

## How customer relationship management influences making better decisions

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### CHRONICLE

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### ABSTRACT

Customers are the primary sources of making appropriate decisions and their feedbacks normally help us improve the quality of systems. In this paper, we present an empirical study to detect important factors influencing managers of banking industry make better decisions. The proposed study designs a questionnaire in Likert scale consists of 32 questions, distributes it among some bank managers. Cronbach alpha is calculated as 0.805. In addition, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Approx. Chi-Square are 0.701 and 1675, respectively. Based on the results of our survey, we have derived nine factors including customers' welfare strategy, systems integration, organizational culture assessment, corporate strategies, organizational development, intelligence data strategies, supporting strategies, resource planning as well as research and development.

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## 1. Introduction

Ko et al. (2008) identified the status of Customer Relationship Management (CRM) adoption and explored the effect of organizational characteristics on the CRM adoption process in the Korean fashion industry. Using Rogers' innovation decision process model as the conceptual basis, they surveyed 94 Korean fashion firms to study the persuasion, decision, and implementation stages of CRM adoption. In this study, organizational variables included firm characteristics such as size, and strategy, product characteristics including category, fashion position as well as seasonality and CEO characteristics including age and education. The most frequently implemented CRM technology was the development of a customer database, whereas the mostly frequently mentioned advantages of CRM were encouraging repurchase. Moreover, respondents' perceptions of CRM benefits influenced CRM adoption, affecting the implementation of different CRM technologies (Wu & Li, 2011; Shafia et al., 2011). Alshawi et al. (2011) tried to identify the organisational, technical and data quality

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related factors impacting CRM adoption by SMEs. They reported that factors influencing the adoption of CRM in SMEs were largely similar to the factors influencing CRM adoption in previously studied other kinds of organisations. Garrido-Moreno and Padilla-Meléndez (2011) examined the relationships between knowledge management (KM) and CRM success using a structural equation model. They reported that having knowledge management capabilities was not sufficient for the success of CRM, but there were other factors to consider. Organizational factors indeed influenced CRM success and they appeared to be intermediaries of the effect of other factors. Chang et al. (2010) applied some data from Korean firms, addressed the process concerning how CRM technology translates into business outcomes. They reported that marketing capability had mediated the association between CRM technology use and performance. Moreover, a customer-centric organizational culture and management system facilitated CRM technology implementation. The study served not only to clarify the mechanism between CRM technology implementation and organizational performance, but also to create the CRM results in the Korean context.

Dong (2012) reported that decision execution mechanisms, including both vertical advocacy and horizontal coordination, could substantially contribute to CRM diffusion; vertical advocacy has a notably greater impact on CRM implementation and firm performance gains than horizontal coordination, which has a greater impact on process gains. Li and Mao (2012) investigated how effective internal sales management control was achieved through CRM implemented and why enhanced control was beneficial to firms, which are largely overlooked by the extant literature. They reported that CRM implementation strengthened formal control and informal control, simultaneously. Formal control was substantially boosted by enhanced outcome measurability and process visibility of sales work. CRM implementation also facilitated informal control, by serving as the carrier of new institutional processes and sales philosophy. Shim et al. (2012) detected association rules and sequential patterns from the transactions of VIPs, and the rules and patterns were utilized to developed CRM strategies for the online shopping mall. Öztaysi et al. (2011) presented a measurement tool for customer relationship management processes. Kim et al. (2012) explores the existing gap between actual bank CRM implementation and customers' expectations of those actions in association with customer retention applying a survey method. They reported that that an incompatibility existed between the interval of actual CRM implementation activities and customers' expectations of the interval. Wang and Feng (2012) extended the resource-based perspective to the context of CRM and intended to develop a measurement model of CRM capabilities. Sangle and Awasthi (2011) investigated consumer's expectations from mobile CRM services. Liu et al. (2012) quantified the value of Internet-based CRM applications and tried to identify the mechanisms underlying CRM value creation. They reported that the integration contributes more value in markets featuring higher product differentiation or lower entry costs. Vella and Caruana (2012) tried to understand service providers and their intentions to implement their organization's CRM technology. They identified perceived usefulness and perceived ease of use as key elements, which are critical in encouraging service providers' intention to use CRM systems. Bahrami et al. (2012) stated that information technology could be an improvement tool for CRM. Chuang and Lin (2013) investigated the roles of infrastructure capability and customer orientation in enhancing customer-information quality in CRM systems. Duffy et al. (2013) investigated the role of justice in buyer-supplier relationships.

## **2. The proposed study**

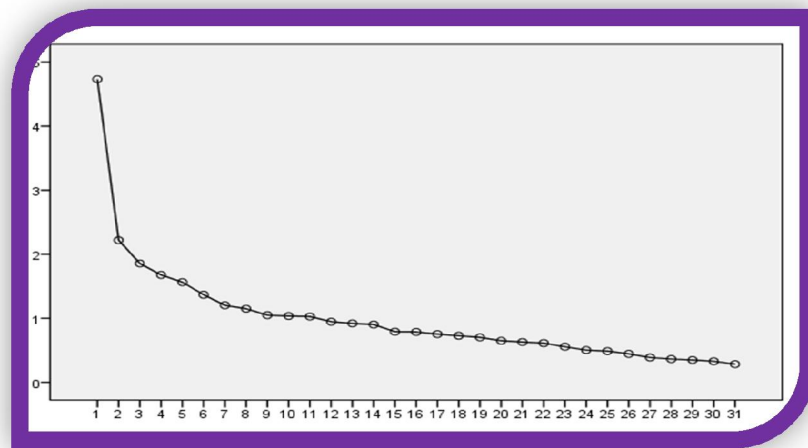
This paper presents an empirical study to detect important factors influencing managers of banking industry make better decisions. The proposed study designs a questionnaire in Likert scale consists of 32 questions, distributes it among some bank managers. Cronbach alpha is calculated as 0.805. In

addition, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Approx. Chi-Square are 0.701 and 1675, respectively. Table summarizes the results of our survey on communalities.

**Table 1**  
The summary of communalities

Variable	Initial	Extraction
VAR00002	1.000	.729
VAR00003	1.000	.720
VAR00004	1.000	.660
VAR00005	1.000	.629
VAR00006	1.000	.548
VAR00007	1.000	.553
VAR00008	1.000	.564
VAR00009	1.000	.605
VAR00010	1.000	.664
VAR00011	1.000	.641
VAR00012	1.000	.573
VAR00013	1.000	.577
VAR00014	1.000	.606
VAR00015	1.000	.651
VAR00016	1.000	.501
VAR00017	1.000	.703
VAR00018	1.000	.574
VAR00019	1.000	.509
VAR00020	1.000	.397
VAR00021	1.000	.727
VAR00022	1.000	.738
VAR00023	1.000	.574
VAR00024	1.000	.717
VAR00025	1.000	.508
VAR00026	1.000	.532
VAR00027	1.000	.634
VAR00028	1.000	.644
VAR00029	1.000	.573
VAR00030	1.000	.663
VAR00031	1.000	.589
VAR00032	1.000	.579

As we can observe from the results of Table 1, all factors are well above the minimum acceptable level of 0.5. Fig. 1 demonstrates the results of Scree plot.



**Fig. 1.** The summary of Scree plot

As we can observe from the results of Fig. 1, there are nine factors, which could be extracted for further studies. Table 2 demonstrates the results of factor analysis on these factors.

**Table 2**  
The summary of principal component analysis after rotation

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.733	15.267	15.267	4.733	15.267	15.267	2.334	7.531	7.531
2	2.220	7.162	22.428	2.220	7.162	22.428	2.098	6.769	14.299
3	1.856	5.987	28.416	1.856	5.987	28.416	1.951	6.292	20.591
4	1.677	5.409	33.824	1.677	5.409	33.824	1.935	6.241	26.832
5	1.564	5.044	38.869	1.564	5.044	38.869	1.662	5.361	32.193
6	1.368	4.413	43.281	1.368	4.413	43.281	1.641	5.294	37.487
7	1.202	3.879	47.160	1.202	3.879	47.160	1.554	5.013	42.499
8	1.148	3.705	50.865	1.148	3.705	50.865	1.516	4.890	47.390
9	1.049	3.383	54.248	1.049	3.383	54.248	1.458	4.704	52.094
10	1.036	3.342	57.589	1.036	3.342	57.589	1.387	4.476	56.569
11	1.027	3.314	60.904	1.027	3.314	60.904	1.344	4.334	60.904
12	.947	3.055	63.958						
13	.920	2.967	66.925						
14	.903	2.912	69.837						
15	.790	2.549	72.386						
16	.786	2.536	74.922						
17	.753	2.428	77.350						
18	.727	2.346	79.696						
19	.702	2.264	81.960						
20	.649	2.093	84.053						
21	.630	2.031	86.084						
22	.612	1.974	88.058						
23	.556	1.793	89.851						
24	.503	1.622	91.473						
25	.488	1.574	93.047						
26	.444	1.433	94.480						
27	.388	1.251	95.731						
28	.363	1.171	96.903						
29	.348	1.123	98.026						
30	.329	1.060	99.087						
31	.283	.913	100.000						

Based on the results of our survey, we have derived nine factors including customers' welfare strategy, systems integration, organizational culture assessment, corporate strategies, organizational development, intelligence data strategies, support, resource planning and research and development.

### 3. The results

In this section, we present details of our findings on nine influencing factors.

#### 3.1. The first factor: customers' welfare strategy

The first factor is associated with customers' welfare strategy. Table 3 shows details of our survey. As we can observe from the results of Table 3, "Evaluating customers' perspectives" is number one priority followed by "Detecting customers' preferences", "Awareness from the results of actions" and "Empowering employees".

**Table 3**

The summary of factors associated with customers' welfare strategy

Option	Factor weight	Eigenvalues	% of variance	Accumulated
Increase services for customers	.577			
Empowering employees	.608			
Detecting customers' preferences	.661			
Evaluating customers' perspectives	.680	2.453	35.044	35.044
Awareness from the results of actions	.640			
Encouraging flexibility	.543			
Applying internet	.383			

Cronbach alpha =0.68

### 3.2. The second factor: Systems integration

System integration is the second important factor and it includes seven factors, which are summarized in Table 4 as follows,

**Table 4**

The summary of factors associated with system integration

Option	Factor weight	eigenvalues	% of variance	Accumulated
Organizational development	.727			
Rotation in jobs and job flexibility	.815	1.769	58.958	58.958
Conflict management	.759			

Cronbach alpha =0.65

According to the results of Table 4, "Rotation in jobs and job flexibility" is number one priority followed by "Conflict management" and "organizational development".

### 3.3. Organizational culture assessment

Organizational assessment is another important factor with three items summarized in Table 5.

**Table 5**

The summary of factors associated with organizational assessment

Option	Factor weight	eigenvalues	% of variance	Accumulated
Performance measurement	.707			
Justice within organization	.724	1.590	53.001	53.001
Data mining applications	.752			

Cronbach alpha =0.55

According to the results of Table 5, "Data mining applications" is the most important component in organizational assessment followed by "Justice within organization" and "Performance measurement".

### 3.4. Corporate Strategies

Corporate strategies are another important factors with four items summarized in Table 6. According to the results of Table 6, "Knowledge management" is the most important component in organizational assessment followed by "Customer oriented organization culture", "Having a unified instruction" and "Outsourcing mechanisms".

**Table 6**

The summary of factors associated with corporate strategies

Option	Factor weight	eigenvalues	% of variance	Accumulated
Having a unified instruction	.664			
Knowledge management	.722	1.803	45.064	45.064
Customer oriented organization culture	.716			
Outsourcing mechanisms	.572			

Cronbach alpha =0.55

### 3.5. Organizational development

Organizational development are another important factors with three items summarized in Table 7. According to the results of Table 7, “Knowledge management” is the most important component in organizational development followed by “Having a unified instruction”, and “Customer oriented organization culture”.

**Table 7**

The summary of factors associated with organizational development

Option	Factor weight	eigenvalues	% of variance	Accumulated
Having a unified instruction	.750			
Knowledge management	.806	1.729	57.625	57.625
Customer oriented organization culture	.718			

Cronbach alpha =0.63

### 3.6. Intelligence data strategies

Intelligence data strategies are another important factors with two items summarized in Table 8. According to the results of Table 8, “Re-designing business activities” is the most important item followed by “Information and communication technology”.

**Table 8**

The summary of factors associated with Intelligence data strategies

Option	Factor weight	eigenvalues	% of variance	Accumulated
Information and communication technology	.787			
Re-designing business activities	.789	1.239	61.956	61.956

Cronbach alpha =0.48

### 3.7. Supporting activities

Supporting activities are another important factors with two items summarized in Table 9. According to the results of Table 9, “Management of unpredicted events” is the most important item followed by “Integrated systems”.

**Table 9**

The summary of factors associated with corporate strategies

Option	Factor weight	eigenvalues	% of variance	Accumulated
Integrated systems	.814			
Management of unpredicted events	.818	1.326	66.278	66.278

Cronbach alpha =0.49

### 3.8. Resource planning

Resource planning is another important factor with three items summarized in Table 10. According to the results of Table 10, “Cost/benefit analysis” is the most important item followed by “Organizational control” and “Reduce on job rotation among good employees”.

**Table 10**

The summary of factors associated with resources and control strategies

Option	Factor weight	eigenvalues	% of variance	Accumulated
Organizational control	.705			
Reduce on job rotation among good employees	.530	1.321	44.025	44.025
Cost/benefit analysis	.737			

Cronbach alpha =0.49

### 3.9. Research and development

Research and development is the last important factor with three items summarized in Table 11. According to the results of Table 11, “Human resource management” is the most important item followed by “Technology” used to develop organizational objectives.

**Table 11**

The summary of factors associated with research and development

Option	Factor weight	eigenvalues	% of variance	Accumulated
Human resource management	.705			
Technology	.530	1.321	44.025	44.025

Cronbach alpha =0.49

### 3. Conclusion

In this paper, we have presented an empirical investigation for business development in banking industry. The proposed study of this paper has implemented principal component analysis and has detected 9 important factors. The study has implemented among some Iranian banks and the study has determined that integrated systems, management of unpredicted events as well as Knowledge management are among the most influencing factors in having better organizations. We believe the results of this study could be extended for other service industries and we leave it as a future research for interested researchers.

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