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Grace, A; Finnegan, P; and Butler, Tom, "Service Co-Creation with the Customer: the Role of Information Systems" (2008). *ECIS 2008 Proceedings*. 92.

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SERVICE CO-CREATION WITH THE CUSTOMER: THE ROLE OF INFORMATION SYSTEMS

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Abstract

This research-in-progress paper investigates the role of IS in delivering co-created services within the Financial Services Industry. These types of collaborative interactions where services are co-created between service providers and customers are under-researched, yet they are a growing phenomenon within professional services organisations. In particular, little is known about how IS can be used to facilitate co-creation interactions. The more that IS are used to facilitate customer interactions, the less scope there is for individually tailoring or co-creating service offerings with customers in a manner traditionally associated with person-to-person customer relationship strategies. This is argued to be a major obstacle, as organisations increasingly seek to use technology in their interactions with customers. Using Activity Theory as an analytical lens to view extant research, the paper develops a conceptual model for service co-creation. This model will guide empirical research in several Financial Service organisations with the aim of improving extant understanding of service co-creation and, specifically, the role of IS in this process. The paper concludes with a brief report on research-in-progress and outlines initial findings from the study.

Keywords: Service Co-creation, Activity Theory, Information Systems, Financial Services, Co-production, Consumer

1 INTRODUCTION

Previous research has illustrated that there is a general consensus among executives across a range of industries that “*customers often value how they interact with their suppliers as much as or more than what they actually buy*” (Vandenbosch and Dawar 2002, p. 36). Consequently, increased emphasis is being placed on managing the customer experience during the service interaction (Vargo and Lusch 2004; Prahalad and Ramaswamy 2004b). Moreover, customisation strategies aimed at providing customers with individually tailored services are becoming increasingly important (Rust and Kennan 2003; Vargo and Lusch 2004), particularly within professional services (Jaakkola and Halinen 2006). Better education, technological innovations and availability of information (including the internet) means that more knowledgeable customers are now better placed to engage in informed dialogue with service professionals (Vargo and Lusch 2004). These sophisticated customers seek to collaborate with customer service professionals in determining what the specific service offering should entail and this collaboration is increasingly facilitated with technology (Barnes *et al.* 2005; Froehle 2006). While there has been much research in the area of technology infusion into service interactions (Piccoli *et al.* 2004; Levenburg and Klein 2006) and on getting feedback from customers on individual service interactions for improving the design of existing services (Barnes *et al.* 2005), there is however, a dearth of research on how different service contexts affect how technology plays a role in the service situation (Froehle and Roth 2004), and, in particular, how IS can be used to facilitate collaborative interactions where the service is co-created with the customer.

This research-in-progress paper investigates the role of IS in delivering co-created services within the Financial Services Industry. Activity Theory (Engestrom 1987) is proposed as an appropriate conceptual vehicle for the present study as it incorporates constructs that capture the people, processes and IT dimensions of IS (Korpela *et al.* 2004). It is particularly significant that Activity Theory focuses on how human interactions are mediated by IT artefacts (Agerfalk *et al.* 2006), making it an excellent theoretical lens for examining IS-based service co-creation. The study makes several contributions to research in the IS field. It contributes to theory by presenting a conceptual model for service co-creation consisting of three constructs, namely: IT artefacts that are used to enable the service co-creation; roles/responsibilities of the service professionals and customers in this process; and procedures/rules/norms of the organisation that guide participants in service co-creation. The model hypothesises on the relationship between these three aspects of IS and service co-creation and illustrates how they affect a number of organisational factors, interaction factors and infrastructure factors that enable co-creation to take place. The findings of the study support the appropriateness of the conceptual model to explore the co-creation phenomenon, but indicate that the model needs to be modified and further elaborated upon. The results of the study improve extant understanding of service co-creation in financial services and reveal insights into the role of IS in enabling collaborative interactions with customers who play an active role in co-creating services offered by financial institutions.

The next section examines the theoretical foundation for the study and this is followed by a consideration of the research methodology. The paper then concludes by outlining the research-in-progress and initial findings from the study.

2 THEORETICAL GOUNDING

This section of the paper first describes service co-creation and outlines the foundations of Activity Theory and the Activity System. Subsequently, the Activity System is applied to the service co-creation context and the elements of the system that directly affect service co-creation are highlighted. A conceptual model for the study is then developed by reviewing current literature with a specific focus on how these elements influence service co-creation. The model will be used to guide empirical

research within a number of case studies with the aim of improving our understanding of service co-creation and specifically, to identify how IS are used in service co-creation interactions.

2.1 Service Co-creation in Professional Services

Service co-creation is a type of joint production of a service between a customer and a service professional (Meuter and Bither 1998) where the intentional involvement and high level of participation of the customer guides the co-creation of the service outcome (Bitner *et al.* 1997). Service co-creation is not customer production or self-service (Meuter and Bither 1998) where the service is produced entirely by the customer with no participation by the firm's employees; nor is it any other type of joint production with lower levels of customer participation (Bitner *et al.* 1997). It is "*buyer-seller social interaction and adaptability with a view to attaining further value*" (Wilkstrom 1996, p. 10) and involves "*participation in the creation of the core offering itself...It can occur through shared inventiveness, co-design, or shared production*" (Vargo and Lusch 2004, p. 284). This high level of customer participation in the service production activity has previously been referred to in the literature under the general term 'co-production' (Mills *et al.* 1983; Schneider and Bowen 1995; Wilkstrom 1996).

Professional services usually occur within "*one-to-one interactions involving repeated, frequent encounters with the same professional service provider and contain differences including: complexity, the intimate nature of exchange, and co-production of service outcomes by both the client and the service provider*" (Hausman 2003, p. 226). Professional service provision has principally been regarded as problem solving for the customer (Jaakkola and Halinen 2006) which requires the service professional to possess specialist knowledge and skills developed through lengthy, formal higher education (Hausman 2003). It has also been considered typical that the professional is approached by the potential client to obtain benefit from this knowledge that cannot be easily learned by themselves (Jaakkola and Halinen 2006) and therefore, that there is an information asymmetry between the provider and the inexpert client leading to an inbuilt power imbalance in the professional service encounter (Hogg *et al.* 2003). However, better education and advances in IS that have increased the availability of information have combined to reduce the information and power asymmetry between consumers and professionals (Laing *et al.* 2005; Jaakkola and Halinen 2006). "*The impact of this challenge is most apparent and acute at the level of consumer-professional interaction*" (Hogg *et al.* 2003, p. 485) where there is a new inherent challenge to the authority of professionals as "*gatekeepers to specialist knowledge*" (Laing *et al.* 2005, p. 685). Customers are increasingly becoming co-creators of value by creating their own personalized experiences through active dialogue with the service professional and this forces a fundamental redesign of the service interaction where the professional must integrate the needs of this new breed of consumer into the interaction by acknowledging their altered role (Laing *et al.* 2005). Furthermore, advances in IS have created an easily accessible and relatively affordable link between a firm and its customers (Barnes *et al.* 2005) and service interactions are increasingly mediated through IS (Froehle 2006).

Extant literature on customer participation in service interactions has focused largely on two themes: (1) organisational advantages of customer participation in the production of a service and (2) managing customers as partial employees (Bendapudi and Leone 2003). Little is known about service co-creation interactions and in particular how IS can be used to facilitate co-creation of a service between a service professional and a customer. In order to fill this gap in our understanding, an analytical lens is needed to bring focus to our study on how service co-creation is achieved. Activity Theory (Engeström 1987) is proposed as an appropriate conceptual vehicle as it is context sensitive and incorporates constructs that capture the people, processes and IT dimensions of IS (Korpela *et al.* 2004). Furthermore, Activity Theory focuses on how human interactions are mediated by IT artefacts (Agerfalk *et al.* 2006) and this makes it an excellent theoretical lens for examining IS-based service co-creation.

2.2 Activity Theory and the Activity System

Activity Theory (AT) has its origins in the Vygotskyian (1978) concept of artefact-mediated and object-oriented action, whereby human beings' interactions with their environment are not direct, but instead the interaction between a human individual and the objects of the environment is mediated by cultural tools. Engestrom's (1987) activity system incorporates the community based elements of human activity, see Figure 1 below. It is the transformation of the shared object into an outcome that defines the motive behind an activity. Figure 1 illustrates that the *subject's* interactions with the shared *object* of this activity are not direct, as indicated by the broken arrow. Instead, they are mediated through the rules (e.g. regulations and cultural norms), division of labour (e.g. roles and responsibilities of each actor in the community involved in the activity) and tools (e.g. concepts, instruments, language, technologies) of the activity, as indicated by the solid arrows. We can see from this figure that the interactions between *community* members (i.e. other actors in the community involved in the activity) and the shared *object* are also mediated through their use of tools, as well as the co-ordinating roles and rules that guide them in how the object is to be transformed into an outcome. Furthermore, the interactions between the *subject* and individuals in the *community* are not direct, but are mediated through their use of tools, co-ordinating roles and rules that guide both of them in the activity. The mediating factors not only facilitate or constrain the achievement of the shared object, but also influence the mental functioning of individuals involved in the activity through the process of internalisation, and these mediating factors are themselves shaped and updated by the social and cultural context where the activity is taking place (Engestrom 1987; Agerfalk *et al.* 2006), hence the arrows are two-way. In the next section, the Activity System is applied to the service co-creation context and this enables us to identify the key elements of the system which directly influence service co-creation.

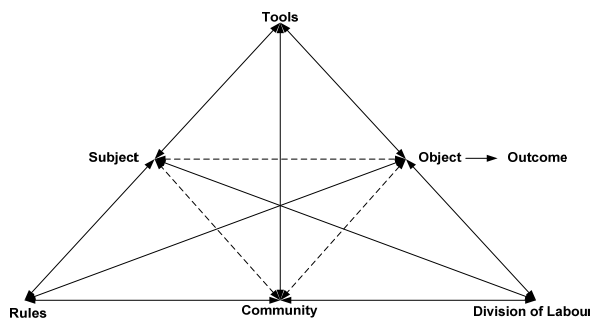


Figure 1. The Activity System, adapted from Engestrom (1987)

2.3 The Service Co-creation Activity System

Applying Engestrom's (1987) activity system (see Figure 1) to the service co-creation context, the activity of service co-creation between a service professional (SP) and a customer can be depicted as in Figure 2 below. While the SP and customer do indirectly affect the accomplishment of the activity by how they engage in a series of roles, how they interpret the rules and how they use the tools available to jointly co-create the service (indicated in Figure 2 by the broken arrows from SP to service co-creation and from customer to service co-creation), this research focuses on the elements of the activity system which mediate service co-creation between them and thus directly influence service co-creation. These are: (1) organisational rules/norms (indicated by the solid arrow from organisational rules/norms to service co-creation); (2) roles/responsibilities of the SP and customer (indicated by the solid arrow from roles/responsibilities of SP & customer to service co-creation); and (3) technological/non-technological tools (indicated by the solid arrow from technological/non-technological tools to service co-creation). This direct influence of the mediating variables on service co-creation is highlighted inside the circle on the right hand side of the figure.

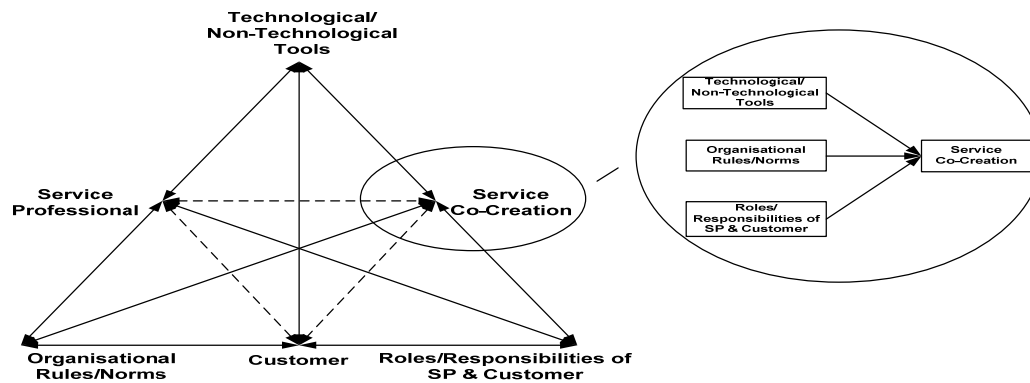


Figure 2. The Service Co-Creation Activity System

2.4 Towards a Theory of Service Co-creation

Research on co-creation as it has been outlined above, is in its infancy, but there is a sizeable body of research which explores service co-production between the service professional (SP) and the customer, and in particular co-production involving high levels of customer participation. This literature and recent literature on service co-creation were reviewed with an emphasis on the direct influences on service co-creation, as identified by the Service Co-creation Activity System (see Figure 2); that is ‘how exactly do rules, roles and tools facilitate or constrain service co-creation between the SP and the customer’. The resulting conceptual model (see Figure 3 below) depicts the key constructs and relationships that have been identified from the literature. Primary influences are indicated by solid arrows and secondary influences are indicated by broken arrows within this figure.

Primary Influences of Rules:

Extant literature reveals that organisational rules and norms affect service co-creation by *governing* a number of organisational environment factors that enable the service co-creation activity to take place. These are depicted in the ‘Organisation Factors’ component of the model and include:

- A **service climate** that applies a ‘**service-dominant logic**’ which is philosophically grounded in a commitment to collaborative processes with customers and implies that value is defined by and co-created with the customer, rather than embedded in output (Vargo and Lusch 2004).
- **Organisational socialisation** is the process by which an individual adapts to and comes to appreciate the values and norms of an organisation, which, in turn, can have a significant impact front-line personnel who must exercise discretion in service co-creation with the customer (Hartline *et al.* 2000) and which is also relevant to a service customer who participates in the production of the service as a partial employee (Guttek *et al.* 2002).
- **SP autonomy** which is needed to empower a SP to satisfy a customer’s unique request and to solve problems directly (Hartline *et al.* 2000; Bowen and Ford 2002).

Primary Influences of Roles:

We have deduced from the current literature that the roles and responsibilities of the SP and the customer in the service activity affect service co-creation by *orchestrating* a number of service interaction factors that enable collaborative service co-creation. These are depicted in the ‘Interaction Factors’ component of the model and include:

- A **Service relationship** which is built between the SP and the customer through “*interacting together over time*” (Ballantyne and Varey 2006, p. 337) whereby the knowledge and skills of a firm are integrated with the knowledge and skills of the consumer and applied for maximum benefit of the consumer’s individual situation (Vargo and Lusch 2004). **Mutual commitment**

(Thompson 1967; Shemwell *et al.* 1993) and **Trust** (Shemwell *et al.* 1993; Rust and Kennan 2003) are key aspects of the service relationship, particularly when the outcome of the interaction is not fully governed by rules, resulting in uncertainty and perceived risk (Mayer *et al.* 1995).

- **Mutual adjustment** which is the primary mechanism of organizing and co-operating between a SP and a customer in co-creating a service (Thompson 1967; Larsson and Bowen 1989). The **SP must lead** the service interaction in co-creating the service (Larsson and Bowen 1989) and has a diagnosis role (Mills *et al.* 1983; Surprenant and Solomon 1987) whereby, they are expected to “*recommend and direct rather than merely give impartial information*” (Mills *et al.* 1983, p. 305), yet they must remain flexible and their role must evolve in response to the customer’s behaviour throughout the service interaction (Broderick 1999).
- **Information exchange** which is essential between parties who are endeavouring to solve equivocal or ambiguous problems (Daft *et al.* 1987), particularly when participants’ task relevant knowledge is high (Kahai and Cooper 2003), as would generally be the case in service co-creation between a SP and a knowledgeable customer (Laing *et al.* 2005; Xue and Heim 2005). One critical form of information exchange that enables successful service co-creation is **dialogue** (Vargo and Lusch 2004; Ballantyne and Varey 2006).
- **Learning and creativity** which is essential for service co-creation (Wilkstrom 1996; Ballantyne and Varey 2006) and requires that both the SP and the customer are open to learning, “*resulting in new ways of acting according to the insights gained by the reflection*” (Wilkstrom 1996, p. 11).

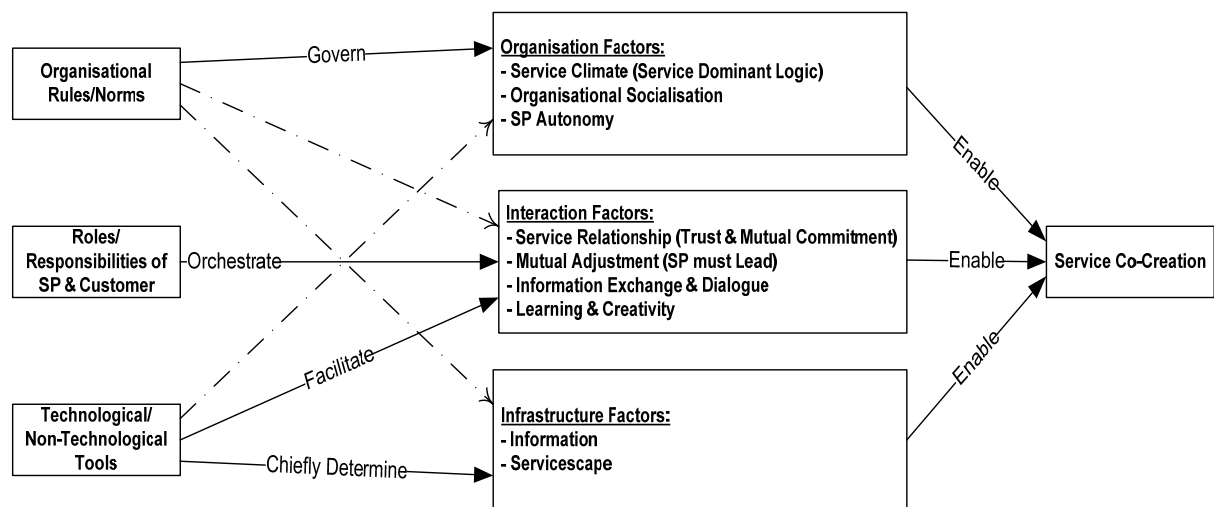


Figure 3. Service Co-creation – Towards a Theory

Primary Influences of Tools:

An analysis of existing literature shows that both technological and non-technological tools *chiefly determine* two of the key infrastructural environment factors which *enable* service co-creation. These are depicted in the ‘Infrastructure Factors’ component of the model and include:

- **Information** which is critical for service co-creation is the raw material of the service activity under conditions of uncertainty (Mills and Morris 1986). Technological tools described as ‘knowledge technologies’ (Thompson 1967) can be used to simplify and improve the customer experience (Ballantyne and Varey 2006; Levenburg and Klein 2006) and to facilitate increasingly flexible and complex service activities with the customer (Rust and Kennan 2003; Piccoli *et al.* 2004). As well as service related information, knowledge technologies can also store customer information that has been collected either by the SP involved or by other employees within the

service organisation and this information can support the SP in their efforts to provide a uniquely tailored service to that individual customer (Rust and Kennan 2003; Piccoli *et al.* 2004; Barnes *et al.* 2005).

- Physical tools and environmental surroundings that collectively make up the setting for the service, in what has been termed the ‘**servicescape**’ (Bitner 1992). This servicescape influences the individual behaviour of both the SP and the customer by providing signals regarding how to accomplish the service activity (Bitner 1992), thereby significantly impacting on service production between the SP and the customer (Meyronin 2004).

Extant literature reveals that technological tools can also affect service co-creation by sometimes *facilitating* the interaction factors that *enable* service co-creation between the SP and the customer. This is depicted by the ‘Facilitate’ relationship between ‘Technological/Non-Technological Tools’ and the ‘Interaction Factors’ component of the model and is described below:

- Interactive communication tools can complement the **service relationship** (Kraut *et al.* 1999) and enhance overall communications with the customer (Barnes *et al.* 2005). However, over-use of mediation tools can impoverish service relations and can constrain service co-creation with the customer (Meyronin 2004) as the lack of social presence in interactive communication technologies may increase the consumer’s perception of risk and uncertainty (Featherman *et al.* 2006).
- Communication tools used to mediate the service interaction can also facilitate and encourage **mutual adjustment** between a SP and a customer “*by removing the physical, spatial and temporal limitations to communication which hinder effective cooperation*” (Bensaou 1997, p. 112) and open up entirely new ways of cooperating (Burgoon *et al.* 2000).
- Technological tools can be used to facilitate **information exchange** (Burgoon *et al.* 2000; Meyronin 2004) and **electronic dialogue** between a SP and a customer during the service activity (Burgoon *et al.* 2000; Rust and Kennan 2003; Vargo and Lusch 2004).
- Interactive communication technologies can lengthen the social distance of person-to-person network links (Mills and Morris 1986), which may have an adverse effect on the **creativity** that can be achieved between the SP and the customer during the service activity (Mills and Moshavi 1999).

Secondary Influences of Rules, Roles and Tools:

Apart from the primary influences of rules, roles and tools on service co-creation already described, extant literature also indicates that, to a lesser extent, organisational rules and norms can influence a number of interaction and infrastructure factors and this is depicted by broken arrow relationships between ‘Organisational Rules/Norms’ and both the ‘Interaction Factors’ and the ‘Infrastructure Factors’ components of the model. Organisational rules that have been termed ‘rights of integration’ (Mattsson 1994, p. 50) should encourage the SP to develop a **service relationship** with the customer during interactions (Gutek *et al.* 1999). Organisational rules and norms may also influence the **learning and creativity** that takes place between the SP and the customer in service co-creation (Ballantyne 2004). Formal and informal rules can be “*both a constraint and a resource for creativity*” (Kern 2006, p. 77) and the openness to learning of the SP “*may in the end depend on the willingness of those in authority to allow it and support it in the face of what may seem to be uncertain outcomes*” (Ballantyne 2004, p. 121). Furthermore, a lot of the **information** that is made available within knowledge technologies may be influenced by organisational rules and norms (McDermott 1999; Butler 2003; Schultze and Orlikowski 2004), predominantly in relation to getting ‘*people to simply document their insights*’ (McDermott 1999, p. 103).

There is also reference in the current literature to how technological tools can influence certain organisation factors, depicted by broken arrow relationship between ‘Technological/Non-Technological Tools’ and the ‘Organisation Factors’ component of the model. The benefits of

advanced IS tools can impact the **organisational socialisation** process regarding information dissemination, “*making it more efficient, less stressful, and less ambiguous*” (Flanagin and Waldeck 2004, p. 143).

3 RESEARCH OBJECTIVE AND METHOD

The objective of this research is to empirically investigate the role of IS in co-creation interactions between service professionals and customers within the Financial Services Industry. Using Activity Theory as an analytical lens to view extant research, we have developed a conceptual model for service co-creation (see Figure 3 above). The model identifies the key constructs and relationships that enable service co-creation and will guide the conduct of the study.

When the state of knowledge in an area is still at an early stage of investigation, the research purpose should focus on ‘discovery’, it should be exploratory in nature, and should concentrate on theory building (Galliers 1991). Furthermore, IS researchers should learn and theorize primarily from studying systems in practice because much IS research trails behind practitioners’ knowledge (Benbasat *et al.* 1987). A qualitative strategy that incorporates a collective instrumental case study approach is regarded as being the most appropriate research method for conducting this research (Yin 1989).

The research is based on selected service offerings from leading organisations within the Financial Services Industry and data gathering for the study is already well underway in three Financial Services organisations. Following Yin (1989), the cases were purposefully selected for study on the basis that they offered individually tailored or co-created services to at least some of their customers. Two of these organisations are subsidiaries of large international Financial Services firms and one is a national Financial Services company. All three of these organisations offer an individually tailored financial planning and wealth management service, primarily to high value customers. This service offering provides individuals with tailored advice and assistance on a number of aspects of personal financing and wealth maximization including private banking and financing, investment management, trust and estate management, portfolio management and tax advice. This type of service is a good fit for the research because the service outcome must be co-created with the customer to suit their unique financial and personal circumstances, as well as their individual financial requirements and aspirations for the future. The key informant approach was adopted to select subjects for interview within each case (Yin 1989; Stake 1994). The interviews were semi-structured and the interview protocol was informed by the conceptual model (see Figure 3). Each interview was recorded and typically lasted approximately 1.5 hours. Data was also gathered from a variety of documentary sources within each case. Interviews were transcribed and were interpreted, as were related documentation, using a coding scheme that drew on elements in the conceptual model.

4 RESEARCH IN PROGRESS

Data gathering began in July 2007 and a number of interviews have already been carried out with senior SPs (acting as Financial Advisors) who provide individually tailored financial planning and wealth management services to customers. Three of these interviews were at director level. One of the organisations is in the process of implementing a new IS to improve management of these types of collaborative interactions and an initial interview was carried out with the suppliers of this new system. A leading Wealth Management Consultant who advises the Financial Services Industry was also interviewed.

4.1 Initial Findings

Preliminary findings from the study support the appropriateness of the conceptual model as a research lens to explore the phenomenon of interest. The conceptual model suggests that the co-creation is enabled by a number of aspects of IS including: (1) organisational rules/norms; (2) roles/responsibilities of the SP and the customer in the service co-creation activity; and (3) technological/non-technological tools used in the service co-creation activity (see Figure 3). This has been supported by empirical data already gathered in the study. Furthermore, the model hypothesises on exactly how these aspects of IS enable service co-creation by affecting a number of organisational factors, interaction factors and infrastructure factors. Early findings indicate that the model needs to be modified and further elaborated. For example: (1) organisational socialisation did not appear to be a key organisation factor; (2) organisational processes emerged as an additional significant organisation factor; and (3) mutual understanding emerged as an additional key interaction factor. Furthermore, although technological tools are used to facilitate certain aspects of service interactions, SPs who were interviewed do not use technology to fully mediate service co-creation and could not envisage doing so. The reasons for this will need to be further investigated. We describe our initial findings in more detail below.

The preliminary findings indicate that a customer's participation in co-creating a service with a SP normally increases after a period of time spent dealing with the SP and learning detailed technical knowledge about the service. Furthermore, while 'service outcomes' are variable and are co-created between the SP and the customer, compliance regulations within the Financial Services Industry impose substantial rigour on all service processes, including co-creation processes, and these remain primarily formalised and fixed. In line with the model, a customer oriented service climate and SP autonomy did appear to be important organisation factors to enable service co-creation. However, organisational socialisation did not feature as particularly important in interviews to date. Instead, the formalised organisational processes that were in place to guide both the SP and the customer through service co-creation emerged as an important organisational factor to enable service co-creation.

With respect to the influence of the SP and customer roles and responsibilities on service co-creation, early indications suggest that the roles that SPs and customers play during service interactions have a central influence on service co-creation. Initial findings indicate that the four key interaction factors outlined in the model (i.e. service relationship; mutual adjustment; information exchange and dialogue; and learning and creativity) are important interaction factors to enable service co-creation. In particular, ongoing dialogue and the building of trust between the SP and the customer emerged as critical enablers of service co-creation. While the service professional typically leads the initial service interactions, it is imperative that there is a mutual adjustment of roles and that the customer subsequently leads the co-creation process (i.e. specifies the course of action) in order that the service outcome is right for that customer. With regard to learning and creativity, it became apparent that a lot of the learning was on the part of the customer during the early service interactions with the SP, but as the customer became more knowledgeable about the service, learning became increasingly mutual. In addition, the findings indicate that mutual understanding is also an important interaction factor to enable service co-creation and, furthermore, that it is the responsibility of the SP to ensure that there is mutual understanding between the SP and the customer at all times.

In relation to the influence of technological and non-technological tools on service co-creation, SPs emphasised that the technology infrastructure is vital to them for the storage and access of both customer and service information in service interactions leading up to service co-creation and in managing the delivery of the co-created service. This is in line with the conceptual model. However, many of the SPs highlighted the difficulties in sharing service information (e.g. current valuation of investments) with the customer. Individually tailored information updates appear to be tedious and time consuming to create, particularly when the information needs to be pulled from multiple locations (e.g. investment firms, banks, brokerages) and, in some cases, this information exists on legacy systems. With regard to the 'servicescape', SPs indicated that formal meeting rooms with advanced

facilities at their offices are useful for creating the correct environment for co-creation. Mobile technology and hard-bound formal reports also emerged as important aspects of the 'servicescape' to facilitate service co-creation in the case of face-to-face meetings with the customer outside of the SPs' offices.

When asked about the use of technological tools to facilitate service interactions, SPs were adamant that they do not use technology to facilitate service interactions in their entirety (i.e. they do not use technology to fully mediate service co-creation with the customer). Instead, they use technology to facilitate certain aspects of service interactions. They use information technology (e.g. email) extensively to initiate a conversation with a customer or to follow up on a conversation with a customer as part of the co-creation process and they also use technology (e.g. mobile access to knowledge technology) to assist a conversation with a customer in a telephone or a face-to-face service interaction. Significantly, one of the organisations studied is planning to implement a Tapi system with laptops for their SPs who, when they are out on business, will automatically be provided with access to the relevant service and customer information when they receive a phone call from an existing customer to a soft phone on the laptop. SPs emphasised that dialogue with the customer in face-to-face service interactions is critical for service co-creation itself to take place and that technology cannot fully facilitate all service interactions in a service co-creation process. The reasons for this will need further exploration.

Data collection will continue within these cases until mid 2008 and a number of other cases will also be incorporated into the study.

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