
**Developing a Framework for the Interactive Prerequisites of Prosumption
in the Banking Industry of Iran**

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Abstract: During the past decade, financial institutes have been faced with multiple challenges including severe competition, increasing speed of regulatory changes, cost pressures and market instability. In addition, customers' expectations regarding financial services have complicated. To boost their innovative performance and competitiveness under such circumstances, many financial institutes endeavour to take advantage of the ideas generated by their customers, a paradigm referred to as prosumption (i.e. a sub-domain of open innovation)-specifically considering the fact that the advent of Web 2.0 has paved the way for such collaborations. However, a review of the literature reveals that previous research has been limited to mere conceptualization of prosumption, failing to picture precisely the organizational infrastructures needed to process and utilize the insight gained from knowledge cooperation with customers (prosumers). Therefore, the present study aimed at developing an integrated framework in this regard through the application of a qualitative approach and Grounded Theory. Unstructured and semi-structured interviews as well as a focus group meeting were held with industry experts and academics in Iran, which led to the development of three major categories and eight concepts, all of which are required to effectively implement the knowledge obtained from prosumption initiatives.

Keywords: *prosumption, open innovation, value co-creation, grounded theory, banking, Iran.*

Introduction

During the past few decades, the significance of the banking industry has been widely acknowledged in both developed and developing economies- including Iran- and in fact, banks are considered to be one of the most important financial agencies. Meanwhile, after the Lausanne nuclear agreement, the Iranian banking industry has witnessed great changes. To be more specific, the industry can no longer meet emerging needs effectively after the lifting of sanctions and is in dire need of structural and attitudinal rejuvenation. Simply put, while professional banking (with its modern solutions) was previously regarded as an "option", it is now a "must", which in turn necessitates the implementation of modern standards as well as designing innovative services within the industry.

Modern banking is to a great extent influenced by emerging technologies such as cell phones, cloud computing, virtual infrastructures, big data, etc. Under such circumstances, improving the industry's status in Iran in accordance with current global procedures highlights the prominence of revising existing processes as well as boosting the innovative performance of

banks. However, the results of a recent study on the level of innovation in banks of the MENA¹ showed that while the average innovation rate stands at 3.3 in the region, Iran has only a rate of 3.1, which is obviously lower than its neighbouring countries (Divandari & Bagheri, 2012, p. 156). On the other hand, innovation has been recurrently emphasized in the Iranian 20-year Vision Plan since it lays the foundations for gaining competitive advantage and developing pioneering products, services and processes, and supports both public and private sectors. The same rule also applies to the banking industry. In fact, banking plays a critical role in every country's economic activities and is central to the prosperity of other industries. In addition, customer needs are getting more and more complicated due to their growing awareness of IT technologies. Thus, banking mechanisms should undergo serious modifications to embrace open innovation and get more inclined to adopt non-monopolistic approaches towards the knowledge gained from internal and external sources, encouraging increased participation of other stakeholders, especially customers.

Literature Review

Prosumption: Concept and Significance

Traditionally, marketers believed in the product-dominant logic, in which physical assets and transferring value to customers through commodity-based exchanges were highlighted. Yet, a few years ago, Vargo and Losch (2004) introduced a new form of logic in this regard, i.e. service-dominant (SD) logic, which mainly concentrates on value propositions offered to customers (Terblanche, 2014, p. 2). To be more specific, based on this logic, customers' participation is inevitable in order to create value. Likewise, Alvin Toffler in his book, "The Third Wave", rightfully predicted that humans would soon use the magic of the computer technology to integrate production and consumption, a phenomenon he entitled "prosumption" (Comor, 2010, p. 439). Similarly, Tapscott and Williams (2006) argue that prosumption is the core of modern economy, where participation and networking result in the development of innovation that is beneficial for all participating stakeholders (Comor, 2010, p. 440).

Tian et al (2017) believe that prosumption occurs due to the increasing penetration of internet and communication technologies. According to these scholars, prosumption can be defined as value creating activities of the consumer which leads to the creation of products and services that are ultimately used by himself and form his consumption experience (p. 2040).

Prahalad and Ramaswamy (2004) view such collaborations between the firm and its customers as the next frontier of innovation and competitive advantage for companies since the interactions between customers and organizations lead to the emergence of the value that the customers exactly seek. Due to their active role in value creation, customers gain a more favourable experience from their interaction with the firm, which increases the firm's ability to provide them with personalized services. In a similar vein, researchers have found out that prosumption adds to the quantity and quality of innovative ideas- aimed at developing new products or improving existing ones- proposed by customers in virtual communities (Terblanche, 2014, p. 6). In fact, banks are witnessing growing customer participation in social media, which is why such tools are now considered a major communication channel as they facilitate the sharing of ideas regarding improvements in banking products, services and procedures- though decisions whether to implement the ideas or not lies in the hands of the

¹ Middle East and Northern Africa

banks (Kiezel, 2015, p. 101). This is in line with the spread of service-dominant (SD) logic, in which customers – as corporate partners- actively cooperate with firms in value creation in various fields, including development, marketing and sales, and delivery of products and services as well as customer relationship management (Ziemba & Eisenhardt, 2015, p. 122).

Research Background

A glance at today's competitive market quickly reveals that quality improvement no longer provides a competitive edge for businesses; rather, firms – including financial institutions- should attempt to offer new services which hold value from the customer's and organization's point of view mutually. As mentioned previously, innovation in banking services can stem from various internal and external sources. In this regard, existing and potential customers could be very helpful as their participation considerably facilitates the process of comprehending their latent needs, reducing the risk of actions that might not properly satisfy them (Kiezel, 2015, p. 104). Table 1 summarizes the findings of some of the most recent studies on prosumption and value co-creation.

Table 1. Summary of recent studies on prosumption

| No. | Researchers (Year) | Journal | Research Title | Findings |
|-----|----------------------------|---|---|--|
| 1) | Chebiyyam et al. (2016) | Journal of Creating Value (SAGEPUB) | Drivers Enabling Value Co-creation: A Study of Select IT-services Outsourcing Firms (Client vis-à-vis Service Provider) | Strategic intent and service actualization are found to be significant and common value drivers for both parties (client and service provider), though with different priorities. The other significant value drivers are collective capabilities for client and intrapreneurship for service provider (These value drivers are not common to the client and service provider). |
| 2) | Ziemba & Eisenhardt (2015) | Online Journal of Applied Knowledge Management (ResearchGate) | Prosumers' Participation in Business Processes | The paper presents a framework on areas where prosumers can participate, including product and service development, sales and marketing, service management and product and service delivery. |
| 3) | Chandler & Chen (2015) | Journal of Service Theory and Practice (EMERALD) | Prosumer Motivations in Service Experiences | The findings illustrate that prosumers are not only participants in the co-creation of value, but active designers of service experiences. Service design and management should account for and accommodate prosumers |
| 4) | Verleye (2015) | Journal of Service Management (EMERALD) | The Co-creation Experience from the Customer Perspective: Its Measurement and Determinants | Higher levels of customer role readiness, technologization, and connectivity positively affect different co-creation experience dimensions. The impact of these dimensions on the overall co-creation experience, however, differs according to customers' expectations in terms of co-creation benefits. Therefore, the author concludes that the expected co-creation benefits determine the importance of the level of customer role readiness, technologization, and |

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| | | | | connectivity for the co-creation experience. |
| 5) | Kiezel (2015) | Journal of Economics and Management | Role of Individual Customers in Development of Banking Products in the Context of Open Innovation Concept and Demand Approach to Innovations | Banks use their customers as an external source of ideas while applying the open innovation models. In the case of mass segment, the tools are mostly forums of ideas and task models based on communication via the internet. In the segment of personal and private banking, they apply presumption. |
| 6) | De Smet et al. (2013) | Journal of Innovation Management | Innovation-related Knowledge from Customers for New Financial Services: A Conceptual Framework | Customers are reported to be providers of innovation-related knowledge for the development of new services. In order to benefit from this, a company requires the organizational capabilities to identify and use it, denoted as its absorptive capacity. |
| 7) | Saarijarvi & Kuusela (2013) | European Business Review (EMERALD) | Value Co-creation: Theoretical Approaches and Practical Implications | The multifaceted nature of value co-creation arises based on the differing approaches to what determines the value, the co-, and the creation elements of the concept. Both scholars and practitioners should focus more on identifying and understanding what kind of value is co-created for whom, using what resources, and through what mechanisms. |
| 8) | Izvercian et al. (2013) | International Journal of Information and Education Technology | Transforming Usual Consumers into Prosumers with the Help of Intellectual Capital Collaboration for Innovation | Human capital can stay in touch through structural capital with consumers and develop a consumer capital – a relationship with them. If this activity is creative and engaging, a number of consumers can change and become prosumers, providing feedback, creative ideas and information for innovation. Alongside prosumers, companies can co-create value which differentiates their offer from competition and establish a relationship of trust and involvement which determines consumer recommendations and influence in the market. |
| 9) | Tussyadiah & Zach (2012) | Tourism, Innovation and Culture | Social Media Strategy and Capacity for Consumer Co-creation among Destination Marketing Organizations | Social media, in which consumers are increasingly participating in the knowledge exchange processes, is an important avenue for tourism organizations to nurture relationships with consumers that drive participation and integration. Social media strategy is shown to have a positive effect on capacity for co-creation, specifically the capability to process consumer knowledge into valuable assets. Finally, it was also identified that capacity for co-creation among tourism organizations has a positive impact on their performance. |

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| 10) | Ippolito (2009) | International Journal of Quality and Service Sciences (EMERALD) | Creating Value in Multiple Cooperative Relationships | Effectively developing cooperative relationships in a network is linked to the key role played by the strategic centre firm. This paper highlights the role of the strategic centre firm in organizing relationships by coordinating all the actors involved. |
|-----|-----------------|---|--|---|

As can be seen, previous studies have mostly focused on the significance of prosumption and its associated advantages, failing to demonstrate organizational infrastructures needed to gain access to knowledge flows from the customers (prosumers) and required procedures and resources to process such knowledge. Therefore, this research was aimed at developing a clear picture of organizational prerequisites of prosumption for the Iranian banking industry through applying an inductive approach and grounded theory, the results of which will be investigated in detail in the subsequent sections. Major research objectives were as follows:

- ✓ How can the Iranian banks engage in knowledge collaborative initiatives with prosumers?
- ✓ What mechanisms and procedures should be developed to process the knowledge shared by the prosumers?
- ✓ What organizational capabilities and/ or infrastructures are needed to effectively carry out these processes?

Methodology

Due to the intrinsic complexity and multi-dimensionality of the notion of prosumption, this research took a qualitative approach (induction) to develop a framework that could effectively answer research questions. As Fusch et al. (2018) explain, qualitative research is used to interpret an ambiguous phenomenon by means of non-quantitative tools (p. 20). In addition, to avoid an air of finality about theory development, an inductive approach was chosen as the researcher believed this would reveal untouched aspects of the subject under study.

More importantly, was the rationale behind applying a grounded theory in this research. Turner (1981) argues that due to the large amount of data gathered in a non-standard format through unstructured and semi-structured interviews, grounded theory is needed as a filter to categorize the data, facilitating constant comparison of data to develop theory. However, grounded theory is most appropriate in areas where the issue being studied is hardly known. In fact, grounded theory promises to provide a clear picture of the subject matter with specific attention to the contextual complexities, which means a deeper understanding is gained and a better theory is developed (Lawrence & Tar, 2013, p. 35).

Among multiple approaches to the grounded theory, this research adopted the Emerging (Glaserian) version. To elaborate, the present study tried to explore prosumption from an organizational perspective within the Iranian banking industry by making use of constant comparative coding procedures, and specific focus on connecting the categories that emerged from the data to better understand the issue. This would lead to the development of a framework grounded in the data, highlighting the interplay between data collection and analysis. Therefore, a deep insight into the research questions was gained through close interactions with the participants.

Sampling

Since correctly determining the sample size can affect data quality, theoretical sampling is an appropriate approach in the process of data collection. In theoretical sampling, the researcher intentionally selects participants who have good knowledge and experience of the phenomenon, and are thus able to provide expert opinions (Thomson, 2011, p. 48). In line with this, banking industry experts and university professors from different disciplines (including marketing, IT, business management and strategy) were selected- on a gradual basis and after being recommended by previous interviewees. Due to the cumulative nature of theoretical sampling, iterative analysis of data was necessary. This means the researcher moved backwards and forwards constantly to identify, compare and refine patterns associated with organizational prerequisites to process the knowledge gained via knowledge collaborations with prosumers to ensure the high quality of concepts and categories developed during the process of data collection. In addition, as Thomson (2011) points out, the intrinsic flexibility of this method allowed for being guided by the data – instead of predetermining the participants- and targeting the most knowledgeable respondents in each step, which in turn increased data quality (p. 49).

Validation of the Research: Triangulation

Fusch et al. (2018) state that a major purpose of any research is to (further) develop theories either through solving unanswered questions or ensuring that existing evidence would suffice to depict the phenomenon under study. Believing that answering research questions is the ultimate goal of any study, these researchers point to the significance of mitigating biases in doing so –specifically through the application of triangulation. In their own words, "triangulation adds depth to the data that is collected". In addition, triangulation not only boosts the reliability of the research, but also facilitates the realization of data saturation (p. 20).

In this regard, Denzin (1970, 1978) defines four types of triangulation that can be applied in any study to be credible and trustworthy, namely: data triangulation, investigator triangulation, theory triangulation and methodological triangulation. In simple terms, data triangulation refers to collecting data from different people, at different times and in different spaces. Investigator triangulation is achieved when more than one researcher explores the phenomenon. Of course, this does not include coders, assistants or data analysts, but experts with deep knowledge of the phenomenon so as to reduce bias. Similarly, theory triangulation helps the researcher to interpret the findings through the application of multiple theories –even contradictory ones (Fusch et al., 2018, p. 22). Finally, methodological triangulation is used to ascertain multiple data collection techniques are well applied to explore the meanings participants ascribe to concepts (Fusch et al., 2018, p. 24).

Triangulation in this research comprised of three of the above-said dimensions. The researcher applied various sources of data, including unstructured and semi-structured interviews and a focus group meeting with industry experts and academics, document reviews, personal contemplation, memos and observations. The data were also gathered from experts in different banks and IT-based companies over a period of 10 months (data triangulation). As for investigator triangulation, a PhD candidate of knowledge management was asked to review the concepts, assess the methodology and discuss the findings, which is referred to as peer debriefing. Regarding theory triangulation, multiple theories and perspectives were applied for data analysis, such as theory of knowledge management, organizational learning, knowledge absorptive capacity, open innovation paradigm and shared mental model, just to name a few. Yet, due to the subjective nature of presumption, the researcher believed using quantitative

methods (such as surveys) could not yield any new insight at the present time (.i.e presumption initiatives have not yet been implemented in practical terms in any of the Iranian banks).

Theoretical Saturation

A crucial factor in qualitative research- and more importantly in grounded theory- is to generate enough data in order to effectively explore the concepts and categories associated with the phenomenon under study. This highlights the necessity of theoretical saturation- i.e. having an appropriate sample size (Thomson, 2011, p. 46). Strauss and Corbin (1998) argue that in order to reach theoretical saturation, the following criteria should be met:

“a) no new or relevant data seem to emerge regarding a category ;b) the category is well-developed in terms of its properties and dimensions demonstrating variations and c) the relationships among categories are well-established and validated” (Thomson, 2011, p. 47).

In the present study, theoretical saturation was reached after 34 interviews. However, to make sure no other new pattern would emerge, the researcher continued interviewing for 9 more interviews, reaching a total of 43.

Research Findings

All the interviews were recorded with the participants' consent and subsequently transcribed so as to carry out the process of coding and data analysis in a more meticulous fashion. Next, the initial data were explored through MAXQDA software, leading to the generation of 382 preliminary codes. These were later integrated based on their conceptual overlap and turned into secondary codes. Table 2 illustrates multiple samples of how the codes were transformed into concepts.

Table 2. The codes and concepts developed through grounded theory in the present study

| Concepts | Secondary Codes |
|-------------------|---|
| Targeted Learning | <ul style="list-style-type: none"> ✓ Constant monitoring of and interaction with customers (mostly through social media and the bank's website) as an external knowledge source ✓ Constant internal monitoring of existing knowledge sources ✓ Detecting and prioritizing external opportunities ✓ Identifying knowledge gaps ✓ Designing methods to fulfill knowledge needs of the organization effectively ✓ Embracing both planned and emerging learning in accordance with the knowledge gaps of the organization |
| Selective Amnesia | <ul style="list-style-type: none"> ✓ Environmental monitoring on a regular basis ✓ Identifying obsolete/ ineffective information, skills, & procedures based on new organizational knowledge priorities ✓ Effective implementation of change management practices ✓ Breaking organizational inertia ✓ Spreading the attitude of openness to change among members ✓ Creating an expert hub within the firm to constantly monitor possible areas where change is necessary |
| Knowledge Renewal | <ul style="list-style-type: none"> ✓ Careful documentation of organizational experiences ✓ Developing a comprehensive database of past actions and associated results ✓ Holding regular sessions to discuss emerging trends as well as exploring reasons behind organizational achievements/ failures ✓ Inviting non-organizational experts to investigate case studies applicable to organizational issues and concerns ✓ Encouraging members to share their know-how and experience with their peers |

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|------------------------------------|---|
| Knowledge Integration | <ul style="list-style-type: none"> ✓ Updating work procedures ✓ Ensuring appropriate and practical learning by members at various organizational levels ✓ Developing mechanisms to identify and use external and internal sources of knowledge ✓ Easing social interactions among members in order to construct and redefine shared beliefs ✓ Supporting the belief that the status quo can hinder knowledge creation and absorption ✓ Shifting from everyday habits and routines of the organization ✓ Initiating and encouraging changes in organizational procedures |
| IT infrastructures | <ul style="list-style-type: none"> ✓ Informational agility ✓ Determining IT tools and metrics to assess data quality ✓ Guaranteeing cyber security for collaborating customers ✓ Providing cloud computing systems to store data ✓ Online and 24/7 support for prosumers ✓ Designing interactive and user-friendly platforms to facilitate knowledge flows (inflows and outflows) between the organization and prosumers |
| Appraisal and motivational systems | <ul style="list-style-type: none"> ✓ Setting clear and measurable performance objectives and metrics regarding prosumption-based projects ✓ Developing appropriate incentives to encourage employees to actively participate in prosumption projects ✓ Defining the right evaluation systems to constantly perform appraisals based on effective participation of units and departments ✓ Encouraging horizontal communication through rewarding prosumption-centered behaviors |
| Shared Vision | <ul style="list-style-type: none"> ✓ An end-to-end approach by managers in analyzing the costs and benefits of prosumption ✓ Creating a shared vision among all parties engaged in prosumption ✓ Refining and redefining objectives and strategies ✓ Improving organizational openness towards external collaborations ✓ Developing a customer-as-a-corporate-partner mentality ✓ Trust-building among individuals and departments to break the silo mentality ✓ Managerial support and commitment ✓ Shaping a positive attitude towards proactive sharing and application of new and existing knowledge ✓ Behavioral role modeling for employees ✓ Allocating the necessary budget to conduct required training courses for members ✓ Uniting employees through promoting their aspirations to succeed ✓ Balancing empowerment and control |
| Cooperative Knowledge Culture | <ul style="list-style-type: none"> ✓ Making sure new members equally value knowledge collaborations ✓ Implementing socialization processes ✓ Valuing employees, customers and society by members ✓ Responsiveness to changes in the external environment ✓ Reciprocating affective commitment and organizational citizenship behaviors by employees ✓ Accommodating risk and uncertainty ✓ Moving away from hierarchical structure and mentality ✓ Preventing employees' psychological detachment from the organization ✓ Finding alternative paths to achieve organizational objectives to replace formal rules and close supervision |

Having deeply contemplated over the concepts developed from the above-mentioned codes and by taking advantage of extensive literature review, the researcher managed to identify 3 main categories, namely dynamic knowledge fit, organizational infrastructures and shared mental model (Table 3). Figure 1 represents the framework of this research. It is worth noting that the concepts were categorized with sufficient theoretical logic as will be explained subsequently.

Table 3. Major categories and associated concepts of the present study

| Concepts | Categories |
|--|--------------------------------|
| <ul style="list-style-type: none"> ✓ Targeted Learning ✓ Selective Amnesia ✓ Knowledge Renewal ✓ Knowledge Integration | Dynamic Knowledge Fit |
| <ul style="list-style-type: none"> ✓ IT Infrastructures ✓ Appraisal and Motivational systems | Organizational Infrastructures |
| <ul style="list-style-type: none"> ✓ Cooperative Knowledge Culture ✓ Shared Vision | Shared Mental Model |

Conclusion

Discussion and Theoretical/ Managerial Implications

The growing prevalence of the service-dominant logic and increasing tendency of banks and customers to take advantage of co-creation mean interpersonal communication among them is also on the rise, particularly through websites and social media, which in turn eases access to the information provided by customers. Developments in the field of ICT- and specifically the emergence of Web 2.0 and social media- have resulted in the creation of highly interactive platforms where customers can share their experience and ideas with other customers and the. In fact, such tools enable customers and banks to actively engage in information exchanges in real time and with a higher frequency. This leads to the development of a proactive environment, characterized with social partnerships between the bank and the customers - prosumers (Garcia Haro et al., 2014, p. 74). Yet, how banks can process such information and transform it into practical organizational knowledge still remains a challenge for Iranian banks- as confirmed by the participants in this research. To illustrate, the outputs of unstructured and semi-structured interviews and the focus group revealed that developing dynamic knowledge fit, creating a shared mental model in support of prosumption initiatives and making use of appropriate organizational infrastructures are pivotal in this regard.

To shed more light on it, the findings of the present study showed that organizational infrastructures play a critical role in the success of prosumption practices. Based on the participants' point of view and in accordance with the literature, these infrastructures mainly consist of IT systems and appraisal systems. Gonzales and Martins (2017) refer to two perspectives in knowledge management, namely the flow-based perspective and the process-based perspective. While the former focuses on organizational values and procedures to encourage knowledge exchanges, the latter basically highlights the significance of IT in this regard (p. 249). Similarly, Kaewchur and Phusavat (2013) propose two approaches towards KM, both of which rely heavily on IT. In the first approach, IT creates a storage to share and reuse knowledge by all the parties whereas exchanging tacit knowledge via personal and direct IT communication tools is emphasized in the second approach (p. 181), which again signifies IT's role. Similarly, Aribi and Dupouet (2016) argue that tools such as organisational social networks, intranet forums, etc. facilitate knowledge sharing within firms (p. 102). Another

important organizational infrastructure that was identified by the participants was appropriate HR and appraisal systems. In this regard, many scholars believe that the key to absorb and practically apply the knowledge gained from external sources- including prosumers- is dependent on the firms' HR practices such as performance-related pay (Lee & Wu, 2010, p. 124). Also, Popaitoon and Popaitoon (2016) state that an organization's ability to make use of such knowledge relies on short and long term incentives offered to employees. In fact, incentives positively affect members' motivation to learn and reduce the Not-Invented-Here (NIH) syndrome (p. 4).

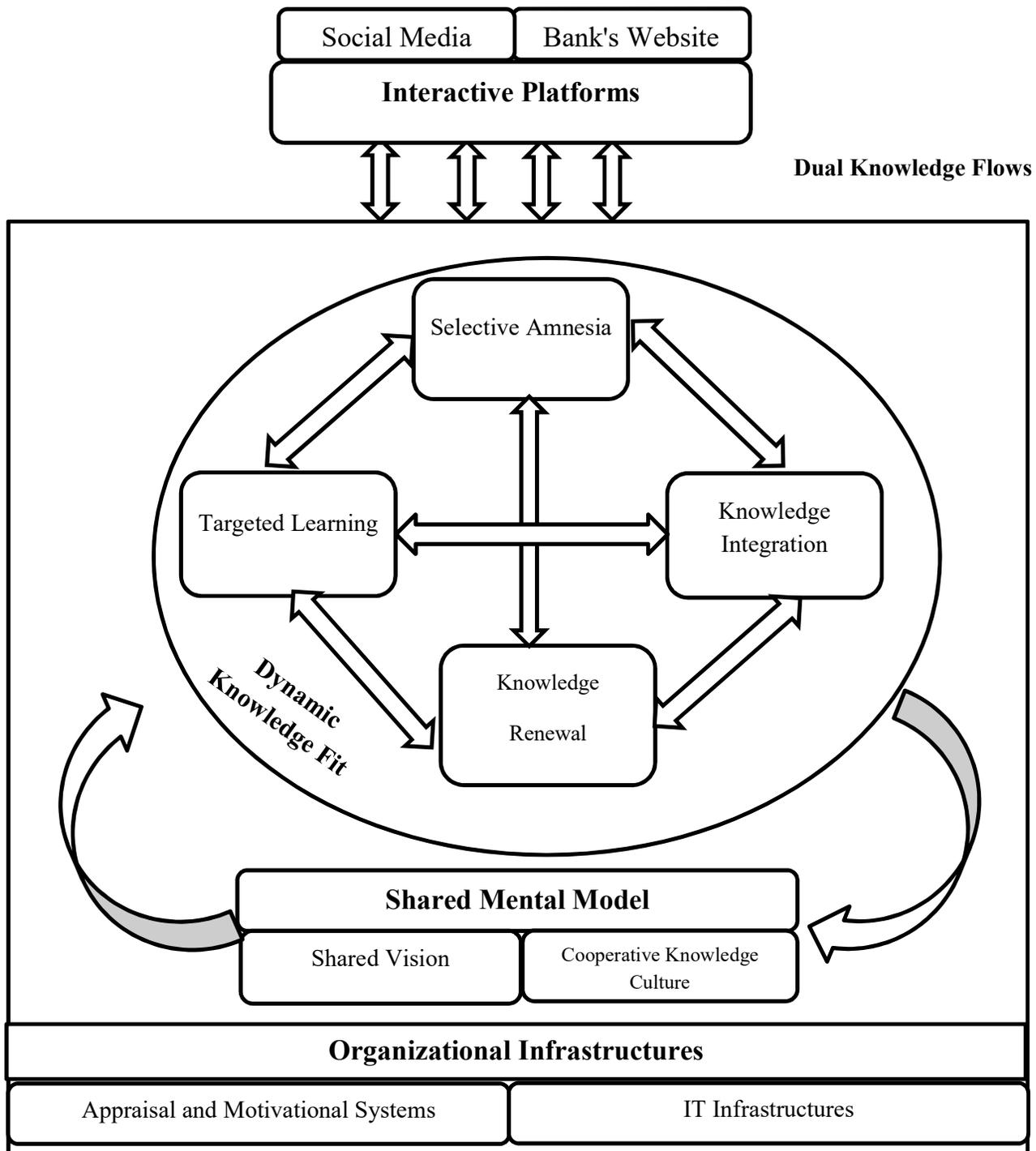
Despite the significance of the above-mentioned infrastructures, it could be reasonably argued that the development of IT and HR systems would not necessarily result in effective processing of knowledge since in the absence of a supportive atmosphere and a collective positive attitude towards prosumption, even the most advanced technologies would lose effectiveness. This was also confirmed by the participants. In fact, an issue that received particular interest by these experts was the shared mental model of the organization as a fundamental issue underlying all organizational activities – including knowledge collaborations. Mental models are defined as assumptions with deep roots in organizational culture and beliefs (Lord, 2012, p. 14). Le Masson et al. (2011) explain that such shared models along with a firm's structures, strategies and processes impact the effectiveness of knowledge exchanges (p. 4). Other scholars (i.e. Avnet, 2015; Glisson, 2015; Asci et al., 2016) refer to the role of organizational culture in shaping a shared mental model. Abbate and Coppolino (2015) state that when the organization tends to preserve the status quo, innovative measures are seen as a challenge. Therefore, for KM initiatives to be successful, it is necessary to encourage knowledge cooperations not only through IT tools, but also by creating a supportive atmosphere that welcomes change and continuous learning within the organization (p. 4). In addition, the ability to comprehend a firm's vision and objectives is critical to develop a shared mental model throughout the organization as it pictures the common interests of all members.

Ultimately, the most distinctive feature of this study was the introduction of a multi-faceted organizational capability, namely "dynamic knowledge fit". Channon and McGee (2014) define the concept of "fit" – or more precisely "strategic fit"- as how an organization manages to align –or fit- with its external context and mesh its internal environment with the firm's strategy (p.1). Borrowing this terminology, the present research introduces "dynamic knowledge fit", which includes multiple knowledge activities that take place on a constant and parallel basis in organizations engaging in intra and inter-organizational knowledge exchanges. The exploration/ exploitation dilemma has been extensively debated in the KM literature (Aitis & Woerter, 2015, p. 597). Two major viewpoints in this regard include the resource-based view and the networking approach. While the former insists on gaining a competitive advantage in a cost-effective manner through relying on the firm's existing resources, the latter mainly focuses on external sourcing as the key to success. Yet, with the emergence of the concept of organizational ambidexterity, it is clear that a balanced combination of both approaches is necessary (Hammady et al., 2013, p. 197). In line with these findings, the outputs of the interviews with industry experts showed banks should adopt a dynamic approach towards balancing their potential (external) and realized (internal) knowledge repositories, mainly through selective amnesia, targeted learning, knowledge renewal and knowledge integration, which will be explained below.

As can be seen in Figure 1, achieving this goal calls for an interrelated network of knowledge activities, from constant monitoring of environmental trends and changes to the assessment of their current know-how. These activities enable firms to have a clear profile of their existing knowledge and identify the knowledge gaps which should be alleviated through meticulous allocation of organizational resources to effectively boost organizational learning (targeted learning). Such a comparison also assists banks to uncover areas where the existing procedures have lost efficiency and should thus be actively (consciously) modified or replaced by new skills and competencies (selective amnesia). Likewise, a recurrent point emphasized by the participants was the bank's inability to turn individuals' tacit knowledge into a more codified (explicit) version which could be used and stored for later use. To be more effective, this should be accompanied by formal (i.e. regular discussion sessions, developing databases for covering organizational experiences into documents, etc.) and informal procedures (i.e. encouraging storytelling, nurturing a sharing culture through personal ties, etc.) that ultimately result in the revival of organizational memory and prevent the waste of various organizational resources as a result of redundant work flows and silo mentalities (knowledge renewal). The fourth component of dynamic knowledge fit- knowledge integration- was viewed by the participants as the core of the banks' KM initiatives since it could be regarded as the commercial end of prosumption practices. For all knowledge collaborations -including prosumption- to take effect, the absorbed knowledge must properly merge with the current knowledge, which is why Zahra and George (2002) highlight the importance of integration mechanisms to leverage the potentials of external knowledge sourcing (Lichtenthaler, 2016, p. 667).

One final point regarding the dynamic knowledge fit is that the four sub-dimensions discussed previously are tied together in the form of an interrelated network, not in a sequential manner. This means managers must pay close and sufficient attention to each of these elements unless they take the significance of such a complex capability for granted. The bottom line is that if banks and financial institutions seek to go beyond titles and taglines and create a real value, cooperative efforts of all stakeholders -particularly customers- should be crystalized. Indeed, banks are faced with numerous obstacles both internally (such as lack of appropriate infrastructures, inability to finance the projects adequately, absence of an organizational culture open to interactions with external stakeholders, etc.) and externally (i.e. lack of interest on the customer's side to collaborate with the bank, customers' concerns regarding the perceived risks of prosumption, legal obstacles, unsuccessful experience of others, etc.). Meanwhile, it should be noted that potential and existing customers are a priceless source of innovative ideas which not only portray conscious and unconscious needs of customers, but also reduce the risks associated with the provision of new services since constructive cooperation between service providers and service users considerably diminishes the probability of incongruence between the real needs of customers and new services.

Figure 1. Research Framework



Limitations and Suggestions for Future Research

Despite the fact that the present paper makes clear contributions to the current understanding of the organizational prerequisites of presumption, it is inherently tied with certain limitations like any other research. For one thing, this study adopted a qualitative approach to study presumption from an organizational perspective since such an approach allows for reaching

new insights into the topic. However, the potential generalizability of the results is limited due to the context-specific nature of qualitative studies.

In addition, the use of grounded theory – though enjoying data saturation- does not mean the proposed framework is comprehensive, which means with the passage of time and under different circumstances, certain contingencies are possibly added or removed. Also this study focused on the banking industry of Iran as a developing country. Investigating the topic in other knowledge-intensive industries or in more developed countries might yield different elements that need to be taken into account.

Furthermore, this research explored prosumption from an organizational perspective. However, due to the perceived risks associated with knowledge co-operations especially in the field of financial services, it is of paramount importance to develop mechanisms through which customers are effectively turned into prosumers. Finally, because of possible personal biases of the researcher in interpreting the outputs of grounded theory strategy, the use of other qualitative or quantitative methods could increase the trustworthiness of the findings – despite the use of various forms of triangulation in this study to make sure the findings possess an acceptable level of rigor.

Based on the above-mentioned limitations, future research could be centred upon any of the following issues:

- Investigating prosumption in other knowledge-intensive industries and within the context of more developed economies as a cross-sectional/ cross-cultural study;
- Applying other qualitative and/or quantitative approaches in data collection and analysis to complement the findings of grounded theory strategy
- Engaging bank employees at all levels for the purpose of data collection to gain a more detailed view of knowledge processes at work
- Probing into the prerequisites of prosumption from a customer perspective (i.e. the underlying processes and infrastructures that encourage prosumers to collaborate with the bank).

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