IDENTIFYING KEY BARRIERS TO CUSTOMER RETENTION IN BANKING SECTOR OF PAKISTAN

Zaid Bin Khalid
Department of Business Administration, University of the Punjab, Gujranwala Campus
Naveed Iqbal Chaudhry
Department of Business Administration, University of the Punjab, Gujranwala Campus
IqraArif
Department of Business Administration, University of the Punjab, Gujranwala Campus

Abstract

Objectives – The purpose of this research is to find out the barriers to customer retention in banking sector of Pakistan. This paper aims to enhance the understanding about the barriers that influence the customer retention in banking organizations.

Methodology – A qualitative mathematical based technique called interpretive structural modeling (ISM) is employed to identify the barriers and to understand interaction and mutual relationships among them.

Findings – Seven barriers to customer retention are identified through extensive literature review and subsequent opinions of experts from banking industry and academia. Contextual relationships have been established and ISM based model is developed to represent the mutual interaction among diagnosed barriers. The matrix cross-reference multiplication applied to a classification (MICMAC) analysis has also been carried out to classify the nature of barriers according to their dependence and driving power.

Practical Implications – The adoption of ISM based hierarchal model in this study would help in understanding the barriers and provide useful insights to top managers and policy makers of banking sector who want to focus and minimize these barriers in order to retain their customers for longer time period.

Key words: Banking Sector, Barriers, Customer Retention, Interpretive Structural Modeling.

Jel Classification: M30, M31

1. Zaid Bin Khalid :zaid_125@hotmail.com

 ISSN 2414-8393

INTRODUCTION

Customer's importance has been underscored by many researchers and academicians because they are key to success for any organization. Aydin & Özer (2006) highlighted that organizations mainly depend on their customers therefore it is very important to make efforts for satisfying and retaining them. Organizations always try to satisfy their customers and find out the reasons affecting their retention (Foxall, 1999).

In emerging era customer retention has gained much prominence in banking sector and it is now an important banking strategy. Deregulation and changing in monetary policies give rise to an environment of competition and it also becomes thoughtful for banks to retain customers (Agudze-Tordzro, Buame, & Narteh, 2014). Banking sector particularly in Pakistan, due to privatization, resulted in enhanced customer anticipations. As a result customers demand high quality services from monetary institutions (Khan & Fasih, 2014). Unfortunately huge number of organizations particularly in banking sector is facing obstacles in retaining their customers, and facing common problems like huge market competition, market saturation, and customer sophistication (Diwakar & Vaidya, 2008).

Customer Retention

Wallin Andreassen (1994) emphasized that customer retention is most influential factor that an organization can utilize in gaining competitive advantage over a long period of time in this era of competition. The key objective of an organization is the long term stability of relationship between two parties therefore organizations are concentrated towards "Customer Retention" (Dawes Farquhar, 2003). Retaining customer in environment of huge competition is challenging for a business because a lost customer shows loss of sale to a business. Hence company also loses its profits that could be earned from a retained customer. Moreover serving an existing customer is profitable than selling to a new customer (Aydin & Özer, 2006)

.

Banking sector is an important sector of economy and success of any bank mainly relies on its customers hence customers are the most important asset for it. In era of such competition it is a tough challenge for banking sector to keep this valuable asset retained (Agudze-Tordzro et al., 2014). Despite of their importance unluckily many organizations are still facing customer retention problem whereas in banking sector this problem is at its crest (Yiu, Grant, & Edgar, 2007). Therefore, this paper aims to diagnose those major barriers which affect customers retention in banking sector of Pakistan.

ISM Methodology and Model Development

Interpretive structural modeling (ISM) is process of cooperative learning and this tool is widely used in management sciences (Ravi & Shankar, 2005).The concept of ISM is systematically introduced and explained byJohn N. Warfield (1974). ISM enables in assessing model suitability and provides high level of understanding. It is capable of interacting with large number of participants as well as complicated cases (John N. Warfield, 1974). ISM technique assists groups as well as individuals to recognize complex cases and enable them to plot multidimensional relationships among variables in understandable form (Sohani & Sohani, 2012). A digraph is then developed and appropriate relationships of multifaceted schedules initiated. Developing set of factors and their suitable relationships is the basic concept of ISM (Malone, 1975). ISM methodology has been utilized by various researchers in their particular fields from more than last twenty five years. The application of ISM technique in few recent studies is presented in Table 1.

 ISSN 2414-8393

ISM methodology mainly depends upon experts' opinion. J. N. Warfield, (1982) advocated that at least eight experts are mandatory to participate for employing ISM technique. For consensus, experts are belonged to two different domains including academia and industry. Ravi & Shankar(2005) proposed ISM model in their study with involvement of just two experts. Recently, Panahifar et al. (2014) utilized ISM tool in their study with contribution of nine experts. In present research 16 experts are involved, 6 experts are academic researchers and have their research experience in academia whereas rest of 10 experts are belonged to top management of banking sector. The criteria for selection of an expert are based on the number of years of their experience. Each expert has at least twelve years of experience in his related field. According toKhalid, Mufti, & Ahmad (2016) ISM methodology comprises of following steps

1. Barriers relating to problem under consideration are listed and identified through literature survey and consensus of experts' opinion.
2. Pair-wise contextual relationships are developed from the identified barriers again through consensus of expert opinion.
3. Structural self interaction matrix (SSIM) is developed for pair wise relationships of barriers.
4. Initial reachability matrix is then developed by converting values of SSIM into binary digits 1 and 0.
5. Final reachability matrix is derived from initial reachability matrix after removing transitivity. Transitivity is basic assumption of ISM technique which means, if barrier A is related to barrier B and barrier B is related to barrier C, then barrier A will be definitely related to barrier C.
6. Final reachability matrix is then utilized in level partition process.
7. A conical matrix is constructed on the basis of level partitions.
8. A digraph or ISM model is developed depending upon levels acquired by each barrier and association given in final reachability matrix.
9. ISM model is evaluated to check any inconsistency and changes are made, if necessary.

3.1-Identification of Barriers

For developing ISM model, first step is to diagnose significant barriers obstructing customer retention with the help of extensive literature survey and consensus of experts' opinion. After extracting a list of major barriers from literature, the opinion of experts is required to finalize that list through their consensus. In two brain storming sessions separately with academic researchers and managers of banks, the consensus of experts' opinion was obtained for present study. Seven barriers are selected as the most influential for customer retention with consensus of experts belonged to academia and banks, which are presented concisely in Table 2.

3.2- Structural Self-Interactive Model (SSIM)

SSIM is constructed (Table 3) after developing pair wise relationships among barriers. A "leads to" type principle is followed to develop contextual relationships among various identified barriers. These relationships are developed by consensus of expert opinion by using a questionnaire (Appendix). Researchers including Alawamleh & Popplewell (2011) and Khalid et al. (2016) suggested that consensus of experts can be obtained by utilizing a questionnaire, facilitated and moderated by researcher.

 ISSN 2414-8393

Following four characters are used to show the associations among barriers:
V = Barrier *i* will help to attain barrier *j*;
A = Barrier *j* will be attain by barrier *i*;
X = Barriers*i* and *j* will attain each other;
O = Barriers *j* and *i* are not linked.

3.3- Initial Reachability Matrix

Based on SSIM the data is converted into binary digits 1's and 0's to develop initial reachability matrix (Table 4). Symbols used in SSIM are replaced by binary digits by adopting following rules given below:

i. If entry of cell (*i*,*j*) in SSIM is representing V then entry (*i*,*j*) in reachability matrix will become 1 and (*j*,*i*) will be 0.
ii. If the entry of cell (*i*,*j*) in SSIM is representing A the entry (*i*,*j*) in reachability matrix will be 0 and (*j*,*i*) will be 1.
iii. If the entry of cell (*i*.*j*) in SSIM is representing X, the entry (*i*,*j*) in reachability matrix will be 1 and (*j*,*i*) will also be 1.
iv. If the entry of (*i*.*j*) in SSIM is representing O, then the entry (*i*,*j*) in reachability matrix will be 0 and (*j*,*i*) will also be 0.

3.4- Final Reachability Matrix

Initial reachability matrix is then converted into final reachability matrix (Table 5) after incorporation of transitivity. Transitivity is the basic assumption of ISM modeling which is described in step 5 of ISM constructing procedure. In final reachability matrix, after removing transitivity, some entries are newly inferred which are denoted by 1†. Final reachability matrix also represents the driving and dependence powers of each barrier.

3.5- Level Partition

By measuring reachability and antecedents sets of each barrier, level partitioning process of barriers is performed in different iterations. Reachability set contains its barriers as well as barriers of other sets. Whereas antecedent set comprises of its barriers with barrier set that assists to gain it. Then an intersection set of both reachability and antecedent set is calculated. The barrier for which its reachability set and intersection set are similar is nominated with level 1or top level in the hierarchy. The barrier at top level does not affect any other barriers above its level in the hierarchy. Then that barrier is omitted from the table for next iteration. In next iteration the same process is repeated to identify the level of next barrier. This process is continued till the allotment of last level to the barriers. In present study level partition process is completed in five iterations (Table 6-10). These levels help in establishing a digraph presenting barriers to customer retention.

3.6- Conical Matrix

Conical matrix is also called lower triangular matrix (Table 11). It is developed by rearranging order of barriers according to their levels designated. Therefore, same level barriers are presented and clubbed together. Conical matrix is helpful later in developing hierarchical model of ISM.

1- MICMAC Analysis

Duperrin & Godet (1973) established initially the idea of categorization of barriers through matrix cross-reference multiplication applied to a classification (MICMAC). Recently, Khalid et al. (2016) utilized the similar procedure in their study. The purpose of MICMAC

 ISSN 2414-8393

analysis is to determine and classify the nature of barriers to customer retention on the basis of their dependence and driving powers obtained through final reachability matrix. Barriers are partitioned into four clusters for MICMAC analysis. Cluster one depicts weak barriers which have weak dependence and driving power. These barriers have weak coherence because they are less connected with other barriers and known as "Autonomous barriers". Second cluster is called "Dependent barriers" and it comprises of barriers with strong dependence power and weak driving power. The barriers with both strong driving and dependence power fall in third cluster called "Linkage Barriers". The fourth cluster is named as "Independent barriers" with weak dependence power whereas high driving power.

2- Developing ISM Model

An ISM based model is developed with the help of conical matrix (Figure 2). The barriers having top level in level partition process are placed at the top of the hierarchy in the model, and then barriers having second level are placed at second level in the model. This procedure is continued till the fifth level is positioned in the bottom of the ISM hierarchy.

3- Discussion and Conclusions

Customer retention problem is prevailing in all sectors. Particularly service sector is extremely thoughtful about retaining customers. It is also witnessed that particularly in banking sector customer retention problem is a major issue. In era of globalization and competition, it is tough challenge for banking sector to keep its valuable customers retained. The prime objective of this study is to inspect the barriers obstructing the customer retention in banking sector. Therefore it is critical to understand various levels of these barriers. Barrier 2 'inadequate physical amenities and environment', barrier 1 'poor service quality' and barrier 3 'growing market competition' are most critical factors in the hierarchy and are positioned in the bottom of hierarchy. The barrier 4 'peer pressure' and barrier 5 'poor brand image and reputation' are strategic and linkage in nature and play an important role in influencing customer retention and consequently require greater concentration. The barrier 6 'customer's negative perception' and barrier 7 'increasing regulation' possess high dependence and low driving power and are placed at the top of hierarchy, these barriers depends upon other barriers and do not intensify any other barrier above their level. According to Figure 1 of MICMAC analysis, in cluster one there is no autonomous barrier, therefore policy makers and managers are required to pay attention to all identified barriers. Whereas in cluster two, barrier 6 'customer's negative perception' and barrier 7 'increasing regulation' are falling with strong dependence power and weak driving power. In third cluster, barrier 5 'poor brand image and reputation' along with barrier 4 'peer pressure' are depicted. It shows that they are strongly linked with other barriers in system and their driving and dependence powers are strong. Cluster four comprises of barrier 1 'poor service quality', barrier 2 'inadequate physical amenities and environment' and barrier 3 'growing market competition'. These barriers are highly independent in nature and drive all other barriers in the system understudy. This research will be beneficial to top management and policy makers of banks to recognize the real causes of high customer turnover. Furthermore, main contribution of this study is to build up contextual and mutual relationships among barriers hindering customer retention and allocate several levels in hierarchy to make them simpler to understand by the policy makers and top managers. So that they may utilize their resources to control and minimize these identified barriers in better way.

4- Limitations and Scope for Future Research

The current study possesses few limitations. First, as the ISM model is developed according the opinions and inputs given by several experts, hence there is some chance of bias in

 ISSN 2414-8393

experts' opinion. Second, barriers identified in present study are seven, although thorough literature was analyzed to identify the barriers but in future more number of experts may involve diagnosing more barriers. Last, this ISM model has not yet been empirically or statistically tested, therefore it gives the direction for future research. In future, researchers can validate this proposed hierarchical model by using structural equation modeling (SEM).

REFERENCES

Agudze-Tordzro, K., Buame, S., & Narteh, B. (2014). Customer Retention Strategies: A Study of Ghanaian Banks. *European Journal of Business and Management*, *6*(15), 31–39.

Alawamleh, M., & Popplewell, K. (2011). Interpretive structural modelling of risk sources in a virtual organisation. *International Journal of Production Research*, *49*(20), 6041–6063.

Ali, R., Fu, G. L., & ur Rehman, R. (2014). Factors Influencing Customer Loyalty of Banking Industry: Empirical Evidence from Pakistan. *International Journal of Learning and Development*, *4*(2), Pages–9.

Ansari, M. F., Kharb, R. K., Luthra, S., Shimmi, S. L., & Chatterji, S. (2013). Analysis of barriers to implement solar power installations in India using interpretive structural modeling technique. *Renewable and Sustainable Energy Reviews*, *27*, 163–174.

Aydin, S., & Özer, G. (2006). How switching costs affect subscriber loyalty in the Turkish mobile phone market: An exploratory study. *Journal of Targeting, Measurement and Analysis for Marketing*, *14*(2), 141–155.

Choudhury, K. (2014). Service Quality and Customers' Complaining Behavior: A Study of the Indian Banking Sector. *Services Marketing Quarterly*, *35*(2), 123–137.

Colgate, M., & Lang, B. (2001). Switching barriers in consumer markets: an investigation of the financial services industry. *Journal of Consumer Marketing*, *18*(4), 332–347.

Coussement, K. (2014). Improving customer retention management through cost-sensitive learning. *European Journal of Marketing*, *48*(3/4), 477–495.

Dawes Farquhar, J. (2003). Retaining customers in traditional retail financial services: interviewing'les responsables'. *The International Review of Retail, Distribution and Consumer Research*, *13*(4), 393–404.

Dawes Farquhar, J. (2004). Customer retention in retail financial services: an employee perspective. *International Journal of Bank Marketing*, *22*(2), 86–99.

Diwakar, H., & Vaidya, A. (2008). Information analysis for enabling optimal utilization of service delivery channels in Indian banks. In *Computer and Information Science, 2008. ICIS 08. Seventh IEEE/ACIS International Conference on* (pp. 146–151). IEEE.

Donovan, R. J., Rossiter, J. R., Marcoolyn, G., & Nesdale, A. (1994). Store atmosphere and purchasing behavior. *Journal of Retailing*, *70*(3), 283–294.

Duperrin, J. C., & Godet, M. (1973). *Methode de hierarchisation des elements d'un systeme, Rapport economique du CEA*. R-45-41, Paris.

Foxall, G. R. (1999). The behavioural perspective model: Consensibility and consensuality. *European Journal of Marketing*, *33*(5/6), 570–597.

Ghandehary, M., Harati, H., & Khazaei Pool, J. (2014). Identifying and ranking the effective factors on customer values: A FAHP approach towards Sepah Bank, Iran. *Education, Business and Society: Contemporary Middle Eastern Issues*, *7*(1), 57–74.

Govindan, K., Palaniappan, M., Zhu, Q., & Kannan, D. (2012). Analysis of third party reverse logistics provider using interpretive structural modeling. *International Journal of Production Economics*, *140*(1), 204–211.

Haron, S., Ahmad, N., & Planisek, S. L. (1994). Bank patronage factors of Muslim and non-Muslim customers. *International Journal of Bank Marketing*, *12*(1), 32–40.

 ISSN 2414-8393

Johnston, R. (1997). Identifying the critical determinants of service quality in retail banking: importance and effect. *International Journal of Bank Marketing*, *15*(4), 111–116.

Kellogg, D. L., & Nie, W. (1995). A framework for strategic service management. *Journal of Operations Management*, *13*(4), 323–337.

Khalid, Z. B., Mufti, N. A., & Ahmad, Y. (2016). IDENTIFYING AND MODELING BARRIERS TO COLLABORATION AMONG AUTO-PARTS MANUFACTURING SMEs. *Pakistan Business Review*, *18*(2), 487–507.

Khan, M. M., & Fasih, M. (2014). Impact of service quality on customer satisfaction and customer loyalty: Evidence from banking sector. *Pakistan Journal of Commerce and Social Sciences*, *8*(2), 331–354.

Krishnamurthy, R., Raja, K. B., & others. (2010). INFLUENCE OF SERVICE QUALITY ON BANKING CUSTOMERS'BEHAVIOURAL INTENTIONS. *International Journal of Economics and Finance*, *2*(4), p18.

Luarn, P., & Lin, H.-H. (2003). A Customer Loyalty Model for E-Service Context. *J. Electron. Commerce Res.*, *4*(4), 156–167.

Malone, D. W. (1975). An introduction to the application of interpretive structural modeling. *Proceedings of the IEEE*, *63*(3), 397–404.

Metawa, S. A., & Almossawi, M. (1998). Banking behavior of Islamic bank customers: perspectives and implications. *International Journal of Bank Marketing*, *16*(7), 299–313.

Mohd Kassim, N., & Souiden, N. (2007). Customer retention measurement in the UAE banking sector. *Journal of Financial Services Marketing*, *11*(3), 217–228.

Munusamy, J., Chelliah, S., & Mun, H. W. (2010). Service quality delivery and its impact on customer satisfaction in the banking sector in Malaysia. *International Journal of Innovation, Management and Technology*, *1*(4), 398–404.

Naeem, H., Akram, A., & Saif, M. I. (2011). Service Quality and its impact on Customer Satisfaction: An empirical evidence from the Pakistani banking sector. *International Business & Economics Research Journal (IBER)*, *8*(12).

Narteh, B., & Owusu-Frimpong, N. (2011). An analysis of students' knowledge and choice criteria in retail bank selection in sub-Saharan Africa: The case of Ghana. *International Journal of Bank Marketing*, *29*(5), 373–397.

Naser, K., Jamal, A., & Al-Khatib, K. (1999). Islamic banking: a study of customer satisfaction and preferences in Jordan. *International Journal of Bank Marketing*, *17*(3), 135–151.

Panahifar, F., Byrne, P. J., & Heavey, C. (2014). ISM analysis of CPFR implementation barriers. *International Journal of Production Research*, (ahead-of-print), 1–18.

Panahifar, F., Byrne, P. J., & Heavey, C. (2015). A hybrid approach to the study of CPFR implementation enablers. *Production Planning & Control*, *26*(13), 1090–1109.

Poolthong, Y., & Mandhachitara, R. (2009). Customer expectations of CSR, perceived service quality and brand effect in Thai retail banking. *International Journal of Bank Marketing*, *27*(6), 408–427.

Ravi, V., & Shankar, R. (2005). Analysis of interactions among the barriers of reverse logistics. *Technological Forecasting and Social Change*, *72*(8), 1011–1029.

Roberts, K., Varki, S., & Brodie, R. (2003). Measuring the quality of relationships in consumer services: an empirical study. *European Journal of Marketing*, *37*(1/2), 169–196.

Rossi, S. (2012). Money, banking, and finance. *United Nations Educational, Scientific and Cultural Organization (Ed.): Encyclopedia of Life Support Systems, Forthcoming, UNESCO, Paris*.

 ISSN 2414-8393

Ruiz, B., Esteban, Á., & Gutierrez, S. (2014). Determinants of reputation of leading Spanish financial institutions among their customers in a context of economic crisis. *BRQ Business Research Quarterly*, *17*(4), 259–278.

Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Tests of a causal model. *Journal of Applied Psychology*, *83*(2), 150.

Shamdasani, P. N., & Balakrishnan, A. A. (2000). Determinants of relationship quality and loyalty in personalized services. *Asia Pacific Journal of Management*, *17*(3), 399–422.

Sohani, N., & Sohani, N. (2012). Developing interpretive structural model for quality framework in higher education: Indian context. *Journal of Engineering, Science and Management Education*, *5*(2), 495–501.

Sumra, S. H., Manzoor, M. K., Sumra, H. H., & Abbas, M. (2011). The impact of e-banking on the profitability of banks: a study of Pakistani banks. *Journal of Public Administration and Governance*, *1*(1), Pages–31.

Tan, M., & Teo, T. S. (2000). Factors influencing the adoption of Internet banking. *Journal of the AIS*, *1*(1es), 5.

Vargo, S. L., & Lusch, R. F. (2004). The four service marketing myths remnants of a goods-based, manufacturing model. *Journal of Service Research*, *6*(4), 324–335.

WallinAndreassen, T. (1994). Satisfaction, loyalty and reputation as indicators of customer orientation in the public sector. *International Journal of Public Sector Management*, *7*(2), 16–34.

Walsh, G., Mitchell, V.-W., Jackson, P. R., & Beatty, S. E. (2009). Examining the antecedents and consequences of corporate reputation: A customer perspective. *British Journal of Management*, *20*(2), 187–203.

Warfield, J. N. (1974). Developing subsystem matrices in structural modeling. *IEEE Transactions on Systems, Man, and Cybernetics*, (1), 74–80.

Warfield, J. N. (1982). Consensus methodologies. *Group Planning and Problem-Solving Methods in Engineering Management*, 1–34.

Wu, Y.-L., Tao, Y.-H., Li, C.-P., Wang, S.-Y., & Chiu, C.-Y. (2014). User-switching behavior in social network sites: A model perspective with drill-down analyses. *Computers in Human Behavior*, *33*, 92–103.

Yiu, C. S., Grant, K., & Edgar, D. (2007). Factors affecting the adoption of Internet Banking in Hong Kong—implications for the banking sector. *International Journal of Information Management*, *27*(5), 336–351.

Zeithaml, V. A., Berry, L. L., &Parasuraman, A. (1996). The behavioral consequences of service quality. *The Journal of Marketing*, 31–46.

 ISSN 2414-8393

APPENDIX

Table 1: *Application of ISM*
Source: *Author's Own*

S. no.	Barrier name	Brief Description	References
01	Poor service quality	Poor service quality in terms of reliability, trust, convenience, responsiveness and ease.	(Zeithaml, Berry, & Parasuraman, 1996; Dawes Farquhar, 2004; Yiu, Grant, & Edgar, 2007; Krishnamurthy, Raja, & others, 2010;Wu, Tao, Li, Wang, & Chiu, 2014;Agudze-Tordzro, Buame, & Narteh, 2014; Khan &Fasih, 2014)
02	Inadequate physical amenities and environment.	Bank's physical facilities, infrastructure, building etc. are not appealing.	(Donovan, Rossiter, Marcoolyn, & Nesdale, 1994;Kellogg & Nie, 1995;Shamdasani & Balakrishnan, 2000;Krishnamurthy & Raja, others, 2010)
03	Growing Market Competition	Market is getting saturated, intense competition environment with increased customer choices.	(Roberts, Varki, & Brodie, 2003;Dawes Farquhar, 2004;Krishnamurthy & Raja, others, 2010;Narteh & Owusu-Frimpong, 2011;Coussement, 2014;Ghandehary, Harati, & Khazaei Pool, 2014;Agudze-Tordzro et al., 2014)
04	Peer Pressure	Influence of relatives, peers and friends to switchtowards other banks.	(Haron, Ahmad, & Planisek, 1994;Johnston, 1997;Metawa & Almossawi, 1998;Naser, Jamal, & Al-Khatib, 1999;Tan & Toe, 2000; Colgate & Lang, 2001)
05	Increasing Government Regulation	Governmental policies are getting tighten resulting difficulties in customer retention.	(Munusamy, Chelliah, & Mun, 2010;Naeem, Akram, & Saif, 2011;Sumra, Manzoor, Sumra, & Abbas, 2011;Rossi, 2012)
06	Poor Brand Image and Reputation	The repute and goodwill of organization is not good whereas the organizational brand image is also not favorable.	(Wallin Andreassen, 1994;Luarn & Lin, 2003;Poolthong & Mandhachitara, 2009;Walsh, Mitchell, Jackson, & Beatty, 2009; Ali, Fu, & ur Rehman, 2014;Ruiz, Esteban, & Gutierrez, 2014)
07	Customer Negative Perception	A negative image is created in minds of customers about an organization.	(Zeithaml et al., 1996;Schneider, White, & Paul, 1998;Vargo & Lusch, 2004;Mohd Kassim & Souiden, 2007; Choudhury, 2014;Ghandehary et al., 2014)

 ISSN 2414-8393

Table 2: *List of barriers and their description as reported in literature*
Source: *Author's Own*

S. No.	Contribution of Authors	Area of Research
1	Alawamleh & Popplewell (2011)	Interpretive structural modeling of risk sources in a virtual organisation.
2	Govindan, Palaniappan, Zhu, & Kannan (2012)	Analysis of third party reverse logistics provider using interpretive structural modelling.
3	Ansari, Kharb, Luthra, Shimmi, & Chatterji (2013)	Analysis of barriers to implement solar power installations in India using interpretive structural modeling technique.
4	Panahifar et al. (2014)	ISM analysis of CPFR implementation barriers.
5	Panahifar, Byrne, & Heavey (2015)	A hybrid approach to the study of CPFR implementation enablers.
6	Khalid, Mufti, & Ahmad (2016)	Identifying and modeling barriers to collaboration among auto-parts manufacturing SMEs.

Table 3: *Structural self interaction matrix*
Source:*Author's Own*

S.no.	Barriers	1	2	3	4	5	6	7
1	**Poor Service Quality**	1	0	1	1	1	1	0
2	**InadequatePhysical Amenities and Environment**	1	1	0	1	1	1	0
3	**Growing Market Competition**	0	0	1	1	0	0	1
4	**Peer Pressure**	0	0	0	1	1	1	0
5	**Poor Brand Image and Reputation**	0	0	0	1	1	1	1
6	**Customer's Negative Perception**	0	0	0	0	0	1	0
7	**Increasing Regulations**	0	0	0	0	0	0	1

 ISSN 2414-8393

Table 4: *Initial reachability matrix*
Source:*Author's Own*

S. no.	Barriers	1	2	3	4	5	6	7	Driving Power	Rank
1	Poor Service Quality	1	0	1	1	1	1	1†	6	II
2	Inadequate Physical Amenities and Environment	1	1	1†	1	1	1	1†	7	I
3	Growing Market Competition	0	0	1	1	1†	1†	1	5	III
4	Peer Pressure	0	0	0	1	1	1	1†	4	IV
5	Poor Brand Image and Reputation	0	0	0	1	1	1	1	4	IV
6	Customer's Negative Perception	0	0	0	0	0	1	0	1	V
7	Increasing Regulations	0	0	0	0	0	0	1	1	V
	Dependence	2	1	3	5	5	6	6		
	Rank	IV	V	III	II	II	I	I		

Note: 1† is representing new entries after incorporating transitivity
Table 5: *Final reachability matrix*
Source: *Author's Ow*

Barriers	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,3,4,5,6,7	1,2	1	
2	1,2,3,4,5,6,7	2	2	
3	3,4,5,6,7	1,2,3	3	
4	4,5,6,7	1,2,3,4,5	4,5	
5	4,5,6,7	1,2,3,4,5	4,5	
6	6	1,2,3,4,5,6	6	I
7	7	1,2,3,4,5,7	7	I

 ISSN 2414-8393

Table 6: *Iteration I*
Source:*Author's Own*

Barriers	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,3,4,5	1,2	1	
2	1,2,3,4,5	2	2	
3	3,4,5	1,2,3	3	
4	4,5	1,2,3,4,5	4,5	II
5	4,5	1,2,3,4,5	4,5	II

Table 7: *Iteration II*
Source:*Author's Own*

Barriers	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,3	1,2	1	
2	1,2,3	2	2	
3	3	1,2,3	3	III

Table 8: *Iteration III*
Source:*Author's Own*

Barriers	Reachability Set	Antecedent Set	Intersection Set	Level
1	1	1,2	1	IV
2	1,2	2	2	

Table 9: *Iteration IV*
Source:*Author's Own*

Barriers	Reachability Set	Antecedent Set	Intersection Set	Level
2	2	2	2	V

Table 10: *Iteration V*
Source:*Author's Own*

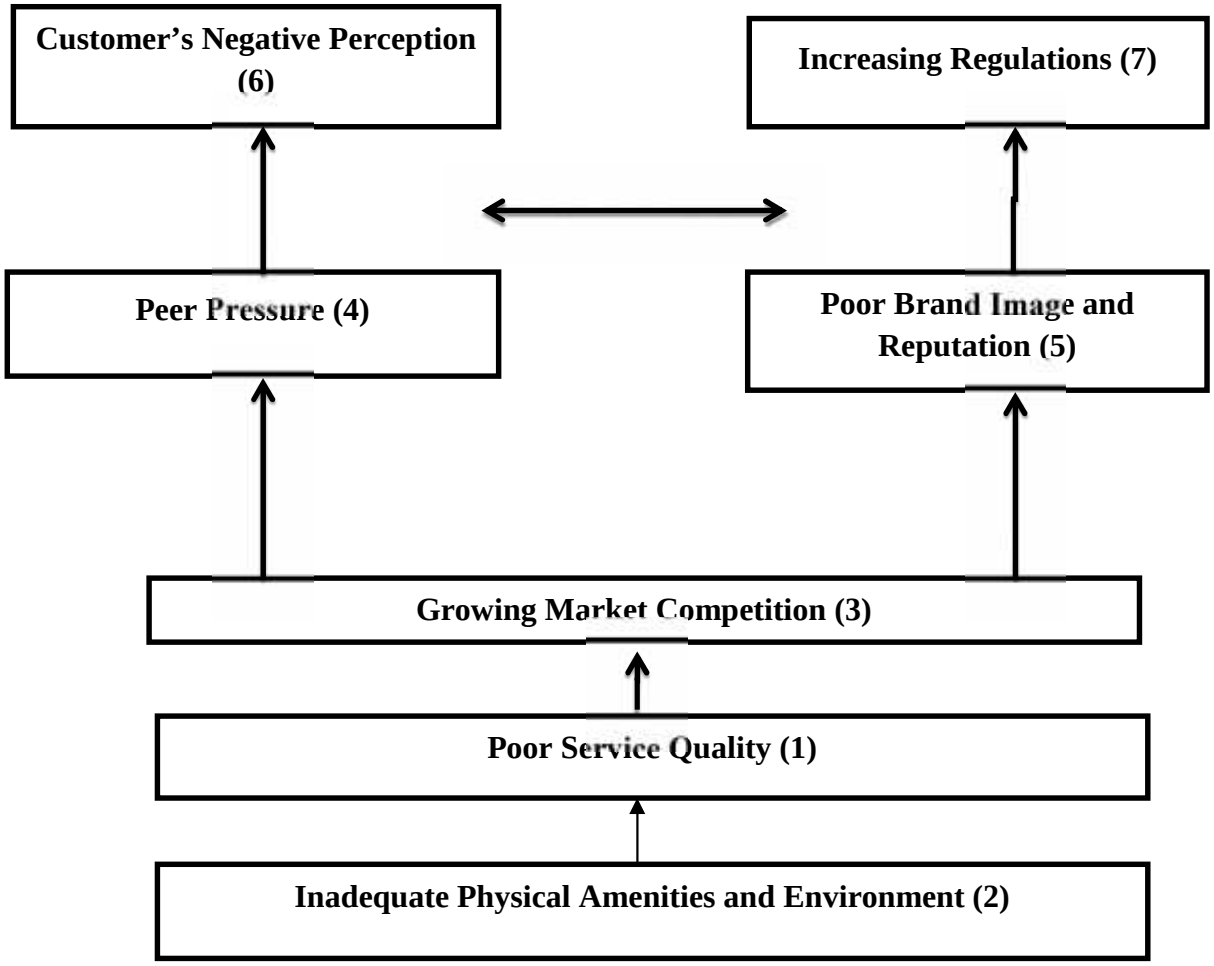
Barrier no.	Barriers	7	6	5	4	3	1	2
7	Increasing Regulations	1	0	0	0	0	0	0
6	Customer's Negative Perception	0	1	0	0	0	0	0
5	Poor Brand Image and Reputation	1	1	1	1	0	0	0
4	Peer Pressure	1	1	1	1	0	0	0
3	Growing Market Competition	1	1	1	1	1	0	0
1	Poor Service Quality	1	1	1	1	1	1	0
2	Inadequate Physical Amenities and Environment	1	1	1	1	1	1	1

 ISSN 2414-8393

Table 11: *Conical Matrix*
Source: *Author's Own*

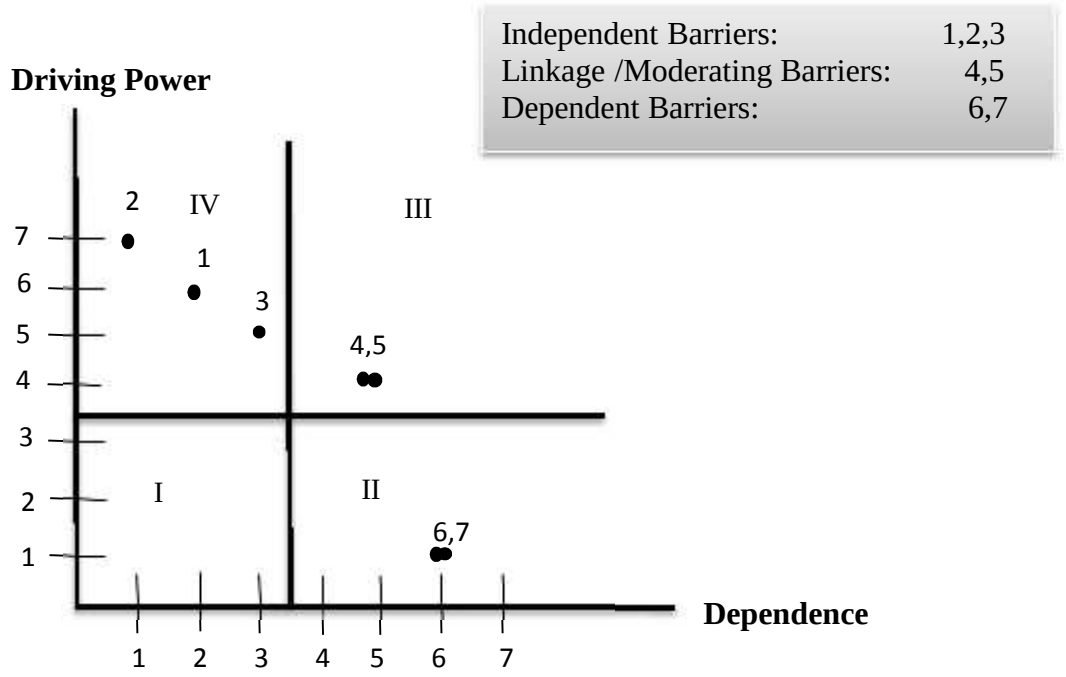
Barrier*j* → **Barrieri**↓		**B7**	**B6**	**B5**	**B4**	**B3**	**B2**	**B1**
B1	Poor Service Quality	O	V	V	V	V	A	-
B2	Inadequate Physical Amenities and Environment	O	V	V	V	O	-	-
B3	Growing Market Competition	V	O	O	V	-	-	-
B4	Peer Pressure	O	V	X	-	-	-	-
B5	Poor Brand image and Reputation	V	V	-	-	-	-	-
B6	Customer's Negative Perception	O	-	-	-	-	-	-
B7	Increasing Regulations	-	-	-	-	-	-	-

Figure 1: *MICMAC Analysis*
Source:*Author's Own*



 ISSN 2414-8393

Figure 2: *ISM Based Model of Barriers to Customer Retention in Banking Sector of Pakistan*
Source: *Author's Own*



 ISSN 2414-8393

Questionnaire for Experts:

The following table is intended to register the perception of professionals from the banking sector and academics to develop pair wise contextual relationships among barriers to customer retention in banking sector:

Please fill in the white boxes of the Table using anyone of the Following Symbols:
V= variable *i* will help to achieve/alleviate variable *j*
A= variable *j* will help to achieve/alleviate variable *i*
X= variable *i* and *j* will help to achieve/alleviate each other
O = variable*i* and *j* are unrelated

Barrier *j* → / **Barrier *i*↓**		**B7**	**B6**	**B5**	**B4**	**B3**	**B2**	**B1**
B1	**Poor service Quality**							
B2	**Inadequate physical amenities and environment**							
B3	**Growing market competition**							
B4	**Peer pressure**							
B5	**Poor Brand image and Reputation**							
B6	**Customer's negative perception**							
B7	**Increasing Regulations**							

 ISSN 2414-8393