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Identification of Service Innovation Dimensions in Service Organizations

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Abstract

In today competitive world, innovation is a key factor for creating competitive advantage and even for survival of the enterprises and as a propellant for business growth and prosperity and maintain more profitability for an organization, as a result of market needs and technology push. In service organizations, recognition of the conceptual framework of service innovation, improves performance of the Organization and creates core competencies for achieving competitive advantage through their systematic approach to service development, which is crucial for survival and maintaining competitiveness in the current financial markets. Banking systems due to the rapid global competition, the impact of structural change, deregulation effects, the use of new technologies and the increasing expectations of customers, have sought to develop and implement service innovation in their organizations. In this paper the effective factors of Service Innovation in service organizations has been introduced and case of study is Iranian Governmental Banks. Research methodology is qualitative and qualitative. Data was collected through in-depth interviews with academic experts and managers of governmental banking systems until theoretical saturation was achieved. The gathered data was analyzed using axial and open coding methods. The results show that dimensions of Service Innovation in financial service organization systems consist of six main dimensions including new service concept, new delivery system (organization), new delivery system (technological), interact with new

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customers, new value systems / new business partners and finally the new revenue models and 36 secondary factors. The results of this paper can be used for the understanding of service innovation for new service design and development in governmental banking system in a competitive environment at the other countries.

Keywords: Innovation, service innovation, service innovation dimensions, banking systems.

Introduction

Because at the moment, the service sector has the highest growth in GDP and employment in the developing countries, and is developed, the importance of the service sector is significantly on the rise. Since 1970 the share services in GDP in developing countries have been increased from 20% to 70%. The service sector, is the biggest part of the economy in all countries of the world, (World Bank, 2008) for example, the GDP share of service sector in Iran is 40%. Due to the services Impressive growth in GDP and employment of countries, the presence of a competitive world, Organizations will lead to innovation in products and services. In fact, innovation for the organization with the purpose of establishing and maintaining a competitive advantage in the market are inevitable and it is an essential factor for life in present competitive environment (Wang et al, 2012). But according to a report the entrepreneurial world watch, Iran is in the lower rank of innovation (GEM, 2012). For example, in 2013, Iran in the innovation index ranked 70 among 142 countries (GEM, 2012). These statistics indicate the necessity to improve the indicators of innovation in our country. It is worth mentioning that the scope of services, a large amount of important activities such as banking, insurance, education, management, healthcare, transportation, tourism and trade, particularly exports and imports will be included for each of these activities can play an important role in economy of Iran. The statistics not only shows the importance of services but also highlight a key role that service innovation should play in the growth of the economy in the future. Today, banks are relying more on cyberspace and the use of the Internet and they have developed rapidly. It is clear that the advantage created for clients in e-space is more than a traditional space and this path of transformation and change to the new space. The banks through the e-business area have been able to create a chain of domestic and international customers and innovative electronically and they increase the percentage of their loyal customers (Mobini and Rasouli-Nejad, 1390). New Service development is one of the best systematic approach for innovation development in service organization specially in banking systems (Shabankareh and Meigounpoory, 2013). Despite the intensive competition nowadays, banks are faced with the need to preserve their capital, investing in innovation for long-term success (Ramakrishna, 2012). A lack of familiarity managers of banks with the topic of service innovation is one of the main reasons for their disability to use new services and to increase the effective development of their competitiveness. So factors that influence the development of systematic innovation through the development of products/ services for innovation can be very important.

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Despite the importance of the issue of service innovation in global studies, discussion on this subject in banking and financial systems is new and with detailed literature review, it can be said there is the lack of research in this topic. The topic of service innovation is one of the hot subjects in new researches and is the state of the art at the edge of the world's knowledge in both terms of practical and theoretical. For example, there is not any article in its practical contribution to the field of banking services, service innovation and service innovation dimensions. The main goal of this paper is "identification of service innovation dimensions in banking systems".

Literature Review

The banking industry has been on an unprecedented growth trend during the past decade in the countries. Todays, this sector is fast paced and is constantly in the throes of change, with new regulations, new processes and new policies in place. Technology has played a critical role in the past in shaping the way things are today, and will continue to do more than ever before. As well as the increasing importance of service, focusing on service-oriented approach in order to create the value has increased. Services innovation upgrade the overall performance of the Organization and It is an important source of competitive advantage (Ramakrishna, 2012).

Innovation has always been a sought after area for organizations in any country. Innovation is identified as the main driver for companies to prosper, grow and maintain a high profitability (e.g. Drucker, 1988; Christensen, 1997. Due to their intangible character a service cannot be viewed as an object and in that sence are not reproducible. A service is viewed as an activity or process and no transfer of ownership takes place. Furthermore, service are interpreted as heterogeneous concepts, every service is unique and cannot completely be reproduced. Production and consumption of services takes place simultaneously in co-operation with the customers, it is hardly possible to separate these elements or produce them in advance and store them until they are requested (Gronroos, 2000). Accordingly, it can be proposed these definitions of service:

Table 1 definitions of service base on literature review

Authors	Definition
(Kotler, 1997)	"Any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything"
(Gronroos,2007)	"A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems" .
(Flikkema et al., 2007)	"A service is an attempt to transform customer B's reality C, as constructed by its service provider A, at the request of B and frequently in cooperation with B".

In these section definitions of services has been presented. It became clear that there is no general accepted definition available yet. Although authors point attention to service

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elements they hardly provide a clear definition of service innovation as well. Still, there are some attempts for defining service innovation, as presented below.

Service innovation

Sunbo & Gallouj (2000) state that "Innovations in services are a mix of reproduced (although incremental) innovations and 'small' non-reproduced changes to solve single customers' problems (what we will also call ad hoc innovation). The latter is particularly a result of the customer interaction process. Toivonen & Tuominen (2006) introduced that "A service innovation is a new service or such a renewal of an existing service which is put into practice and which provides benefit to the organization that has developed it; the benefit usually derives from the added value that the renewal provides to the customers. In addition, to be an innovation the renewal must be new not only to its developer, but in a broader context, and it must involve some element that can be repeated in new situations, i.e. it must show some generisable features(s). While summarizing these statements, it becomes clear that the service innovation process is the process through which renewals are achieved (Toivonen & Tuominen, 2006). The final goal is to fulfil customer needs in a valuable (both for the customer as well as the firm), high quality way. By combining these elements the following definition can be given as "Service innovation is the multidisciplinary process of designing, realizing and marketing combinations of existing and/or new services and products with the final attempt to create valuable customer experiences" (Flikkema et al. 2010). Finally some researchers believed that service innovation is a multidimensional phenomenon. That implies that service innovations can take various forms and can be linked to different parts of the value creation process of a service firm. In section we introduce and discuss six dimensions of service innovation base on model of Hertog (2010). Dimensions of service innovation base on model of Hertog (2010) has presented in table (2).

Table 2 Dimensions of service innovation base on model of Hertog (2010)

Dimension	Description
New service concept	The first dimension is the service concept, also named the service offering (Frei, 2008). The service concept or offering describes the value that is created by the service provider in collaboration with the customer. Many new service concepts are combinatory i.e. they combine elements of services that exist individually or as part of other services into a new combination or configuration (van der Aa & Elfring, 2002). New service concepts offer values in new ways.
New customer interaction	This dimension is about the role that customers play in the creation of value i.e. new ways in which service provider and customer interact, communicate, co-design, customise or even co-produce (Normann, 2002).
New value system or new business partners	The third dimension is the new value system or set of new business partners i.e. actors involved in jointly producing a service innovation. New services – thus creating and appropriating value – are increasingly realised through

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Dimension	Description
	combinations of service functions provided by a coalition of providers, both parties in the value chain, and actors in the wider value network (Chesbrough, 2003, p. 68).
New revenue models	Only a few of service Innovations make it into successful service innovations as especially those services requiring multiple actors have to find models to distribute costs and revenues in appropriate ways. To develop the right revenue model, needs to more creativity and finding the most relevant revenue models is a key responsibility of service innovation managers.
New service delivery system (organizational component)	This dimension refers to the human part of the delivery system, most notably personnel, the organizational structure of the service company itself and the wider culture. These may all in their own way be innovative and contribute to creating innovative service experiences and solutions. New services, for example, may require new organizational structures; (inter)personal capabilities or team skills. new service delivery system is not only an innovative concept, but also innovative in how it is organized, how it empowers its employees, how it motivates customers to receive their own services, and how it has established a very clear firm culture of how to service and approach clients.
New service delivery system (technological component)	This dimension is about the technological systems and processes involved in delivering a service. It pinpoints that ICTs have enabled numerous service innovations ranging from electronic government and E-health, to advanced multi-channel management, customization of services, introduction of self-service concepts, virtual project teams and so on. ICTs are offering huge opportunities for introducing new service concepts, new ways of interacting with customers and other service providers, for developing new revenue models and for the way in which the service delivery system is organized.

Den Hertog, P. (2000) in an article called "Knowledge-intensive business services as co-producers of innovation", explores what role knowledge-intensive business services (KIBS) play in innovation in other firms. A four-dimensional model of service innovation is presented in this study consisting of: a) the service concept, b) the client interface, c) the service delivery system/organization, d) technological options. Also J.P.J. de Jong, A. Bruins, W. Dolfsma, J. Meijaard (2003) in an article called " Innovation in service firms explored : what, how and why?" reviewed the literature on innovation in services. They state that the new services in practice are a combination of these dimensions: 1) the service concept, 2) the client interface, 3) the service delivery systems,4) technological options. In the following, Chen and et. al. (2009), on the importance of service innovation as a means to gain advantage in a competitive environment and Key role of the service delivery in interact with customers in recent years plays, stressed. They conclude that innovation in service delivery, leading to improved financial performance and

nonfinancial companies. Finaly Pim den Hertog, Wietze van der Aa and Mark W. de Jong (2010) in article called "Capabilities for managing service innovation: towards a conceptual framework "define Service Innovation as a new service experience or service solution that consists of one or several of the following dimensions: new service concept, new customer interaction, new value system/business partners, new revenue model, new organizational or technological service delivery system. In this study, the model Hertog (2010), is based on the conceptual model. Given the above it can be concluded that there is a considerable literature on the effective dimensions of service innovation. But so far, this aspect has not been identified in the internal environment of the banking public in Iran. So in this study, attempt to summarize the views of researchers and conducted semi-structured interviews, major and minor dimensions of service innovation in Iranian governmental banks to be identified. Through reviewing the research, six major dimensions affecting service innovation was extracted and on the basis, the conceptual framework in Figure 1 was developed.
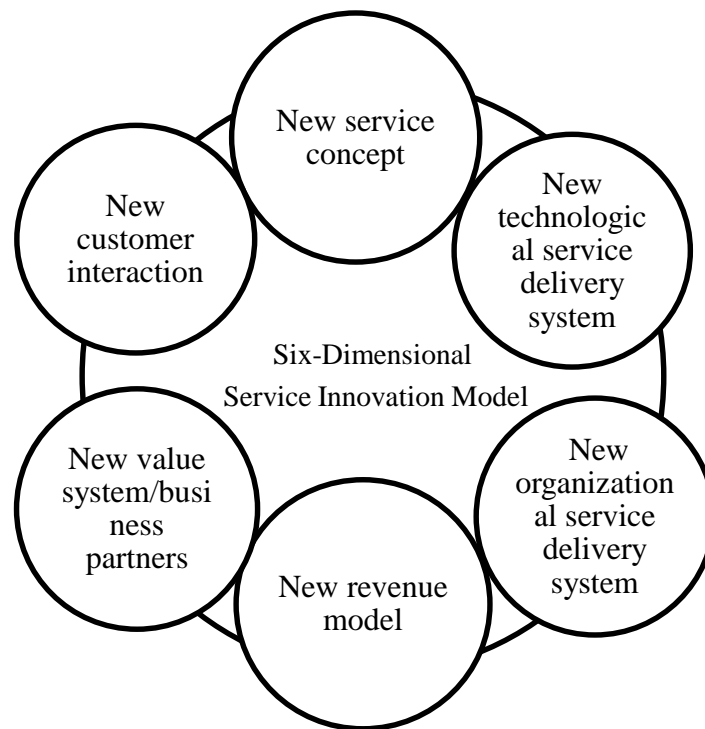
Figure 1 Six-Dimensional Service Innovation Model of Hertog (2010)

Research methodology

This research was implemented as a qualitative study, which involved the collection of data thorough face to face interviews. As a principle, the targeted sampling covered the academic experts and managers of Governmental systems banking. In the present study saturation was reached after 12 interviews. The whole interviews were recorded and converted to transcripts. According to the method of Strauss and Corbin (1999), the data were analyzed using open and axial coding. Codes form the basis for later aggregation into concepts, in open coding. The aim of open coding is to begin the unrestricted labeling of all data and assign conceptual codes to each outstanding incident

within the data (Strauss, 1987). Axial coding always follows open coding, and identifies relationships between open codes for the purpose of developing core codes (Strauss and Corbin, 1990). Statistical analysis of the research indicates that the respondents 'demographics of the participants were consist of 16% women and 84% men. Table (3) shows the distribution of the respondents 'demographics.

Table 3 distribution of the respondents 'demographics

Participant	Organizational position	Academic Degree
I_1	Faculty member	PhD
I_2	Faculty member	PhD
I_3	Faculty member	PhD
I_4	Employee education sector banks	MA
I_5	Employee Development Bank	MA
I_6	Faculty member	PhD
I_7	Faculty member	PhD
I_8	Faculty member	PhD
I_9	Head of the Research Department of the Bank	MA
I_{10}	Branch Manager	MA
I_{11}	Head of the education sector banks	MA
I_{12}	Employee of the Research Department of the Bank	Bachelor

Results

Results of the qualitative study i.e. the effective factors in Service Innovation of Iranian banking system is shown at Table (1). six dimensions of Service Innovation are new service concept, new organizational service delivery system, new technological service delivery system, new customer interaction, new value system/business partners and new revenue model. These factors have been confirmed by Pim den Hertog. (2000)،J.P.J. de Jong, A. Bruins, W. Dolfsma, J. Meijaard (2003) ، Ja-Shen Chen, Hung Tai Tsou and Astrid Ya-Hui Huang (2009) ،Pim den Hertog, Wietze van der Aa and Mark W. de Jong. (2010). In interviews with academic experts and managers of Governmental banking systems main dimensions of Service Innovation were selected as effective factors of Service Innovation in Iranian Governmental banks. Also the coding results were compared, discussed, and modified for any probable discrepancies and finally 36 secondary factors consist of 9 sub factor for new service concept, 10 sub factors for new customer interaction, 6 sub dimensions for new organizational service delivery system, 5 sub dimensions for New technological service delivery system, 3 sub factors for new value system/business partners and 3 sub factors for new revenue model were recognized. The attained final factors are shown in Table (4).

Table 4 Results of the qualitative study, effective factors in Service Innovation

Main dimensions	Secondary dimensions (extracted from Open Coding Index)	Frequency
New service concept	Co-creation values between the customer and the service provider (shared value creation)	3
	Create a new platform for providing services	3

	New ways to provide service based on the use of the service (Face-to-face, electronics, etc.)	6
	Provide a new target market in banking service	5
New customer interaction	A new way of interaction between customer and service provider: (client's sound system, online services, ATMs, banking, micro banking, e-banking, mobile banking, website, café banking, core banking, corporate banking and etc.)	8
	The creation and widespread use of call centers and financial consultation with different part of customers segmentation	3
	Improve job training (by experts outside the enterprise) to deal appropriately with clients	3
	Define the Bank's customers, clustering them and meet customers ' needs and behaviors of the each cluster	5
	Do a survey of the customers for the field, twice a year and market research for the field	1
	Providing special services for specific clients to achieving their loyalty	3
New organizational service delivery system	Optimize the capabilities of the individual within the team skills, education, and … for Staff	6
	Improving the organizational structure	4
	Upgrade organizational culture based on values shared with clients and use modern banking	4
	Change the way the of providing service from mass produce to the customization	4
New technological service delivery System	Development of new IT-based, such as payment new systems, Internet banking, mobile banking, direct banking, e-check, online banking systems, ATMs and , ...	8
	Having an accurate and detailed information of customers in order to offer new services to them in accordance with the needs of our customers	6
New value system/business partners	Engage key stakeholders and cooperation with the Alliance, on either side of the value chain and business partners	3
	Meet the Stakeholder expectations of the Organization and supply of business partners in service innovation	3

	Find the proper distribution of income and expenses and assess economic feasibility (cost-effectiveness) New Revenue Models	4
New revenue model	Use new revenue and service model based on e-Technology Development and New Revenue Models	2

Discussion & Conclusion

In this paper factors effecting on Service Innovation in Iranian Governmental Banks has been introduced. First the literature was reviewed and a Six-Dimensional Service Innovation Model of Hertog (2010) was selected for the base of the research. Then the qualitative data was collected through interviews. Results of this paper indicated that Service Innovation dimensions in Iranian Governmental banking systems is consist of six effective factors and 36 sub factors according to coding techniques. The first dimension i.e. new service concept is consists of 9 sub factors and the next dimension is new customer interaction is consist of 10 sub factors. The third factor is new organizational service delivery system that is consists of 6 sub dimensions. According to data analysis, the forth factor is New technological service delivery system that is consists of 5 sub dimensions and the fifth factor is new value system/business partners that is consists of 3 sub factors. Additionally, findings of the interviews indicate that the last factor i.e. new revenue model is consist of 3 sub factors. Table (5) also shows this comparison of this paper results with other researchers in detail.

Table 5 The comparison of factors effecting on Service Innovation in Iranian Governmental Banks with other researchers studies

Effective Factors- Present Study	Effective Factors- other researchers Study
New service concept	Pim den Hertog. (2000) J.P.J. de Jong, A. Bruins, W. Dolfsma, J. Meijaard (2003) Ja-Shen Chen, Hung Tai Tsou and Astrid Ya-Hui Huang (2009) Pim den Hertog, Wietze van der Aa and Mark W. de Jong .(2010)
New organizational service delivery system	
New technological service delivery system	
New customer interaction	
New value system/business partners	Pim den Hertog, Wietze van der Aa and Mark W. de Jong .(2010)
New revenue model	

As the Table (4) is shown, the results of this paper have been confirmed by other researchers. Furthermore, the comparison of the literature of Service Innovation with the findings of present survey demonstrates that the results are confirmed by the studies of some previous authors such as Pim den Hertog. (2000), Pim den Hertog, Wietze van der Aa and Mark W. de Jong .(2010). The results of this paper can be implemented by R&D centers of Iranian Governmental banks and banking system managers of Iran. The new theoretical model of this paper can be used for the Governmental banking systems of the

world especially for Middle East countries. Finally the New framework of Identification of Service Innovation dimensions in service organizations, Case of study banking systems is shown in figure 2.
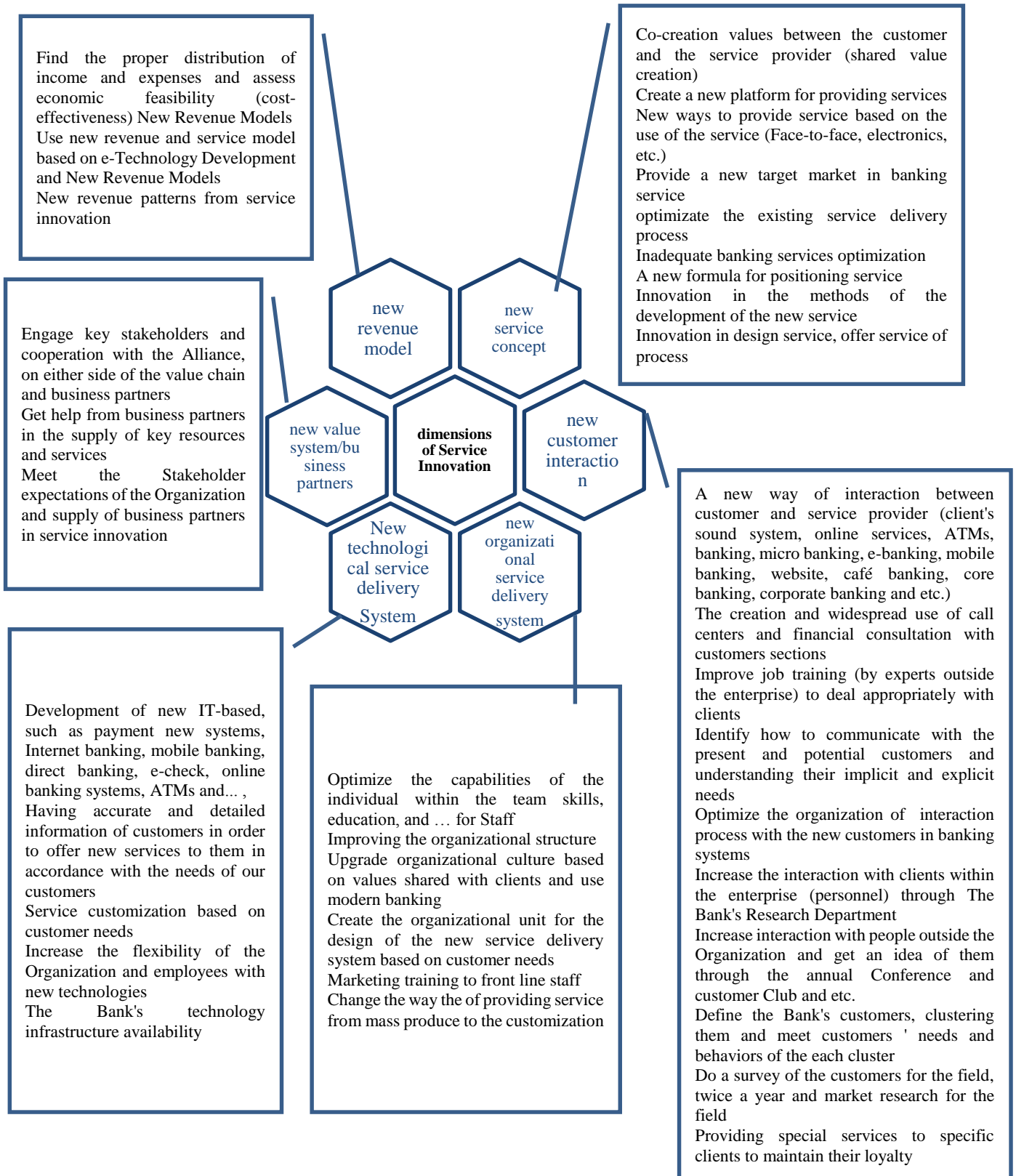
Find the proper distribution of income and expenses and assess economic feasibility (cost-effectiveness) New Revenue Models
Use new revenue and service model based on e-Technology Development and New Revenue Models
New revenue patterns from service innovation

Co-creation values between the customer and the service provider (shared value creation)
Create a new platform for providing services
New ways to provide service based on the use of the service (Face-to-face, electronics, etc.)
Provide a new target market in banking service
optimizate the existing service delivery process
Inadequate banking services optimization
A new formula for positioning service
Innovation in the methods of the development of the new service
Innovation in design service, offer service of process

Engage key stakeholders and cooperation with the Alliance, on either side of the value chain and business partners
Get help from business partners in the supply of key resources and services
Meet the Stakeholder expectations of the Organization and supply of business partners in service innovation

new revenue model

new service concept

new value system/business partners

dimensions of Service Innovation

new customer interaction

New technological service delivery System

new organizational service delivery system

A new way of interaction between customer and service provider (client's sound system, online services, ATMs, banking, micro banking, e-banking, mobile banking, website, café banking, core banking, corporate banking and etc.)
The creation and widespread use of call centers and financial consultation with customers sections
Improve job training (by experts outside the enterprise) to deal appropriately with clients
Identify how to communicate with the present and potential customers and understanding their implicit and explicit needs
Optimize the organization of interaction process with the new customers in banking systems
Increase the interaction with clients within the enterprise (personnel) through The Bank's Research Department
Increase interaction with people outside the Organization and get an idea of them through the annual Conference and customer Club and etc.
Define the Bank's customers, clustering them and meet customers ' needs and behaviors of the each cluster
Do a survey of the customers for the field, twice a year and market research for the field
Providing special services to specific clients to maintain their loyalty

Development of new IT-based, such as payment new systems, Internet banking, mobile banking, direct banking, e-check, online banking systems, ATMs and... ,
Having accurate and detailed information of customers in order to offer new services to them in accordance with the needs of our customers
Service customization based on customer needs
Increase the flexibility of the Organization and employees with new technologies
The Bank's technology infrastructure availability

Optimize the capabilities of the individual within the team skills, education, and … for Staff
Improving the organizational structure
Upgrade organizational culture based on values shared with clients and use modern banking
Create the organizational unit for the design of the new service delivery system based on customer needs
Marketing training to front line staff
Change the way the of providing service from mass produce to the customization

Figure 2 A framework of Service Innovation Dimensions for Iranian Banking systems

References

Chen, J., Tsou, H., Huang, A. (2009). Service Delivery Innovation Antecedents and Impact on Firm Performanc. *Journal of Service Research*, 12(1) 36-55.

Edvardsson, B. (1997). Quality in New Service Development: Key Concepts and a Frame of Reference. *International Journal of Production Economics*, *52*, 31-46.

Flikkema, M. (2008). Service Development and New Service Performance. *PhD Thesis*, 1-187.

Frei, F. X. (2008). The Four Things a Service Business Must Get Right. *Harvard Business Review*, 1-13.

Gronroos, C. (2000). Service Management and Marketing a Customer Relationship Management Approach (2 ed.), John Wiley & Sons Ltd.

Gronroos, C. (2007). Service Management and Marketing Customer Management in Service Competition. West Sussex: John Wiley & Sons Ltd.

Hertog, P. den, van der Aa, W. & de Jong, M.W. (2010). Capabilities for managing service innovation: towards a conceptual framework, *Journal of Service Management*, Vol. 21, No. 4, pp. 490-514.

Hertog, P. den. (2000). Knowledge Intensive Business Services as Co-producers of Innovation. *International Journal of Innovation Management*, Vol. 4, No. 4, pp. 491-528.

Jong, J., Bruins, A., Dolfsma, W., Meijaard. J.(2003). Innovation in service firms explored :what, how and why?. *Business and policy research*.

Kotler, P. (1997). Marketing Management: Analysis, Planning, Implementation and Control. Englewood Cliffs: Prentice-Hall.

Meigounpoory, M & Shabankareh, N., (2013). *New theoretical model of New Service Development process in Iranian Governmental Banks*, International Journal of Academic Research in Business and Social Sciences ,August 2013, Vol. 3, No. 8 ISSN: 2222-6990

Meigounpoory, M.R, and Dinarvandi, A. (2013). *Identifying Effective Determinants of New Service Design and Development Process in Service Organizations*, International Journal of Academic Research in Business and Social Sciences November 2013, Vol. 3, No. 11 ISSN: 2222-6990

Meigounpoory, M.R. and Hosseini, R., and Payami, M. (2013). *Conceptualization of new model of factors affecting on learning process of NSD in Iranian Banks*, International Journal of Academic Research in Business and Social Sciences, Vol. 3, No. 12 ISSN: 2222-6990

Normann, R. (2002). *Service Management; Strategy and Leadership in Service Business*, 3rd edition, Wiley, Chichester [1st edition 1983, 2nd edition 1991].

Preissl, B. (2000). Service Innovation What Makes it Different? Emperical Evidence from Germany. In J. Stanley, & I. Miles, *Innovation Systems in The Service Economy* (pp. 125-148). Dordrecht: Kluwer Academic Pulisher.

Ramakrishna, Y., (2012). Service Innovation in Banks for Sustainability. *International Journal of Management & Business Studies*, vol. 2, no. 2, pp.80-83.

Shabankareh. N, Meigounpoory, M. (2013). New theoretical model of New Service Development process in Iranian Governmental Banks. *International Journal of Academic Research in Business and Social Sciences*, Vol. 3, No. 8.

Sundbo, J. & Gallouj, F. (2000). Innovation as a loosely coupled system in services. *International Journal of Services Technology and Management*, Vol. 1, No. 1, pp. 15-36.

Toivonen, M., Smedlund, A., & Tuominen, T. (2006). Development of Knowledge Intensive Business Service Innovations and Innovation Networks. *International Journal MANAGEMENT, Journal for Management Theory and Practice*, 40, 4-11.

Toivonen, M., Tuominen, T. (2009). Emergence of innovations in services. *The service Industries Journal*, 29, 887-902.

World Bank (2008), World Development Indicators 2008, Washington, DC: *World BankPublications.*

Yen, H., Wang,W., Wei, C., Hsu, S., Chiu, H., (2012). Service innovation readiness: Dimensions and performance outcome. *Decision Support Systems*, 53 (2012) 813–824.