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THE ROLES OF HUMAN RESOURCES, INFORMATION TECHNOLOGY, AND MARKETING KNOWLEDGE CAPABILITIES IN PERFORMANCE: AN EXTENSION OF THE RESOURCE-BASED THEORY PERSPECTIVE

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For some time now, the resource-based theory (RBT) has been used as a perspective in understanding the relationship between resources (or capabilities) and performance; however, there is a dearth of empirical research shedding light on why some firms successfully use their capabilities while others do not. Thus, in this study the effects on performance of three resource variables were investigated: human resources (HR), information technology (IT), and marketing knowledge (MK). Results showed: the positive performance of IT, MK, and HR capabilities (β = .275, .254, and .027, $p < .01$, respectively); and exploratory results with multiple hierarchical/interaction regressions suggested that two- and three-way interactions enhanced performance. These new findings suggest that these three capabilities are important business resources since they significantly improved performance.

Keywords: resource-based theory perspective, customer relationship management performance, human resources, information technology, marketing knowledge.

It has been suggested in some studies that superior performance results from resource uniqueness (Barney, 1991): human resources (HR) capability enables businesses to achieve better performance (Song, Droge, Hanvanich, & Calantone, 2005); information technology (IT) capability leads to the achievement of superior performance (Ravichandran & Lertwongsatien, 2005); and marketing knowledge (MK) capability establishes market-driven organizations (Day, 1994). Based on these previous suggestions of capabilities influencing performance,

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in the current study we used a major area of research in the field of strategic management to examine the sources of sustained competitive advantage for firms. The links between these three capabilities and customer services have not been identified (Rai, Patnayakuni, & Seth, 2006). Thus, this study was designed as an investigation of whether or not these three capabilities and customer services are linked and to address the question, is customer service performance affected differently by these three capabilities of HR, IT, and MK?

RESOURCES, CAPABILITIES, AND PERFORMANCE

The Resource-Based Theory Perspective

The resource-based theory (RBT) perspective of the firm should include all assets, capabilities, organizational processes, firm attributes, and information since these resources foster organizational success (Barney, 1991; Eisenhardt & Martin, 2000; Peteraf, 1993; Zhuang & Lederer, 2006). Some researchers have concluded that a firm's survival and growth depends largely on how it creates new resources, develops existing ones, and protects its core competencies (Ray, Muhanna, & Barney, 2005). Some prior RBT insights have contributed to the development of this theory. Through the empirical study of 432 manufacturing and retail organizations, Rai et al. (2006) suggested that IT infrastructure (data consistency and cross-functional application integration) could yield sustained gains in firm performance, particularly in operational excellence and revenue growth. After studying the life and health insurance industry, Ray et al. (2005) suggested that IT resources and capabilities are valuable because the shared knowledge ($\beta = .395$, $p < .01$) and service climate ($\beta = .457$, $p < .01$) enable a firm to increase the effectiveness of customer service performance. Powell and Dent-Micallef (1997) used the US retail industry as a study population to study the effect of human resources ($\beta = .33$, $p < .01$) and technology resources ($\beta = .30$, $p < .01$) on (IT) performance and concluded that IT is part of competitive advantage. Based on the empirical study of US joint ventures formed between 1990 and 1997, Song et al. (2005) investigated the effects on performance of marketing-related (market sensing and external linking) and technology-related (technology development, new product development, and manufacturing processes) capabilities and suggested that both main effects positively impact on performance (profit, sales, and return on investment (ROI)). After conducting a mail survey of Fortune 1000 firms, Ravichandran and Lertwongsatien (2005) suggested the main effect of human capital (personal skill and HR specificity) and IT infrastructure flexibility (network and data sophistication) on (operating and market-based) performance. In short, based on the RBT perspective, these prior studies contributed insights into the effects of shared knowledge, service climate, human resources, IT resources and capability, marketing-related

capabilities, and technology-related capabilities on firm performance, including customer service, IT, operating and market-based objectives, profit, sales, and ROI. The link between these three capabilities (HR, IT, and MK) and customer service has not been examined even though over past decades customer service has emerged as a strategic and critical factor in firm performance (Ray et al., 2005). Thus, in the present study performance was examined by considering the customer relationship management (CRM) performance relative to objectives; and by extending the results of previous studies to allow an evaluation of the RBT perspective by modeling the effect of the presence of these three capabilities on the CRM performance.

Three Key Resources

Capabilities are defined as *complex bundles of professional skills and accumulated knowledge, exercised through organizational procedures, which enable firms to coordinate activities and make application of the asset* (Song et al., 2005). Powell and Dent-Micallef (1997) looked at HR capabilities as a performance-affecting aspect of company knowledge and explained that managers prefer to get information from people; people add value to raw information by interpreting and adding context. IT capability contributes to business value and performance (Melville, Kraemer, & Gurbaxani, 2004) because IT capability as a tool facilitates response to the rapidly changing marketing environment by

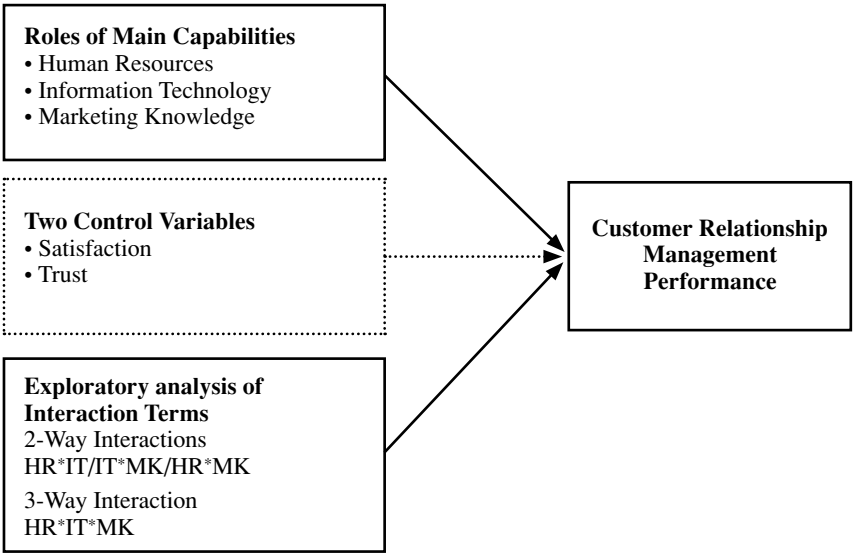

Figure 1. Overall research model.

disseminating market knowledge (Wind & Mahajan, 1997). MK capabilities provide links with customers, predict changes in their preferences, and create and maintain durable relationships with customers (Song et al., 2005). The RBT logically suggests that a firm's survival and growth depend largely on how it creates new resources, develops existing ones, and protects its core competencies (Ray et al., 2005). Based on the above reasoning, for the present study the following hypotheses were developed from the RBT literature. Hypotheses 1, 2, and 3 are proposed to build the linkage between these three capabilities and CRM performance, as shown in Figure 1.

Hypothesis 1: The greater the HR capability, the better the CRM performance.
Hypothesis 2: The greater the IT capability, the better the CRM performance.
Hypothesis 3: The greater the MK capability, the better the CRM performance.

METHOD AND RESEARCH DESIGN

Sample and Procedure

The initial sampling frame was obtained from four banks in Taiwan, which have applied the systems of HR, IT, and MK capabilities to their CRM performance. These are Citibank, Chinatrust, Taipei Fubon Bank, and Taiwan HSBC. These four banks have operated internationally by issuing financial products such as international stock funds, and European market funds. A total of 400 questionnaires was distributed to the customers of these banks from the summer of 2006 to the fall of 2007, 300 of which were satisfactorily completed and used in sample analyses. The sample of participants consisted of 182 women and 118 men. In terms of age, 77.7% of participants were 30 years old and younger; 20.3% were 31 to 40 years old; and the remaining 2% were 41 years old or more. The majority of participants (58%) were educated to university level, with the remaining individuals having attended junior college (37.8%), high school (1.1%), or holding a master's degree (2.8%).

Data collection by mail may result in a low response rate because participants may ignore, forget, or mislay the questionnaires, may be too busy to complete the questionnaire, or may not be interested in answering the questionnaire. To avoid a low response rate, in this study all questionnaires were distributed and then collected immediately after completion. This data collection was designed to use these sample banks and utilize the customers of these four banks to generate data on the relationship of CRM with resource capabilities, with the results having the potential to be suitable for relevant generalizing to most banking systems. Specifically, independent effects of these three capability roles raise the level of seller-buyer transaction trust and satisfaction with CRM performance when sellers/banks successfully promote their financial merchandise to buyers/customers, because sellers could use IT capabilities to collect and then understand the preferences and needs of the customers.

Control Variables

One aspect of successful performance has been identified as the development of a customer's psychological contract, that is, in achieving satisfaction and trust, so that a relationship is built on, and maintained with, satisfied customers (Chen & Popovich, 2003). Moreover, some researchers have concluded that an effective buyer-seller interaction, encouraging trust and satisfaction, could improve outcomes (Crosby, Evans, & Cowles, 1990). To clarify the relationship between the three resource capabilities and CRM performance, these two significant antecedents of CRM performance satisfaction and trust should be controlled, since they could have confounding effects on the relationship (Lin & Hsieh, 2002).

Development of Measurements

HR capability DeLone and McLean (1992) developed multiple measures to measure system quality assessing such factors as response time, system reliability, and system accessibility. Ravichandran and Lertwongsatien (2005) measured human capital by personal skill and human resource specificity. Byrd and Turner (2000) measured human capability as the component of personnel skills and competencies, technology knowledge, business knowledge, management knowledge, and technical skills. By modifying these scales, an HR capability measure of 11 items was created for this study.

IT capability Byrd and Turner (2000) defined *IT infrastructure flexibility* as *the capabilities to easily and readily support a broad variety of software, hardware, data, communications technology, skill and competency, and core application*. Their instrument assessing IT capability consists of three factors – integration, modularity, and IT personnel flexibility. The integration factor refers to the respondents who consider that transparent access into all organizational platforms contributes to the flexibility of the IT infrastructure. The modularity factor is the technical IT infrastructure, which is associated with hardware, software, and data in the organization. IT personnel flexibility refers to the human component of the existing IT infrastructure. By modifying these variables, an IT capability measure of 12 items was created for this study.

MK Capability Tippins and Sohi (2003) detailed the components of organizational learning, including information acquisition, information dissemination, shared interpretation, declarative memory, and procedural memory. Gold, Malhotra, and Segars (2001) measured knowledge management by the infrastructure capability of technology, structure, and culture and the process capability of acquisition, conversion, application, and protection. In the present study, MK capability was measured with 11 items, based on this previous work.

Satisfaction Fornell's (1992) Customer Satisfaction Barometer (CSB) measured customer satisfaction in more than 30 industries and for more than 100 corporations. The CSB measures customer satisfaction via the quality of output

TABLE 1
OVERALL CORRELATIONS AMONG ALL VARIABLES

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.32	.376	1																			
2	3.30	.360	.477**	1																		
3	3.36	.356	.557**	.496**	1																	
4	3.32	.317	.458**	.524**	.523**	1																
5	3.18	.605	.750**	.342**	.340**	.304**	1															
6	3.40	.559	.720**	.383**	.347**	.241**	.348**	1														
7	3.37	.485	.655**	.281**	.464**	.390**	.290**	.281**	1													
8	3.33	.549	.556**	.274**	.390**	.336**	.256**	.236**	.233**	1												
9	3.24	.560	.333**	.722**	.361**	.415**	.245**	.267**	.112**	.293**	1											
10	3.31	.465	.330**	.748**	.325**	.381**	.251**	.288**	.155**	.183**	.374**	1										
11	3.39	.540	.386**	.437**	.344**	.419**	.279**	.300**	.246**	.210**	.336**	.338**	1									
12	3.31	.517	.405**	.695**	.436**	.397**	.267**	.269**	.332**	.232**	.330**	.351**	.259**	1								
13	3.32	.441	.508**	.444**	.838**	.534**	.345**	.301**	.365**	.395**	.353**	.320**	.295**	.396**	1							
14	3.41	.484	.398**	.363**	.806**	.323**	.198**	.303**	.359**	.235**	.238**	.208**	.284**	.334**	.447**	1						
15	3.36	.519	.280**	.251**	.492**	.236**	.181**	.103**	.306**	.195**	.168**	.158**	.142*	.182**	.204**	.229**	1					
16	3.29	.459	.312**	.474**	.355**	.719**	.165**	.278**	.175**	.246**	.373**	.420**	.370**	.302**	.365**	.210**	.172**	1				
17	3.33	.446	.333**	.366**	.447**	.749**	.227**	.130*	.323**	.252**	.312**	.249**	.309**	.323**	.441**	.295**	.198**	.361**	1			
18	3.28	.555	.284**	.228**	.259**	.527**	.213**	.090	.250**	.247**	.267**	.108	.187**	.175**	.275**	.125**	.162**	.184**	.274**	1		
19	3.37	.569	.202**	.188**	.185**	.529**	.186**	.028	.240**	.091	.083	.111	.190**	.176**	.217**	.095	.062	.233**	.272**	.116*	1	
20	3.32	.559	.287**	.304**	.338**	.539**	.174**	.174**	.254**	.191**	.192**	.211**	.185**	.216**	.327**	.250**	.114*	.221**	.240**	.243**	.153**	1

**$p < 0.01$ level, *$p < 0.05$ level (all 2-tailed).

1. HR Capability, 2. IT Capability, 3. MK Capability, 4. CRM Performance, 5. Employee Response Time, 6. Employee Service to Information Support, 7. Personnel Asset, 8. Employee Capability, 9. Internet Service, 10. Marketing Information Integration, 11. Technology Integration, 12. Data Integration, 13. Learning and Sensing Marketing Relationships, 14. Customer Knowledge Management, 15. Training, 16. Innovation, 17. Channel Management, 18. Response to Customer, 19. Customer Loyalty, 20. Internal Process Efficiency.

as experienced by the buyer and the quality of the total consumption process. Parasuraman, Zeithaml, and Berry (1988) concluded that service quality should broadly include tangibles, reliability, responsiveness, competence, courtesy, credibility, a feeling of security, access, communication, and understanding. In this study, satisfaction was measured with 18 items (perceived quality, quality satisfaction, professional satisfaction, customer support, and interaction communication).

Trust In a study of industrial buyers' trust of a supplier firm and its salesman, Doney and Cannon (1997) measured power, expertise, similarity, likeability, extent of social interaction, frequent contact, and length of relationship to assess salesperson trust. Based on Doney and Cannon's work, we developed a measure of satisfaction with 10 items (institution information trust, institution trust, and institution employee trust).

CRM Performance Kim, Suh, and Hwang (2003) used the Balanced Scorecard (BSC) to reflect a customer-centric philosophy of CRM evaluation. The CRM model consists of the four perspectives of customer knowledge, customer interaction, customer value, and customer satisfaction. Customer knowledge represents the status of the customer and customer data management and focuses on technology learning, understanding customer needs, and customer profiles, which influence ways of interacting with customers. The customer interaction perspective represents operational excellence and channel management of customer services and management processes. Management and maintenance affect customer value, operational excellence, and high-quality CRM service. By managing and maintaining CRM more effectively, a company can satisfy its customers and achieve operational excellence. In this study, CRM performance was measured using 14 items based on the BSC.

For these six scales, a 5-point Likert-type scale was used, with principal-component factor analysis to ensure adequate measures of validity and reliability (see Appendix 1).

RESULTS

Overall Correlations

Table 1 shows the overall correlations, which includes HR capability with its four factors – employee response time, employee service to information support, personnel asset, and employee capability; IT capability with its four factors-internet service, marketing information integration, technology integration, and data integration; MK capability with its three factors – learning and sensing marketing relationships, customer knowledge management, and training; CRM performance with its five factors – innovation, channel management, response to customer, customer loyalty, and internal process efficiency. The highest and lowest mean scores were on the customer knowledge management (3.41) and

TABLE 2
EXPLORATORY RESULTS OF MULTIPLE HIERARCHICAL REGRESSIONS

Model	Step 1			Step 2			Step 3			Step 4		
	β	R^2	∇F	β	R^2	∇F	β	R^2	∇F	β	R^2	∇F
Model 1												
X1.1: HR Capability	.027***			.072			.754*			3.227**		
X1.2: IT Capability	.275***			.248***	.632			2.995**				
X4.1: MK Capability	.254***			.201***			-.766*			1.764		
Overall Variables		.381***	60.764***									
Model 2												
X2.1: Satisfaction				.125*			-.380			-.394		
X2.2: Trust				.058			-.428			-.433		
Overall Controls					.397**	3.885**						
Model 3												
X1.1 * X1.2							-.319**			-1.053**		
X1.1 * X4.1							.099			-.684		
X1.2 * X4.1							.206*			-.545		
X2.1 * X2.2							.149*			.153*		
Overall Interactions								.416*	2.346*			
Model 4												
X1.1 * X1.2 * X4.1										.231*		
Overall Interaction											.421*	2.747*

*** $p < .01$ (2-tailed), ** $p < .05$ level (2-tailed), * $p < .1$ level (2-tailed)

employee response time (3.18) scales. Hypotheses 1, 2, and 3 were all supported because all the correlation coefficients were statistically significant and in the hypothesized direction (r = .458, .524, and .523, $p < .01$, respectively). In other words, these three significant results help to clarify and support the main hypothesis of this study: CRM performance was affected differently by each individual capability.

The first model of Table 2 shows the significant positive effect on firm performance of IT, MK, and HR capabilities (β = .275, .254, .027, $p < .01$, respectively) with the explanation of 38.1% of variance (R^2 = .381, $p < .01$) and F value (F = 60.764, $p < .01$). The second model showed that adding the control variable of satisfaction had a significant influence on performance (R^2 = .397, ΔF = 3.885, $p < .01$). The third model showed the significant positive correlation between IT and MK capabilities (β = .206, R^2 = .381, ΔF = 2.346, $p < .1$). The fourth model showed the significant positive interaction effect among HR, IT and MK capabilities (β = .206, R^2 = .421, ΔF = 2.747, $p < .01$). These exploratory findings suggest that two- and three-way interactions enhance performance, and should be explored further in the development of RBT in the future.

DISCUSSION AND CONCLUSIONS

The first model of Table 2 shows the significant result of the positive effect on CRM performance of IT, MK, and HR capabilities (β = .275, .254, .027, $p < .01$, respectively) with the explanation of 38.1% (R^2 = .381, $p < .01$) and F value (F = 60.764, $p < .01$). The three capabilities (IT, MK, and HR) were put together inside the regression model to ascertain whether or not adding the two control variables in the next step (Step 2) had a significant influence on CRM performance. Among these three variables, the empirical evidence indicated that IT capability was associated with the highest level of CRM performance (β = .275, $p < .01$), and thus this suggested that it was vital for banks to develop IT capability, such as internet service, marketing information integration, technology integration, and data integration. IT capability can link the "front office" – sales, marketing, and customer service – services of an organization with the "back office" – financial, operations, logistics and human resources. Thus, IT capability expands the traditional customer service approach by adding technology tools such as the Internet into the overall company e-commerce applications. Hence, our empirical finding that IT capability increases the need for integration throughout the entire organization; and that IT capability can act as a tool for such integration, is reasonable. The empirical evidence also showed that MK capability was associated with the second highest level of CRM performance (β = .254, $p < .01$). This result suggests that banks should be aware of marketing relationships, share professional knowledge, and encourage employees to be team players, because when customers use marketing knowledge

in their purchase decision, banks can evaluate customer behavior, and respond with further refinements of their product or service. Some advantages exist as firms consider developing MK capability to service customers by the interaction marketing approach with rapid service/response, two-way interaction service relationship, and ability to service their customers from anywhere at any time. The results of the study also suggested that HR capability had a positive effect ($\beta = .027$, $p < .01$) on CRM performance. Therefore, it is necessary for banks to understand the importance of employee response time, of accurate and well-informed response to customer needs. Since HR capability depends upon well-trained, highly productive, and skilled employees with professional expertise, their attitudes, appearance and capabilities directly affect customers' opinions and contribute to customers' impressions. Thus, CRM performance will be raised when a company attributes value to training and development in order to enhance customer-related interactions

Based on their empirical study of business and e-commerce technology resources, Zhuang and Lederer (2006) suggested that an RBT perspective of an organization should include all assets, capabilities, organizational processes, firm attributes, and information. However, they found that technology resources and individual business resources were significant predictors of e-commerce performance, whereas human resources did not predict e-commerce performance. As a contribution to RBT research, therefore, this study has shown a positive significant correlation between HR capabilities and CRM performance which helps to build on what was not proved by Zhuang and Lederer. Moreover, insights from the current study contribute to the development of the following aspects of RBT: IT infrastructure affecting operational excellence and revenue growth (Rai et al., 2006); IT resources and capabilities of shared knowledge ($\beta = .395$, $p < .01$) and service climate ($\beta = .457$, $p < .01$) affecting customer service performance (Ray et al., 2005); human resources ($\beta = .33$, $p < .01$) and technology resources ($\beta = .30$, $p < .01$) affecting IT performance (Powell & Dent-Micallef, 1997); the effects on profit, sales, and ROI performance of marketing-related and technology-related capabilities (Song et al., 2005); and the effect of IS human capital and IT infrastructure flexibility on operating and market-based performance (Ravichandran & Lertwongsatien, 2005). In the current study we have examined and contributed to these relationships in RBT, enabling an evaluation of the RBT perspective through the modeling of these three capabilities on CRM performance.

Our results stand up to validity testing (Kaiser, 1974; Nunnally, 1978) based on the following: 1) each scale's KMO exceeded the recommended level of 0.5; 2); each scale's Bartlett χ^2 was statistically significant; 3) each scale's reliability exceeded Nunnally's recommended level of 0.7; 4) the percentage of variance explained by each scale exceeded the level of 50%, except MK capability which

was at the level of 49.294%; 5) each factor's eigenvalue exceeded Kaiser's recommended level of 1.000, and each item's factor component exceeded the level of .500, except the item "marketing segment service", which was at the level of .480.

Based on prior research into measures of test validity, two queries may be raised about the validity of this research, that is, the scale of MK capability which reached only 49.294% and one item of explained variance that was at the level of .480. However, these two incidences should not negate or pose a threat to the validity of the conclusions of the research, because the MK capability scale and the item were very close to the suggested levels. Moreover, the overall scale reliability was .7306; KMO was .754; Bartlett's test of sphericity value (χ^2) was 436.275 with its statistical significance; and the eigenvalue exceeded 1.000. Moreover, our data were collected from only four representative banks in Taiwan, over 2006-2007. The current research results met satisfactory levels of accuracy and precision because these four banks have applied the CRM system to their customer service marketing. Also the sample size was 300, exceeding a recommended level of 200.

In this paper we have cited the references mostly from management information systems (MIS) and e-commerce-related journals. This is suitable since the banking systems examined were involved in the areas of information technology, knowledge management, and RBT, all relevant MIS and e-commerce areas. Most banking systems work with two financial operating systems: the traditional approach of a so-called "transaction processing system" (TPS), dealing with daily and routine business activities, and the newer marketing interaction approach of a so-called "decision support system" (DSS) which services customer needs and wants efficiently. It is necessary for a banking system to use the DSS as an IT capability to support its business operation. A DSS will enhance interaction marketing, and operating such things as prompt response times, effective customer interaction relationships, and comprehensive customer service from any place, at any time. The empirical phenomena indicated that most banks spend a large part of their budget to develop their IT-service capability because IT enhances the information system, which integrates the service system between intraorganizational operation and marketing communication. Thus it was essential in this study to examine the effect of these three capabilities on performance with most of the references of MIS and e-commerce-related journals.

From our results, a significant correlation emerged between IT, MK, and HR capabilities and CRM performance, so that performance was improved with higher capabilities. Other models revealed that all three capabilities were interconnected with positive effects in a three-way interaction. These findings suggest that two- and three-way interactions enhance performance, and should be explored further in the future.

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APPENDIX 1

Factor Analysis for all Variables

Factor Analysis to HR Capability

Factor 1: Employee Response Time	Loading	Factor 2: Employee Service to Information Support	Loading
Speed of service	.722	Providing accurate information	.597
Efficiency to service	.791	Providing believable information	.772
Waiting time for service	.749	Providing completed information	.780
Factor 3: Personnel Asset	**Loading**	**Factor 4: Employee Capability**	**Loading**
Service tailored to customer need	.700	Employee service training	.788
Efficient management of complaints	.637	Employee service capability trust	.762
Overall service to support internal need	.723		

Overall α = .7284; Cumulative explained (%) = 59.027; KMO = .750;
Bartlett χ^2 = 504.227**; Overall Eigenvalue > 1; **Sig. = .000, Sample Size n = 300

Factor Analysis of IT Capability

Factor 1: Internet Service	Loading	Factor 2: Marketing Information Integration	Loading
Website service	.761	Finding potential customers	.624
Online safety service	.757	Assisting decision making	.656
Marketing segment service	.480	Enhancing marketing promotion	.520
		Finding overall service information	.549
Factor 3: Technology Integration	**Loading**	**Factor 4: Data Integration**	**Loading**
Internal and external system integration	.825	Searching for customer information	.548
Access integration	.818	Storing customer information	.798
		Analyzing customer information	.606

Overall α = .7019; Cumulative explained (%) = 53.131; KMO =.754;
Bartlett χ^2 = 436.275**; Overall Eigenvalue > 1; **Sig. = .000, Sample Size n = 300

Factor Analysis of MK Capability

Factor 1: Learning and Sensing Marketing Relationships	Loading	Factor 2: Customer Knowledge Management	Loading
Leadership support of learning	.655	Department information flow	.657
Awareness of market changes	.612	Knowledge and experience storage	.732
Understanding of customer needs	.592	Professional knowledge sharing	.599
Collection of marketing information	.589	Institutional knowledge protection	.625
Application of marketing knowledge	.625		
Factor 3: Training	**Loading**		
Employee training opportunities	.826		
Employee team-player opportunities	.680		

Overall α =.7306; Cumulative explained (%) = 49.294; KMO=.754;
Bartlett χ^2 =488.237**; Overall Eigenvalue >1; **Sig. = .000, Sample Size n = 300

Factor Analysis of Satisfaction

Factor 1: Perceived Quality	Loading	Factor 2: Quality Satisfaction	Loading
Informing about customer rights and obligations	.593	ATM transaction safety	.658
		Customer service line available	.621

Providing information about relevant products	.612	Overall satisfaction with products and service	.645
Social obligations	.618	Satisfaction with handling of customer complaints	.535
Institutional trust	.502		
Customer consideration	.652		

Factor 3: Professional Satisfaction	Loading	Factor 4: Customer Support	Loading
Professional service	.804	Preference for the organization	.591
Problem solution	.824	Recommendations of the organization	.544
		Repurchase intention	.600
		Willingness to choose the organization	.600
		Interaction with the organization	.643

Factor 5: Interaction Communication	Loading
Response to a complaint	.789
Continued interaction with the organization	.676

Overall α = .7245; Cumulative explained (%) = 50.444; KMO=.734; Bartlett χ^2 = 814.782**;
Overall Eigenvalue >1; **Sig. = .000, Sample Size n = 300

Factor Analysis of Trust

Factor 1: Organization Information Trust	Loading	Factor 2: Organizational Trust	Loading
Product information trust	.689	Institutional information belief	.575
Product information reliability	.796	Institutional information reference	.512
Product information belief	.787	Institutional information sharing	.769
		Institutional knowledge sharing	.684

Factor 3: Organization Employee Trust	Loading
Employee information value	.511
Employee information viewpoint	.809
Employee information assistant	.657

Overall α = .7284; Cumulative explained (%) = 53.589; KMO = .788; Bartlett χ^2 = 497.536**;
Overall Eigenvalue > 1; **Sig. = .000, Sample Size n = 300

Factor Analysis of CRM Performance

Factor 1: Innovation	Loading	Factor 2: Channel Management	Loading
Purchase of relevant product/service	.622	Provision of channel interaction	.583
Recommendation from old customer to new customer	.766	Customer information consistency	.662
		Provision of channel communication	.679
Provision of new product/service	.659	Dealing with channel conflict	.546
Creation of new product/service	.430		

Factor 3: Response to Customer	Loading	Factor 4: Customer Loyalty	Loading
Less time to respond	.745	Continued customer commitment	.672
More efficiency in response	.761	Customer repurchase	.802

Factor 5: Internal Process Efficiency	Loading
Fulfilling to reasonable need	.635
Provision of service in a reasonable time	.786

Overall α = .7098; Cumulative explained (%) = 54.336; KMO = .747; Bartlett χ^2 = 468.192**;
Overall Eigenvalue >1; **Sig. = .000, Sample Size n = 30