>. Womai completes the value chain by bridging the gap between consumers and the previously production-focused COFCO." – Womai's General Manager (issue translation – retrospective)

Spatial IS Context in Affecting Identity and Issue Framing: Womai's strategy and operations were centered on IT. Functional units such as R&D, operations, online marketing, and customer service were proficient in IT, given the extent of IT use in its daily business (high assimilation). Of the subsidiaries, Womai had the most IT-competent staff. As such, they were expected to be more innovative in utilizing the opportunities presented by new technologies.
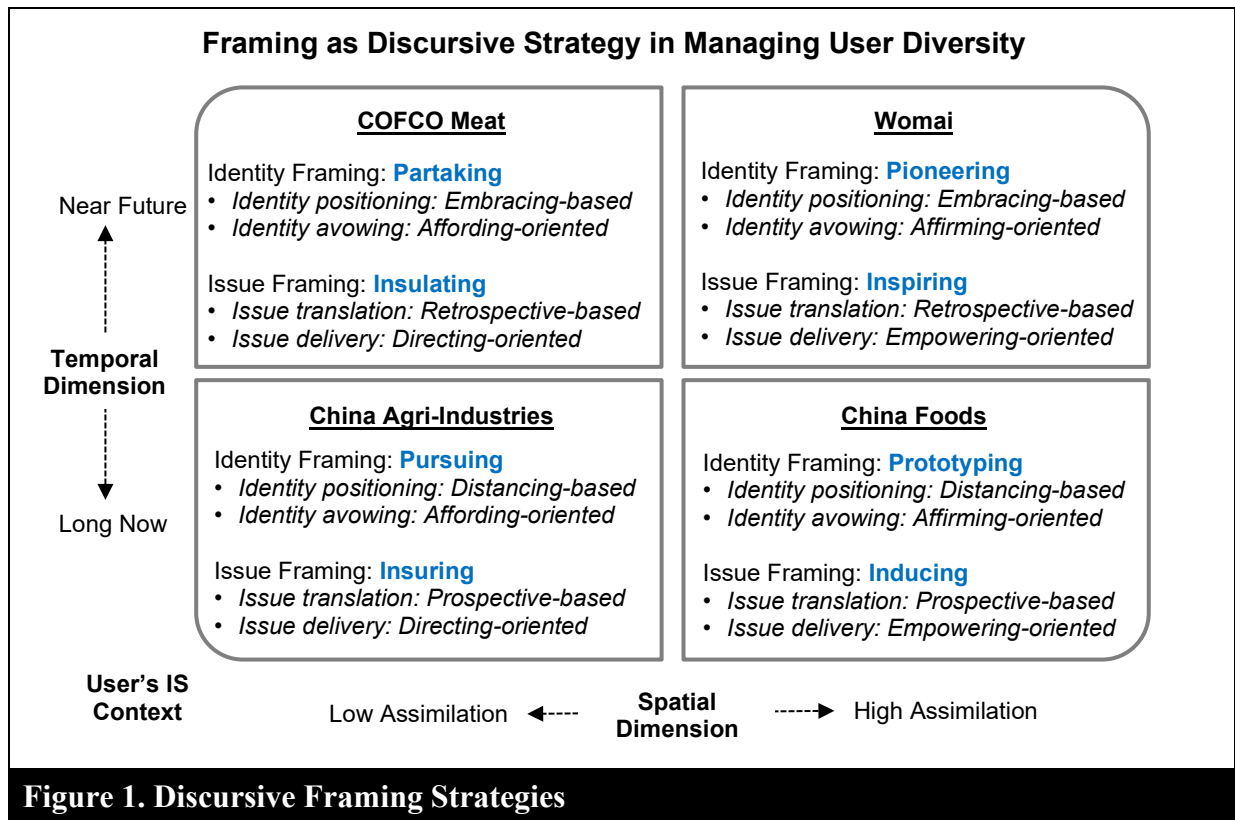
"We have a very strong IT team in Womai. From the point of technological knowledge, they are stronger than other subsidiaries. Their staffs are recruited specially to support the strategic direction of this e-commerce arm." – Group CIO (identity avowing – affirming)

In Womai, the IT presence was nearly ubiquitous compared to the other subsidiaries. In terms of technical skills, Womai had the most competent staff. Their experience in the e-commerce made them more open to change (high assimilation). Accordingly, the group IT team assumed that less effort was required to convince Womai of the value or feasibility of the ES. They were encouraged to share their IT experience in the customer fulfilment process.

"We have no superior knowledge in the upstream process like raw material processing. However, the Group will seek our advice regarding the downstream process, or end consumer-related IT processes." – Womai's Sales Director (issue delivery – empowering)

Discussion
Comparing the subsidiaries' spatial and temporal IS context, our further analysis depicted in Figure 1 reveals an ascertainable pattern of identity- and issue-framing strategies.

Framing as Discursive Strategy in Managing User Diversity

COFCO Meat	**Womai**
Identity Framing: **Partaking**	Identity Framing: **Pioneering**
• *Identity positioning: Embracing-based*	• *Identity positioning: Embracing-based*
• *Identity avowing: Affording-oriented*	• *Identity avowing: Affirming-oriented*
Issue Framing: **Insulating**	Issue Framing: **Inspiring**
• *Issue translation: Retrospective-based*	• *Issue translation: Retrospective-based*
• *Issue delivery: Directing-oriented*	• *Issue delivery: Empowering-oriented*
China Agri-Industries	**China Foods**
Identity Framing: **Pursuing**	Identity Framing: **Prototyping**
• *Identity positioning: Distancing-based*	• *Identity positioning: Distancing-based*
• *Identity avowing: Affording-oriented*	• *Identity avowing: Affirming-oriented*
Issue Framing: **Insuring**	Issue Framing: **Inducing**
• *Issue translation: Prospective-based*	• *Issue translation: Prospective-based*
• *Issue delivery: Directing-oriented*	• *Issue delivery: Empowering-oriented*

Near Future

Temporal Dimension

Long Now

User's IS Context

Low Assimilation ◄---- **Spatial Dimension** ----► High Assimilation

Figure 1. Discursive Framing Strategies

First, when the temporal IS context is characterized as long now and the spatial distribution of IT is characterized as low assimilation, users are likely to be conservative in approaching a new system, and they tend to be followers who seek advice from a successful IT leader. Based on our analysis, we posit that an identity-framing strategy conceptualized as *pursuing* is adopted for such users (e.g., China Agri-Industries). This strategy involves distancing-based identity positioning and affording-oriented identity avowing. As described in the previous section, the long now temporal orientation arises from a stable environment, which imposes little urgency for them to undertake a radical IT change. In fact, the changes may be perceived as threats. To allay the anxiety due to the immediate challenge to their present self, the distancing-based identity positioning is used to distance the users from other groups that have greater motivation and capacity to implement a large-scale ES. In this case, the development history of China Agri-Industries is used to justify the distancing. At the same time, instead of denying the necessity of

the ES, an affording-oriented identity avowing is used to relate them to the initiative considering its low competency and little experience with IT transformation. This framing approach can manifest in an open recognition of the users' IT efforts, regardless of its size, or an acknowledgement that IT transformation for this group of user would necessitate a longer time. A new identity reference is afforded in public such that it minimizes the dilemma [45].

Considering the preference of these users' for a "durable present" [62] and low self-efficacy, an *insuring* strategy that provides leadership and a concrete plan can reassure them. An *insuring* strategy involves prospective-based issue translation and directing-oriented issue delivery. Perceived threats prompt tunnel vision thinking [63]. Since these users are resistant to changes that threaten their well-run operations, prospective-based issue translation could foster their acceptance because it focuses on presenting the ES as a series of concrete actions or changes that are manageable [36], rather than portraying the ES as a desired outcome of future, which they may find uncomfortable coupled with the ambiguous and uncertain implications to the immediate reality. Moreover, given its low IT assimilation, directing-oriented issue delivery is used to provide clear instructions and role definitions, serving as not only useful guidelines but also a reliable support that eases their unfamiliarity with a large-scale implementation.

Second, when the temporal IS context is characterized as near future and the spatial distribution of IT is characterized as low assimilation, users are likely to be keen on capitalizing on the perceived opportunities of the ES but are crippled by their immature IT development. The subsidiary in this context is COFCO Meat. We posit that a *partaking* identity-framing strategy is suitable. This discursive strategy involves embracing-based identity positioning and affording-oriented identity avowing. Instead of focusing on the past or present where IT use is underoptimized, anticipation of future is created for this user group to provide a vision of

possible business growth with better IT appropriation in a dynamic environment [64]. An embracing-based identity positioning broadens the awareness and builds exploratory behaviors in users [63]. By expressing its acknowledgement of IT's strategic value and its imperative IT needs, the users declare their willingness to embrace changes of the ES implementation. Simultaneously, affording-oriented identity avowing is adopted to further encourage these users who have little experience and expertise in realizing IT changes. Our study shows that the low IS assimilation can be casted as a favorable condition for a new ES [2]. For example, the inexistence of legacy IT standards eliminates the issues of rigidity and concerns of interface and compatibility that are bound to be faced by those that already have an integrated system. This example also attests to the claim that organizations that are less embedded in prevailing practices are more willing to develop new ones or accept new ones offered to them [65].

Correspondingly, a suitable issue-framing strategy is an ***insulating*** strategy, which considers the desire of users to adopt an IT change that is beyond their capacity. An *insulating* strategy involves retrospective-based issue translation and directing-based issue delivery. Compared to prospective approach, retrospective-based issue translation focuses on portraying ES as a desired future. In a near future temporal context, the pace of change quickly renders the existing reality obsolete. Hence, a project that is packaged as a series of immediate, concrete, and granular actions is less likely to resonate with these users who look forward to the future value of IS, given that those changes are going to be obsolete very quickly. Instead, this company is motivated with itself being placed in the desired future [50], one that includes an ERP such that it could determine the favorable values of the ES. More importantly, a retrospective approach allows the company some space in their immediate plan (e.g., COFCO Meat adapts its new ERP with the group's plan). While concrete and granular changes are not necessary, directing-oriented

issue delivery is important to provide the leadership and guidance for *partaking* users who have low self-efficacy and competence with the implementation due to their low IT assimilation. The leadership and guidance provides indications to the path of a successful ES implementation.

Third, when the temporal IS context is characterized as long now, and the spatial distribution of IT is characterized as high assimilation, users are no stranger to IT transformation but has little motivation to make any immediate changes (e.g. China Foods). Our analysis shows that an identity-framing strategy conceptualized as ***prototyping*** may be adopted. This strategy involves distancing-based identity positioning and affirming-oriented identity avowing. Even though the business may uphold IT as a strategic competitiveness, a stable environment and a leading position in the market create little urgency for such users to pursue immediate IT changes that may disrupt its current operations. Hence, to defend its reactive stand, a distancing-based identity positioning is used. By asserting that IT development should be highly business-driven, users can dissociate their role from IT exploration. At the same time, to associate the user group to the group initiative, affirming-oriented identity avowing can be used by acknowledging it's past IT efforts [46]. The successful IT experience can be shared publicly to establish their position as a role model in IT transformation, or a reference actor that helps to reduce ambiguity about the value of the ES. In this case, a particular label (i.e., Deming hero) can serve as a synecdoche in order to make sense to other users about the active role of this user group as a champion [45].

Considering the users' strong IT infrastructure but preference for minimal disruptions to the status quo, an applicable issue-framing strategy is an ***inducing*** strategy. This strategy involves prospective-based issue translation and empowering-oriented issue delivery. Given that these users are the role model in IT application, it is not necessary to communicate the value of the new ERP system via a retrospective approach. Because they are situated in a relatively stable IS

context, which provides less incentive for change, our analysis shows that prospective-based issue translation is more effective [50]. What is noteworthy from our case is that even though IS is seen as strategic to the business (China Foods), it is not the only factor that determines the user's receptive attitude to new IS, especially across time horizon. Temporal IS context that considers factors like environmental dynamism and stage of development is therefore useful to capture the differences of users across time. Simultaneously, empowering-oriented issue delivery can be used with such users. In particular, by engaging these experienced users as advisors or change agent in the early stage of implementation, it helps to foster their participation [64].

The last identity-framing strategy is **pioneering** strategy. It is suitable when the temporal IS context is characterized as near future and the spatial distribution of IT is characterized as high assimilation. This discursive strategy involves embracing-based identity positioning and affirming-oriented identity avowing. A dynamic temporal IS context renders quickly the current use of IT inadequate. The sense of urgency of these users continues to persist and hence the embracing-based identity positioning is used. In defining the identity of this user group, ideology and characteristics such as IT innovativeness are attributed to distinguish it from others. In response, the user group identifies with this "heroic stance", enhancing the boundary between itself and the rest of the organization. To further validate its identity, affirming-oriented identity avowing was used. To honor their IT achievement, its past IT deployments can be embellished and shared in the organization as manifestations of its strategic propensities (e.g., the awards).

Correspondingly, we contend that a suitable issue-framing strategy for such users is an **inspiring** strategy, given their inherent motivation to explore IT and their strong IT infrastructure that supports such exploration. Such a strategy involves retrospective-based issue translation and empowering-based issue delivery. A dynamic temporal context constantly devalues prior

knowledge and degrades new knowledge. Hence, retrospective-oriented issue translation is more appropriate because it addresses a higher level of abstraction by focusing on goal-relevant thinking. It allows users to devise possible paths to reach the desired future [50]. This is reinforced by an empowering-based issue delivery, which serves to motivate these users to make full use of their IT capability. As an acknowledgment of these users' IT capability and proactiveness, they can be engaged as partners in the implementation.

Theoretical and Practical Implications
Our findings are built on the diversity of users across subsidiary units. Under the assumption that the user diversity within units is low, the boundary condition of our framework is organizations of multiple subsidiaries, businesses, and functional units with parity of power in relation to the parent organization. Our contribution lies in a systematic analysis of the variations among users at unit level, and more importantly, an explicit examination of the relationships between these variations and discursive framing. Specifically, the theoretical contributions are twofold.

First, our study addresses a literature gap by conceptualizing discursive framing strategies in managing user diversity during ES pre-implementation. Although it has suggested that discursive framing be used to manage user diversity [7], theorization of "how" framing is conducted is lacking [3, 13, 30]. Therefore, by considering user diversity across of four subsidiaries in distinctive spatial and temporal IS contexts, we conceptualize four identity-framing strategies, i.e., *pursuing*, *partaking*, *pioneering*, and *prototyping*, and four corresponding issue-framing strategies, i.e., *insuring*, *insulating*, *inspiring*, and *inducing*. In addition to issue framing, the findings also shed light on how the identity of change recipients may be framed, an understudied area in the discursive framing. This finding is important, as identity framing generates a priming effect, exposing users to a stimulus that predisposes them to react in a certain way [66]. With this finding, we move beyond the conventional notion that change recipients are homogeneously

resistant to ES implementation and provide corresponding framing strategies, addressing simultaneously the scarcity of studies on implementer's response to resistance [67].

Second, this paper extends analysis of organizational discourse by performing a spatio-temporal analysis of users' IS context. Local context shapes user's understanding of particular phenomenon [7] and that strategizing is often context bound [25]. Organizational discourse that is adapted to the local circumstances of receivers is more likely to create a resonance with the receivers, compared to discursive framing that is insensitive to the local context [15]. However, despite its significant influence, research on users' context in discourse analysis has been lacking [23]. Hence, our study explicitly examines users' IS context in analyzing organizational discourse. By characterizing temporal IS context as "long now" or "near future" and spatial IS context as "low assimilation" or "high assimilation", our analysis unravels the influence of these characteristics of context on discursive strategies in ES implementation.

Our findings open several avenues for future research. First, future research can validate our proposed identity- and issue-framing strategies in other organizational contexts or subsequent ES implementation phases. Using our framework as a point of departure, such research could also explore new strategies to enrich the literature on discursive framing and change management in ES implementation. Second, researchers can study lateral discursive framing and its influence on users. Previous studies have contended that managers and colleagues tend to influence users in different ways [68]. Further examination would be necessary to elucidate such differences in discursive framing. In addition, subsequent IS research can use the spatial and temporal dimensions of user's IS context in our framework to compare different stakeholder groups.

Our findings have the potential to inform practical interventions in ES implementation. Our study supports Ford et al.'s [69] suggestion that manager's insensitivity to users' unwillingness

to accept change could result in a "persistence of resistance". Rejecting the assumption that users are homogenously resistant to change, our findings provide a categorization of users based on their IS context, which could be useful for IS managers in anticipating and managing user reactions. Moreover, our study provides guiding principles regarding discursive framing in managing diverse users, shifting away from the use of political strategies that could lead to a false consensus [70]. Managers can tailor their communication narratives [6] by translating the value of the ES and adapting the delivery discourse in line with the recipients.

Conclusion and Limitations

This research aims to examine how discursive framing is conducted in managing user diversity during ES pre-implementation. Through a case study of China's largest food supplier, we conceptualize the discursive framing strategies that legitimize the introduction of an ES. In doing so, we integrate a spatio-temporal analysis of users' IS context into organizational discourse analysis. By understanding the spatial and temporal aspects of users' IS context, which gives rise to user diversity, we develop four identity- and issue-framing strategies: *pursuing* and *insuring*, *partaking* and *insulating*, *pioneering* and *inspiring;* and *prototyping* and *inducing*.

The findings should be viewed within the context of its limitations. First, as we investigated discursive framing between the group and its subsidiaries, we relied on the interviews with and archival data from the organizational members. We were not able to observe the communicative actions that transpired between the group and its subsidiaries or access the data that describe such processes (e.g., meeting memoranda) due to confidentiality concerns. As such, interpretive and retrospective bias may affect our results. However, we minimize such bias by triangulating the data from both the change agent (i.e., the group) and change recipient (i.e., the subsidiaries), and from both primary and secondary data sources.

The second limitation is related to the time and subject of investigation. Our study was conducted toward the end of the ES pre-implementation and focus mainly on the interaction between the group and subsidiaries. Other stakeholders like vendors who are involved later were not included in the study. While there may be more discursive framing with vendors' involvement, we envision that in the absence of information about system or vendor before the tender, users will attempt to interpret the ES in terms of their existing IS context such as knowledge, assumptions, expectations, interests, and goals [17]. In other words, it helps us to focus sharply on the effect of IS context on discursive framing. Nonetheless, we would like to stress that discursive framing will continue in the subsequent stages of implementation, and the changes including involvement of more stakeholders and power dynamics have to be considered as they are likely to affect user's IS context and the discursive framing.

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