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Investigating the effect of CRM factors on consumer perception: Evidence from banking industry

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ABSTRACT

Consumer perception plays essential role for market development. Consumer perception can be defined as a marketing concept, which includes a customer's impression, awareness and/or consciousness about a firm or its offerings. This paper investigates the effect of customer relationship management factors on consumer perception in Iranian banking industry. The study designs a questionnaire in Likert scale and distributes it among 300 randomly selected managers who worked for Bank Saderat Iran. Cronbach alpha has been calculated as 0.788, which is well above the minimum acceptable level. Using principal component analysis, the study has determined that six factors influences the most on consumer perception; namely: Customer oriented, Organizational strategy, Organizational resources, Organizational structure and Organizational culture.

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1. Introduction

Consumer perception plays essential role for market development (Yang & Jun, 2002; Hoehle et al., 2012). Consumer perception can be defined as a marketing concept, which includes a customer's impression, awareness and/or consciousness about a firm or its offerings. Customer perception is basically influenced by advertising, reviews, social media, public relations, personal experiences, etc. (Lee, et al., 2015). There are literally many studies on consumer perception. Verbeke and Liu (2014), for instance, investigated the effects of information about the risks and benefits of pork consumption on Chinese consumers' perceptions towards, and intention to eat, pork. Liu et al. (2014) determined different segments of Chinese consumers based on their perception of personal risk about different possible food-related hazards. In their survey, consumers' perceptions about the knowledge, honesty and concern of various information sources significantly and positively influenced their trust in those sources. According to Radomir and Nistor (2012), in the banking context, technology has enabled services such as automated telling machines (ATMs), Internet Banking and Mobile Banking have been gradually adopted in banking industry. Therefore, banks' management attention ought to be directed towards determining consumers' perceptions of electronic banking service quality.

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Radomir and Nistor (2012) evaluated consumers' perceptions of technology enabled services within the banking industry in Romania. They reported that the SSTQUAL scale requires to be refined to better fit the Romanian banking context. Mäenpää et al. (2008) studied the moderating role of familiarity, i.e. the amount of accumulated IB experience, in consumer perceptions of internet banking (IB). Their survey in Finland disclosed that level of IB familiarity influenced four out of seven service dimensions explored in their survey. Littler and Melanthiou (2006) studied consumer perceptions of risk and uncertainty and the implications for attitudes towards innovative retail services in an empirical investigation from internet banking.

2. The proposed method

This paper investigates the effect of customer relationship management factors on consumer perception in Iranian banking industry. The study designs a questionnaire in Likert scale and distributes it among 300 randomly selected managers who worked for Bank Saderat Iran. Cronbach alpha has been calculated as 0.788, which is well above the minimum acceptable level. In addition, Kaiser-Meyer-Olkin Measure of Sampling Adequacy is equal to 0.75 and Bartlett's Test of Sphericity yields a Chi-Square value of 4943.050 with Sig. = 0.000. Table 1 demonstrates some basic statistics associated with the proposed study.

Table 1
The summary of some basic statistics

	N	Minimum	Maximum	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Err.
S1 Knowledge Management	300	1	5	-0.684	0.141	1.379	0.281
S2 Marketing costs	300	2	5	-0.32	0.141	-0.843	0.281
S3 Organization's leadership	300	2	5	-0.834	0.141	0.159	0.281
S4 Market demand	300	1	5	-0.355	0.141	-0.63	0.281
S5 Market segmentation	300	1	5	-0.379	0.141	0.135	0.281
S6 Market share	300	1	5	0.048	0.141	-0.895	0.281
S7 Patterns for each customer cluster and each individual	300	1	5	-0.521	0.141	0.263	0.281
S8 Public relations	300	1	5	-0.449	0.141	-0.714	0.281
S9 Financial Resources	300	1	5	-0.815	0.141	0.258	0.281
S10 Human Resources	300	1	5	-0.676	0.141	-0.031	0.281
S11 Product life cycle	300	1	5	-0.445	0.141	-0.162	0.281
S12 Promotion products	300	1	5	-0.632	0.141	-0.144	0.281
S13 Customer database	300	2	5	-0.58	0.141	-0.347	0.281
S14 Differentiated products	300	1	5	-0.425	0.141	-0.119	0.281
S15 pricing strategies	300	1	5	-0.194	0.141	-1.035	0.281
S16 Implementing the best-selling and	300	1	5	-0.32	0.141	-0.403	0.281
S17 Social Media	300	1	5	-0.075	0.141	-1.164	0.281
S18 Innovation strategies in the marketplace	300	1	5	-0.229	0.141	-0.717	0.281
S19 Distribution channels	300	1	5	-0.346	0.141	-0.819	0.281
S20 After Sales Service	300	1	5	-0.293	0.141	-0.337	0.281
S21 Online Customer Service	300	1	5	-0.324	0.141	-0.654	0.281
S22 Creating shared value (social – economic)	300	1	5	-0.431	0.141	-0.247	0.281
S23 Shopping Experience	300	1	5	-0.141	0.141	-0.703	0.281
S24 Customer satisfaction	300	1	5	0.125	0.141	-0.475	0.281
S25 Customers innovation climate	300	1	5	0.035	0.141	-0.494	0.281
S26 Competitive advantage	300	1	5	0.107	0.141	-0.292	0.281
S27 Competitors	300	1	5	-0.129	0.141	-0.85	0.281
S28 Advertising Strategy	300	1	5	-0.253	0.141	-0.77	0.281
S29 New Technology	300	1	5	-0.796	0.141	0.595	0.281
S30 Organizational performance	300	1	5	0.06	0.141	-0.567	0.281
S31 Customization	300	1	5	-0.536	0.141	-0.048	0.281
S32 Resources	300	1	5	0.106	0.141	-0.849	0.281
S33 Business strategy	300	1	5	-0.331	0.141	-0.608	0.281
S34 Organizational Structure	300	1	5	-0.176	0.141	-0.727	0.281
S35 Organizational Learning	300	1	5	-0.245	0.141	-0.652	0.281
S36 Teaching staff	300	1	5	-0.203	0.141	-0.361	0.281
S37 Participatory Management	300	1	5	-0.054	0.141	-0.712	0.281
S38 Understanding the change	300	1	5	0.034	0.141	-0.847	0.281
S39 Market-oriented	300	1	5	-0.575	0.141	-0.519	0.281
S40 Customer Expectations	300	1	5	-0.506	0.141	-0.313	0.281
S41 Gaining the market information	300	1	5	-0.294	0.141	-0.847	0.281
S42 Customer-oriented corporate culture	300	1	5	-0.114	0.141	-0.834	0.281
S43 Internet Marketing	300	1	5	-0.07	0.141	-0.46	0.281
S44 Customer's needs	300	1	5	0.022	0.141	-0.55	0.281

As we can observe from the results of Table 1, all statistics are within desirable limits and we can therefore use principal component analysis to extract important factors.

3. The results

In this section, we present details of our findings on the implementation of principal component analysis in Table 2 as follows,

Table 2
The summary of principal component analysis

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.836	13.434	13.434	4.836	13.434	13.434	3.829	10.635	10.635
2	4.031	11.196	24.63	4.031	11.196	24.63	3.581	9.947	20.582
3	2.65	7.361	31.992	2.65	7.361	31.992	2.629	7.302	27.884
4	2.329	6.47	38.462	2.329	6.47	38.462	2.353	6.535	34.42
5	2.125	5.904	44.366	2.125	5.904	44.366	2.283	6.342	40.762
6	1.526	4.24	48.606	1.526	4.24	48.606	1.81	5.028	45.79
7	1.414	3.927	52.533	1.414	3.927	52.533	1.593	4.426	50.216
8	1.253	3.48	56.013	1.253	3.48	56.013	1.473	4.092	54.308
9	1.163	3.23	59.243	1.163	3.23	59.243	1.317	3.658	57.965
10	1.049	2.914	62.156	1.049	2.914	62.156	1.291	3.585	61.551
11	1.008	2.8	64.956	1.008	2.8	64.956	1.226	3.405	64.956
12	0.89	2.471	67.428						
13	0.851	2.365	69.793						
14	0.826	2.296	72.088						
15	0.766	2.127	74.215						
16	0.74	2.056	76.272						
17	0.715	1.985	78.257						
18	0.666	1.85	80.107						
19	0.628	1.745	81.852						
20	0.595	1.652	83.503						
21	0.568	1.578	85.081						
22	0.543	1.509	86.59						
23	0.521	1.447	88.037						
24	0.48	1.334	89.37						
25	0.459	1.276	90.646						
26	0.446	1.238	91.884						
27	0.398	1.105	92.989						
28	0.378	1.051	94.04						
29	0.372	1.032	95.072						
30	0.364	1.012	96.084						
31	0.339	0.943	97.026						
32	0.312	0.866	97.893						
33	0.269	0.747	98.64						
34	0.251	0.698	99.338						
35	0.218	0.605	99.943						
36	0.021	0.057	100						

In addition, Fig. 1 shows the results of Scree plot for the proposed study.

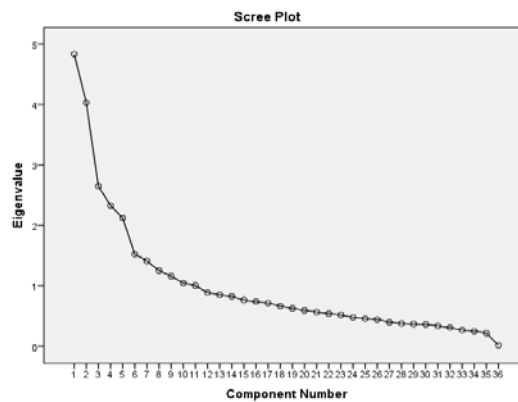


Fig. 1. The results of Scree plot

As we can observe from the results of Table 2 and Fig. 1 we may extract six factors. Table 3 and Table 4 present the results of principle component analysis before and after rotation.

Table 3
The summary of principal component analysis before rotation

Factor	Component Matrix										
	1	2	3	4	5	6	7	8	9	10	11
S21 Online Customer Service	0.689										
S23 Shopping Experience	0.686										
S20 After Sales Service	0.637						-0.343				
S22 Creating shared value	0.625		-0.381								
S25 Customers innovation climate	0.622		-0.359								
S24 Customer satisfaction	0.594									-0.357	
S44 Customer's needs	0.585				-0.361						
S13 Customer database	0.472		0.347								
S15 Pricing strategies		0.729									
S17 Social Media		0.714									
S18 Innovation strategies		0.696									
S19 Distribution channels		0.694									
S16 Sales Strategy		0.668									
S28 Advertising Strategy		0.665									
S42 Customer-oriented		0.63									
S35 Organizational Learning		0.534				-0.385			0.343		
S38 to understand the change		0.447						-0.447			
S31 Customization	0.356		-0.525				0.393				
S12 Promotion products	0.364		0.434							0.33	
S14 Differentiated products	0.441		0.489	-0.612							
S11 Product life cycle	0.451		0.492	-0.603							
S4 Market demand			0.462	0.499							
S7 Patterns for each customer			0.374	0.484							
S5 Market segmentation			0.359	0.469	-0.335						
S6 Market share				0.382	-0.376						
S9 Financial Resources					0.638						
S10 Human Resources	0.453				0.524						
S43 Internet Marketing	0.479				-0.48						
S8 Public relations	0.361				0.456						
S37 Participatory Management		0.416				-0.462		-0.385			
S3 Organization's leadership			0.354			0.419	0.376				
S32 Resources						0.398	-0.359		0.38		
S1 Knowledge Management							0.462		0.429		
S30 Organizational performance						0.389	-0.439				0.396
S2 Marketing costs							0.38				
S34 Organizational Structure								0.527	0.459		0.417

Table 4
The summary of principal component analysis after rotation

Factor	Rotated Component Matrix										
	1	2	3	4	5	6	7	8	9	10	11
S25 Customers innovation climate			0.756								
S24 customer satisfaction			0.697								
S21 Online Customer Service			0.694		0.459						
S22 Creating shared value			0.679								
S23 Shopping Experience			0.635								
S20 After Sales Service			0.626								
S44 customer needs			0.612								
S43 Internet Marketing			0.492						0.452		
S15 pricing strategies		0.757									
S18 innovation strategies		0.741									
S28 Advertising Strategy		0.728									
S17 Social Media		0.724									
S16 Sales Strategy		0.711									
S19 Distribution channels		0.668									
S11 product life cycle				0.948							
S14 Differentiated products				0.947							
S12 Promotion products				0.529					0.335		
S9 Financial Resources					0.789						
S10 Human Resources					0.7						
S8 Public relations					0.571					0.353	
S13 Customer database				0.454	0.495						
S5 Market segmentation						0.799					
S7 patterns for each customer						0.749					
S4 Market demand						0.67					
S6 Market share						0.65					
S37 Participatory Management							0.771				
S35 Organizational Learning							0.715				
S42 Customer-oriented				0.431			0.576				
S3 Organization's leadership								0.754			
S2 Marketing costs								0.739			
S32 Resources											
S31 Customization		0.404						0.552			
S30 Organizational performance									0.778		
S1 Knowledge Management										0.823	
S34 Organizational Structure											0.833
S38 to understand the change							0.355				

According to the results of Table 3 and Table 4 we may extract six components with different sub-components summarized in Table 5 as follows,

Table 5
The summary of CRM factors on consumer perception

Factor	Description	Factor loading
Customer orientation	Customers' innovation climate	0.756
	Customer satisfaction	0.697
	Online Customer Service	0.694
	Creating shared value	0.679
	Shopping Experience	0.635
	After Sales Service	0.626
	Customer needs	0.612
	Internet Marketing	0.492
Organizational strategy	Pricing strategies	0.757
	Innovation strategies in the marketplace	0.741
	Advertising strategy	0.728
	Social media	0.724
	Sales' strategy	0.711
Product development	Distribution channels	0.668
	Product life cycle	0.948
	Differentiated products	0.947
Resources	Product promotion	0.529
	Financial Resources	0.789
	Human Resources	0.7
	Public relations	0.571
Market structure	Customer database	0.495
	Market segmentation	0.799
	Patterns for each customer cluster and each individual customer	0.749
	Market demand	0.67
Organizational culture	Market share	0.65
	Participatory Management	0.771
	Organizational Learning	0.715
	Customer-oriented corporate culture	0.576

4. Discussion and conclusion

In this paper, we have presented an empirical investigation to determine CRM factors influencing on consumer perception in banking industry. Customer orientation is the first important factor, which includes eight sub-components including customers' innovation climate followed by customer satisfaction, online customer service, creating shared value, shopping experience, after sales service, customer's needs and internet marketing. The results are in line with findings of Imram (1999). Organizational strategy is the second factor with six sub-components where pricing strategies is the first component followed by innovation strategies in the marketplace, advertising strategy, social media, sales' strategy and distribution channels. Product development is the third factor with three sub-components of product life cycle, differentiated products, and product promotion. The results of this part are consistent with findings of McAlister and Erffmeyer (2003).

Resources are another issues associated with consumer perception with four factors including financial resources, human resources, public relations and customer database. The results are confirmed with other findings reported earlier by Yang and Jun (2002). Market structure is the next factor influencing on consumer perception with four factors including market segmentation, patterns for each customer cluster and each individual customer, market demand and market share. The results of this part are similar with other findings in the literature (Chang & Chen, 2009). Finally, organizational culture is the last factor, which consists participatory management, organizational learning and customer-oriented corporate culture. The results of this section are also consistent with findings of Kowalczyk and Pawlish (2002).

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