T.C.
YEDİTEPE UNIVERSITY
GRADUATE INSTITUTE OF SOCIAL SCIENCES

EFFECTIVENESS OF CUSTOMER RELATIONSHIP MANAGEMENT BY ALTERNATIVE BANKING CHANNELS IN TURKEY, TÜRKİYE İŞ BANKASI AS A CASE

by
Bilgehan Bozkurt

Supervisor
Asst. Prof. Dr. Altan Coner

Submitted to the Graduate Institute of Social Sciences
In partial fulfillment of the requirements for the degree of
Master of
Business Administration

ISTANBUL, 2005

EFFECTIVENESS OF CUSTOMER RELATIONSHIP MANAGEMENT BY ALTERNATIVE BANKING CHANNELS IN TURKEY, TÜRKİYE İŞ BANKASI AS A CASE

by

Bilgehan Bozkurt

Approved by:

Asst. Prof. Dr. Altan Coner (Supervisor) .....

Asst. Prof. Dr. Semiha Füsun Akdağ .....

Asst. Prof. Dr. Neva Yalman .....

Date of Approval by the Administrative Council of the Institute ...../...../2005

TABLE OF CONTENTS

LIST OF SYMBOLS

N	Applied questionnaire quantity
R	Coefficient of determination

LIST OF ABBREVIATIONS

3-D	3- dimensions
ANOVA	Analysis of variance
ATM	Automated teller machine
BPR	Business process reengineering
CC	Core concept
CCC	Categorical core concept
CRM	Customer relationship management
CSIRO	Commonwealth scientific and industrial research organization
CTI	Computer telephony integration
df	Degrees of freedom
e-CRM	Electronic customer relationship management
EFT	Electronic funds transfer
GPRS	General packet radio service
HSBC	The Hong Kong and Shanghai Banking Corporation
IP	Internet protocol
IVR	Interactive voice response
KMO	Kaizer Meier Olkin
MIS	Management information systems
MRM	Marketing resource management
PBX	Private branch exchange
PDA	Personal digital assistant
R	Reversed scale
REPO	Repurchase order
SIG	Significance
SFA	Sales force automation
SMS	Short message service
SSL	Secure sockets layer
STD	Standard
URL	Uniform resource locator
VoIP	Voice over internet protocol
WAP	Wireless application protocol

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

CRM is one of the most speculative and blur approaches of today's business. It is often regarded as a necessity, but it is also found out that most of the CRM implementations fail. A business approach of this kind, which focuses definitely on the vital figure of customers, should be investigated by a research to obtain information about ways of delivering them superior services. This research is designed to investigate the effectiveness criteria of CRM on the basis of customer satisfaction. This thesis aims to gain information about the customer's evaluation of CRM implementations by the alternative channels.

Two questionnaires are applied to the customers and the management personnel of The Department of Alternative Banking. The customer questionnaire is applied to a hundred people and the data collected are analyzed by using SPSS and Minitab. By the customer questionnaire the effectiveness of CRM is evaluated by the customers and by the management questionnaire the CRM implementations of the bank is investigated.

Statistical modeling techniques of factor analysis, reliability analysis, multi regression analysis, analysis of variance and analysis of association measures are used to find out which variables affect the effectiveness of CRM and to which extent. After the analysis, a model for defining CRM and increasing effectiveness of CRM applications is structured. Furthermore analysis included goodness of fit, test of freedom, fitness to distributions and analysis about item evaluations.

Some of the conclusions are:

- CRM effectiveness cannot be explained by the use of CRM elements alone.
- CRM strategies are part of greater strategies.
- Increasing CRM effectiveness depends on software, and organizational change implementations.
- Levels of evaluation of determining customers, business rules, organizational change, business process reengineering, company politics should determine the effectiveness standards of CRM.
- If the education level gets higher, the views of effective CRM increases.

ÖZET

CRM günümüz iş dünyasının hakkında en çok konuşulan ama en belirsiz konuları arasında yer alıyor. Çoğunlukla bir gereklilik olduğundan bahsediliyor, ama çeşitli araştırmalar ile uygulamaya geçirilen CRM planlarının çoğunun başarısız olduğu da belirlenmiş durumda. Tam anlamıyla müşteriye odaklanmış böyle bir akım müşterilere daha iyi hizmet sağlama konusunda bilgilenmek üzere incelenmelidir. Bu araştırma, müşteri tatmini ile CRM etkinliği ilişkisini araştırmaktadır. Tezin amacı, şube dışı bankacılık kanallarını kullanan müşterilerin CRM uygulamalarını değerlendirişleri hakkında bilgi sağlamaktır.

Banka müşterilerini ve Şube Dışı Bankacılık Müdürlüğü yöneticilerini hedefleyen iki anket düzenlenmiştir. Müşteri anketi yüz kişiye uygulanmıştır ve elde edilen sonuçlar SPSS ve Minitab kullanılarak analiz edilmiştir. Müşteri anketi ile müşteriler CRM etkinliğini değerlendirirken, yönetim anketi ile banka uygulamaları araştırılmıştır.

Hangi değişkenlerin ne dereceye kadar CRM etkinliğini belirlediklerini araştırmak üzere üzere faktör analizi, genelleme analizi, çoklu regresyon analizi,varyans analizi yöntemleri kullanılmıştır. CRM etkinliğini artırmayı hedefleyen ve CRM'i tanımlayan istatistiksel bir model oluşturulmuştur. Kullanılan diğer analiz yöntemleri arasında uygunluk, bağımsızlık testleri ve kitlenin CRM öğelerini değerlendirme farklılıklarını inceleyen yöntemleri yer almaktadır.

Araştırma sonuçlarından bazıları aşağıdaki gibidir:

- CRM etkinliği sadece CRM öğelerinin kullanımıyla açıklanamaz.
- CRM stratejileri daha büyük stratejilerin parçalarıdır.
- CRM etkinliği, teknik altyapı ve organizasyonel değişim konularına yönelerek artırılabilir.
- CRM etkinliği standartları; müşteri belirleme, iş kuralları, organizasyonel değişim, değişim mühendisliği, şirket politikaları konularındaki görüş farklılıklarına göre belirlenmelidir.
- Eğitim düzeyi arttıkça, CRM uygulamalarının etkin olduğuna dair görüşler çoğalmaktadır.

1. INTRODUCTION

1.1 AIM OF THE THESIS

In the business world of today, the customers deserve more respect than ever. The companies that produce products, which can only be differentiated to some extent, tend to differentiate their services by which the customers become the focal point. The progressing customer behavior and the ever-increasing competition among the companies are also forcible issues. More companies restructure their organizations and strategies according to this approach. Relating to customers presented many concepts of focusing on them. During the last decades, many popular approaches have vanished on the way of realizing the customer priority.

Decade of 1980 was years of database marketing. Database marketing requires interactive use of marketing communication tools. Database marketing presented the use of customer information in order to stay in touch with the customers with attempts of analyzing their behaviors and market researching as well. It requires business management that is equipped with statistical abilities.

During the next decade, relationship marketing was introduced to the business world. Focus was creating customer loyalty (Rosenfield, 2002) by value-based relationships with customers and environment. Relationship marketing is an attempt to broaden the role of customer service and to integrate it with the quality and marketing functions and the concept is the dual focus of getting and keeping customers (Bank, 1992). In this manner, it differs from database marketing which dealt with existing customers.

By the early 2000's, most of the companies were aware of the term of Customer Relationship Management. A starter definition of CRM is "The infrastructure that enables the delineation of and increase in customer value, and the correct means by which to motivate valuable customers to remain loyal." (Dyche, 2001). Goals of CRM are using relationships to obtain more revenue, using integrated information for better service, introducing channel processes and procedures. By now, companies realized that main

reason for company's presence is the customers. Main issues are the same with those of database marketing and relationship management, but customer relationship management deals with them with a sense of empathy for the customers and also helps those concepts to restructure. For example, database marketing does not mean dealing with the existing customers of a company; after all, it now also requires database-obtaining vendors. As total quality management changed the focal point of business from being product to quality by means of customer, customer relationship management helped to redefine the focal point in business by involving it into customer.

As stated above, businesses are no more product oriented. Customers have become the most vital figure for profit-oriented companies. However, most of the CRM implementations are unsuccessful and the reason for this is said to be defining and implementing CRM elements in a wrong way.

Management is the attainment of organizational goals in an effective and efficient manner through planning, organizing, leading, and controlling organizational resources. There are two important ideas in this definition: (1) the four functions of planning, leading, and controlling and (2) the attainment of organizational goals in an effective and efficient manner (Daft, 2000). The ultimate responsibility of managers is to achieve high performance, which is the attainment of organizational goals by using resources in an efficient and effective manner (Daft, 2000). Management requires the use of resources to reach the ultimate results. If the results are not considered as positively efficient as desired, this means that the processes were not managed effectively and the resources available are not meant to be used at optimal levels. The degree of the success gained is the degree of effectiveness.

Every managerial job has effectiveness standards to be accomplished. These are the standards by which the performance of the manager in the job may be judged where performance is the ability to attain the goals by using resources in an efficient and effective manner. When an organization is evaluated according to the outputs of managers, the organization will stay on purpose.

As being interested in ways of differentiating businesses, I think that alternative channels are definite tools of delivering value regardless of disabilities. For my part, they should be part of any CRM plan. What I realized was the tendency of relating to CRM as a business tool not as a business differentiation strategy. The main reason for designing this thesis was to figure out if CRM implementations are going out of focus by relating to automated tools rather than relating to customer and business analysis techniques. So, I designed a research that measures levels of customer satisfaction of CRM elements and their impacts on evaluating CRM effectiveness. The conclusions of such study will criticize organizational effectiveness and customer satisfaction.

CRM effectiveness in alternative channels, which is, the core concept investigated by this thesis can be defined as the degree to which the organization achieves its customer relationship related goals through alternative channels. Customer satisfaction on alternative channels depends on the channels' perceived performance in delivering value relative to the customers' expectations. Performance is the organization's ability to attain its goals by using resources in an efficient and effective manner (Daft, 2000).

In this sense, the aim of this thesis is to find out in which ways, customer satisfaction is related to the effectiveness criteria based on customer relationship management by alternative channels.

1.2 PREVIOUS RESEARCHES

A research carried out by Gartner Research stated that the 70 percent of the companies applied CRM are unsuccessful. Dealing with CRM as a software investment is one of the reasons of this.

According to the thesis named "CRM Applications in the Finance Sector in Turkey" prepared at Yeditepe University, Master of Business Administration Program applied on Türkiye İş Bankası, HSBC Bank, Koç Bank and Garanti Bankası, reasons of deciding to apply CRM are increasing profits, reducing costs, increasing market share and improving quality respectively. CRM projects are held by a special department in CitiBank, and in

other banks, the projects are held by committees consists of employees from different departments. Organizational culture, analytical CRM are important for foreign banks, and for Turkish banks software, training, advertising, organizational culture are considered. The most widespread analysis is the analysis of customer profitability; analysis and benchmarking related to competitors are not that widespread.

According to the graduate thesis of Füsun Sümer, the progression in banking occurs not as product variation, but variation in presenting the product. The reason for dealing presenting products through alternative channels is the declining inflation that forced banks search for ways of decreasing their costs (Sümer, 1999).

According to the graduate thesis of Pınar Üysen, the total quantity of the internet banking users in Turkey is above the world average. The share of alternative banking for some Turkish banks is above 60 percent (Üysen, 2003).

According to the graduate thesis of Emrah Güven, in CRM projects, technological and corporate cultural changes are needed. If the management personnel who develops strategies do not commit to the project, the abilities of the system are to be wasted (Güven, 2002).

According to the graduate thesis of Seyfi Cem Koçak, it is estimated that banking and insurance would be part of other financial and non-financial businesses (Koçak, 2001).

1.3 CRM IMPLEMENTATIONS AROUND THE WORLD

CRM strategies are mostly used in finance than in any other sector (Bardwell, 2000).

Royal Bank of Canada, segmented the customers into three groups according to their profitability in 1990. But, these segments did not provide sufficient information about the customers. So, in 1997, the bank started generating CRM strategies. The bank analyzed the customers' preferences of time, place and channel use. Furthermore, the bank formed

strategies for micro segments, and tested those strategies on customer groups (Baran, 2001).

First Union Bank re-organized its customer database, first of all to relate all the accounts of any customer (Baran, 2001).

Fleet Financial Group re-organized the customer database to evaluate the information available from internet, telephony banking, branches and other channels in 1999 by the CRM team that was gathered together in 1995. These information is restructured suitable for the CRM project by marketers, statisticians, reporters, decision supporters, and data quality experts (Baran, 2001).

According to a eMarketer Interactive Banking report, the success of online banking is creating a crisis at many banking institutions (eMarketer Inc., 2004).

1.4 CRM IMPLEMENTATIONS IN TURKEY

Garanti Payment Systems has won two prizes at CRM Institute Turkey 2003 CRM Competion for the company's customer oriented technology use and for designing the Bonus Project, which is project that has the greatest advantages for the customers. Bonus Project is loyalty program. Segmentation is not made according to the income levels of customers. The customers are given bonus shopping opportunities according to their consuming properties and the customers that increase the amount of their bonuses are given the opportunities of using more capable cards. The bank has developed an internet site for the card, there is a telephone line specified only for the users of Bonus Card, the bank uses Sales Force, and a module is developed to trace the customers that have the least retention. The bank is focused on retention rather than gaining new customers. The bank has increased the transaction rates by 15 percent, and the shopping rates by 18 percent (Power Magazine, 2003).

Oyak Bank has won two prizes at CRM Institute Turkey 2003 CRM Competition for their data integration project and for being the most successful business partnership. The

acquisition of eleven banks within Oyak Bank was the cause of starting their CRM project. The bank integrated the eleven databases in one software platform. The other prize was for enabling the customers to purchase automotive credits through applications used by automotive galleries (Power Magazine, 2003).

2. LITERATURE SURVEY

2.1 DEFINITIONS RELATED TO THE THESIS

2.1.1 Alternative channels of Türkiye İş Bankası

A channel is a combination of means and media by which a customer prefers to communicate with the company (the "inbound" channel) or to receive communications (the "outbound" channel) (Dyche, 2001). Alternative channels are the channels apart from the traditional branches like internet, mobile phones, call centers and other information technology based channels.

The alternative channels of Türkiye İş Bankası are ATMs (BankaMatik), KasaMatik, Telephone Banking, Call Center, Internet, NetMatik, WAP and Mobile Banking. These channels serve customers all day long.

2.1.1.1 Internet

Internet is a global computer network provided by internet service providers. It is decentralized and contains information that is freely structured. By nature, internet shortens the process of accessing to information. Mostly used internet services are web browsing, file transfers, e-mail traffic, usenet, entertainment and e-business.

The most important use of the web from the CRM perspective is self-service and making business apart from geographical disabilities. Recording the internet activities will let the companies understand internet habits of the users and some of their behaviors.

It is appropriate to categorize the users as the home users and the office users, because of technical requirements of using the internet. The connectivity of office users is more affordable for them, because this way of connecting overcomes the disadvantage of technology investment to be made by the home users (Department of Alternative Channels, Türkiye İş Bankası, 2003).

2.1.1.1.1 Türkiye İş Bankası internet site activities

To deal with Türkiye İş Bankası banking activities on the internet, a nine-digit customer id number, a six-digit code, a password, name, surname and an answer to a personal question, which is altered at each visit, are required. This information is made cryptic first and this cryptic information is transferred to the central system after being crypt by 128 bit SSL. Before any approval of monetarily activity, the code is asked to minimize the risk.

The limitation of the internet activities are determined by the customer on the order form. These limitations are also represents the security concerns of the customers. The limited telephone and call center activities are also determined on this form.

Türkiye İş Bankası introduces the customers four levels of limitations:

1. The Use of Alternative Channels as an Information Tool: No money related activity is required.
2. The Use of Money Related Activities except Money Orders to third Parties and EFT: Money transfers except the ones through the accounts of the customer are not required. To deal with the issues that are not required, the customer must send the branch a printed order to be entered to the system by the branch.
3. The Use of Every Money Related Activity (with Approval of the Activities of Money Orders to third Parties and EFT): The customer representatives for approval call the customers, after they ordered the activities of money orders to third parties and EFT.
4. Unlimited Use of Activities: Every activity is required without any limitations.

2.1.1.2 Computer telephony integration (CTI)

CTI is the integration and coordination of telephony services with computer technologies. It allows interactions on telephone lines.

There are three distinct CTI applications (Crucible Multimedia, 2004):

1. The administration of a private telephone network via a separate computer: make/answer calls, hold/transfer calls, set up conference calls, pick up calls from other extensions, initiate calls by name from a personal directory, bar calls from pre-selected sources, identify the caller on screen.
2. Unified messaging and customer relationship management applications
3. The use of a computer network to transport voice and fax communications. A PBX may be replaced by, or work in conjunction with, a communications server (Voice over IP, or VoIP)

2.1.1.2.1 Interactive voice response (IVR)

Interactive Voice Response is a software application that accepts a combination of voice telephone input and touch-tone keypad selection and provides appropriate responses in the form of voice, fax, callback, e-mail and perhaps other media. IVR is usually part of a larger application that includes database access (TechTarget, 2004). An IVR system is used as a business channel to let the customers do self-service inquiries via the phone and to let them make operations that update the customer database. The system offers users a menu of choices designed for doing transactions or informing the user. Financial companies use IVR systems so that customers can receive most recent account information. IVR technology is also used to gather information, as in the case of telephone surveys in which the user answers questions by pushing the numbers on a touch-tone keypad.

2.1.1.2.2 Call center technology

Some type of call center technology with PBX or VoIP integrated with intelligent call routing is an absolute must for an interface with the live Customer Service Representatives (Khera, 2000).

The customers of Türkiye İş Bankası are introduced to the IVR system after entering customer id or account number or credit card number and a code.

2.1.1.2.2.1 Türkiye İş Bankası call center activities

2.1.1.2.2.1.1 Technical support

Support by customer representatives about the use of alternative channels is available to all customers.

2.1.1.2.2.1.2 Consumer banking activities

Call Center that consists of customer representatives is also active and customers can deal with all of their banking activities except withdrawal and depositing of money without any time or day limits through call center.

2.1.1.2.2.1.3 Séance room

For the customers who prefer to invest in stocks, a call center application was introduced for service enabling customers to deal with their stock buying and selling orders called "İşte Yatırım Hattı".

By the help of this application, the activities that are carried out by Türkiye İş Bankası customers through third party companies are leaded to the bank itself. Competitive banks do not have options like these, so it will help the bank to reach greater amounts of portfolio.

Call Center Séance Room is provided to the customers regarding the issues below:

1. It only serves for the customers who had alternative channel orders.
2. It only serves for the customers who have the very last decision of buying or selling the stocks. The service does not include giving advices on stock selling and buying, and no portfolio management activity is carried out.
3. It does not serve for corporate customers.

4. It only deals with stock buying and selling orders. The issues related to third party stock companies are dealt through branches of the bank.

2.1.1.2.2.1.4 Active marketing services

Life Insurance and Pension Fund Applications, Policy Operations can also be dealt by using Call Center and the internet site. The customers may apply for Anadolu Hayat Emeklilik policies and pay premiums on the internet. The bank also will enable other insurance related activities through alternative channels. The payments by credit cards are not charged with any fees or interests.

2.1.1.3 Mobile banking

Cellular phones capable of WAP and SMS are used as tools of payment and production channels.

2.1.1.3.1 WAP/GPRS

Wireless Application Protocol, WAP combines internet platform on the cellular phones. General Packet Radio Service, GPRS is a technology required for the networks to reach data applications. GPRS is an inexpensive technology that is charged considering the transferred amount of data rather than the connection duration.

2.1.1.3.2 Türkiye İş Bankası mobile banking activities

The activities of Türkiye İş Bankası customers are done by using cellular phones, which supports 128-bit WELLS security system. After reaching the address of wap.isbank.com.tr, the menus of "Prices and Portions in Our Bank" and "Interactive Banking Activities" are displayed.

"Prices and Portions in Our Bank" menu is entered without password requirements. Available information within this menu include currency prices, credit querying,

investment funds and gold prices, interest rates, foreign currency interest rates, REPO portions.

2.1.1.3.3 Other services

The information asked by the customer is sent by SMS. This service is available for Avea customers.

Avea customers reach Türkiye İş Bankası menus after entering *100# on their cellular phones. These menus are:

1. My Accounts (Turkish Lira and Foreign Currency Accounts, Account Statements)
2. Credit Cards (Recent Payment, Card Information)
3. Payments (Today, Any Day)
4. Investment (Portfolio Value, Portfolio Summary, Portfolio Distribution, Portfolio Analysis, Orders, Price Changes)

After entering the number of the menu, the related information is sent by SMS. Avea customers deal with their payments through their credit cards and accounts. After entering *100#, the displayed menu of Mobil Payments must be used.

2.1.1.4 Other alternative channels of Türkiye İş Bankası

2.1.1.4.1 BankaMatik

By using this channel, the customers deal with banking activities like withdrawal of money, account information, shopping, money transferring and investing on ATMs.

2.1.1.4.2 NetMatik

NetMatik is a kiosk used to deal with every banking activity available on the internet except withdrawal and deposit of money without any alternative channel order by ATM

cards or credit cards. After filling the security fields, the internet menu appears. The activities must be ended in 90 seconds. These machines decreases the work load on ATMs.

2.1.1.4.3 KasaMatik

KasaMatik is a kiosk for depositing money. Other activities that can be done through these machines are credit card payments, Avea and Turkcell bill payments. Money transfers to third parties are charged.

2.1.1.5 The advantages and disadvantages of alternative channels for the customers and the bank (Şenver, 2003)

2.1.1.5.1 The advantages of alternative channels for the customers

1. Convenience
2. Availability (technology and support services)
3. Superior services
4. Ease of use
5. Reliability
6. Incentive added value
7. The limited use of time

2.1.1.5.2 The advantages of alternative channels for the bank

1. Maintaining customer relationship
2. Increase revenues (product catalogues, proactive cross-sells)
3. Competitive advantage (differentiation, image)
4. Cost efficiency
5. Increased customer access
6. Channel management efficiency (data integration, one solution through multiple channels)
7. Decreased work load of the branches

8. Helping to increase the customer loyalty
9. Enabling effective marketing activities
10. Increasing efficiency by reducing costs

2.1.1.5.3 The disadvantages of alternative channels for the customers

1. The slow processing speed
2. Concerns about security
3. Concerns about privacy
4. Concerns about effectiveness

2.1.1.5.4 The disadvantages of alternative channels for the bank

1. Requirement of investment
2. Need for cultural change

2.2 TERMS AFFECTING THE CORE CONCEPT OF THE THESIS

2.2.1 Customer

Those people and organizations in the environment who acquire goods or services from the organization are customers. As recipients of the organization's output, the customers are important, because they determine the organization's success. To survive in competition with mass merchandisers, small retailers have been forced to come up with new ways to win and keep customers (Daft, 2000). Customer oriented trends include faster service, self-service, more product choices, and integrated solutions.

Management guru, Peter Drucker stated out in 1954 that the real job of a company is to gain customers and their retention.

2.3.1.1 Customer satisfaction and quality

CRM is not the first management trend that is focused on customer. As mentioned above customer satisfaction is closely linked to quality. The quality movement in Japan emerged partly because of American influence after the World War II. The ideas of Edward Deming were originated in America, but the Japanese implied his theories, used them to reshape their industries, and gained greater success. The methods were the same, but this success was originated from the structure of Japanese society. The traces of Japanese culture can be seen on their concept of quality circles, which requires employee involvement in solution offering rather than only controlling the processes within acceptable ranges of failure.

According to the traditional approach, quality is the degree to which a product is free of defects (Kotler and Armstrong, 2001). The visionary of the likes of Deming defines the quality in terms of customer satisfaction. For example, Edward Deming stated that quality is defined by the customer and declares it as being the pride of workmanship (Aguayo, 1994). The customer-focused definitions suggest that a company has achieved total quality only when its products or services meet or exceed customer expectations. Quality approach represents a process beginning with customer needs and ending with customer satisfaction (Kotler and Armstrong, 2001).

The quality approach is supposed to fuse quality values throughout every activity within a company, with enabling the personnel involve in the processes. Four significant elements of quality management as defined by Daft are employee involvement, focus on the customer, benchmarking, and continuous improvement (Daft, 2000).

According to Daft, the definitions of these four elements are as follows: "Employee involvement means Total Quality Management requires companywide participation in quality control. All employees are focused on the customer; total quality management companies find out what customers want and try to meet their needs and expectations. Benchmarking refers to a process whereby companies find out how others do something better than they do and try to imitate or improve on it. Continuous improvement is the

implementation of small, incremental improvements in all areas of the organization on an ongoing basis." (Daft, 2000)

Masaaki Imai explains his visionary of quality on his book "Gemba Kaizen: A Commonsense, Low-Cost Approach to Management". Gemba means the implementation place, regarding CRM activities gemba is the touch points to the customers. According to Imai, only focusing on the results rather than the facts that deliver these results is a mistake. The companies, which act in this manner, are moved from the core of their businesses and they focus on sales minus the costs of materials, supplies, and work done by outside contractors (Ross, 1999) calculations of value adding held during the activities such as financial management, marketing, research & development and engineering (QCI International, 1997). Shifting the focal point from the results to the processes is also a better way of continuously improving.

As mentioned above the core process of the business delivers added value. The value added strategies help the companies to customize their offers (Ouchi, 1989). The activities that will lack when companies act narrowly according to this approach are supposed to be delivered when CRM is applied. CRM will help the quality not to be stick within the lines of production but spread it all over the company. CRM is more related to the customer value than added value. Customer value is the difference between the values the customer gains from owning and using a product and the costs of obtaining the product. Customer satisfaction is the degree to which a product's perceived performance in delivering value matches the buyer's expectations (Kotler and Armstrong, 2001). CRM aims to deliver maximum customer satisfaction by adding value to the company.

Quality involves all of the five dimensions for the customer to be satisfied. The measurement of quality will reflect each of these elements, specification, conformance, reliability, cost (value), and delivery.

One of the vital elements of being customer focused is customer satisfaction and measurement of it. The reason to deal with customer relations by measuring satisfaction is to obtain loyalty by delivering satisfaction (Odabaşı, 2000).

2.3.1.2 Customer privacy

Privacy is freedom from unauthorized intrusion (Encyclopedia Britannica, 2004). Companies deal with detailed customer information in order to analyze customer behaviors. The information collected is far from being only demographic. This information is used for marketing activities and for defining customer values. The state-of-the-art technologies are capable of collecting every activity done by the customers, but this information must be used and even be collected, if the customer allows it.

Trading off customer privacy for analyzing customer behavior cannot be accepted. The companies must have privacy statements and should deal with the customer information within the limits of these statements or obtain various levels of privacy for different customer segments without any violations.

At first, it may seem like competition leads the companies to use every available information about the customer in order to achieve the maximum profit in the short term, but the customer privacy violations are not that profitable in the long term. Being competitive does not mean testing the tolerance of customers, which result in losing customer trust. Companies not only market products, but trust too.

2.3.1.3 Customer loyalty

Being loyal is being faithful to a cause, ideal, custom, institution, or product (Encyclopedia Britannica, 2004).

CRM is related to gain customer loyalty that defines a relationship based on trust between customer and the company, which is more than just customer retention and is more important than gaining new customers. The more the customers are carefully behaved during their consuming activities, the serious the companies are related to them. As the companies collect any detailed customer information, the customers collect information about companies and about the ways of gaining greater satisfaction through products. Gaining customers that smart means gaining loyalty. As Pareto principle states that twenty

percent of the about 80 percent of the wealth in most countries was controlled by a consistent minority of 20 percent of the people, 20 percent of the customers generate the 80 percent of the income. Loyalty goes beyond awareness and adoption. Loyal customers become volunteer marketing personnel of the company, they place orders more frequently or place all their orders to that very company and they tend to act in a way that will increase their value for the company.

Customer loyalty will be a determining factor in the success of future organizations. In a struggling business environment, products are insufficient in determining the customer satisfaction. Customer relationship management offers maintaining loyalty by using customized and personalized services.

Imhoff, Loftis and Geiger suggest companies to involve customers in their business planning processes, which will enable company to consider the value of the customers. The customers who will be delighted by personalization abilities of the customer centric approaches of the company will bring increasing levels of customer loyalty.

Customer loyalty can be grouped in two. Perceived loyalty refers to attitude, thoughts and satisfaction of the customer. Behavioral loyalty refers to the purchasing behaviors, re-shopping tendencies of the customers. The first customers that leave the company are those who are not loyal. The customer loyalty can be grouped in three according to a different approach. Comparable loyalty refers to the tendency of the customer to compare the brand to the others. If the customers become more experienced with the company and are satisfied with the products and services, they tend to become emotionally loyal. After the stage of being emotionally loyal, the customers decides on purchasing, which is called as behavioral tendencies loyalty. Directly behavioral loyalty refers to the tendencies of continuously purchasing the product and to purchase the product in spite of some other marketing activities (Alagöz, 2003).

Customer loyalty is obtained when the company and its customers are both satisfied with the relationship. The link between relies on maximum level of satisfaction. A loyal

customer does not only focus on costs, but spends the money for the relationship as well and helps the company to gain new customers (Güven, 2002).

2.3.2 Customer care and service

A company that has a vision of CRM must act to deliver greater satisfaction to the customers not only with the products, but also with the services related to them. Caring and serving to customers are mainly post-selling activities which are mostly held during the life cycle of the product. The company may compete with improving its customer services not only with cost reduction, but also with higher quality and these services must be solution oriented. Relating with customer's thoughts about the products and the company are also pre-activities of marketing search. Every complaint is a chance of redesigning the products, services and of customization and diversifications.

Johns offers to use motivation factors like stroking the egos of the personnel through reward and recognition systems, leadership from above, and top managerial commitment in order to achieve greater effectiveness through customer care (Johns, 1999).

2.3.2.1 Contact center

Contact centers are centers that provide on-demand global support and sales through several different channels (Dyche, 2001).

Contact center conversations are related to providing support about the products and services of the company in the forms of customer suggestions, comments and complaints. It has been determined that 50 percent of the call center conversations are about subjects that are repeated. The call center personnel may react to the repeated subjects by the help of pre-organized answer cards, which are designed adequately to the customer oriented business rules of the company. Conversation subject, customer value, product properties, product customization are the issues to be taken under consideration during the preparation of these answer cards (Dyche, 2001).

Software enables companies to categorize the calls by type, duration, waiting time, scoring rate. The integration of call centers with information technologies are held by applying CTI technologies to communication channels. Call routing transfers the call to the first appropriate personnel. More advanced forms of IVR applications are Voice Recognition Systems, which minimize the use of telephone pads. Frequently asked questions internet pages are used to decrease the workload of call centers.

A research published on Bridge News on August 4, 2000, it is stated out that replying to the customer mails are unsuccessful by 56 percent in finance (Dyche, 2001). The calls of the customers should be ended in a way that no other call in that subject will be made.

According to a recent Connell Associates study, telephone or a live chat is preferred by the customers to have their questions answered by contact centers, but they are not satisfied that high. The customers generally disfavor automated telephones and frequently asked questions. They were generally satisfied and not frustrated with their customer service experience using phones. The same held true for online live chats (eMarketer Inc., 2004).

While they found e-mail as the easiest service to use and was useful for finding the information they needed, they rated it lower when evaluating the speed of access to information (eMarketer Inc., 2004).

The opinion on frequently asked questions was less varied. While they were deemed easy to use, respondents did not find it useful or generally satisfactory. Automated telephone drew the greatest portion; however, as a majority of respondents said it is generally not easy to use, not useful for finding the info needed, and frustrating to use (eMarketer Inc., 2004).

Only 13 percent reported having a completely satisfactory customer service experience, and 45 percent felt most companies provide bad customer service. Additionally, Connell Associates found that 93 percent of respondents said they expected most companies to provide good customer service, and that the quality of customer service directly influences their feelings about the company. Additionally, companies with bad service got little

sympathy from consumers: 89 percent felt that good customer service should not be difficult for a company to provide (eMarketer Inc., 2004).

Clearly, the message to those looking to improve their customer service is that people like communicating with a person when they have a complaint (eMarketer Inc., 2004).

2.3.3 Determining customers

After collecting customer information, the analyzing process begins. This process includes identifying the customer needs and developing strategies of satisfying these needs by analytical tools. Data available must be transformed into information by using document management, databases and etc. The company should analyze the procedures, of which decisions are regularly being made, what kind of data are needed for these decisions, the properties of existing information systems, what kind of unavailable data are needed, what kind of reports are needed, and what kind of relationship skills are needed.

2.3.3.1 Business intelligence and data warehousing

Business Intelligence is a process for increasing the competitive advantage of a business by intelligent use of available data in decision-making (CSIRO, 2004).

A system like this must be open for development. Therefore, the companies should focus on the development possibilities of the system as well as the recent capabilities of the tools like functionality in query/reporting tools and business intelligence applications, training on these tools and applications, and the impact of business intelligence on critical business processes. The system must be scalable, reliable, flexible, and developable and solution oriented (Friedman and Strange, 2004).

Data warehouses contain data that are gathered together to deliver information after being categorized and processed according to the business rules of that company.

Business Intelligence implementation stages include gathering any kind of document and media in electronic form by the tools of document management and other related tools,

preparing available analyzed data. Analyzed data is used as information and by using human skills, this information becomes knowledge. It is about estimating trends, integrating, summarizing and sorting data, validating models of existing and missing information or future trends and customer behaviors by using statistical tools. Situation awareness is about filtering out irrelevant information, and setting the remaining information in the context of the business and its environment. Situation awareness is enabling the exact information for situational decision-making and contingency approach to management. Measuring current and future risks and providing reaction options for different situations is dealt during risk assessment stage. Analyzed data also supports decision makers to analyze and make better business decisions in order to achieve the goals of the company (CSIRO, 2004).

2.3.3.2 Analytical CRM

Analytical CRM is mainly the use of statistical methods in analyzing the customer database.

Important features of data warehouses are historical data, data integrity, examining customer behavior. Formation of a sufficient customer profile is often realized as formation of a centralized and relational database. Customer database must be considered as one of the assets of the company. Analytical CRM varies from querying, data mining to statistical modeling. It provides options for personnel optimizing, customer evaluation, forming customer profiles, risk measurement, profit analysis, customer satisfaction analysis, customer segmentation, campaign evaluation, production channel analysis, sales process analysis and predicting following steps in the process (Dyche, 2001).

According to the past operations of the customers, possible future operations are estimated. Related, unrelated, dependent and independent events are determined.

The company should establish segments relying on gaining customer loyalty. These segments are determined according to demographical, behavioral, strategic, estimable preferences of the customers.

2.3.4 Meeting the needs of customers

Determining the needs of the customers provides the company various layers of customization possibilities. Determining the needs requires understanding of customer behavior.

2.3.4.1 Customer behavior

One official definition of consumer behavior according to Perner is "The study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society." (Perner).

The study of consumers helps firms and organizations improve their marketing strategies by understanding cultural, social, personal, psychological and behavioral elements of consuming. These elements include the psychology of decision-making process of consumers; the environmental factors of consuming; the key factors that differentiate the evaluation and motivation of customers and how the companies can obtain value from these situations (Perner). Information gained by understanding the customers in this detail will be used in formation of marketing strategies.

2.3.5 Business rules

From the information systems perspective, a business rule pertains to the facts of the system that are recorded as data and to the constraints on changes to the values of those facts. The business perspective of business rules involves the behavior of people in the business system. Because of the differences between these perspectives, a definition of business rule for each of these perspectives should be made. From the business perspective, a business rule is a directive, intended to influence or guide business behavior, in support of business policy that has been formulated in response to an opportunity, threat, strength, or weakness (Business Rules Group, 2001). Within information systems, business

rules can have different connotations depending on whether the perspective is data, object or expert system-oriented (Gottesdiener, 1997).

Business rules implement the business logic and direct how enterprises buy, create, sell, cultivate, conform, employ, manufacture, research, report, and plan which are the core of the enterprise (Gottesdiener, 1997).

Many CRM personalization implementations fail because they do not use the business rules approach as automated business rules (Hernandez, 2001). Business rules enable companies to offer customized CRM services to the customers and help them differentiate the company services.

2.3.6 Software

Software is used or associated with and usually contrasted with hardware as the entire set of programs, procedures, and related documentation associated with a system and especially a computer system (Encyclopedia Britannica, 2004).

Software no longer supports businesses; it delivers business platforms like workstations. Marketing and quality paradox is also valid in software developing. The problem is about faster time to market and higher quality. If the software does not work well, the customer suffers from the results by having insufficient products or services which is because of programming and testing insufficiencies.

Speed and quality are typically opposing forces in software development. To trade off speed for quality or quality for speed cannot be accepted. Both of these two elements are needed and this is called by the software vendor Rational as the e-software paradox.

Rational offers a solution for this paradox. They relate to the solution in terms of customer success. They define customer success by offering applications and software quickly with the appropriate levels of quality. There are three parameters that of software success. These

are the process the team follows, the tools the team employs in following that process and the skill levels of the people on the team (Rational, 2000).

"CRM: Technology alone is not the answer!" by Dinco Bacun emphasizes the fact that CRM should not be implemented with focus on software and computers, but human bodies themselves (Meltzer, 2004). Customer relationship efforts are not new procedures; CRM only offers integrated and customizable ways of managing relationships. Documentation, data collection, analysis and integration features make CRM differ from the traditional approaches.

Researchers Bakos and Treacy, Cash and Konsynski, Kling, Kriebel and Moore have studied the impact of information technology at different levels of the organization in 1986, 1985, 1980, and 1982 respectively. Huber using organization theory investigated the impacts of information technologies on the decision behavior and design of organizations. Bakos notes that most of the early studies considered information technologies as the dependent variable for analyzing its adoption by organizations. As reported by him, the results of several empirical studies that attempted to analyze the impact of information technologies on organizations have proved inconclusive (Malhotra, 1993) which means that information technologies have no impact on the decision behavior and on organization designs, they only represent tools for automating these processes. Information technology is no longer an input for businesses; it provides the workstations for businesses. Information technology does not force organizations to reorganize their structures but their ways of generating business.

2.3.7 Integration

A technology framework allows all the applications and databases that have customer information to be integrated. Gartner analyzes CRM software considering their level of integrity and processing abilities of Sales, SFA and Customer Support modules. The channels that are a part of CRM vision must be integrated and all of these channels must represent a single way of pleasing the customer with different characteristics. Each channel must fill in some needs of the customer that another channel is not meant to fill based on

are the process the team follows, the tools the team employs in following that process and the skill levels of the people on the team (Rational, 2000).

"CRM: Technology alone is not the answer!" by Dinco Bacun emphasizes the fact that CRM should not be implemented with focus on software and computers, but human bodies themselves (Meltzer, 2004). Customer relationship efforts are not new procedures; CRM only offers integrated and customizable ways of managing relationships. Documentation, data collection, analysis and integration features make CRM differ from the traditional approaches.

Researchers Bakos and Treacy, Cash and Konsynski, Kling, Kriebel and Moore have studied the impact of information technology at different levels of the organization in 1986, 1985, 1980, and 1982 respectively. Huber using organization theory investigated the impacts of information technologies on the decision behavior and design of organizations. Bakos notes that most of the early studies considered information technologies as the dependent variable for analyzing its adoption by organizations. As reported by him, the results of several empirical studies that attempted to analyze the impact of information technologies on organizations have proved inconclusive (Malhotra, 1993) which means that information technologies have no impact on the decision behavior and on organization designs, they only represent tools for automating these processes. Information technology is no longer an input for businesses; it provides the workstations for businesses. Information technology does not force organizations to reorganize their structures but their ways of generating business.

2.3.7 Integration

A technology framework allows all the applications and databases that have customer information to be integrated. Gartner analyzes CRM software considering their level of integrity and processing abilities of Sales, SFA and Customer Support modules. The channels that are a part of CRM vision must be integrated and all of these channels must represent a single way of pleasing the customer with different characteristics. Each channel must fill in some needs of the customer that another channel is not meant to fill based on

time, place, and customer priorities etc. The more the number of channels are, the more CRM is a necessity to enable integrity. Integrated services decrease the amount of delays in services and let any update to be done in real time.

2.3.8 Organizational change

CRM simply refers to focus on the customer, thus an organization needs to restructure around the customer. This requires a systemic analysis of the organization and reengineering of the processes. Change can be technological, structural or product oriented.

An organization is a group of people intentionally organized to accomplish an overall, common goal or set of goals (McNamara, 1999).

Formal definition of an organization is a social entity that is goal directed and deliberately structured. Social entity refers to being made up of few or more people. Goal directed means designed to achieve some outcome, such as make a profit, win pay increases for members, meet spiritual needs, or provide social satisfaction. Deliberately structured means that tasks are divided and responsibility for their performance is assigned to organization members. This definition applies to all organizations, including both profit and not for profit (Daft, 2000).

Organizational effectiveness is the degree to which the organization achieves a stated goal. It means that the organization succeeds in accomplishing what it tries to do. Organizational effectiveness means providing a product or a service that customers value (Daft, 2000).

Organizational efficiency refers to the amount of resources used to achieve an organizational goal. It is based on how much raw materials, money, and people are necessary for producing a given volume of output. Efficiency can be calculated as the amount of resources used to produce a product or service (Daft, 2000).

2.3.8.1 Systems thinking

A system is a set of interrelated elements that collectively work together to achieve a common purpose or goal. This makes an organization a system. Systems thinking concept has its foundation in the field of system dynamics, founded in 1956 by Massachusetts Institute of Technology professor Jay Forrester. The approach of systems thinking is fundamentally different from that of traditional forms of analysis. Traditional analysis focuses on separating the individual pieces of what is being studied; in fact, analyzing is about breaking into unbreakable parts. Systems thinking, in contrast, focuses on how the thing being studied interacts with the other constituents of the system (a set of elements that interact to produce behavior) of which it is a part (Aronson, 1996). Systems thinking is a realistic approach that does not assume that none other than only the focal point of the study change.

Peter Senge's 1990 book "The Fifth Discipline: The Art and Practice of The Learning Organization" defined the concept of the learning organization which recommends a decentralized organization to replace the traditional organizations of routines and standardizations. Aronson summarizes the learning organizations as organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are generated, where collective aspiration is set free, and where people are continually learning (Aronson, 1996).

The five elements that Peter Senge identifies are systems thinking, personal mastery, mental models, building shared vision, and team learning. Systemic thinking is the discipline that integrates the others, fusing them into a coherent body of theory and practice (Senge, 1990).

According to Peter Senge, the systems viewpoint is generally oriented toward the long-term view, which makes it delay and states the importance of feedbacks that are inconsequential and ignorable in the short term, but have enormous impacts within the long term.

As mentioned above the definitions of organization and system are definitely the same. Both have inputs, outputs and goals and have interrelations with their elements. These inputs go through processes of being designed, coordinated and reshaped to achieve the goals set for the system. Outputs are results produced by processes in the system, such as products or services for consumers. The feedback maintained is the tool to keep the organization stay on purpose. Feedback comes from microenvironment of company, suppliers, marketing intermediaries, customers, competitors, publics and from demographic, economic, natural, technological, political, cultural environments, which are considered as macro environments. The complexity of systems varies from very simple frameworks to social systems. Organizations are social systems (McNamara, 1999) and are led by socio psychological factors.

Each organization has various subsystems. Each of them has its own boundaries of authorities within the organization, and features their own inputs, processes; outputs and outcomes to achieve goals for the subsystem, which are designed to enable the company, reach its conceptual goals. Common examples of subsystems are departments, programs, projects, teams and processes.

Managing systems is a series of strategy formation processes, which includes strategic goals, tactical goals and operational goals.

Ludwig von Bertanlanffy, a biologist, initially developed open system theory but it was immediately applicable across all disciplines. It defines a system that must be in interaction with its environment to survive which is defined by means of feedback.

The open systems theory can be described as one possible tool for organizational MIS research and practice, using the issues of environmental change, organizational structure and organizational interdependence to illustrate its use. The area of environmental change can be considered under open systems (Malhotra, 1993).

Ramstrom notes that the future organizations would be facing a shortage and a redundancy of information. To solve the problems of information overdose arising from the evermore-

affordable information and communication technologies that provide for evermore-high capacity, fast, long-distance transmission, organizations would need to introduce methods for selective dispersion of information to their various parts. Accessing unmanageable amount of information does not do organizations a favor, systematic ways of relating to information is needed that comes to shape in the form of for example, corporate infrastructures which are used in organizing information, delivering empowerment and pre-analyzing efforts.

2.3.8.2 Business process reengineering

Business Process Reengineering differs from Total Quality Management. Total Quality Management aims making existing business better, but Business Process Reengineering aims innovations and redesigns existing procedures. Automation is one of the key elements of CRM, but automation only refers to making wrong things more effectively (Hammer and Champy, 1993). The process underlying the business must be optimized not just automated.

Tips for redesigning business processes (Hammer and Champy, 1993) may include gathering various types of processes together under one, letting the decisions be made by the personnel, generating the actions within the process in a natural order, originating multiple versions of processes which refers to an end to standardization, doing business on the most appropriate platform, lowering controlling and auditing, minimizing the agreements, making an event manager as the only touch point, wide spreading centralized actions.

2.3.9 Company politics

As CRM requires an organizational change, the top management commitment is necessary.

CRM is not supposed to be implemented with static structures, it is a customizable structure that differs from one implementation to another and this makes the CRM road map a must. Successful CRM begins with vision and ends with technologies that are

implemented within a plan. These factors require different levels of priority relying on the industries and companies they are implied.

Most of the CRM implementations fail, so the company must decide whether CRM investment is a necessity or just a populist effort. The communication breakdown between departments, lack of vision, cost minded management, lack of managerial commitment, being product oriented are the obstacles against CRM implementations. Different departments have different objectives. For example, the objective of sales department is maximum revenue; of the marketing department is maximum market recognition, of the production department are minimum costs, maximum production, and maximum quality; of the services department is maximum customer satisfaction; of the finance and accounting department are optimum cash flow, and maximized assets. Departments must work coordinately with each other to enable information sharing. CRM strategy will integrate these different objectives.

CRM is not the work of a single department and it is not a concept that a few employees can be responsible of, it requires a company vision. Departments like Research and Development, Marketing, Information Technologies, Public Relations, Organizations and top management contribute in strategy formation and when implementing those strategies, participation of all employees is required. The key variables of this implementation are empowerment and letting every employee reach the exact information about customer needs, so they will not only figure out what customers want, but also what they will want and will also make customers recognize their needs.

2.3.9.1 Strategic decision making

Decision-making is choosing an appropriate alternative among few. A strategy is an action plan that defines the activities to achieve the corporate goals. To make a decision first requires determining the situation and analyzing it. Strategy planning first requires defining the mission, then related objectives and goals, afterwards designing business portfolio and finally planning, marketing and other functional strategies. Strategy begins in corporate level and ends in business level where corporate level strategies of growth are considered.

CRM strategy can fulfill existing strategies of the company. What important here is defining the CRM for the company. The execution of the strategies must be optimized to avoid any implementation failure.

2.3.9.2 **CRM road map** (Erdem,2003)

2.3.9.2.1 **Vision**

A CRM vision is determined according to the mission statement of the company. During this period CRM training, case studies, top management commitment are also required. This vision will also define the CRM of that company.

2.3.9.2.2 **The master plan**

2.3.9.2.2.1 **Sources**

The sources of the company are determined during this period. These sources may include personnel, time, technology, financial instruments and infrastructure. The company may outsource the elements that are not featured in the sources.

2.3.9.2.2.2 **Action plan**

The teams and their responsibility details are determined during this period. Committee of CRM may be established with members of different departments.

2.3.9.2.3 **Transformation**

Most of the failed implementations are because of wrong transformations.

2.3.9.2.3.1 Data collection

The customer data is analyzed for segmentation. If not done properly, the first person to notice the inaccuracies is usually the customer.

2.3.9.2.3.2 Process reengineering

The processes are reengineered according to segments and the collected data.

2.3.9.2.4 Operation

The software and hardware of CRM project are investigated and developed. This stage can be implemented also before transformation.

2.3.9.2.5 Feedback

Evaluation of previous efforts is held during this process.

2.3.9.2.6 Auditing

The auditing of CRM applications like performance evaluation, company awareness, feedback rates, customer satisfaction level, market value, consuming continuity are held through.

Afterwards, a loop of continuous improvement beginning from the master planning section is required. In addition, the database must always be up to date and technological trends must be followed.

2.3.10 Marketing

Marketing is a social and managerial process whereby individuals and groups obtain what they need and want through creating and exchanging products and value with others and it is the delivery of customer satisfaction at a profit (Kotler and Armstrong, 2001).

As marketing efforts differs throughout time, the clearest comment to be made while analyzing these efforts would be expounding size of marketing elements. The sizes of implementing marketing shrink through mass, micro, individual, direct, and one to one marketing.

By marketing activities, CRM focuses on raising the lower class customers to the upper classes, which are related to determining customer values. Analyzing data available supports determining target markets and it has been probable to segment the customers according to various categories in order to decide whom to sell which product. These categories include geographical properties like country, city, climate, topography; demographic properties like age, gender, number of family members, income, job, education, religion, race, nationality; sociological properties like social status, life style, personality; behavioral properties like loyalty, attitude against the product, benefit, usage rate, readiness to buy and properties like preferred sales channel, profitability, customer life long value, risk degrees. Grouping customers according to the properties of their preferred products and according to their choice of production channels will be useful too.

Marketing resource management is an innovation in CRM applications to deal with the complexity and fragmentation of marketing efforts (Collins, 2004).

MRM is a set of processes and capabilities that aim to enhance company's ability to optimize the use of internal and external marketing resources. MRM applications are used in planning, budgeting, coordinating, and auditing of marketing efforts. The five key functionality components of MRM are Plan&Budget, Create&Develop, Fulfill&Distribute, Measure&Report, Collect&Manage (Collins, 2004).

Gartner began introducing clients to MRM in 2001. Since then, the number of deployments of prepackaged MRM applications among Global 1000 enterprises is more than 450 implementations where some enterprises have multiple MRM deployments within their global organizations (Collins, 2004).

Companies that lack to implement optimal information technology innovations to their businesses also lack the opportunities of generating best practices, optimized processes and documentation. This leads the company to incoherence and to waste resources. The lack of recording best practices results in corporate blurriness and is a resistance for continuous improvement.

2.3.11 Sales force automation

Various SFA applications are dominated with sales methodologies to be customized according to the company business rules. Sales Process Management is held by using the tools that guide and lead the sales force during sales processes (Dyche, 2001). Real time applications will enable the managers to analyze the activities at any time.

Activity management remains tools for agendas, reminding alerts, proposals according to customer properties, tasks and time management.

Sales activities consist of opportunity management, interviewing with customers, reporting the managers, scheduling new interviews in the cases of necessity, determining the appropriate product and its properties, generation and approval of sales.

Contact management is recording, tracking and examining of corporate customers, colleagues, service and product providers or other contact information (Dyche, 2001).

Advanced guiding software informs the user about the positive or negative possibilities of interview results (Dyche, 2001).

Wireless CRM applications for SFA team enables reaching and updating the company databases through the CRM application on the internet.

Sales force personnel are equipped with wireless technologies like personal digital assistants (PDA), cellular phones, web phones, pagers, tabloid computers support wireless networking.

"Wireless CRM yet to kick in" is an article written by Gina Fraone in October 2001 states that all CRM vendors of enterprise wide applications also developed sales force automation wireless CRM packages. The idea behind this is to equip sales staff with adequate information and applications of contact management, business processes management, accessing contact database information etc. The negative side of wireless CRM is the cost of supporting such devices, the slow data transfer rates, security issues and using out of business purposes. Gartner research for example has estimated that it costs companies about $2700 per year and per person to support PDA's plus an addition $1500 per device per year for leasing costs of PDA software.

The article "The Schwan Food Company's CRM Strategy" by Jason Compton shows that one company can have a few CRM approaches. The Schwan Food Company has distinct customer groups and each group has its own buying patterns and other properties. The frozen food company has created several CRM strategies to optimize their services for each segment. The two divisions that serve those markets, Schwan's Home Service and Schwan's Food Service Group, had a redefined their CRM strategies. The industrial service group has renewed its commitment to communicating with the entire customer value chain, rather than just with distributors. The home delivery group has expanded its analytics and marketing efforts, while offering new fulfillment options. In the example of The Schwan Food Company, every touch point generated its own strategy and vital tools of relating the customers.

2.3.12 E-Business

E-Business captivates the use of CRM applications on the platform of internet and is applied by using the principle of defining the internet as a production channel. E-Business enables different users to reach the same information by different personalized methods. Sites can be designed to fit the needs of different segments of customers (Dyche, 2001). E-Business allows customers to order customized products and services and enable customers to track accounts or order status. CRM activities should be considered after the basic online transactions are made available to the customers like access to customer information and account details, process of information results in update customer

database. These activities may include sophisticated services, customized services and transactions.

In his article "Improving Online Customer Relationships" Sangang Parekh writes about the top-five functions to develop an e-CRM strategy.

E-CRM has evolved from just an online point application to a more comprehensive, continuous strategy to deliver customer satisfaction. E-business both enables the exchange of goods and services online, and collaboration of customer service with business in real time. E-CRM contributed to the CRM strategy of any business and made companies to include web analytics, content management, self-service, and collaboration in their online plan.

The growing importance of customers makes businesses to search for innovative and cost efficient methods to reach customers online. A successful e-CRM strategy should relate online activities to corporate business objectives and rules.

The author mentions a new type of business intelligence, which is IP-based intelligence. IP-based intelligence technology provides real-time information about an online user such as geographic location down to a city-level worldwide, connection speed, and internet service provider, but it also feeds concerns about privacy.

Vividence notes nearly 50 percent of study respondents say online banking and bill payment services are important factors to consider of choosing a bank. The report states five challenges facing interactive banks as, integration issues, billing basics, profitable products, technology troubles, security concerns (eMarketer Inc., 2004).

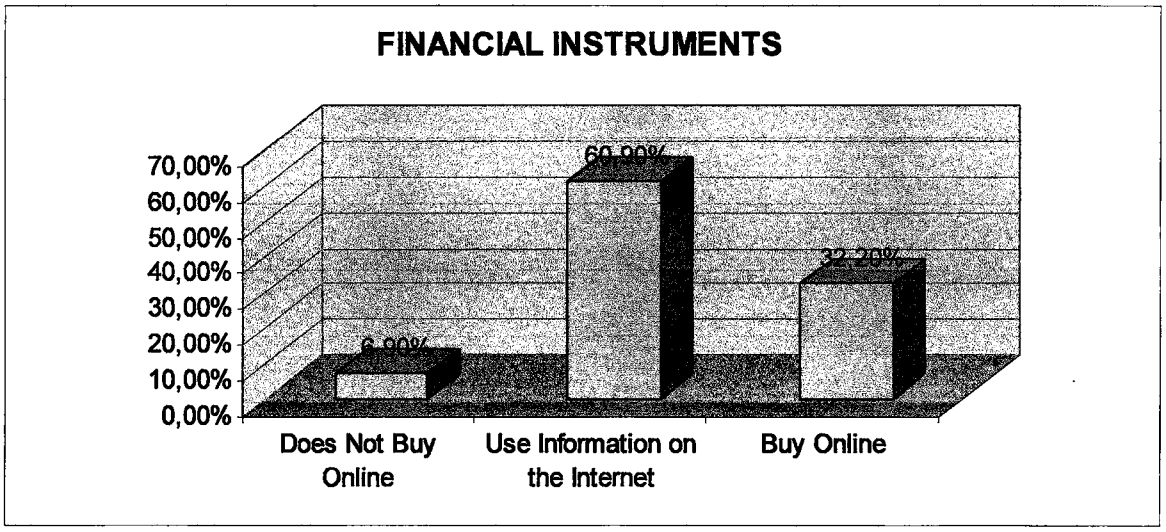

Figure 2.3.1 Financial Instruments (Arthur Andersen, İnternetle Gelişimde Türkiye, Türkiye İş Bankası Kültür Yayınları, 2001)

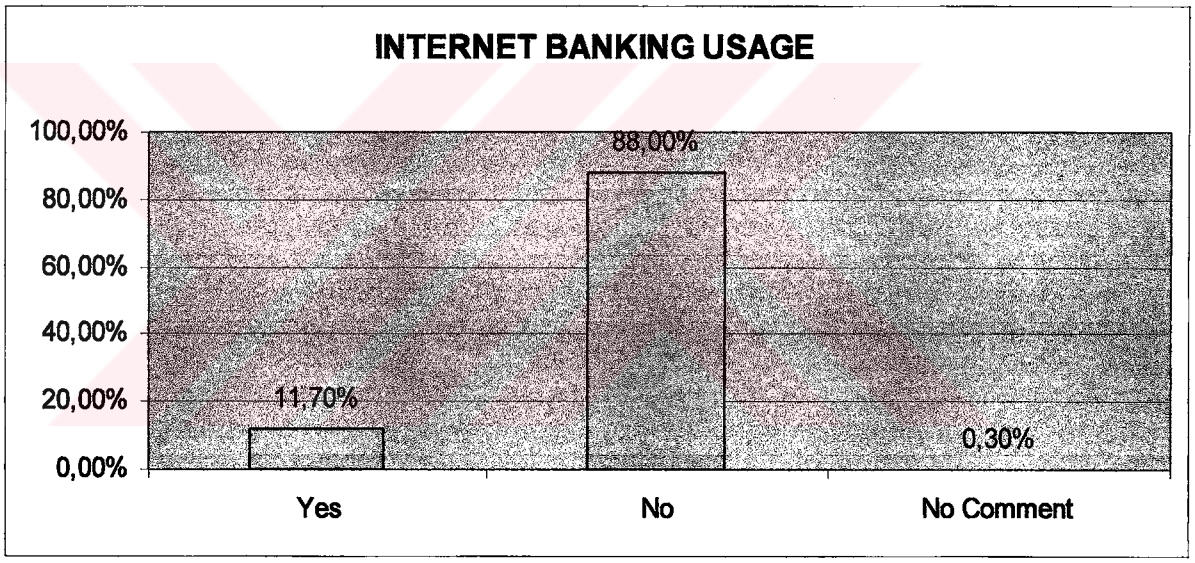

Figure 2.3.2 Internet Banking Usage (Arthur Andersen, İnternetle Gelişimde Türkiye, Türkiye İş Bankası Kültür Yayınları, 2001)

Most of the people use internet as an information tool and does not use the banking products on the internet. Two of the most important reasons for this are privacy and security concerns. According to the research held by Boston Consulting group, first purchase experience on the internet after two years of using the internet at a percentage of 49.3 percent 2 due to security problems.

1,2 million of 5 million internet users are using internet banking. It is estimated that 45 percent of the internet users to use internet banking by 2007 (Hürriyet Newspaper, January 13, 2004).

2.3.13 Operational CRM

Operational CRM consists of activity management, contact management, customer support, pricing, campaign management, the use and the tracing of similar activities that do not require statistical analysis. It is made according to the principles determined during the analytical CRM process.

3. MODEL

3.1 VARIABLES OF THE MODEL AND THEIR DEFINITIONS

Customer satisfaction depends on the company's perceived performance in delivering value relative to the expectations of the customers. Performance is the organization's ability to attain its goals by using resources in an efficient and effective manner (Daft, 2000). The customer questionnaire is designed to measure if the customers are satisfied by the use of CRM elements through alternative channels. The scale lets the customers to state their levels of satisfaction when using the applications related to each element by evaluations of the customers of any element pushed by the bank or pulled by the customers. The expectations of the customers are supposed to be limited when any pushed application is under consideration.

3.1.1 Dependent variable

3.1.1.1 Effectiveness of CRM by alternative channels

Effectiveness of CRM by alternative channels is the organization's ability to attain the customer relationship related goals through alternative channels in an effective and efficient manner.

3.1.2 Independent variables

3.1.2.1 Satisfaction of customer privacy implementations

Privacy is freedom from unauthorized use of customer related information. Satisfaction is related to the level of privacy violations tolerated by the customers.

3.1.2.2 Customer loyalty

Customer loyalty is obtaining positive attitude, thoughts, satisfaction, marketing activities and re-shopping tendencies of the customer.

3.1.2.3 Satisfaction of customer care and service implementations

Customer care and services refer to the company's ability to solve the related problems of the customers. Satisfaction is related to the extent the customers are pleased by these implementations.

3.1.2.4 Satisfaction of determining customers implementations

Determining customers is the processes of identifying the customer needs and developing strategies for satisfying these needs. It requires understanding of the customer segments and if the company should refer to them and in which ways. Satisfaction is related to design a banking system suitable for the customers.

3.1.2.5 Satisfaction of business rules implementations

Business rules are guides to implement the business logic. Satisfaction is related to the ability of the bank to design implementations using customization and personalization.

3.1.2.6 Satisfaction of software implementations

Software is used or associated with and usually contrasted with hardware as the entire set of programs, procedures, and related documentation associated with a system and especially a computer system (Encyclopedia Britannica, 2004). Satisfaction is related to develop a technical system of effectiveness and efficiency.

3.1.2.7 Satisfaction of integration implementations

Integration is the ability of any channel to fill in the characteristics that any other channel lacks. Satisfaction is related to any customer expectations generated by disabilities of mainly time and place while managing banking transactions.

3.1.2.8 Organizational change

Organizational change is the company's ability to restructure according to the internal and external environment by the use systemic analysis.

3.1.2.9 Satisfaction of business process reengineering implementations

Business process reengineering is to redesign existing procedures with the purpose of more effectiveness and efficiency. Satisfaction is related to delivering innovations that result in effectiveness and efficiency.

3.1.2.10 Company politics

Company politics are inner procedures for strategic decision making, business planning and strategy formation.

3.1.2.11 Satisfaction of marketing implementations

Marketing is a social and managerial process whereby individuals and groups obtain what they need and want through creating and exchanging products and value with others and it is the delivery of customer satisfaction at a profit (Kotler and Armstrong, 2001). Satisfaction is related to the tendencies of the customers to pay for any costs generated by the alternative channels.

3.1.2.12 Fitness for customer habits

Customer behavior is "The study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society." (Perner). Customer behavioral study requires to fit the habits of the pre-determined customers. Satisfaction is related to ability of the implementation to fit the habits of the customers.

3.1.3 Demographical variables

3.1.3.1 Age

3.1.3.2 Gender

3.1.3.3 Education

3.1.3.4 Net monthly income

3.1.3.5 Industry

3.1.3.6 Position

3.2 EFFECTIVENESS MODEL OF CRM BY ALTERNATIVE BANKING CHANNELS

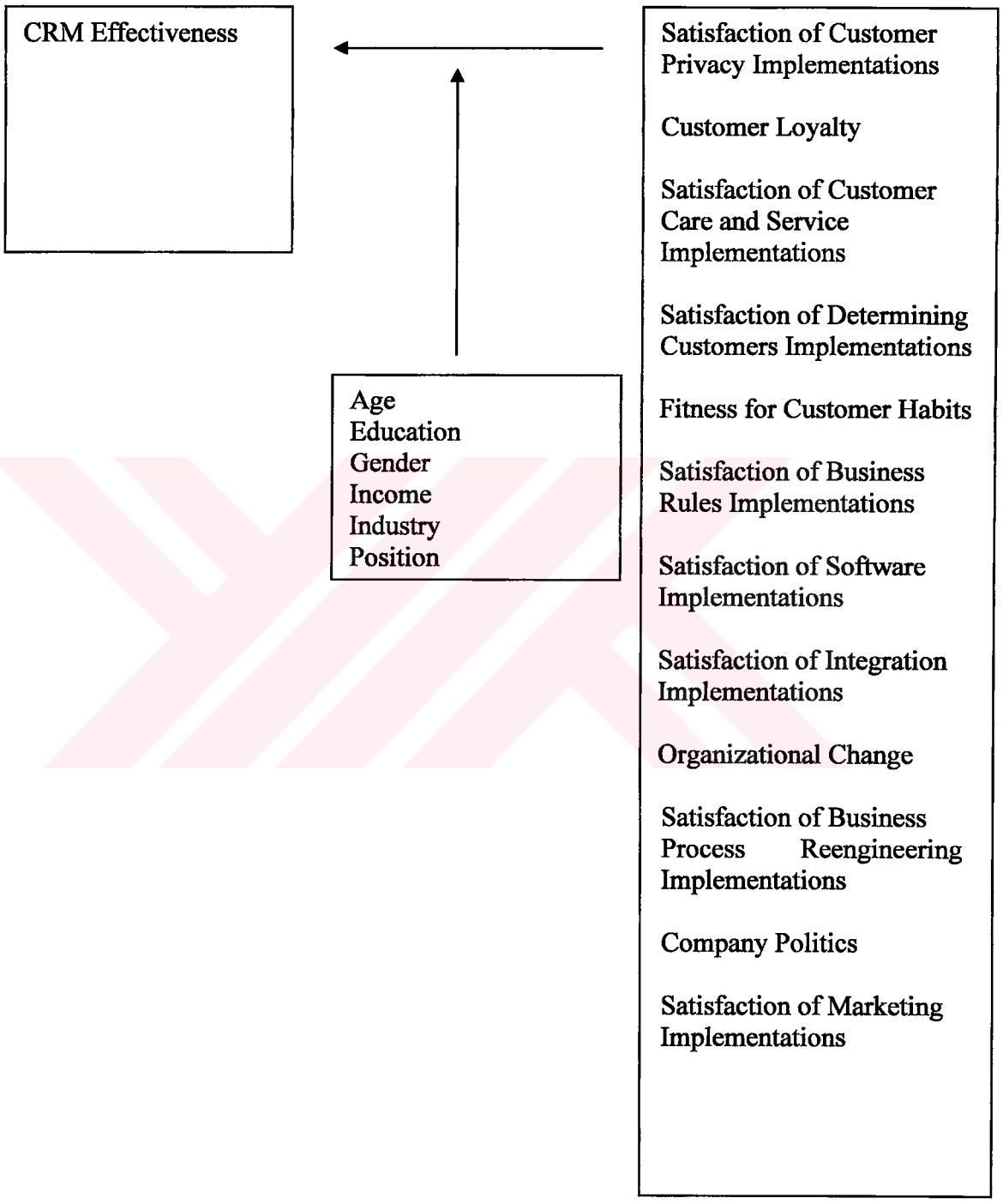

Figure 2.4.1 Effectiveness Model of CRM by Alternative Banking Channels

This figure shows the external and demographical variables that affect the core concept of the thesis.

3.3 BASIC ASSUMPTIONS THAT INVOLVE CORE CONCEPT BASED ON THE AIM OF THE THESIS

Most of the CRM implementations fail. Is it because of determining the elements of CRM in a wrong way or lacking the customer view by being unnecessarily focused on the most recent information technologies or is it the gemba, which the companies are lacking? Is CRM a function of information technologies or management? Do tools of business go beyond of the business itself? Does CRM help the companies hide their mistakes under its shadow? Is CRM a strategy or does it fulfill one? Does CRM make wrong things right? Is it more important to have a right corporate strategy and use it in CRM or to have a right CRM strategy and to use it in order to make the corporate strategy right than managing customer relations like the company used to do without CRM exactly same with CRM again in the same old wrong ways? Must companies generate new ways of doing business? Must companies change ways of doing business? Do loyalty and privacy issues have any impact on CRM effectiveness? Are customer concerns about privacy more important than CRM effectiveness? Do customers define their satisfaction by the terms that the companies use to define their effectiveness and to which extent? Does CRM effectiveness differ from business effectiveness? Is a model, which remains, the appreciated terms of CRM valid due to the customers? Are customers related to anything except having their operations truly done? Is that the conceptual or the operational strategy what CRM lacks? Does loyalty mean satisfaction?

3.4 HYPOTHESES

If-then statements and directional hypotheses predict that one group is different from another in a direction. Non-directional hypotheses predict a difference between the groups in any direction.

3.4.1 If-then statements

H1: If the customer loyalty increases, concerns about privacy decreases.

3.4.2 Nondirectional hypotheses

H2: There is a relationship between satisfaction of business process reengineering and software implementations.

H3: There is a relationship between satisfaction of customer determination and fitness for customer habits.

H4: There is a relationship between satisfaction of software and organizational change implementations.

3.4.3 Directional hypotheses

H5: The lower the concerns about privacy are, the greater the Customer Relationship Management effectiveness becomes.

H6: The greater the customer care services are, the more the Customer Relationship Management effectiveness becomes.

H7: The adequately the customers are determined, the more the Customer Relationship Management effectiveness becomes.

H8: The more adequately the business rules are applied to the channels, the greater the Customer Relationship Management effectiveness becomes.

H9: The greater the software efficiency is, the greater the Customer Relationship Management effectiveness becomes.

H10: The greater the integration is, the more the Customer Relationship Management effectiveness becomes.

H11: The greater the tendency for organizational change is, the more the Customer Relationship Management effectiveness becomes.

H12: The greater the tendency for loyalty is, the more the Customer Relationship Management effectiveness becomes.

During the analysis, it is also investigated that if the CRM effectiveness differs according to the demographical variables.

4. METHODOLOGY

4.1 FRAME OF THE THESIS

4.1.1 Definition of target population

This thesis is prepared to let the customers evaluate the effectiveness criteria of CRM by means of their satisfaction of alternative channels. This approach requires two questionnaires; one is answered by the Türkiye İş Bankası management in order to find out the implementation of CRM in the bank. The other questionnaire is answered by the customers to find to which extent customers are satisfied by these effectiveness criteria and the use of customer relationship management elements. So, the bank management and the customers that use alternative channels are chosen as two separate target populations on which two different questionnaires are applied. The customer questionnaire is analyzed by statistical methods. The customer population is about five million people.

4.1.2 Sample description

The bank management questionnaire is applied to the assistant manager of the Department of Alternative Banking. The second questionnaire is applied to the users of alternative channels of the bank. The customer questionnaire is applied to a hundred people.

4.1.3 Scale

Management personnel questionnaire is designed in open ended scale. Customer questionnaire is designed in Likert scale. To obtain the maximum level of information from target population about their evaluation of services, neutral option is not included in the questionnaire. The unanswered questions are considered as neutral. Three questions that are considered as important ones are designed in reversed scale. Demographical variables are designed in nominal, ordinal and interval scales.

4.2 ANALYSIS

The data collected are analyzed by using SPSS and Minitab statistical software.

4.2.1 Measures of homogeneity and the extremity of the sample

The collected data are examined if the data contain extreme values and if the data are homogenous.

4.3 PARAMETRICAL ANALYSIS

4.3.1 Analysis about external variables and the core concept

The data are analyzed to find out if some external variables may be gathered together within a more conceptual factor, if the external variables are related to the core concept, and if any variables should be extracted. As no estimations of the variables to be extracted are made before this grouping, the extraction is made according to the data structure. This extraction is made to improve the results of model formation. Homogeneity of the sample and the adequacy of the item designs are measured to find out if the sample size is sufficient and if the questions designed measure the related external variable.

4.3.2 Analysis about factors and the core concept

The degree of generalization of the research results is examined. Each factor is examined to find out if there are any relations between the external variables regarding the similarities of the answers for different questions, which is referred to as being consistent. If there is consistency between different questions within each factor, it is estimated that those questions measure the same information.

4.3.3 Model formation

An equation is formed to find out the statistical model that contains the external variables within factors and their levels of affecting the core concept.

4.3.3.1 Linearity between core concept and the factors

The relation between each factor and the core concept is examined to find out if it is at maximum level and if the factors and the core concept are related to each other. If a model is not linear, the ability of the model equation to fit is minimal. The external variables that do not generate the linearity may not be necessarily extracted from the model, because most of the equations of statistical models are curvilinear.

4.3.3.2 Linearity between factors

The relation between two factors is examined to find out if it is minimum or not and if the factors are related to each other. It is not a desired issue, because the factors should affect the core concept not each other. The factors that affect the core concept the most, remains in the model.

4.3.3.3 Explanation power of factors

The percentage that a factor explains the changes in core concept is calculated and is tested to find out if it is acceptable.

4.3.3.4 Contribution of external variables

This analysis refers to the validity of the contribution of each external variable to the explanation power of the model. Negative beta coefficients decrease the efforts of increasing CRM effectiveness and are to be extracted from the model will deliver effectiveness according to the significance of the test. After the extraction, remaining factors are analyzed again.

4.3.4 Analysis about the categorized demographical variables and the core concept

This analysis refers to find out if the core concept differs related to a categorized demographical variable. The variables that are not categorized are categorized according to averages.

4.3.4.1 Homogeneity of categorized demographical data

After categorizing the demographical variables, heterogeneity of previously homogenous data may occur. So, it is tested that if the data are homogenous or heterogeneous. Homogeneity means that any impact on the core concept may be investigated.

4.3.4.2 Impact of categorized demographical data on the core concept

An impact on core concept related to the categories of demographical variables is examined. Significant test results refer to the impact by the categories of demographical variable on the core concept.

4.3.4.3 Origin of the impact of demographical data on the core concept

This analysis states the origin of the impact found by test results.

4.4 NON PARAMETRICAL ANALYSIS

4.4.1 Impact of demographical data on the core concept

This analysis refers to find out if the core concept differs related to a demographical variable. The categorized demographical variables are tested with categorized core concept that is recoded according to the averages and the uncategorized demographical variables are tested with uncategorized core concept by appropriate correlation coefficients.

If the categories do not have enough frequency, the relation between demographic variables and core concept is inadequate, so if the sample is small, the number of categories must be less.

4.4.2 Goodness of Fit

Core concept is weighted by external variables and is tested to find if it differs according to the external variables.

4.4.3 Test of Freedom

Core concept is weighted by external variables and is tested to find if core concept is free from core concept.

4.4.4 Analysis about item evaluation differences

It is tested if the variety in item evaluation is a fact in evaluating any other variable. Significant results are analyzed to find out the origin of the impact.

4.4.5 Analysis about item evaluation similarities

The variables are tested to find out if there is resemblance in evaluation of the customers of the items.

4.4.6 Analysis about statistical distributions

The variables are tested to find out if the data fit any statistical distribution.

4.4.7 Hypotheses testing

The hypotheses of if-then statements and directional hypotheses are tested to find out the relation between the variables. The hypotheses of nondirectional hypotheses are tested to find out the relation between the variables and the direction of these relations.

5. RESEARCH FINDINGS

5.1 CUSTOMER QUESTIONNAIRE

5.1.1 Measures of homogeneity and the extremity of the sample (Skewness and kurtosis)

Alpha 3 (skewness) should be less than 0,5 and alpha 4 (kurtosis) should be greater than 3. Skewness of core concept is -1,891 and the kurtosis of core concept is 3,348. In a symmetric distribution mode is equal to median and arithmetic mean. In the distribution of this research, mode is equal to median and is greater or smaller than or equal to mean. The distribution is skewed to left. Because of the skewness, median is used.

Although data do not possess a normal distribution, parametrical analysis techniques are often used to analyze Likert scaled researches in practice, and I used those techniques as well. Because, the use of parametric analysis techniques only decrease significance levels of the tests applied (Özdamar, 2004). The significant results of parametrical analysis are to be more significant in reality and the insignificant results of the model may help in creating ideas of further research. After all, the significant results of the parametrical analysis are not challenging the related literature, so the model presented here is considerable.

5.1.2 Parametrical analysis

5.1.2.1 Analysis about external variables and the core concept (Factor analysis)

The coefficient of Kaizer Meier Olkin (KMO) is 0,806 which is over 0,50 and Bartlett test result is 0,00 and less than 0,05. Therefore, sample is homogenous, and all items are related to the core concept. Cumulative percentage of variance is 0,52, which is, less than 0,70, but it is tolerable. The twelve external variables are gathered in three factors.

	Factor 1	Factor 2	Factor 3	
Factor Labels	Fitness for the Customer	Ability to Generate Customized Business	Marketing Activities of the Bank and its Customers	
Explanation Power (%)	32,1	10,3	9,7	52,1
Variable Composition and Significance	Q4: Satisfaction of Customer Care & Service Implementations Q5: Satisfaction of Determining Customers Implementations Q9: Organizational Change Q10: Satisfaction of BPR Implementations (R) Q11: Company Politics Q8: Satisfaction of Integration Implementations Q6: Satisfaction of Business Rules Implementations	Q7: Satisfaction of Software Implementations (R) Q13: Fitness for Customer Habits Q2: Satisfaction of Customer Privacy Implementations	Q3:Customer Loyalty (R) Q12: Satisfaction of Marketing Implementations	

Table 3.2.1 Factors of the Customer Questionnaire

5.1.1.2.1 Factor 1 questions

Q4 - Satisfaction of customer care and service implementations

The problems that I faced when using alternative channels are eagerly solved by Türkiye İş Bankası.

Q5 - Satisfaction of determining customers implementations

The alternative channel services fit my concept of banking system.

Q9 - Organizational change

The bank researches and implements the most recent technologies.

Q10 - Satisfaction of business process reengineering implementations (reversed scale)

Every innovation on the alternative channels maximizes the problems I face and lengthens the operation period.

Q11 - Company politics

I believe that the importance of alternative channels is realized by the bank.

Q8 – Satisfaction of integration implementations

Each alternative channel fills in any missing properties of others.

Q6 - Satisfaction of business rules implementations

Being able to arrange the ingredients of my use of alternative channels minimizes the use of time related to all of my banking activities.

5.1.1.2.2 Factor 2 questions

Q7 - Satisfaction of software implementations (reversed scale)

Technical system does not let me to manage all my operations fast and secure.

Q13 - Fitness for customer habits

The alternative channel services fit my habits.

Q2 - Satisfaction of customer privacy implementations

The recording of all my activities on alternative channels and the sharing of my transaction related or not-related activities do not disturb me.

5.1.1.2.3 Factor 3 questions

Q12 – Satisfaction of marketing implementations

The cost of alternative channels is not important.

Q3 - Customer loyalty (reversed scale)

I do not talk about my satisfaction of alternative channels.

5.1.1.2.4 Effectiveness model of CRM by alternative banking channels after the factor analysis

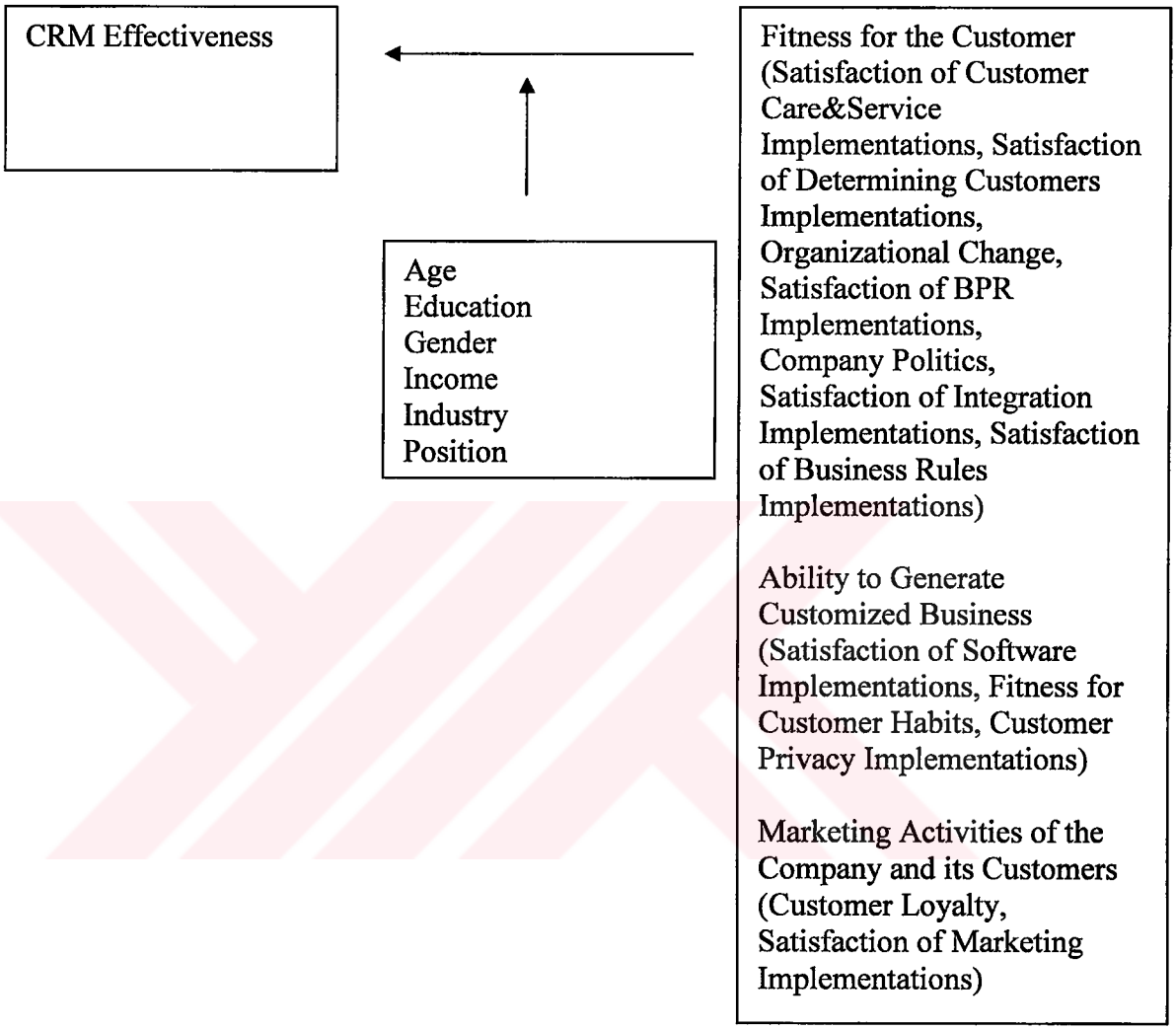

Figure 3.2.4.1 Effectiveness Model of CRM by Alternative Banking Channels After the Factor Analysis

This figure shows the factors that affect the core concept of the thesis after the factor analysis and the demographical variables.

5.1.2.2 Analysis about factors and the core concept (Reliability analysis)

The coefficients of internal consistency of factors are 0,793; 0,540; and 0,208 respectively.

If customer privacy is extracted from the second factor, coefficient increases to 0,544, but I kept this item in the factor. The first factor measures the core concept consistently, because the coefficient of internal consistency is greater than 0,70. The coefficients of consistency of second and the third factors are less than 0,70; but they are tolerable. Therefore, the research results are to be generalized.

5.1.2.3 Model formation (Multi regression analysis)

5.1.2.3.1 Linearity between core concept and the factors (Linearity)

Linearity between the factors and the core concept are 0,576; 0,399; 0,045 respectively which are less than 0,70. This states that the model is curvilinear and the multiple coefficient of determination (adjusted R square) is minimal.

5.1.2.3.2 Linearity between factors (Multicollinearity)

The linearity between any two factors are less than 0,70; so, there is no multicollinearity.

5.1.2.3.3 Explaining power of factors (F test)

Multiple coefficient of determination is the amount the percentage that a factor explains the changes in core concept. The significance of F test is 0,00 which is less than 0,05; it represents a relation and the adjusted multiple coefficient of determination is accepted. The adjusted multiple coefficient of determination is 0,338, which is, less than 0,50; but, it is tolerable.

5.1.2.3.4 Contribution of external variables (Beta coefficients, t test)

The beta coefficient of the third factor is negative and has the greatest significance of T, so it is extracted from the model and the analysis is made again. The first two factors are valid in contributing to the explanation power of the model.

After the factor extraction, the significance of F test is 0,00 which is less than 0,05; it represents a relation and the adjusted multiple coefficient of determination is accepted. The adjusted multiple coefficient of determination is increased to 0,343, which is, less than 0,50; but, it is tolerable.

5.1.2.3.5 Effectiveness model of CRM by alternative banking channels after multi regression analysis

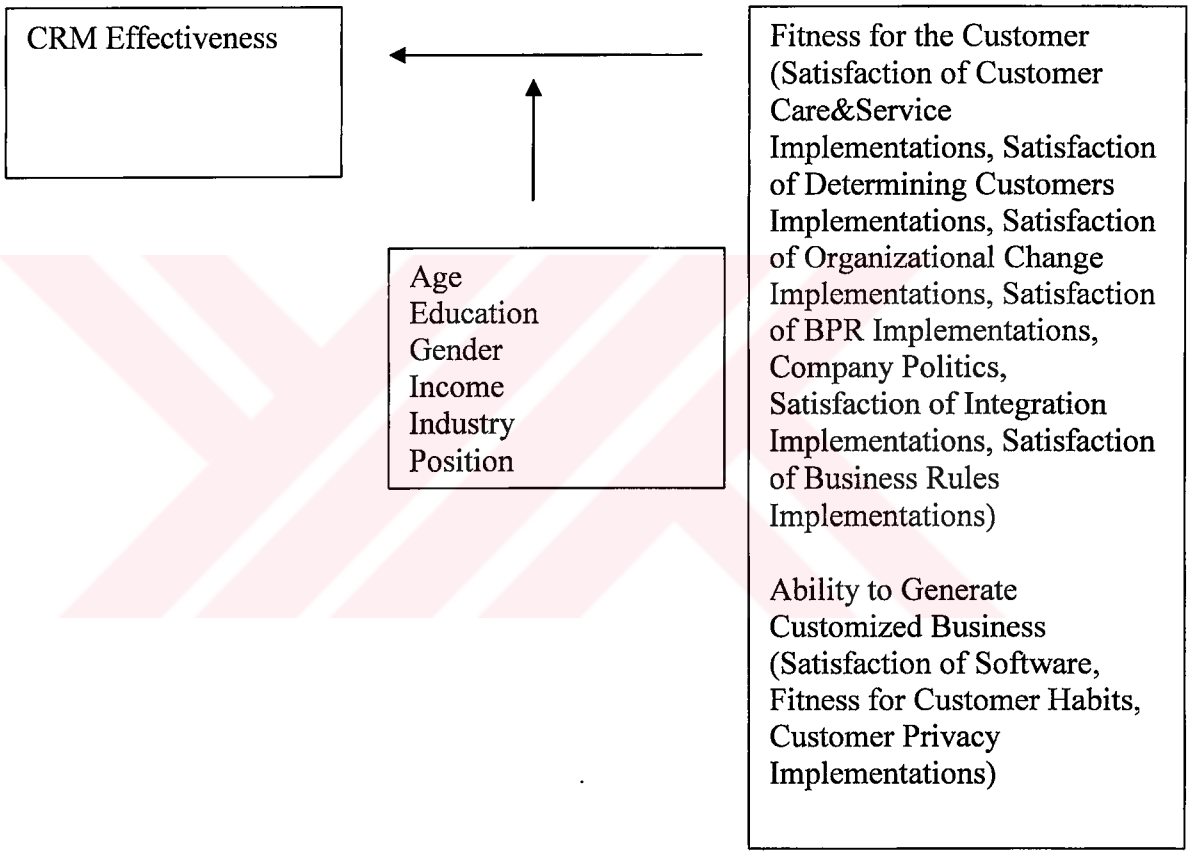

Figure 3.4.6.1 Effectiveness Model of CRM by Alternative Banking Channels after the Multi Regression Analysis

This figure shows the factors that affect the core concept of the thesis after the multi regression analysis and the demographical variables.

5.1.2.4 Analysis about the categorized demographical variables and the core concept (Analysis of variance)

The demographical variables are recoded into categories in order to make those variables suitable for the analysis. The demographical variables of the thesis are age, gender, education, monthly income, industry, and position. The age is categorized according to the median of 30. The categories of education variable contain 0, 1, 2, 52, 45 events respectively; so the categories are restructured in three as undergraduate, graduate, and other. The missing values of income are coded in median of 1813 New Turkish Liras and then categorized into the categories into four categories of 1000 New Turkish Liras. The categories of position 14, 43, 0, 25 events and 18 missing values respectively, so the missing values are replaced with median of 2 which is also equal to mean. The other variables are considered as nominal.

5.1.2.4.1 Homogeneity of categorized demographical data

Variable	Levene Test Result	Homogeneity
Age	0,496	Homogenous
Education	0,158	Homogenous
Gender	0,239	Homogenous
Industry	0,051	Heterogeneous
Monthly Income	0,007	Heterogeneous
Position	0,805	Homogenous

Table 3.5.1.1 Levene Test of Homogeneity Results

According to the test results age, education, gender, position variables are homogeneous and these variables can be tested to investigate any impact on the core concept.

5.1.2.4.2 Impact of categorized demographical data on the core concept (F test)

Variable	F - Test Result	Significance
Age	0,282	Insignificant
Education	0,126	Insignificant
Gender	0,926	Insignificant
Position	0,655	Insignificant

Table 3.5.2.1 F-Test Results

The homogeneous demographical variables have no impact on the core concept.

5.1.3 Non parametrical analysis

5.1.3.1 Impact of demographical data on the core concept (Analysis of association measures)

The core concept is recoded according to median into a nominal variable in order to test with nominal demographic variables (gender, industry) by phi or Cramer's correlation coefficients. Ordinal demographical variables (education, position) are tested with ordinal core concept by Spearman or Kendall correlation coefficients. Interval demographical variables (age, monthly income) are tested with interval core concept by Pearson correlation coefficient.

	Significance of Correlations, Chi Square	Significance
Age	0,532	Insignificant
Education	0,013	Significant
Gender	0,394	Insignificant
Industry	0,375	Insignificant
Monthly Income	0,706	Insignificant
Position	0,294	Insignificant

Table 3.5.4.1 Analysis of Association Measures

There is a relationship between education and CRM effectiveness in the same direction.

5.1.3.2 Goodness of Fit (Chi Square Test)

The test results of every external variables are significant and less than 0,05. So, the core concept differs according to these variables and the samples of these variables illustrate the population.

5.1.3.3 Test of Freedom (Chi Square Test)

CRM effectiveness scale is weighted by external variables. Probability of satisfaction of software implementations is 0,005, which is less than 0,05 and significant. Probability of organizational change is 0,015, which is less than 0,05 and significant. Increasing CRM effectiveness is depending on software, and organizational change.

5.1.3.4 Analysis about item evaluation differences (Kruskal-Wallis Test)

Levels of satisfaction of determining customers (significance: 0,002), business rules (significance: 0,002), organizational change (significance:0,000), business process reengineering (significance:0,005), company politics (significance:0, 001) determine the effectiveness standards.

Multiple comparison analysis is made by using the Hollander-Wolfe method. Levels of satisfaction of determining customers, business rules, organizational change, bpr, company politics that determine the effectiveness standards are 5^{th}, 5^{th}, 4^{th}, 5^{th}, and 4^{th} levels, respectively.

5.1.3.5 Analysis about item evaluation similarities (Kendall W Test)

Test result is 0,000, which is less than 0,05 and significant. The aggrements are in harmony.

5.1.3.6 Analysis about statistical distributions (Kolmogorov-Smirnov Test)

Data do not fit normal, uniform, poisson and expotential distributions.

5.1.3.7 Hypotheses tests

5.1.3.7.1 If-then statements

H1: If the customer loyalty increases, concerns about privacy decreases.

Significance is 0,390, which is greater than 0,05. This makes the hypothesis is not acceptable.

5.1.3.7.2 Nondirectional hypotheses

H2: There is a relationship between satisfaction of business process reengineering and software implementations.
H3: There is a relationship between satisfaction of customer determination and fitness for customer habits.
H4: There is a relationship between satisfaction of software and organizational change implementations.

Satisfaction of customer determination and fitness for customer habits are correlated according to the Kendall coefficient of correlation of 0,363.

5.1.3.7.3 Directional hypotheses

H5: The lower the concerns about privacy are, the greater the Customer Relationship Management effectiveness becomes.
H6: The greater the customer care services are, the more the Customer Relationship Management effectiveness becomes.

H7: The adequately the customers are determined, the more the Customer Relationship Management effectiveness becomes.
H8: The more adequately the business rules are applied to the channels, the greater the Customer Relationship Management effectiveness becomes.
H9: The greater the software efficiency is, the greater the Customer Relationship Management effectiveness becomes.
H10: The greater the integration is, the more the Customer Relationship Management effectiveness becomes.
H11: The greater the tendency for organizational change is, the more the Customer Relationship Management effectiveness becomes.
H12: The greater the tendency for loyalty is, the more the Customer Relationship Management effectiveness becomes.

All hypotheses are acceptable.

CRM effectiveness is positively correlated with satisfaction of business rules implementations (0,342), satisfaction of determining customers implementations (0,301), satisfaction of BPR implementations (0,255), fitness for customer habits (0,238), satisfaction of customer privacy implementations (0,231), satisfaction of software implementations (0,222), company politics (0,212), satisfaction of integration implementations (0,167), satisfaction of customer care and service implementations (0,167) according to Kendall coefficient of correlation.

5.1.3.7.4 Directional hypotheses tests of all external variables

Correlations are calculated according to the Kendall coefficient.

Satisfaction of customer privacy implementations is positively correlated with company politics (0,257), satisfaction of determining customers implementations (0,252), CRM effectiveness (0,231), satisfaction of software (0,223), fitness for customer habits (0,176), satisfaction of customer care and service implementations (0,152).

Satisfaction of customer care and service implementations is positively correlated with satisfaction of determining customers implementations (0,429), company politics (0,386), organizational change (0,313), satisfaction of integration (0,299), business rules (0,208), BPR (0,179) implementations, CRM effectiveness, and satisfaction of customer privacy (0,152) implementations.

Satisfaction of determining customers implementations is positively correlated with organizational change (0,467), satisfaction of customer care and service (0,429) implementations, company politics (0,380), fitness for customer habits (0,363) implementations, CRM effectiveness (0,301), satisfaction of integration (0,279), business rules (0,275), BPR (0,266), customer privacy (0,252) and software (0,209) implementations.

Satisfaction of business rules implementations is positively correlated with CRM effectiveness (0,342), organizational change (0,328), satisfaction of determining customers (0,275), BPR (0,271), fitness for customer habits (0,269), company politics (0,265), satisfaction of customer care and service (0,208), integration (0,186), software (0,151) implementations.

Satisfaction of software is positively correlated with fitness for customer habits (0,322), customer privacy (0,223) implementations, CRM effectiveness (0,222), satisfaction of determining customers (0,209) implementations, company politics (0,160), satisfaction of business rules (0,151) implementations and organizational change (0,151).

Satisfaction of integration implementations is positively correlated with satisfaction of customer care and service (0,299), determining customers (0,279), fitness for customer habits (0,266), satisfaction of BPR implementations (0,240), organizational change (0,213), satisfaction of business rules (0,186) implementations, company politics (0,169), CRM effectiveness (0,167).

Organizational change is positively correlated with satisfaction of determining customers implementations (0,467), company politics, satisfaction of business rules (0,328), customer

care and service (0,313), implementations (0,289), satisfaction of BPR (0,257), integration (0,213), software (0,151) implementations.

Satisfaction of BPR implementations is positively correlated company politics (0,334), satisfaction of business rules (0,271), determining customers (0,266) implementations, organizational change (0,257), CRM effectiveness (0,255), satisfaction of integration (0,240), fitness for customer habits (0,191), satisfaction of customer care and service implementations (0,179), customer loyalty (0,163).

Company politics is positively correlated with organizational change (0,393), satisfaction of customer care and service (0,386), determining customers (0,380), BPR (0,334), business rules (0,265), customer privacy (0,257) implementations, fitness for customer habits (0,386), CRM effectiveness (0,212), satisfaction of software (0,160), integration (0,169) implementations.

Satisfaction of marketing implementations is positively correlated with fitness for the customer habits (0,174).

Fitness for customer habits is positively correlated with satisfaction of determining customers (0,363), software (0,322) implementations, organizational change (0,289), satisfaction of business rules (0,269), integration (0,266) implementations, company politics (0,242), CRM effectiveness (0,238), satisfaction of BPR (0,191), customer privacy (0,176), marketing (0,174) implementations.

Customer loyalty is not correlated any variable.

5.1.4 Frequencies

According to the frequencies of external variables, most of the target population are agree with the effectiveness of alternative channels. According to medians, the customers strongly agree with the effectiveness of CRM, and about being loyal. They are agreeing

with the other variables positively and are satisfied with the performance of the terms that are measured.

5.2 BANK QUESTIONNAIRE

5.2.1 Questions

The sub-titles before the questions refer to the variable measured by that question and are not presented to the target population.

Customer
To which extent are the applications developed to ensure customer satisfaction?
What kinds of projects are held for customer retention and gaining new customers?
Customer Satisfaction and Quality
What are the criteria of determining the quality of the services and products?
What are the studies done about personnel contribution, being customer focused, benchmarking, and continuously improvement?
Customer Privacy
What are your methods of gaining information about the customers and to use this information?
Customer Loyalty
What are the studies about gaining and managing customer loyalty?
Customer Care and Service
What type of customer complaints and offerings are considered?
Contact Center
What are the performance evaluation factors?
Training for a Customer Service Mentality
What are the training programs about being customer focused?
Determining Customers
What are the criteria of customer segmentation?
Business Intelligence and Data Warehousing
Are business intelligence, data warehouse, and analytic CRM applications are used to design and market product packages for customer segments, if so, what are the methods used?
Meeting the Needs of Customers
What are the stages of determining the customer needs and delivering them satisfaction?
Customer Behavior
What are the studies about customer behavior analysis?
Business Rules
What are the studies of customization and personalization on channel menus?
Are the existing customization efforts are parallel with Türkiye İş Bankası work flows?
Software
What are the methods and criteria for updating channel software fast and in quality?
What are the studies of CRM information technologies?

During which stage is the information technologies are handled within the CRM plan?

Integration

What are the studies about inter-channel integration?

Organizational Change

Is the organizational structure redesigned and redeveloped to focus on the customers, if so, what are the studies done?

Business Process Reengineering

Because of which customer-oriented reasons the work flows are controlled and re-designed?

Company Politics

Which departments collaborate in developing and controlling CRM strategies?

What are the stages of generating customer focused strategies?

Marketing

What are the studies of Marketing Resource Management and other marketing efforts?

Sales Force Automation

Are you planning to use sales force?

E-Business

Are studies about security of e-business applications are held?

Operational CRM

Are operational CRM applications are used and by which departments?

Strategic Decision Making

In which stages of decision making the customers have the maximum priority?

5.2.2 Answers

The bank does not implement any conceptual CRM strategy. The CRM activities by alternative channels are developed by the Department of Customer Relations within the Department of Alternative Banking. Managing any customer demand or complaint is referred to as being customer focused and is the essence of any customer focused strategy development. Customer satisfaction is defined by means of enabling related departments to examine the customer comments in speed. The customer feedbacks are gathered in a single database and according to the distribution, percentages of the feedback subjects, the customer comments that will be handled first are considered. For retention of existing customers, some projects are due to implementation. In order to gain new customers for alternative channels, branch billboards, digital tabloids, and ATMs are used as advertisement tools. After the renewal of the internet site, a television advertisement campaign was conducted.

The main aim of the alternative channels is to serve customers continuously. Service quality and customer focus is held by the project groups. Project group evaluates the

customer feedback. The customer information are gathered from branches and used to conduct campaigns. For loyalty of customers, some projects are due to implementation. The performance of alternative channels are evaluated by number of customers, increase rates, monetary operation total, operation type, development in the customer profile. Training about customer-focused approaches are handled both by the bank and outsourcing companies. The customers are segmented according to being an individual or corporation, income structure, the use of channels, the use of products.

Business intelligence applications are developed by the bank, but applications to be used for developing customized products are not used. By using statistical methods the subjects that customers are in need are find out. After this stage, the project groups generate solutions to satisfy customers. The hardware and software support for these solutions are handled by Department of Software Development. These applications are tested by testing groups and after testing, the system is updated. The level of security to be determined by the customers by using any level of logging in the internet site and making their favorite ten operations reachable at any time are referred to as personalization efforts on the internet site. The paradox of software quality and speed is handled by making cost-benefit analysis and after this analysis; the software is developed by The Department of Software Development or is outsourced. The channels are integrated with each other to enable each operation made by any alternative channel to update the system online. The organizational structure is designed to serve continuously. By the contact center applications, the marketing campaign screen is opened when an appropriate customer for that campaign calls. A marketing group that calls customers about the campaigns that are conducted is considered as sales force.

6. CONCLUSIONS AND SUGGESTIONS

The variables for tools that are handled in most of CRM plans and other related variables were also decided as the variables of the thesis with the idea that any customer related approach should be an element of CRM considering that CRM is a systematic approach that gathers customer-oriented approaches together. These variables contain the elements that generate the effectiveness criteria of any CRM plan.

The values gather around positive answers. The customers mostly agree with the effectiveness of CRM. This situation should refer to the necessity of alternative banking channels.

All external variables are related to the CRM effectiveness and are gathered under three main factors by the names of fitness for the customers, ability to generate customized business, and marketing activities of the company and its customers. What is to be taken under consideration is the explanation power of these factors on the effectiveness of CRM. Some amount of the proportion of changes in the CRM effectiveness is explained by external variables. These factors cannot explain the 47,9 percent of the changes in CRM effectiveness and this would a reason for why most of the CRM implementations fail when only the popular CRM terms are being focused. The CRM elements that are gathered in any CRM plan cannot generate effectiveness by their own. Therefore, CRM effectiveness plans should be a part of a greater strategy.

By ongoing analysis, it is found out that the first factor of fitness for the customer measures the CRM effectiveness more consistently than the other two of ability to generate customized business, and marketing activities of the company and its customers. These results can be generalized and taken as the view of the target population. The results state that CRM is not a revolutionary approach that will change the concept of business. It is an evolution. The results also state that how Total Quality Management made that revolution by defining the quality in terms of customer, which is also found by this thesis as the main element of effectiveness.

Further analysis made me to define the CRM effectiveness by the first two factors of fitness for the customers and the ability to generate customized business. The third factor of marketing activities of the company and its customers, which contains the variables of marketing and customer loyalty, is extracted from the model. The first factor of fitness for the customer variables are satisfaction of customer care & service, satisfaction of determining customers implementations, organizational change, satisfaction of business process reengineering implementations, company politics, satisfaction of integration, business rules implementations respectively. The second factor is ability to generate customized business and its variables are satisfaction of customized business, software, fitness for customer habits, satisfaction of customer privacy implementations respectively. Both factors affect the CRM effectiveness positively, 0,50 and 0,178 times respectively. If these factors are greater, the more the effectiveness of Customer Relationship Management becomes.

The two most vital conclusions of parametrical analysis are:

1. CRM effectiveness cannot be explained by the use of CRM elements alone.
2. CRM strategies are part of greater strategies.

Another step of analyzing the data was the non parametrical analysis.

The demographical variables of the thesis are age, gender, income, industry, and position, none of which have any impact on CRM effectiveness, but education have. The positive comments about effectiveness of CRM increase if the education level increases.

Increasing CRM effectiveness depends on customers' satisfaction of software implementations and organizational change. Levels of evaluation of determining customers, business rules, organizational change, business process reengineering, company politics that determine the effectiveness standards are 5^{th} (Strongly Agree), 5^{th}, 4^{th} (Agree), 5^{th}, and 4^{th} levels, respectively. The banks should identify the needs of the segments that are in these satisfaction levels.

There are positive relations between satisfaction of customer determination and fitness for the customer habits. The lower the concerns about privacy are, the greater the Customer Relationship Management effectiveness becomes. The greater the customer care services are, the more adequately the customers are determined, the more adequately the business rules are applied to the channels, the greater the software efficiency is, the greater the integration is, the more the Customer Relationship Management effectiveness becomes. According to the test results organizational change, marketing and customer loyalty are not correlated to the CRM effectiveness.

The CRM effectiveness does not differ from business effectiveness. Customers do not relate themselves with the effectiveness criteria of CRM when evaluating the effectiveness. CRM effectiveness criteria should be defined by the customer segments and CRM should be defined differently for every company. Defining the CRM only according to a single business strategy of the company will result in making the same mistakes more effectively. Therefore, CRM strategies are to be customized on their own, the focal point should be to which extent these strategies resemble to the existing strategies of the company. In the case of Türkiye İş Bankası, CRM effectively fulfills corporate strategy. The customers are not much concerned about privacy, if they generate effective business through alternative channels. Customers are related to the fitness of the channels to themselves more than they are to anything.

CRM implementations should fit the business rules of the banks and should be customized for the customers to minimize their use of time while making operations. The banks should research and implement the most recent technologies to do so. Banks should generate privacy enabled inner politics for the importance of alternative channels. Banks should care and serve customers to fit their concept of banking by researching and implementing the most recent technologies. Software should be developed to let the customers deal with banking operations with attempts to fit their habits. All channels should fill in each other's missing properties to deliver superior customer care and service. Business processes should be reengineered and reengineering should be a definite part of bank politics. Banks should generate politics being eager to change and adapt state-of-the-art technologies. Marketing

activities should be generated to fit the customers habits. Customer behavior should be analyzed to develop a banking concept customized for them. Customer loyalty should be analyzed with care.

Customer relationship management for the banks should be defined as a whole of strategies to make the business fit to the expectations of the customers and to generate customized business. In a sector that has similar products, the services make the companies differ themselves from the others. The definite work to be done by the banks should be to keep themselves up to date with the expectations of customer segments and to analyze loyalty.

7. LIMITATIONS AND IMPLICATIONS

The answered questionnaire quantity may be increased regarding the sizes of the investigated categories to overcome validity situations.

8. SUGGESTIONS FOR FURTHER RESEARCH

CRM plans should not be focused on tools or elements of CRM, but the elements of effectiveness. Further research about business and managerial effectiveness will make my CRM definition and conclusions more detailed. Marketing activities of the companies and their customers should be investigated as well.

APPENDIX A: QUESTIONNAIRES

A.1 The customer questionnaire

This survey is prepared for my graduate thesis to be answered by the users of alternative banking channels of Türkiye İş Bankası, which are BankaMatik (ATMs), Internet Site, Phone Banking, Mobile Banking, KasaMatik and NetMatik. Please, answer all questions intimately. Thank you for your time.

1. I can manage all of my banking activities through alternative channels successfully in limited time.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

2. The recording of all my activities on alternative channels and the sharing of my transaction related or not-related activities do not disturb me.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

3. I do not talk about my satisfaction of alternative channels.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

4. The problems that I faced when using alternative channels are eagerly solved by Türkiye İş Bankası.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

5. The alternative channel services fit my concept of banking system.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

6. Being able to arrange the ingredients of my use of alternative channels minimizes the use of time related to all of my banking activities.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

7. Technical system does not let me to manage all my operations fast and secure.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

8. Each alternative channel fills in any missing properties of others.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

9. The bank researches and implements the most recent technologies.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

10. Every innovation on the alternative channels maximizes the problems I face and lengthens the operation period.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

11. I believe that the importance of alternative channels is realized by the bank.

Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○

12. The cost of alternative channels is not important.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

13. The alternative channel services fit my habits.

Strongly Agree	Agree	Disagree	Strongly Disagree
○	○	○	○

Age: .....

Gender:

Male	Female
○	○

Education:

Primary	Secondary	High	Undergraduate	Graduate
○	○	○	○	○

Net Monthly Income: .....

Industry: .....

Position:

Officer	Specialist	Auditor	Manager
○	○	○	○

Bu anket; yüksek lisans tezim kapsamında, sadece Türkiye İş Bankası interaktif bankacılık kanalları (BankaMatik, İnternet Bankacılığı, Telefon Bankacılığı, Mobil Bankacılık, KasaMatik, NetMatik) kullanıcıları tarafından cevaplanmak üzere düzenlenmiştir. Lütfen tüm soruları samimiyetle cevaplayınız. Zamanınızı ayırdığınızdan ötürü teşekkür ederim.

1. İnteraktif bankacılık kanalları tüm bankacılık işlemlerimi en kısa sürede başarılı şekilde yapmamı sağlıyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

2. İnteraktif bankacılık kanallarında yaptığım tüm aktivitelerin kaydının tutulmasından ve işlem dışı aktivitelerle, işlemlerime ait kayıtların kurum içinde paylaşılmasından rahatsızlık duymam.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

3. İnteraktif bankacılık kanalları hizmetlerinden duyduğum memnuniyeti çevremle paylaşmam.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

4. İnteraktif bankacılık kanallarında karşılaştığım sorunlar Türkiye İş Bankası tarafından yakından ilgilenilerek çözümleniyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

5. İnteraktif bankacılık hizmetleri aklımdaki bankacılık sistemine uygun.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

6. İnteraktif bankacılık kanalları içeriğini ihtiyaçlarıma göre düzenleyebilmem tüm bankacılık işlemlerime ayırdığım zamanı en yüksek derecede azaltıyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

7. İnteraktif bankacılık kanallarının teknik sistemi, tüm işlemlerimi hızlı ve güvenli şekilde gerçekleştirmeme olanak sağlamıyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

8. Her interaktif bankacılık kanalı diğer bir kanalın eksiklerini tamamlıyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

9. Banka yeni teknolojileri takip etmekte ve interaktif bankacılık kanallarında uygulamaktadır.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

10. İnteraktif bankacılık kanallarındaki her yenilik karşılaştığım sorunları artırıyor ve işlem sürecini uzatıyor.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

11. İnteraktif bankacılık kanallarının öneminin banka tarafından anlaşıldığına inanıyorum.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

12. İnteraktif bankacılık kanallarının kullanım maliyetini önemsiz buluyorum.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

13. İnteraktif bankacılık ürünleri alışkanlıklarıma uygun.

Kesinlikle Katılıyorum ○ Katılıyorum ○ Katılmıyorum ○ Kesinlikle Katılmıyorum ○

Yaş: .....

Cinsiyet: Bay ○ Bayan ○

Eğitim: İlkokul ○ Ortaokul ○ Lise ○ Üniversite ○ Yüksek Lisans ve Üstü ○

Net Aylık Gelir: .....

Çalıştığınız Sektör: .....

Çalıştığınız Şirketteki Pozisyonunuz: Memur ○ Uzman ○ Denetçi ○ Yönetici ○

A.2 The bank management questionnaire

To which extent are the applications developed to ensure customer satisfaction?
What kinds of projects are held for customer retention and gaining new customers?
What are the criteria of determining the quality of the services and products?
What are the studies done about personnel contribution, being customer focused, benchmarking, and continuously improvement?
What are your methods of gaining information about the customers and to use this information?
What are the studies about gaining and managing customer loyalty?
What type of customer complaints and offerings are considered?
What are the performance evaluation factors?
What are the training programs about being customer focused?
What are the criteria of customer segmentation?
Are business intelligence, data warehouse, and analytic CRM applications are used to design and market product packages for customer segments, if so, what are the methods used?
What are the stages of determining the customer needs and delivering them satisfaction?
What are the studies about customer behavior analysis?
What are the studies of customization and personalization on channel menus?
Are the existing customization efforts are parallel with Türkiye İş Bankası work flows?
What are the methods and criteria for updating channel software fast and in quality?
What are the studies of CRM information technologies?
During which stage is the information technologies are handled within the CRM plan?
What are the studies about inter-channel integration?
Is the organizational structure redesigned and redeveloped to focus on the customers, if so, what are the studies done?

Because of which customer-oriented reasons the work flows are controlled and re-designed?
Which departments collaborate in developing and controlling CRM strategies?
What are the stages of generating customer focused strategies?
What are the studies of Marketing Resource Management and other marketing efforts?
Are you planning to use sales force?
Are studies about security of e-business applications are held?
Are operational CRM applications are used and by which departments?
In which stages of decision making the customers have the maximum priority?

APPENDIX B: RESEARCH OUTPUTS

B.1 Factor analysis

Descriptive Statistics

	Mean	Std. Deviation(a)	Analysis N(a)	Missing N
customer privacy	3,23	1,384	100	0
customer loyalty (R)	4,40	,791	100	0
customer care and service	3,56	1,157	100	0
determining customers	3,84	1,070	100	0
business rules	4,14	,995	100	0
software (R)	3,28	1,288	100	0
integration	3,35	1,149	100	0
organizational change	3,94	,827	100	0
bpr (R)	3,93	,946	100	0
company politics	4,15	1,019	100	0
marketing	3,21	1,445	100	0
customer habits	4,17	,975	100	0

a For each variable, missing values are replaced with the variable mean.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,806
Bartlett's Test of Sphericity	**Approx. Chi-Square**	278,505
	df	66
	Sig.	,000

Communalities	
	Initial
customer privacy	1,000
customer loyalty (R)	1,000
customer care and service	1,000
determining customers	1,000
business rules	1,000
software (R)	1,000
integration	1,000
organizational change	1,000
bpr (R)	1,000
company politics	1,000
marketing	1,000
customer habits	1,000
Extraction Method: Principal Component Analysis.	

Total Variance Explained

Component	**Initial Eigenvalues**			**Rotation Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	3,850	32,087	32,087	3,061	25,512	25,512
2	1,232	10,269	42,356	1,979	16,493	42,005
3	1,161	9,674	52,030	1,203	10,025	52,030
4	,979	8,158	60,189			
5	,861	7,175	67,364			
6	,837	6,973	74,337			
7	,743	6,188	80,525			
8	,649	5,405	85,930			
9	,557	4,642	90,572			
10	,469	3,910	94,482			
11	,389	3,245	97,727			
12	,273	2,273	100,000			
Extraction Method: Principal Component Analysis.						

Component Matrix(a)
a 3 components extracted.

Rotated Component Matrix(a)			
	Component		
	1	**2**	**3**
customer care and service	,724	-,001	-,096
determining customers	,695	,443	-,027
organizational change	,695	,339	-,035
bpr (R)	,661	-,007	,161
company politics	,633	,320	-,156
integration	,572	,006	,206
business rules	,486	,313	,214
software (R)	-,042	,799	,102
customer habits	,378	,664	,094
customer privacy	,147	,555	-,119
customer loyalty (R)	,049	-,187	,724
marketing	,046	,215	,704
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a Rotation converged in 5 iterations.			

Component Transformation Matrix			
Component	**1**	**2**	**3**
1	,838	,540	,081
2	,397	-,705	,587
3	-,374	,460	,805
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

B.2 Reliability analysis

B.2.1 Reliability analysis of first factor

Case Processing Summary			
		N	%
Cases	Valid	100	100,0
	Excluded(a)	0	,0
	Total	100	100,0
a Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
,793	7

Item Statistics			
	Mean	Std. Deviation	N
customer care and service	3,56	1,157	100
determining customers	3,84	1,070	100
organizational change	3,94	,827	100
bpr (R)	3,93	,946	100
company politics	4,15	1,019	100
integration	3,35	1,149	100
business rules	4,14	,995	100

Item-Total Statistics				
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
customer care and service	23,35	16,755	,530	,765
determining customers	23,07	16,248	,663	,737
organizational change	22,97	17,888	,650	,749
bpr (R)	22,98	18,383	,473	,775
company politics	22,76	17,376	,553	,760
integration	23,56	17,946	,395	,793
business rules	22,77	18,381	,439	,781

Scale Statistics			
Mean	**Variance**	**Std. Deviation**	**N of Items**
26,91	23,113	4,808	7

B.2.2 Reliability analysis of second factor

Case Processing Summary			
		N	**%**
Cases	**Valid**	100	100,0
	Excluded(a)	0	,0
	Total	100	100,0
a Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	**N of Items**
,540	3

Item Statistics

	Mean	Std. Deviation	N
software (R)	3,28	1,288	100
customer habits	4,17	,975	100
customer privacy	3,23	1,384	100

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
software (R)	7,40	3,596	,371	,406
customer habits	6,51	4,414	,416	,380
customer privacy	7,45	3,583	,299	,544

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
10,68	7,068	2,659	3

B.2.3 Reliability analysis of third factor

Case Processing Summary

		N	%
Cases	**Valid**	100	100,0
	Excluded(a)	0	,0
	Total	100	100,0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,208	2

Item Statistics			
	Mean	**Std. Deviation**	**N**
customer loyalty (R)	4,40	,791	100
marketing	3,21	1,445	100

Item-Total Statistics				
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
customer loyalty (R)	3,21	2,087	,138	.(a)
marketing	4,40	,626	,138	.(a)
a The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.				

Scale Statistics			
Mean	**Variance**	**Std. Deviation**	**N of Items**
7,61	3,028	1,740	2

B.3 Multi regression analysis

Descriptive Statistics			
	Mean	**Std. Deviation**	**N**
crm effectiveness (CC)	4,37	,950	100
F1 Fitness for the Customer	26,91	4,808	100
F2 Ability to Generate Customized Business	10,68	2,659	100
F3 Marketing Activities of the Company and Its Customers	7,61	1,740	100

Correlations					
		crm effectiveness (CC)	**F1 Fitness for the Customer**	**F2 Ability to Generate Customized Business**	**F3 Marketing Activities of the Company and Its Customers**
Pearson Correlation	**crm effectiveness (CC)**	1,000	,576	,399	,045
	F1 Fitness for the Customer	,576	1,000	,447	,127
	F2 Ability to Generate Customized Business	,399	,447	1,000	,082
	F3 Marketing Activities of the Company and Its Customers	,045	,127	,082	1,000
Sig. (1-tailed)	**crm effectiveness (CC)**	.	,000	,000	,327
	F1 Fitness for the Customer	,000	.	,000	,103
	F2 Ability to Generate Customized Business	,000	,000	.	,209
	F3 Marketing Activities of the Company and Its Customers	,327	,103	,209	.
N	**crm effectiveness (CC)**	100	100	100	100
	F1 Fitness for the Customer	100	100	100	100
	F2 Ability to Generate Customized Business	100	100	100	100

	F3 Marketing Activities of the Company and Its Customers	100	100	100	100

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	F3 Marketing Activities of the Company and Its Customers, F2 Ability to Generate Customized Business, F1 Fitness for the Customer(a)	.	Enter

a All requested variables entered.

b Dependent Variable: crm effectiveness (CC)

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,598(a)	,358	,338	,773	2,017

a Predictors: (Constant), F3 Marketing Activities of the Company and Its Customers, F2 Ability to Generate Customized Business, F1 Fitness for the Customer

b Dependent Variable: crm effectiveness (CC)

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	31,956	3	10,652	17,830	,000(a)
	Residual	57,354	96	,597		
	Total	89,310	99			

a Predictors: (Constant), F3 Marketing Activities of the Company and Its Customers, F2 Ability to Generate Customized Business, F1 Fitness for the Customer

b Dependent Variable: crm effectiveness (CC)

Coefficients(a)						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	**(Constant)**	1,167	,541		2,157	,033
	F1 Fitness for the Customer	,099	,018	,500	5,443	,000
	F2 Ability to Generate Customized Business	,064	,033	,178	1,948	,054
	F3 Marketing Activities of the Company and Its Customers	-,018	,045	-,033	-,399	,691
a Dependent Variable: crm effectiveness (CC)						

Residuals Statistics(a)					
	Minimum	**Maximum**	**Mean**	**Std. Deviation**	**N**
Predicted Value	1,94	5,30	4,37	,568	100
Residual	-2,706	1,753	,000	,761	100
Std. Predicted Value	-4,274	1,642	,000	1,000	100
Std. Residual	-3,501	2,268	,000	,985	100
a Dependent Variable: crm effectiveness (CC)					

Descriptive Statistics			
	Mean	**Std. Deviation**	**N**
crm effectiveness (CC)	4,37	,950	100
F1 Fitness for the Customer	26,91	4,808	100
F2 Ability to Generate Customized Business	10,68	2,659	100

Correlations				
		crm effectiveness (CC)	**F1 Fitness for the Customer**	**F2 Ability to Generate Customized Business**
Pearson Correlation	**crm effectiveness (CC)**	1,000	,576	,399
	F1 Fitness for the Customer	,576	1,000	,447
	F2 Ability to Generate Customized Business	,399	,447	1,000
Sig. (1-tailed)	**crm effectiveness (CC)**	.	,000	,000
	F1 Fitness for the Customer	,000	.	,000
	F2 Ability to Generate Customized Business	,000	,000	.
N	**crm effectiveness (CC)**	100	100	100
	F1 Fitness for the Customer	100	100	100
	F2 Ability to Generate Customized Business	100	100	100

Variables Entered/Removed(b)			
Model	**Variables Entered**	**Variables Removed**	**Method**
1	F2 Ability to Generate Customized Business, F1 Fitness for the Customer(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: crm effectiveness (CC)			

Model Summary(b)					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	,597(a)	,357	,343	,770	2,026
a Predictors: (Constant), F2 Ability to Generate Customized Business, F1 Fitness for the Customer					
b Dependent Variable: crm effectiveness (CC)					

ANOVA(b)						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	31,861	2	15,931	26,898	,000(a)
	Residual	57,449	97	,592		
	Total	89,310	99			
a Predictors: (Constant), F2 Ability to Generate Customized Business, F1 Fitness for the Customer						
b Dependent Variable: crm effectiveness (CC)						

Coefficients(a)						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	**(Constant)**	1,054	,459		2,297	,024
	F1 Fitness for the Customer	,098	,018	,497	5,454	,000
	F2 Ability to Generate Customized Business	,063	,033	,177	1,946	,055
a Dependent Variable: crm effectiveness (CC)						

Residuals Statistics(a)					
	Minimum	**Maximum**	**Mean**	**Std. Deviation**	**N**
Predicted Value	1,93	5,34	4,37	,567	100
Residual	-2,728	1,702	,000	,762	100
Std. Predicted Value	-4,300	1,708	,000	1,000	100
Std. Residual	-3,545	2,212	,000	,990	100
a Dependent Variable: crm effectiveness (CC)					

B.4 Analysis of variance

B.4.1 Age

1: (min-29) 2: (30-max)

Descriptives crm effectiveness (CC)								
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
					Lower Bound	**Upper Bound**		
1	49	4,27	1,036	,148	3,97	4,56	1	5
2	51	4,47	,857	,120	4,23	4,71	2	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances crm effectiveness (CC)			
Levene Statistic	**df1**	**df2**	**Sig.**
,467	1	98	,496

ANOVA crm effectiveness (CC)					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	1,053	1	1,053	1,169	,282
Within Groups	88,257	98	,901		
Total	89,310	99			

B.4.2 Education

1: undergraduate, 2: graduate, 3: other

Descriptives crm effectiveness (CC)								
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
					Lower Bound	**Upper Bound**		
1	52	4,50	,918	,127	4,24	4,76	1	5
2	45	4,18	,984	,147	3,88	4,47	2	5
3	3	5,00	,000	,000	5,00	5,00	5	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances crm effectiveness (CC)			
Levene Statistic	**df1**	**df2**	**Sig.**
1,884	2	97	,158

ANOVA crm effectiveness (CC)					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	3,732	2	1,866	2,115	,126
Within Groups	85,578	97	,882		
Total	89,310	99			

Post Hoc Tests

Multiple Comparisons
Dependent Variable: crm effectiveness (CC)
Scheffe

(I) education (nominal)	(J) education (nominal)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	,322	,191	,247	-,15	,80
	3	-,500	,558	,670	-1,89	,89
2	1	-,322	,191	,247	-,80	,15
	3	-,822	,560	,344	-2,21	,57
3	1	,500	,558	,670	-,89	1,89
	2	,822	,560	,344	-,57	2,21

Homogeneous Subsets

crm effectiveness (CC)
Scheffe

education (nominal)	N	Subset for alpha = .05
		1
2	45	4,18
1	52	4,50
3	3	5,00
Sig.		,221

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 8,005.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

B.4.3 Gender

1: male, 2: female

Descriptives crm effectiveness (CC)								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	66	4,36	1,032	,127	4,11	4,62	1	5
2	34	4,38	,779	,134	4,11	4,65	2	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances crm effectiveness (CC)			
Levene Statistic	df1	df2	Sig.
1,402	1	98	,239

ANOVA crm effectiveness (CC)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,008	1	,008	,009	,926
Within Groups	89,302	98	,911		
Total	89,310	99			

B.4.4 Industry

Descriptives crm effectiveness (CC)								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
	6	4,00	1,549	,632	2,37	5,63	1	5
advertisement	2	4,50	,707	,500	-1,85	10,85	4	5
architecture	1	5,00	.	.	.	.	5	5
art design	1	5,00	.	.	.	.	5	5
automotive	6	4,83	,408	,167	4,40	5,26	4	5
business machinery	1	5,00	.	.	.	.	5	5
chemicals	7	4,57	,535	,202	4,08	5,07	4	5
commerce	3	3,00	1,732	1,000	-1,30	7,30	2	5
construction	3	4,00	,000	,000	4,00	4,00	4	4
education	20	4,40	,754	,169	4,05	4,75	2	5
electronics	1	5,00	.	.	.	.	5	5
finance	6	4,17	1,169	,477	2,94	5,39	2	5
food	7	4,43	1,134	,429	3,38	5,48	2	5
furniture	1	5,00	.	.	.	.	5	5
government	1	4,00	.	.	.	.	4	4
health	1	2,00	.	.	.	.	2	2
information technologies	10	4,60	,966	,306	3,91	5,29	2	5
logistics	1	5,00	.	.	.	.	5	5
marketing	1	5,00	.	.	.	.	5	5
oil	1	1,00	.	.	.	.	1	1
production	6	4,67	,516	,211	4,12	5,21	4	5
research	3	4,33	,577	,333	2,90	5,77	4	5
services	2	5,00	,000	,000	5,00	5,00	5	5

student	3	4,00	,000	,000	4,00	4,00	4	4
telecommunications	6	4,50	,548	,224	3,93	5,07	4	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances
crm effectiveness (CC)

Levene Statistic	df1	df2	Sig.
1,817(a)	14	75	,051

a Groups with only one case are ignored in computing the test of homogeneity of variance for crm effectiveness (CC).

ANOVA
crm effectiveness (CC)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31,015	24	1,292	1,663	,050
Within Groups	58,295	75	,777		
Total	89,310	99			

B.4.5 Monthly income

1: (min-1000) 2: (1001-2000) 3: (2001-3000) 4: (3001-max)

Descriptives
crm effectiveness (CC)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	32	4,53	,507	,090	4,35	4,71	4	5
2	48	4,21	1,202	,174	3,86	4,56	1	5
3	14	4,43	,852	,228	3,94	4,92	2	5
4	6	4,67	,516	,211	4,12	5,21	4	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances crm effectiveness (CC)			
Levene Statistic	**df1**	**df2**	**Sig.**
4,271	3	96	,007

ANOVA crm effectiveness (CC)					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	2,663	3	,888	,983	,404
Within Groups	86,647	96	,903		
Total	89,310	99			

Post Hoc Tests

Multiple Comparisons
Dependent Variable: crm effectiveness (CC)
Scheffe

(I) income (nominal)	(J) income (nominal)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	,323	,217	,531	-,29	,94
	3	,103	,304	,990	-,76	,97
	4	-,135	,423	,991	-1,34	1,07
2	1	-,323	,217	,531	-,94	,29
	3	-,220	,289	,900	-1,04	,60
	4	-,458	,411	,743	-1,63	,71
3	1	-,103	,304	,990	-,97	,76
	2	,220	,289	,900	-,60	1,04
	4	-,238	,464	,967	-1,56	1,08
4	1	,135	,423	,991	-1,07	1,34
	2	,458	,411	,743	-,71	1,63
	3	,238	,464	,967	-1,08	1,56

Homogeneous Subsets

crm effectiveness (CC) Scheffe		
income (nominal)	**N**	**Subset for alpha = .05**
		1
2	48	4,21
3	14	4,43
1	32	4,53
4	6	4,67
Sig.		,660
Means for groups in homogeneous subsets are displayed.		
a Uses Harmonic Mean Sample Size = 13,785.		
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.		

B.4.6 Position

1: officer 2:specialist 3:manager

Descriptives crm effectiveness (CC)								
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
					Lower Bound	**Upper Bound**		
1	14	4,57	,852	,228	4,08	5,06	2	5
2	61	4,36	,967	,124	4,11	4,61	1	5
3	25	4,28	,980	,196	3,88	4,68	2	5
Total	100	4,37	,950	,095	4,18	4,56	1	5

Test of Homogeneity of Variances crm effectiveness (CC)			
Levene Statistic	**df1**	**df2**	**Sig.**
,217	2	97	,805

ANOVA crm effectiveness (CC)					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	,776	2	,388	,425	,655
Within Groups	88,534	97	,913		
Total	89,310	99			

Post Hoc Tests

Multiple Comparisons Dependent Variable: crm effectiveness (CC) Scheffe						
(I) position	**(J) position**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
1	**2**	,211	,283	,759	-,49	,91
	3	,291	,319	,660	-,50	1,08
2	**1**	-,211	,283	,759	-,91	,49
	3	,081	,227	,939	-,48	,64
3	**1**	-,291	,319	,660	-1,08	,50
	2	-,081	,227	,939	-,64	,48

Homogeneous Subsets

crm effectiveness (CC) Scheffe		
position	**N**	**Subset for alpha = .05**
		1
3	25	4,28
2	61	4,36
1	14	4,57
Sig.		,581
Means for groups in homogeneous subsets are displayed.		
a Uses Harmonic Mean Sample Size = 23,470.		
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.		

B.5 Analysis of association measures

B.5.1 Age

1: (min-29) 2: (30-max)

Correlations			
		crm effectiveness (CC)	**age**
crm effectiveness (CC)	**Pearson Correlation**	1	,063
	Sig. (2-tailed)		,532
	N	100	100
Age	**Pearson Correlation**	,063	1
	Sig. (2-tailed)	,532	
	N	100	100

B.5.2 Education

1: undergraduate, 2: graduate, 3: other

Correlations				
			crm effectiveness (CC)	**education**
Kendall's tau_b	**crm effectiveness (CC)**	**Correlation Coefficient**	1,000	-,237(*)
		Sig. (2-tailed)	.	,013
		N	100	100
	education	**Correlation Coefficient**	-,237(*)	1,000
		Sig. (2-tailed)	,013	.
		N	100	100
Spearman's rho	**crm effectiveness (CC)**	**Correlation Coefficient**	1,000	-,249(*)
		Sig. (2-tailed)	.	,013
		N	100	100
	education	**Correlation Coefficient**	-,249(*)	1,000
		Sig. (2-tailed)	,013	.
		N	100	100
* Correlation is significant at the 0.05 level (2-tailed).				

B.5.3 Gender

1: male, 2: female

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
gender * crm effectiveness (CCC)	100	100,0%	0	,0%	100	100,0%

gender * crm effectiveness (CCC) Crosstabulation
Count

		crm effectiveness (CCC)		Total
		1	2	
gender	**1**	26	40	66
	2	17	17	34
Total		43	57	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1,030(b)	1	,310		
Continuity Correction(a)	,643	1	,423		
Likelihood Ratio	1,026	1	,311		
Fisher's Exact Test				,394	,211
Linear-by-Linear Association	1,020	1	,313		
N of Valid Cases	100				

a Computed only for a 2x2 table

b 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,62.

Symmetric Measures			
		Value	**Approx. Sig.**
Nominal by Nominal	**Phi**	-,101	,310
	Cramer's V	,101	,310
N of Valid Cases		100	
a Not assuming the null hypothesis.			
b Using the asymptotic standard error assuming the null hypothesis.			

B.5.4 Industry

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
industry * crm effectiveness (CCC)	100	100,0%	0	,0%	100	100,0%

industry * crm effectiveness (CCC) Crosstabulation Count				
		crm effectiveness (CCC)		Total
		1	2	
industry		3	3	6
	advertisement	1	1	2
	architecture	0	1	1
	art design	0	1	1
	automotive	1	5	6
	business machinery	0	1	1
	chemicals	3	4	7
	commerce	2	1	3
	construction	3	0	3
	education	10	10	20
	electronics	0	1	1
	finance	3	3	6
	food	2	5	7
	furniture	0	1	1
	government	1	0	1
	health	1	0	1
	information technologies	2	8	10
	logistics	0	1	1
	marketing	0	1	1
	oil	1	0	1
	production	2	4	6
	research	2	1	3
	services	0	2	2
	student	3	0	3
	telecommunications	3	3	6
Total		43	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	25,570(a)	24	,375
Likelihood Ratio	32,584	24	,113
N of Valid Cases	100		
a 47 cells (94,0%) have expected count less than 5. The minimum expected count is ,43.			

Symmetric Measures			
		Value	**Approx. Sig.**
Nominal by Nominal	**Phi**	,506	,375
	Cramer's V	,506	,375
N of Valid Cases		100	
a Not assuming the null hypothesis.			
b Using the asymptotic standard error assuming the null hypothesis.			

B.5.5 Monthly income

1: (min-1000) 2: (1001-2000) 3: (2001-3000) 4: (3001-max)

Correlations			
		crm effectiveness (CC)	**monthlyincome**
crm effectiveness (CC)	**Pearson Correlation**	1	,038
	Sig. (2-tailed)		,706
	N	100	100
monthlyincome	**Pearson Correlation**	,038	1
	Sig. (2-tailed)	,706	
	N	100	100

B.5.6 Position

1: officer 2:specialist 3:manager

Correlations				
			crm effectiveness (CC)	**position**
Kendall's tau_b	**crm effectiveness (CC)**	**Correlation Coefficient**	1,000	-,098
		Sig. (2-tailed)	.	,294
		N	100	100
	position	**Correlation Coefficient**	-,098	1,000
		Sig. (2-tailed)	,294	.
		N	100	100
Spearman's rho	**crm effectiveness (CC)**	**Correlation Coefficient**	1,000	-,105
		Sig. (2-tailed)	.	,298
		N	100	100
	position	**Correlation Coefficient**	-,105	1,000
		Sig. (2-tailed)	,298	.
		N	100	100

B.6 Goddness of Fit (Chi Square Analysis)

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
customer privacy	100	3,23	1,384	1	5	2,00	4,00	4,00
customer loyalty (R)	100	4,40	,791	2	5	4,00	5,00	5,00
customer care and service	100	3,56	1,157	1	5	2,00	4,00	4,00
determining customers	100	3,84	1,070	1	5	4,00	4,00	4,00
business rules	100	4,14	,995	1	5	4,00	4,00	5,00
software (R)	100	3,28	1,288	1	5	2,00	4,00	4,00
integration	100	3,35	1,149	1	5	2,00	4,00	4,00
bpr (R)	100	3,93	,946	1	5	4,00	4,00	4,00
company politics	100	4,15	1,019	1	5	4,00	4,00	5,00
marketing	100	3,21	1,445	1	5	2,00	4,00	4,00
cutomer "	100	4,17	,975	1	5	4,00	4,00	5,00
organizational change	100	3,94	,827	1	5	4,00	4,00	4,00

Chi-Square Test

Frequencies

customer privacy			
	Observed N	Expected N	Residual
1	12	20,0	-8,0
2	30	20,0	10,0
3	1	20,0	-19,0
4	37	20,0	17,0
5	20	20,0	,0
Total	100		

customer loyalty (R)			
	Observed N	**Expected N**	**Residual**
2	6	25,0	-19,0
3	1	25,0	-24,0
4	40	25,0	15,0
5	53	25,0	28,0
Total	100		

customer care and service			
	Observed N	**Expected N**	**Residual**
1	4	20,0	-16,0
2	23	20,0	3,0
3	5	20,0	-15,0
4	49	20,0	29,0
5	19	20,0	-1,0
Total	100		

determining customers			
	Observed N	**Expected N**	**Residual**
1	5	25,0	-20,0
2	12	25,0	-13,0
4	60	25,0	35,0
5	23	25,0	-2,0
Total	100		

business rules			
	Observed N	**Expected N**	**Residual**
1	2	20,0	-18,0
2	10	20,0	-10,0
3	1	20,0	-19,0
4	46	20,0	26,0
5	41	20,0	21,0

Total	100		

software (R)			
	Observed N	**Expected N**	**Residual**
1	11	25,0	-14,0
2	26	25,0	1,0
4	50	25,0	25,0
5	13	25,0	-12,0
Total	100		

integration			
	Observed N	**Expected N**	**Residual**
1	5	20,0	-15,0
2	29	20,0	9,0
3	2	20,0	-18,0
4	54	20,0	34,0
5	10	20,0	-10,0
Total	100		

bpr (R)			
	Observed N	**Expected N**	**Residual**
1	3	25,0	-22,0
2	10	25,0	-15,0
4	65	25,0	40,0
5	22	25,0	-3,0
Total	100		

company politics			
	Observed N	**Expected N**	**Residual**
1	2	25,0	-23,0
2	11	25,0	-14,0
4	44	25,0	19,0

5	43	25,0	18,0
Total	100		

marketing			
	Observed N	**Expected N**	**Residual**
1	18	25,0	-7,0
2	22	25,0	-3,0
4	41	25,0	16,0
5	19	25,0	-6,0
Total	100		

customer habits			
	Observed N	**Expected N**	**Residual**
1	2	20,0	-18,0
2	9	20,0	-11,0
3	1	20,0	-19,0
4	46	20,0	26,0
5	42	20,0	22,0

Total	100		

organizational change

	Observed N	Expected N	Residual
1	1	20,0	-19,0
2	10	20,0	-10,0
3	1	20,0	-19,0
4	70	20,0	50,0
5	18	20,0	-2,0
Total	100		

Test Statistics

	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	bpr (R)	company politics	marketing	customer habits	organizational change
Chi-Square(a,b)	40,700	77,840	66,600	71,920	95,100	38,640	94,300	92,720	56,400	14,000	98,300	166,300
df	4	3	4	3	4	3	4	3	3	3	4	4
Asymp. Sig.	,000	,000	,000	,000	,000	,000	,000	,000	,000	,003	,000	,000

a 0 cells (,0%) have expected frequencies less than 5. The minimum expected cell frequency is 20,0.

b 0 cells (,0%) have expected frequencies less than 5. The minimum expected cell frequency is 25,0.

B.7 Test of Freedom (Chi Square Test)

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customer privacy * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

customer privacy * crm effectiveness (CC) Crosstabulation
Count

		crm effectiveness (CC)				Total
		1	2	4	5	
customer privacy	1	1	3	3	5	12
	2	1	2	12	15	30
	3	0	0	1	0	1
	4	0	2	13	22	37
	5	0	0	5	15	20
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15,871(a)	12	,197
Likelihood Ratio	15,304	12	,225
Linear-by-Linear Association	9,112	1	,003
N of Valid Cases	100		

a 13 cells (65,0%) have expected count less than 5. The minimum expected count is ,02.

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,303	,090	3,152	,002(c)
Ordinal by Ordinal	**Spearman Correlation**	,256	,096	2,624	,010(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerprivacy * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customerprivacy * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
customerprivacy	**1,00**	4	3	5	12
	2,00	3	12	15	30
	3,00	0	1	0	1
	4,00	2	13	22	37
	5,00	0	5	15	20
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	15,224(a)	8	,055
Likelihood Ratio	14,087	8	,080
Linear-by-Linear Association	7,568	1	,006
N of Valid Cases	100		
a 8 cells (53,3%) have expected count less than 5. The minimum expected count is ,09.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,276	,096	2,848	,005(c)
Ordinal by Ordinal	**Spearman Correlation**	,255	,096	2,612	,010(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerprivacy * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customerprivacy * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
customerprivacy	1,00	7	16	20	43
	2,00	2	13	22	37
	3,00	0	5	15	20
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7,489(a)	4	,112
Likelihood Ratio	8,881	4	,064
Linear-by-Linear Association	6,790	1	,009
N of Valid Cases	100		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,80.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,262	,084	2,686	,008(c)
Ordinal by Ordinal	Spearman Correlation	,245	,092	2,500	,014(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customerprivacy * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

customerprivacy * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
customerprivacy	**1,00**	16	20	36
	2,00	13	22	35
	3,00	5	15	20
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,078(a)	2	,354
Likelihood Ratio	2,142	2	,343
Linear-by-Linear Association	2,004	1	,157
N of Valid Cases	91		
a 0 cells (,0%) have expected count less than 5. The minimum expected count is 7,47.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,149	,101	1,424	,158(c)
Ordinal by Ordinal	**Spearman Correlation**	,147	,102	1,401	,165(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customer loyalty (R) * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

customer loyalty (R) * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				**Total**
		1	**2**	**4**	**5**	
customer loyalty (R)	**2**	0	1	3	2	6
	3	0	0	0	1	1
	4	0	1	18	21	40
	5	2	5	13	33	53
Total		2	7	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	9,178(a)	9	,421
Likelihood Ratio	10,469	9	,314
Linear-by-Linear Association	,026	1	,873
N of Valid Cases	100		
a 12 cells (75,0%) have expected count less than 5. The minimum expected count is ,02.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,016	,110	,160	,873(c)
Ordinal by Ordinal	**Spearman Correlation**	,075	,102	,748	,456(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerloyalty * crmeffectviness	100	100,0%	0	,0%	100	100,0%

customerloyalty * crmeffectviness Crosstabulation Count					
		crmeffectviness			Total
		1,00	2,00	3,00	
customerloyalty	1,00	1	3	2	6
	2,00	0	0	1	1
	3,00	1	18	21	40
	4,00	7	13	33	53
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8,330(a)	6	,215
Likelihood Ratio	9,310	6	,157
Linear-by-Linear Association	,537	1	,464
N of Valid Cases	100		
a 8 cells (66,7%) have expected count less than 5. The minimum expected count is ,09.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,074	,108	,731	,467(c)
Ordinal by Ordinal	Spearman Correlation	,077	,102	,766	,445(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customerloyalty * crmeffectviness	100	100,0%	0	,0%	100	100,0%

customerloyalty * crmeffectviness Crosstabulation Count					
		crmeffectviness			Total
		1,00	2,00	3,00	
customerloyalty	1,00	1	3	3	7
	2,00	1	18	21	40
	3,00	7	13	33	53
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6,767(a)	4	,149
Likelihood Ratio	7,387	4	,117
Linear-by-Linear Association	,219	1	,640
N of Valid Cases	100		
a 5 cells (55,6%) have expected count less than 5. The minimum expected count is ,63.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,047	,105	,466	,642(c)
Ordinal by Ordinal	**Spearman Correlation**	,076	,102	,751	,455(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerloyalty * crmeffectviness	91	100,0%	0	,0%	91	100,0%

customerloyalty * crmeffectviness Crosstabulation Count				
		crmeffectviness		**Total**
		1,00	**2,00**	
customerloyalty	**1,00**	3	3	6
	2,00	18	21	39
	3,00	13	33	46
Total		34	57	91

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	3,326(a)	2	,190
Likelihood Ratio	3,347	2	,188
Linear-by-Linear Association	3,003	1	,083
N of Valid Cases	91		
a 2 cells (33,3%) have expected count less than 5. The minimum expected count is 2,24.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,183	,104	1,753	,083(c)
Ordinal by Ordinal	**Spearman Correlation**	,189	,103	1,821	,072(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerloyalty * crmeffectviness	85	100,0%	0	,0%	85	100,0%

customerloyalty * crmeffectviness Crosstabulation Count				
		crmeffectviness		**Total**
		1,00	**2,00**	
customerloyalty	**1,00**	18	21	39
	2,00	13	33	46
Total		31	54	85

Chi-Square Tests					
	Value	**df**	**Asymp. Sig. (2-sided)**	**Exact Sig. (2-sided)**	**Exact Sig. (1-sided)**
Pearson Chi-Square	2,916(b)	1	,088		
Continuity Correction(a)	2,195	1	,138		
Likelihood Ratio	2,922	1	,087		
Fisher's Exact Test				,115	,069
Linear-by-Linear Association	2,882	1	,090		
N of Valid Cases	85				
a Computed only for a 2x2 table					
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 14,22.					

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,185	,107	1,717	,090(c)
Ordinal by Ordinal	**Spearman Correlation**	,185	,107	1,717	,090(c)
N of Valid Cases		85			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customer care and service * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

customer care and service * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
customer care and service	1	1	1	0	2	4
	2	1	3	7	12	23
	3	0	2	1	2	5
	4	0	0	21	28	49
	5	0	1	5	13	19
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31,027(a)	12	,002
Likelihood Ratio	24,660	12	,017
Linear-by-Linear Association	8,708	1	,003
N of Valid Cases	100		
a 14 cells (70,0%) have expected count less than 5. The minimum expected count is ,08.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,297	,110	3,074	,003(c)
Ordinal by Ordinal	Spearman Correlation	,181	,104	1,823	,071(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customercareandservice * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customercareandservice * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
customercareandservice	1,00	2	0	2	4
	2,00	4	7	12	23
	3,00	2	1	2	5
	4,00	0	21	28	49
	5,00	1	5	13	19
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23,326(a)	8	,003
Likelihood Ratio	22,397	8	,004
Linear-by-Linear Association	5,092	1	,024
N of Valid Cases	100		
a 9 cells (60,0%) have expected count less than 5. The minimum expected count is ,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,227	,109	2,305	,023(c)
Ordinal by Ordinal	**Spearman Correlation**	,179	,104	1,803	,075(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customercareandservice * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customercareandservice * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
customercareandservice	**1,00**	8	8	16	32
	2,00	0	21	28	49
	3,00	1	5	13	19
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	16,740(a)	4	,002
Likelihood Ratio	18,211	4	,001
Linear-by-Linear Association	4,900	1	,027
N of Valid Cases	100		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,71.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,222	,103	2,259	,026(c)
Ordinal by Ordinal	**Spearman Correlation**	,185	,103	1,864	,065(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customercareandservice * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

customercareandservice * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
customercareandservice	1,00	8	16	24
	2,00	21	28	49
	3,00	5	13	18
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,505(a)	2	,471
Likelihood Ratio	1,528	2	,466
Linear-by-Linear Association	,058	1	,809
N of Valid Cases	91		
a 0 cells (,0%) have expected count less than 5. The minimum expected count is 6,73.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,025	,101	,240	,811(c)
Ordinal by Ordinal	Spearman Correlation	,022	,102	,203	,840(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
determining customers * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

determining customers * crm effectiveness (CC) Crosstabulation
Count

		crm effectiveness (CC)				Total
		1	2	4	5	
determining customers	1	2	2	0	1	5
	2	0	3	5	4	12
	4	0	2	22	36	60
	5	0	0	7	16	23
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	59,326(a)	9	,000
Likelihood Ratio	31,111	9	,000
Linear-by-Linear Association	27,366	1	,000
N of Valid Cases	100		
a 11 cells (68,8%) have expected count less than 5. The minimum expected count is ,10.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,526	,106	6,119	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,322	,100	3,361	,001(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
determiningcustomers * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

determiningcustomers * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
determiningcustomers	**1,00**	4	0	1	5
	2,00	3	5	4	12
	3,00	2	22	36	60
	4,00	0	7	16	23
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	40,860(a)	6	,000
Likelihood Ratio	27,122	6	,000
Linear-by-Linear Association	17,646	1	,000
N of Valid Cases	100		
a 6 cells (50,0%) have expected count less than 5. The minimum expected count is ,45.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,422	,103	4,610	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,320	,099	3,341	,001(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
determiningcustomers * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

determiningcustomers * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
determiningcustomers	1,00	7	5	5	17
	2,00	2	22	36	60
	3,00	0	7	16	23
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27,085(a)	4	,000
Likelihood Ratio	21,089	4	,000
Linear-by-Linear Association	13,290	1	,000
N of Valid Cases	100		
a 2 cells (22,2%) have expected count less than 5. The minimum expected count is 1,53.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,366	,093	3,898	,000(c)
Ordinal by Ordinal	Spearman Correlation	,312	,098	3,252	,002(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
determiningcustomers * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

determiningcustomers * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
determiningcustomers	**1,00**	5	5	10
	2,00	22	36	58
	3,00	7	16	23
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,162(a)	2	,559
Likelihood Ratio	1,154	2	,562
Linear-by-Linear Association	1,108	1	,293
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,74.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,111	,104	1,053	,295(c)
Ordinal by Ordinal	**Spearman Correlation**	,109	,104	1,037	,302(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
business rules * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

business rules * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				**Total**
		1	**2**	**4**	**5**	
business rules	**1**	1	1	0	0	2
	2	0	2	5	3	10
	3	0	0	1	0	1
	4	1	4	17	24	46
	5	0	0	11	30	41
Total		2	7	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	43,423(a)	12	,000
Likelihood Ratio	26,997	12	,008
Linear-by-Linear Association	19,774	1	,000
N of Valid Cases	100		
a 15 cells (75,0%) have expected count less than 5. The minimum expected count is ,02.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,447	,106	4,946	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,367	,089	3,911	,000(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
businessrules * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

businessrules * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
businessrules	1,00	2	0	0	2
	2,00	2	5	3	10
	3,00	0	1	0	1
	4,00	5	17	24	46
	5,00	0	11	30	41
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32,216(a)	8	,000
Likelihood Ratio	25,238	8	,001
Linear-by-Linear Association	17,493	1	,000
N of Valid Cases	100		
a 10 cells (66,7%) have expected count less than 5. The minimum expected count is ,09.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,420	,095	4,586	,000(c)
Ordinal by Ordinal	Spearman Correlation	,367	,089	3,907	,000(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
businessrules * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

businessrules * crmeffectiveness Crosstabulation
Count

		crmeffectiveness			Total
		1,00	2,00	3,00	
businessrules	1,00	4	6	3	13
	2,00	5	17	24	46
	3,00	0	11	30	41
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16,710(a)	4	,002
Likelihood Ratio	18,326	4	,001
Linear-by-Linear Association	15,394	1	,000
N of Valid Cases	100		

a 4 cells (44,4%) have expected count less than 5. The minimum expected count is 1,17.

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,394	,084	4,248	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,363	,088	3,858	,000(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
businessrules * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

businessrules * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		**Total**
		1,00	**2,00**	
businessrules	**1,00**	6	3	9
	2,00	17	24	41
	3,00	11	30	41
Total		34	57	91

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	5,541(a)	2	,063
Likelihood Ratio	5,494	2	,064
Linear-by-Linear Association	5,277	1	,022
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,242	,102	2,355	,021(c)
Ordinal by Ordinal	**Spearman Correlation**	,233	,102	2,256	,027(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
software (R) * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

software (R) * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
software (R)	1	2	1	3	5	11
	2	0	2	12	12	26
	4	0	4	17	29	50
	5	0	0	2	11	13
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22,393(a)	9	,008
Likelihood Ratio	16,008	9	,067
Linear-by-Linear Association	6,339	1	,012
N of Valid Cases	100		
a 10 cells (62,5%) have expected count less than 5. The minimum expected count is ,22.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,253	,103	2,589	,011(c)
Ordinal by Ordinal	Spearman Correlation	,243	,095	2,485	,015(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
software * crmeffectiveness	90	100,0%	0	,0%	90	100,0%

software * crmeffectiveness Crosstabulation
Count

		crmeffectiveness			Total
		1,00	2,00	3,00	
software	1,00	3	3	5	11
	2,00	2	12	2	16
	3,00	4	17	29	50
	4,00	0	2	11	13
Total		9	34	47	90

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20,848(a)	6	,002
Likelihood Ratio	22,052	6	,001
Linear-by-Linear Association	10,393	1	,001
N of Valid Cases	90		

a 5 cells (41,7%) have expected count less than 5. The minimum expected count is 1,10.

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,342	,102	3,411	,001(c)
Ordinal by Ordinal	**Spearman Correlation**	,372	,093	3,764	,000(c)
N of Valid Cases		90			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
software * crmeffectiveness	90	100,0%	0	,0%	90	100,0%

software * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
software	**1,00**	5	15	7	27
	2,00	4	17	29	50
	3,00	0	2	11	13
Total		9	34	47	90

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	14,139(a)	4	,007
Likelihood Ratio	15,671	4	,003
Linear-by-Linear Association	13,094	1	,000
N of Valid Cases	90		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,30.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,384	,083	3,896	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,395	,087	4,037	,000(c)
N of Valid Cases		90			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
software * crmeffectiveness	81	100,0%	0	,0%	81	100,0%

software * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
software	1,00	15	7	22
	2,00	17	29	46
	3,00	2	11	13
Total		34	47	81

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10,453(a)	2	,005
Likelihood Ratio	10,908	2	,004
Linear-by-Linear Association	10,144	1	,001
N of Valid Cases	81		
a 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,46.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,356	,096	3,387	,001(c)
Ordinal by Ordinal	Spearman Correlation	,358	,097	3,409	,001(c)
N of Valid Cases		81			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
integration * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

integration * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
integration	1	1	1	2	1	5
	2	1	3	10	15	29
	3	0	0	1	1	2
	4	0	2	18	34	54
	5	0	1	3	6	10
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14,474(a)	12	,271
Likelihood Ratio	10,655	12	,559
Linear-by-Linear Association	6,203	1	,013
N of Valid Cases	100		
a 15 cells (75,0%) have expected count less than 5. The minimum expected count is ,04.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,250	,110	2,560	,012(c)
Ordinal by Ordinal	**Spearman Correlation**	,182	,105	1,834	,070(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
integration * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

integration * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
integration	**1,00**	2	2	1	5
	2,00	4	10	15	29
	3,00	0	1	1	2
	4,00	2	18	34	54
	5,00	1	3	6	10
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	9,925(a)	8	,270
Likelihood Ratio	8,392	8	,396
Linear-by-Linear Association	4,626	1	,031
N of Valid Cases	100		
a 10 cells (66,7%) have expected count less than 5. The minimum expected count is ,18.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,216	,107	2,192	,031(c)
Ordinal by Ordinal	**Spearman Correlation**	,179	,105	1,802	,075(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
integration * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

integration * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
integration	1,00	6	13	17	36
	2,00	2	18	34	54
	3,00	1	3	6	10
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5,103(a)	4	,277
Likelihood Ratio	5,139	4	,273
Linear-by-Linear Association	2,466	1	,116
N of Valid Cases	100		
a 4 cells (44,4%) have expected count less than 5. The minimum expected count is ,90.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,158	,105	1,582	,117(c)
Ordinal by Ordinal	Spearman Correlation	,157	,103	1,570	,120(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
integration * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

integration * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		2,00	3,00	
integration	1,00	13	17	30
	2,00	18	34	52
	3,00	3	6	9
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	,687(a)	2	,709
Likelihood Ratio	,681	2	,711
Linear-by-Linear Association	,574	1	,449
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,080	,105	,756	,452(c)
Ordinal by Ordinal	**Spearman Correlation**	,083	,105	,785	,435(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
integration * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

integration * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		**Total**
		1,00	**2,00**	
integration	**1,00**	13	17	30
	2,00	18	34	52
	3,00	3	6	9
Total		34	57	91

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	,687(a)	2	,709
Likelihood Ratio	,681	2	,711
Linear-by-Linear Association	,574	1	,449
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,080	,105	,756	,452(c)
Ordinal by Ordinal	**Spearman Correlation**	,083	,105	,785	,435(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
organizational change * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

organizational change * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
organizational change	1	0	1	0	0	1
	2	2	3	3	2	10
	3	0	0	0	1	1
	4	0	2	20	48	70
	5	0	1	11	6	18
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51,687(a)	12	,000
Likelihood Ratio	32,644	12	,001
Linear-by-Linear Association	15,973	1	,000
N of Valid Cases	100		
a 15 cells (75,0%) have expected count less than 5. The minimum expected count is ,02.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,402	,128	4,342	,000(c)
Ordinal by Ordinal	Spearman Correlation	,069	,126	,686	,494(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
organizationalchange * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

organizationalchange * crmeffectiveness Crosstabulation
Count

		crmeffectiveness			Total
		1,00	2,00	3,00	
organizationalchange	1,00	1	0	0	1
	2,00	5	3	2	10
	3,00	0	0	1	1
	4,00	2	20	48	70
	5,00	1	11	6	18
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43,075(a)	8	,000
Likelihood Ratio	29,840	8	,000
Linear-by-Linear Association	8,591	1	,003
N of Valid Cases	100		

a 9 cells (60,0%) have expected count less than 5. The minimum expected count is ,09.

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,295	,125	3,052	,003(c)
Ordinal by Ordinal	**Spearman Correlation**	,066	,126	,659	,512(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
organizationalchange * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

organizationalchange * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
organizationalchange	**1,00**	6	3	3	12
	2,00	2	20	48	70
	3,00	1	11	6	18
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	35,938(a)	4	,000
Likelihood Ratio	25,480	4	,000
Linear-by-Linear Association	2,038	1	,153
N of Valid Cases	100		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,08.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,143	,124	1,435	,154(c)
Ordinal by Ordinal	**Spearman Correlation**	,060	,125	,597	,552(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
organizationalchange * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

organizationalchange * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
organizationalchange	1,00	3	3	6
	2,00	20	48	68
	3,00	11	6	17
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7,677(a)	2	,022
Likelihood Ratio	7,495	2	,024
Linear-by-Linear Association	2,951	1	,086
N of Valid Cases	91		
a 2 cells (33,3%) have expected count less than 5. The minimum expected count is 2,24.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	-,181	,113	-1,737	,086(c)
Ordinal by Ordinal	Spearman Correlation	-,193	,114	-1,857	,067(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
organizationalchange * crmeffectiveness	85	100,0%	0	,0%	85	100,0%

organizationalchange * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
organizationalchange	**1,00**	20	48	68
	2,00	11	6	17
Total		31	54	85

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7,312(b)	1	,007		
Continuity Correction(a)	5,868	1	,015		
Likelihood Ratio	7,070	1	,008		
Fisher's Exact Test				,011	,008
Linear-by-Linear Association	7,226	1	,007		
N of Valid Cases	85				
a Computed only for a 2x2 table					
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 6,20.					

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	-,293	,109	-2,795	,006(c)
Ordinal by Ordinal	**Spearman Correlation**	-,293	,109	-2,795	,006(c)
N of Valid Cases		85			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
bpr (R) * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

bpr (R) * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				**Total**
		1	**2**	**4**	**5**	
bpr (R)	**1**	1	2	0	0	3
	2	0	0	6	4	10
	4	1	5	22	37	65
	5	0	0	6	16	22
Total		2	7	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	39,451(a)	9	,000
Likelihood Ratio	23,895	9	,004
Linear-by-Linear Association	12,498	1	,000
N of Valid Cases	100		
a 11 cells (68,8%) have expected count less than 5. The minimum expected count is ,06.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,355	,119	3,763	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,273	,092	2,814	,006(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
bpr * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

bpr * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
bpr	1,00	3	0	0	3
	2,00	0	6	4	10
	3,00	6	22	37	65
	4,00	0	6	16	22
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36,960(a)	6	,000
Likelihood Ratio	23,586	6	,001
Linear-by-Linear Association	12,072	1	,001
N of Valid Cases	100		
a 6 cells (50,0%) have expected count less than 5. The minimum expected count is ,27.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,349	,100	3,689	,000(c)
Ordinal by Ordinal	Spearman Correlation	,272	,092	2,803	,006(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
bpr * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

bpr * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
bpr	1,00	3	6	4	13
	2,00	6	22	37	65
	3,00	0	6	16	22
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8,228(a)	4	,084
Likelihood Ratio	9,541	4	,049
Linear-by-Linear Association	7,688	1	,006
N of Valid Cases	100		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,17.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,279	,087	2,872	,005(c)
Ordinal by Ordinal	**Spearman Correlation**	,263	,090	2,699	,008(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
bpr * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

bpr * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		**Total**
		1,00	**2,00**	
bpr	**1,00**	6	4	10
	2,00	22	37	59
	3,00	6	16	22
Total		34	57	91

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	3,147(a)	2	,207
Likelihood Ratio	3,098	2	,212
Linear-by-Linear Association	2,793	1	,095
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,74.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,176	,102	1,688	,095(c)
Ordinal by Ordinal	**Spearman Correlation**	,172	,102	1,649	,103(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
company politics * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

company politics * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
company politics	1	1	1	0	0	2
	2	1	2	6	2	11
	4	0	3	12	29	44
	5	0	1	16	26	43
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43,650(a)	9	,000
Likelihood Ratio	25,043	9	,003
Linear-by-Linear Association	20,367	1	,000
N of Valid Cases	100		
a 11 cells (68,8%) have expected count less than 5. The minimum expected count is ,04.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,454	,110	5,038	,000(c)
Ordinal by Ordinal	Spearman Correlation	,230	,104	2,342	,021(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
companypolitics * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

companypolitics * crmeffectiveness Crosstabulation
Count

		crmeffectiveness			Total
		1,00	2,00	3,00	
companypolitics	1,00	2	0	0	2
	2,00	3	6	2	11
	3,00	3	12	29	44
	4,00	1	16	26	43
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32,357(a)	6	,000
Likelihood Ratio	22,100	6	,001
Linear-by-Linear Association	11,668	1	,001
N of Valid Cases	100		

a 7 cells (58,3%) have expected count less than 5. The minimum expected count is ,18.

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,343	,104	3,619	,000(c)
Ordinal by Ordinal	**Spearman Correlation**	,228	,103	2,316	,023(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
companypolitics * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

companypolitics * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
companypolitics	**1,00**	5	6	2	13
	2,00	3	12	29	44
	3,00	1	16	26	43
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	20,832(a)	4	,000
Likelihood Ratio	17,668	4	,001
Linear-by-Linear Association	9,069	1	,003
N of Valid Cases	100		
a 4 cells (44,4%) have expected count less than 5. The minimum expected count is 1,17.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,303	,099	3,144	,002(c)
Ordinal by Ordinal	**Spearman Correlation**	,224	,103	2,275	,025(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
companypolitics * crmeffectiveness	87	100,0%	0	,0%	87	100,0%

companypolitics * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
companypolitics	**1,00**	3	12	29	44
	2,00	1	16	26	43
Total		4	28	55	87

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	1,724(a)	2	,422
Likelihood Ratio	1,772	2	,412
Linear-by-Linear Association	,006	1	,939
N of Valid Cases	87		
a 2 cells (33,3%) have expected count less than 5. The minimum expected count is 1,98.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	-,008	,107	-,076	,940(c)
Ordinal by Ordinal	**Spearman Correlation**	-,036	,107	-,335	,739(c)
N of Valid Cases		87			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
companypolitics * crmeffectiveness	83	100,0%	0	,0%	83	100,0%

companypolitics * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
companypolitics	1,00	12	29	41
	2,00	16	26	42
Total		28	55	83

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	,723(b)	1	,395		
Continuity Correction(a)	,382	1	,536		
Likelihood Ratio	,725	1	,394		
Fisher's Exact Test				,488	,269
Linear-by-Linear Association	,714	1	,398		
N of Valid Cases	83				
a Computed only for a 2x2 table					
b 0 cells (,0%) have expected count less than 5. The minimum expected count is 13,83.					

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	-,093	,109	-,844	,401(c)
Ordinal by Ordinal	Spearman Correlation	-,093	,109	-,844	,401(c)
N of Valid Cases		83			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
marketing * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

marketing * crm effectiveness (CC) Crosstabulation Count						
		crm effectiveness (CC)				Total
		1	2	4	5	
marketing	1	0	2	6	10	18
	2	0	3	7	12	22
	4	1	2	13	25	41
	5	1	0	8	10	19
Total		2	7	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5,934(a)	9	,746
Likelihood Ratio	7,383	9	,597
Linear-by-Linear Association	,208	1	,648
N of Valid Cases	100		
a 8 cells (50,0%) have expected count less than 5. The minimum expected count is ,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,046	,101	,455	,650(c)
Ordinal by Ordinal	**Spearman Correlation**	,022	,100	,215	,830(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
marketing * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

marketing * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			**Total**
		1,00	**2,00**	**3,00**	
marketing	**1,00**	2	6	10	18
	2,00	3	7	12	22
	3,00	3	13	25	41
	4,00	1	8	10	19
Total		9	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	1,709(a)	6	,944
Likelihood Ratio	1,667	6	,948
Linear-by-Linear Association	,174	1	,676
N of Valid Cases	100		
a 4 cells (33,3%) have expected count less than 5. The minimum expected count is 1,62.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,042	,099	,416	,678(c)
Ordinal by Ordinal	**Spearman Correlation**	,026	,100	,258	,797(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
marketing * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

marketing * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
marketing	1,00	5	13	22	40
	2,00	3	13	25	41
	3,00	1	8	10	19
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,631(a)	4	,803
Likelihood Ratio	1,608	4	,807
Linear-by-Linear Association	,183	1	,669
N of Valid Cases	100		
a 3 cells (33,3%) have expected count less than 5. The minimum expected count is 1,71.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,043	,098	,426	,671(c)
Ordinal by Ordinal	Spearman Correlation	,030	,100	,294	,770(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
marketing * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

marketing * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		Total
		1,00	2,00	
marketing	1,00	13	22	35
	2,00	13	25	38
	3,00	8	10	18
Total		34	57	91

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	,548(a)	2	,760
Likelihood Ratio	,542	2	,763
Linear-by-Linear Association	,155	1	,694
N of Valid Cases	91		
a 0 cells (,0%) have expected count less than 5. The minimum expected count is 6,73.			

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	**Pearson's R**	-,041	,106	-,392	,696(c)
Ordinal by Ordinal	**Spearman Correlation**	-,036	,106	-,338	,736(c)
N of Valid Cases		91			

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

c Based on normal approximation.

Crosstabs

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customer habits * crm effectiveness (CC)	100	100,0%	0	,0%	100	100,0%

customer habits * crm effectiveness (CC) Crosstabulation
Count

		crm effectiveness (CC)				Total
		1	2	4	5	
customer habits	**1**	1	1	0	0	2
	2	1	0	3	5	9
	3	0	0	0	1	1
	4	0	4	21	21	46
	5	0	2	10	30	42
Total		2	7	34	57	100

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	43,210(a)	12	,000
Likelihood Ratio	24,209	12	,019
Linear-by-Linear Association	10,397	1	,001
N of Valid Cases	100		
a 15 cells (75,0%) have expected count less than 5. The minimum expected count is ,02.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,324	,133	3,391	,001(c)
Ordinal by Ordinal	**Spearman Correlation**	,254	,100	2,601	,011(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerbehavior * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customerbehavior * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
customerbehavior	1,00	2	0	0	2
	2,00	1	3	5	9
	3,00	0	0	1	1
	4,00	4	21	21	46
	5,00	2	10	30	42
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27,562(a)	8	,001
Likelihood Ratio	17,447	8	,026
Linear-by-Linear Association	6,944	1	,008
N of Valid Cases	100		
a 10 cells (66,7%) have expected count less than 5. The minimum expected count is ,09.			

Symmetric Measures					
		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Interval by Interval	Pearson's R	,265	,116	2,719	,008(c)
Ordinal by Ordinal	Spearman Correlation	,250	,099	2,557	,012(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

>Warning # 3211
>On at least one case, the value of the weight variable was zero, negative,
>or missing. Such cases are invisible to statistical procedures and graphs
>which need positively weighted cases, but remain on the file and are
>processed by non-statistical facilities such as LIST and SAVE.

Crosstabs

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
customerbehavior * crmeffectiveness	100	100,0%	0	,0%	100	100,0%

customerbehavior * crmeffectiveness Crosstabulation Count					
		crmeffectiveness			Total
		1,00	2,00	3,00	
customerbehavior	1,00	3	3	6	12
	2,00	4	21	21	46
	3,00	2	10	30	42
Total		9	34	57	100

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10,338(a)	4	,035
Likelihood Ratio	9,357	4	,053
Linear-by-Linear Association	5,754	1	,016
N of Valid Cases	100		
a 4 cells (44,4%) have expected count less than 5. The minimum expected count is 1,08.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,241	,103	2,459	,016(c)
Ordinal by Ordinal	**Spearman Correlation**	,242	,098	2,466	,015(c)
N of Valid Cases		100			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

Crosstabs

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
customerbehavior * crmeffectiveness	91	100,0%	0	,0%	91	100,0%

customerbehavior * crmeffectiveness Crosstabulation Count				
		crmeffectiveness		**Total**
		1,00	**2,00**	
customerbehavior	**1,00**	3	6	9
	2,00	21	21	42
	3,00	10	30	40
Total		34	57	91

Chi-Square Tests			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	5,541(a)	2	,063
Likelihood Ratio	5,608	2	,061
Linear-by-Linear Association	2,309	1	,129
N of Valid Cases	91		
a 1 cells (16,7%) have expected count less than 5. The minimum expected count is 3,36.			

Symmetric Measures					
		Value	**Asymp. Std. Error(a)**	**Approx. T(b)**	**Approx. Sig.**
Interval by Interval	**Pearson's R**	,160	,101	1,531	,129(c)
Ordinal by Ordinal	**Spearman Correlation**	,185	,101	1,778	,079(c)
N of Valid Cases		91			
a Not assuming the null hypothesis.					
b Using the asymptotic standard error assuming the null hypothesis.					
c Based on normal approximation.					

B.8 Analysis about item evaluation differences (Kruskal-Wallis Test)

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,37	,950	1	5	4,00	5,00	5,00
loyal	100	4,40	,791	2	5	4,00	5,00	5,00

Kruskal-Wallis Test

Ranks			
	loyal	**N**	**Mean Rank**
crm	**2**	6	38,25
	3	1	72,00
	4	40	49,88
	5	53	51,95
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	2,284
df	3
Asymp. Sig.	,516
a Kruskal Wallis Test	
b Grouping Variable: loyal	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,37	,950	1	5	4,00	5,00	5,00
mrktng	100	3,21	1,445	1	5	2,00	4,00	4,00

Kruskal-Wallis Test

Ranks			
	mrktng	**N**	**Mean Rank**
crm	**1**	18	49,50
	2	22	48,52
	4	41	52,63
	5	19	49,13
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	,500
df	3
Asymp. Sig.	,919
a Kruskal Wallis Test	
b Grouping Variable: mrktng	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
privacy	100	3,2300	1,38429	1,00	5,00	2,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	privacy	**N**	**Mean Rank**
crm	**1,00**	12	38,25
	2,00	30	47,05
	3,00	1	26,50
	4,00	37	52,45
	5,00	20	60,63
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	7,547
df	4
Asymp. Sig.	,110
a Kruskal Wallis Test	
b Grouping Variable: privacy	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
customercareandservice	100	3,5600	1,15750	1,00	5,00	2,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	customercareandservice	**N**	**Mean Rank**
crm	**1,00**	4	37,88
	2,00	23	46,48
	3,00	5	36,50
	4,00	49	52,50
	5,00	19	56,55
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	4,416
df	4
Asymp. Sig.	,353
a Kruskal Wallis Test	
b Grouping Variable: customercareandservice	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
determiningcustomers	100	3,8400	1,07045	1,00	5,00	4,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	determiningcustomers	**N**	**Mean Rank**
crm	**1,00**	5	17,40
	2,00	12	36,54
	4,00	60	53,12
	5,00	23	58,15
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	14,673
df	3
Asymp. Sig.	,002
a Kruskal Wallis Test	
b Grouping Variable: determiningcustomers	

NPar Tests

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
businessrules	100	4,1400	,99514	1,00	5,00	4,0000	4,0000	5,0000

Kruskal-Wallis Test

Ranks			
	businessrules	N	Mean Rank
crm	**1,00**	2	3,75
	2,00	10	36,05
	3,00	1	26,50
	4,00	46	47,91
	5,00	41	59,79
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	16,680
df	4
Asymp. Sig.	,002
a Kruskal Wallis Test	
b Grouping Variable: businessrules	

NPar Tests

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
software	100	3,2800	1,28770	1,00	5,00	2,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	software	**N**	**Mean Rank**
crm	**1,00**	11	40,77
	2,00	26	45,92
	4,00	50	51,25
	5,00	13	65,00
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	6,662
df	3
Asymp. Sig.	,083
a Kruskal Wallis Test	
b Grouping Variable: software	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
integration	100	3,3500	1,14922	1,00	5,00	2,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	integration	**N**	**Mean Rank**
crm	**1,00**	5	26,50
	2,00	29	47,05
	3,00	2	49,25
	4,00	54	54,39
	5,00	10	51,75
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	6,223
df	4
Asymp. Sig.	,183
a Kruskal Wallis Test	
b Grouping Variable: integration	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
organizationalchange	100	3,9400	,82658	1,00	5,00	4,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	organizationalchange	**N**	**Mean Rank**
crm	**1,00**	1	6,00
	2,00	10	24,45
	3,00	1	72,00
	4,00	70	57,11
	5,00	18	40,53
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	21,581
df	4
Asymp. Sig.	,000
a Kruskal Wallis Test	
b Grouping Variable: organizationalchange	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
bpr	100	3,9300	,94554	1,00	5,00	4,0000	4,0000	4,0000

Kruskal-Wallis Test

Ranks			
	bpr	**N**	**Mean Rank**
crm	**1,00**	3	4,50
	2,00	10	44,70
	4,00	65	50,44
	5,00	22	59,59
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	13,031
df	3
Asymp. Sig.	,005
a Kruskal Wallis Test	
b Grouping Variable: bpr	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
companypolitics	100	4,1500	1,01876	1,00	5,00	4,0000	4,0000	5,0000

Kruskal-Wallis Test

Ranks			
	companypolitics	**N**	**Mean Rank**
crm	**1,00**	2	3,75
	2,00	11	28,77
	4,00	44	55,09
	5,00	43	53,53
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	16,686
df	3
Asymp. Sig.	,001
a Kruskal Wallis Test	
b Grouping Variable: companypolitics	

NPar Tests

Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**Percentiles**		
						25th	**50th (Median)**	**75th**
crm	100	4,3700	,94980	1,00	5,00	4,0000	5,0000	5,0000
customerbehavior	100	4,1700	,97499	1,00	5,00	4,0000	4,0000	5,0000

Kruskal-Wallis Test

Ranks			
	customerbehavior	**N**	**Mean Rank**
crm	**1,00**	2	3,75
	2,00	9	49,00
	3,00	1	72,00
	4,00	46	45,49
	5,00	42	58,02
	Total	100	

Test Statistics(a,b)	
	crm
Chi-Square	12,853
df	4
Asymp. Sig.	,012
a Kruskal Wallis Test	
b Grouping Variable: customerbehavior	

Welcome to Minitab, press F1 for help.
* ERROR * Not a MINITAB project file.
* NOTE * Command canceled.

Retrieving worksheet from file: 'C:\Back Up\MBA\Thesis\Analysis\Non Parametric\Survey Results.xls'
Worksheet was saved on 07.02.2005

Results for: Interval Analysis Data

Kruskal-Wallis Test: crm effectiveness (CC) versus determining customers

Kruskal-Wallis Test on crm effectiveness (CC)

determining customers	N	Median	Ave Rank	Z
1	5	2,000	17,4	-2,62
2	12	4,000	36,5	-1,78
4	60	5,000	53,1	1,10
5	23	5,000	58,2	1,44
Overall	100		50,5	

H = 11,37 DF = 3 P = 0,010
H = 14,67 DF = 3 P = 0,002 (adjusted for ties)

Kruskal-Wallis Test: crm effectiveness (CC) versus business rules

Kruskal-Wallis Test on crm effectiveness (CC)

business rules	N	Median	Ave Rank	Z
1	2	1,500	3,8	-2,30
2	10	4,000	36,1	-1,66
3	1	4,000	26,5	-0,83
4	46	5,000	47,9	-0,82
5	41	5,000	59,8	2,67
Overall	100		50,5	

H = 12,93 DF = 4 P = 0,012
H = 16,68 DF = 4 P = 0,002 (adjusted for ties)

* NOTE * One or more small samples

Kruskal-Wallis Test: crm effectiveness (CC) versus organizational change

Kruskal-Wallis Test on crm effectiveness (CC)

organizational change	N	Median	Ave Rank	Z
1	1	2,000	6,0	-1,54
2	10	3,000	24,5	-2,99
3	1	5,000	72,0	0,74
4	70	5,000	57,1	3,48
5	18	4,000	40,5	-1,61
Overall	100		50,5	

H = 16,73 DF = 4 P = 0,002
H = 21,58 DF = 4 P = 0,000 (adjusted for ties)

* NOTE * One or more small samples

Kruskal-Wallis Test: crm effectiveness (CC) versus bpr (R)

Kruskal-Wallis Test on crm effectiveness (CC)

bpr (R)	N	Median	Ave Rank	Z
1	3	2,000	4,5	-2,79
2	10	4,000	44,7	-0,67
4	65	5,000	50,4	-0,03
5	22	5,000	59,6	1,66
Overall	100		50,5	

H = 10,10 DF = 3 P = 0,018
H = 13,03 DF = 3 P = 0,005 (adjusted for ties)

* NOTE * One or more small samples

Kruskal-Wallis Test: crm effectiveness (CC) versus company politics

Kruskal-Wallis Test on crm effectiveness (CC)

company politics	N	Median	Ave Rank	Z
1	2	1,500	3,8	-2,30
2	11	4,000	28,8	-2,63
4	44	5,000	55,1	1,40
5	43	5,000	53,5	0,91
Overall	100		50,5	

H = 12,94 DF = 3 P = 0,005
H = 16,69 DF = 3 P = 0,001 (adjusted for ties)

* NOTE * One or more small samples

B.9 Analysis about item evaluation similarities (Kendall W Test)

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
customer privacy	100	3,23	1,384	1	5	2,00	4,00	4,00
customer loyalty (R)	100	4,40	,791	2	5	4,00	5,00	5,00
customer care and service	100	3,56	1,157	1	5	2,00	4,00	4,00
determining customers	100	3,84	1,070	1	5	4,00	4,00	4,00
business rules	100	4,14	,995	1	5	4,00	4,00	5,00
software (R)	100	3,28	1,288	1	5	2,00	4,00	4,00
integration	100	3,35	1,149	1	5	2,00	4,00	4,00
organizational change	100	3,94	,827	1	5	4,00	4,00	4,00
bpr (R)	100	3,93	,946	1	5	4,00	4,00	4,00
company politics	100	4,15	1,019	1	5	4,00	4,00	5,00
marketing	100	3,21	1,445	1	5	2,00	4,00	4,00
customer habits	100	4,17	,975	1	5	4,00	4,00	5,00

Kendall's W Test

Ranks

	Mean Rank
customer privacy	5,14
customer loyalty (R)	8,35
customer care and service	5,79
determining customers	6,52
business rules	7,70
software (R)	5,23
integration	5,18

organizational change	6,66
bpr (R)	6,68
company politics	7,81
marketing	5,14
customer habits	7,83

Test Statistics	
N	100
Kendall's W(a)	,154
Chi-Square	169,235
df	11
Asymp. Sig.	,000
a Kendall's Coefficient of Concordance	

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
crm effectiveness (CC)	100	4,37	,950	1	5	4,00	5,00	5,00
customer privacy	100	3,23	1,384	1	5	2,00	4,00	4,00
customer loyalty (R)	100	4,40	,791	2	5	4,00	5,00	5,00
customer care and service	100	3,56	1,157	1	5	2,00	4,00	4,00
determining customers	100	3,84	1,070	1	5	4,00	4,00	4,00
business rules	100	4,14	,995	1	5	4,00	4,00	5,00
software (R)	100	3,28	1,288	1	5	2,00	4,00	4,00
integration	100	3,35	1,149	1	5	2,00	4,00	4,00
organizational change	100	3,94	,827	1	5	4,00	4,00	4,00
bpr (R)	100	3,93	,946	1	5	4,00	4,00	4,00
company	100	4,15	1,019	1	5	4,00	4,00	5,00

politics								
marketing	100	3,21	1,445	1	5	2,00	4,00	4,00
customer habits	100	4,17	,975	1	5	4,00	4,00	5,00

Kendall's W Test

Ranks	
	Mean Rank
crm effectiveness (CC)	9,16
customer privacy	5,37
customer loyalty (R)	8,82
customer care and service	6,07
determining customers	6,83
business rules	8,11
software (R)	5,45
integration	5,39
organizational change	6,96
bpr (R)	7,00
company politics	8,23
marketing	5,39
customer habits	8,26

Test Statistics	
N	100
Kendall's W(a)	,174
Chi-Square	208,917
df	12
Asymp. Sig.	,000
a Kendall's Coefficient of Concordance	

B.10 **Analysis about statistical distributions (Kolmogorov-Smirnov Test)**

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
crm effectiveness (CC)	100	4,37	,950	1	5	4,00	5,00	5,00
customer privacy	100	3,23	1,384	1	5	2,00	4,00	4,00
customer loyalty (R)	100	4,40	,791	2	5	4,00	5,00	5,00
customer care and service	100	3,56	1,157	1	5	2,00	4,00	4,00
determining customers	100	3,84	1,070	1	5	4,00	4,00	4,00
business rules	100	4,14	,995	1	5	4,00	4,00	5,00
software (R)	100	3,28	1,288	1	5	2,00	4,00	4,00
integration	100	3,35	1,149	1	5	2,00	4,00	4,00
organizational change	100	3,94	,827	1	5	4,00	4,00	4,00
bpr (R)	100	3,93	,946	1	5	4,00	4,00	4,00
company politics	100	4,15	1,019	1	5	4,00	4,00	5,00
marketing	100	3,21	1,445	1	5	2,00	4,00	4,00
customer habits	100	4,17	,975	1	5	4,00	4,00	5,00

One-Sample Kolmogorov-Smirnov Test

		crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
N		100	100	100	100	100	100	100	100	100	100	100	100	100
Normal Parameters(a,b)	Mean	4,37	3,23	4,40	3,56	3,84	4,14	3,28	3,35	3,94	3,93	4,15	3,21	4,17
	Std. Deviation	,950	1,384	,791	1,157	1,070	,995	1,288	1,149	,827	,946	1,019	1,445	,975
Most Extreme Differences	Absolute	,316	,281	,306	,328	,389	,314	,342	,354	,409	,400	,311	,308	,311
	Positive	,254	,233	,224	,181	,211	,194	,210	,220	,291	,250	,202	,199	,197
	Negative	-,316	-,281	-,306	-,328	-,389	-,314	-,342	-,354	-,409	-,400	-,311	-,308	-,311
Kolmogorov-Smirnov Z		3,164	2,810	3,058	3,281	3,894	3,141	3,420	3,542	4,089	3,995	3,115	3,078	3,108
Asymp. Sig. (2-tailed)		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000

a Test distribution is Normal.

b Calculated from data.

One-Sample Kolmogorov-Smirnov Test 2

		crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
N		100	100	100	100	100	100	100	100	100	100	100	100	100
Uniform Parameters(a,b)	Minimum	1	1	2	1	1	1	1	1	1	1	1	1	1
	Maximum	5	5	5	5	5	5	5	5	5	5	5	5	5
Most Extreme Differences	Absolute	,660	,320	,597	,430	,580	,620	,380	,390	,630	,620	,620	,350	,630
	Positive	,020	,170	,060	,060	,050	,020	,120	,150	,070	,030	,020	,180	,020
	Negative	-,660	-,320	-,597	-,430	-,580	-,620	-,380	-,390	-,630	-,620	-,620	-,350	-,630
Kolmogorov-Smirnov Z		6,600	3,200	5,967	4,300	5,800	6,200	3,800	3,900	6,300	6,200	6,200	3,500	6,300

Asymp. Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
a Test distribution is Uniform.													
b Calculated from data.													

One-Sample Kolmogorov-Smirnov Test 3

		crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
N		100	100	100	100	100	100	100	100	100	100	100	100	100
Poisson Parameter(a,b)	**Mean**	4,37	3,23	4,40	3,56	3,84	4,14	3,28	3,35	3,94	3,93	4,15	3,21	4,17
Most Extreme Differences	**Absolute**	,275	,166	,289	,204	,295	,277	,215	,209	,325	,317	,275	,200	,281
	Positive	,275	,109	,280	,150	,190	,237	,115	,147	,206	,204	,239	,107	,242
	Negative	-,275	-,166	-,289	-,204	-,295	-,277	-,215	-,209	-,325	-,317	-,275	-,200	-,281
Kolmogorov-Smirnov Z		2,750	1,658	2,894	2,037	2,953	2,766	2,148	2,093	3,253	3,173	2,747	2,003	2,810
Asymp. Sig. (2-tailed)		,000	,008	,000	,000	,000	,000	,000	,000	,000	,000	,000	,001	,000
a Test distribution is Poisson.														
b Calculated from data.														

One-Sample Kolmogorov-Smirnov Test 4

		crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
N		100	100	100	100	100	100	100	100	100	100	100	100	100
Exponential parameter.(a,b)	**Mean**	4,37	3,23	4,40	3,56	3,84	4,14	3,28	3,35	3,94	3,93	4,15	3,21	4,17
Most Extreme Differences	**Absolute**	,510	,342	,527	,390	,477	,489	,347	,400	,518	,509	,489	,312	,497
	Positive	,318	,213	,321	,245	,272	,299	,218	,225	,281	,280	,300	,211	,301
	Negative	-,510	-,342	-,527	-,390	-,477	-,489	-,347	-,400	-,518	-,509	-,489	-,312	-,497
Kolmogorov-Smirnov Z		5,096	3,416	5,271	3,898	4,771	4,895	3,465	3,995	5,177	5,086	4,886	3,124	4,968
Asymp. Sig. (2-tailed)		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000

a Test Distribution is Exponential.

b Calculated from data.

B.11 Hypotheses

B.11.1 If-then statements and directional hypotheses

Correlations

			crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
Kendall's tau_b	crm effectiveness (CC)	Correlation Coefficient	1,000	,231(**)	,072	,167(*)	,301(**)	,342(**)	,222(**)	,167(*)	,054	,255(**)	,212(*)	,019	,238(**)
		Sig. (1-tailed)	.	,005	,222	,032	,001	,000	,007	,034	,282	,003	,011	,417	,005
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer privacy	Correlation Coefficient	,231(**)	1,000	,025	,152(*)	,252(**)	,113	,223(**)	,055	,126	,074	,257(**)	,009	,176(*)
		Sig. (1-tailed)	,005	.	,390	,038	,002	,101	,005	,264	,079	,203	,002	,458	,023
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer loyalty (R)	Correlation Coefficient	,072	,025	1,000	,108	-,018	,094	-,028	,082	-,071	,163(*)	,012	,085	,046
		Sig. (1-tailed)	,222	,390	.	,116	,422	,156	,378	,188	,225	,041	,447	,173	,311
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer care and service	Correlation Coefficient	,167(*)	,152(*)	,108	1,000	,429(**)	,208(**)	,074	,299(**)	,313(**)	,179(*)	,386(**)	-,010	,058
		Sig. (1-tailed)	,032	,038	,116	.	,000	,010	,199	,000	,000	,023	,000	,452	,257
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	determining customers	Correlation Coefficient	,301(**)	,252(**)	-,018	,429(**)	1,000	,275(**)	,209(**)	,279(**)	,467(**)	,266(**)	,380(**)	,141	,363(**)
		Sig. (1-tailed)	,001	,002	,422	,000	.	,001	,009	,001	,000	,002	,000	,054	,000

		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	business rules	Correlation Coefficient	,342(**)	,113	,094	,208(**)	,275(**)	1,000	,151(*)	,186(*)	,328(**)	,271(**)	,265(**)	,075	,269(**)
		Sig. (1-tailed)	,000	,101	,156	,010	,001	.	,046	,020	,000	,002	,002	,199	,002
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	software (R)	Correlation Coefficient	,222(**)	,223(**)	-,028	,074	,209(**)	,151(*)	1,000	,075	,151(*)	-,014	,160(*)	,096	,322(**)
		Sig. (1-tailed)	,007	,005	,378	,199	,009	,046	.	,198	,048	,438	,037	,132	,000
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	integration	Correlation Coefficient	,167(*)	,055	,082	,299(**)	,279(**)	,186(*)	,075	1,000	,213(**)	,240(**)	,169(*)	,088	,266(**)
		Sig. (1-tailed)	,034	,264	,188	,000	,001	,020	,198	.	,010	,004	,031	,156	,002
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	organizational change	Correlation Coefficient	,054	,126	-,071	,313(**)	,467(**)	,328(**)	,151(*)	,213(**)	1,000	,257(**)	,393(**)	,132	,289(**)
		Sig. (1-tailed)	,282	,079	,225	,000	,000	,000	,048	,010	.	,003	,000	,069	,001
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	bpr (R)	Correlation Coefficient	,255(**)	,074	,163(*)	,179(*)	,266(**)	,271(**)	-,014	,240(**)	,257(**)	1,000	,334(**)	,127	,191(*)
		Sig. (1-tailed)	,003	,203	,041	,023	,002	,002	,438	,004	,003	.	,000	,076	,019
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	company politics	Correlation Coefficient	,212(*)	,257(**)	,012	,386(**)	,380(**)	,265(**)	,160(*)	,169(*)	,393(**)	,334(**)	1,000	,026	,242(**)
		Sig. (1-tailed)	,011	,002	,447	,000	,000	,002	,037	,031	,000	,000	.	,385	,004
		N	100	100	100	100	100	100	100	100	100	100	100	100	100

	marketing	Correlation Coefficient	,019	,009	,085	-,010	,141	,075	,096	,088	,132	,127	,026	1,000	,174(*)
		Sig. (1-tailed)	,417	,458	,173	,452	,054	,199	,132	,156	,069	,076	,385	.	,025
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer habits	Correlation Coefficient	,238(**)	,176(*)	,046	,058	,363(**)	,269(**)	,322(**)	,266(**)	,289(**)	,191(*)	,242(**)	,174(*)	1,000
		Sig. (1-tailed)	,005	,023	,311	,257	,000	,002	,000	,002	,001	,019	,004	,025	.
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
Spearman's rho	crm effectiveness (CC)	Correlation Coefficient	1,000	,256(**)	,075	,181(*)	,322(**)	,367(**)	,243(**)	,182(*)	,069	,273(**)	,230(*)	,022	,254(**)
		Sig. (1-tailed)	.	,005	,228	,036	,001	,000	,007	,035	,247	,003	,011	,415	,005
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer privacy	Correlation Coefficient	,256(**)	1,000	,028	,175(*)	,285(**)	,128	,259(**)	,066	,139	,085	,285(**)	,004	,194(*)
		Sig. (1-tailed)	,005	.	,391	,041	,002	,101	,005	,256	,084	,200	,002	,483	,027
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer loyalty (R)	Correlation Coefficient	,075	,028	1,000	,121	-,019	,100	-,031	,089	-,076	,175(*)	,013	,093	,046
		Sig. (1-tailed)	,228	,391	.	,116	,424	,162	,381	,190	,227	,041	,448	,179	,323
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer care and service	Correlation Coefficient	,181(*)	,175(*)	,121	1,000	,470(**)	,229(*)	,080	,333(**)	,345(**)	,199(*)	,429(**)	-,010	,064
		Sig. (1-tailed)	,036	,041	,116	.	,000	,011	,213	,000	,000	,024	,000	,460	,262
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	determining	Correlation	,322(**)	,285(**)	-,019	,470(**)	1,000	,300(**)	,229(*)	,307(**)	,496(**)	,290(**)	,407(**)	,158	,390(**)

customers	Coefficient														
	Sig. (1-tailed)	,001	,002	,424	,000	.	,001	,011	,001	,000	,002	,000	,058	,000	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
business rules	Correlation Coefficient	,367(**)	,128	,100	,229(*)	,300(**)	1,000	,165	,204(*)	,354(**)	,293(**)	,284(**)	,084	,291(**)	
	Sig. (1-tailed)	,000	,101	,162	,011	,001	.	,051	,021	,000	,002	,002	,202	,002	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
software (R)	Correlation Coefficient	,243(**)	,259(**)	-,031	,080	,229(*)	,165	1,000	,084	,164	-,015	,175(*)	,111	,347(**)	
	Sig. (1-tailed)	,007	,005	,381	,213	,011	,051	.	,203	,052	,442	,041	,136	,000	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
integration	Correlation Coefficient	,182(*)	,066	,089	,333(**)	,307(**)	,204(*)	,084	1,000	,230(*)	,260(**)	,185(*)	,095	,289(**)	
	Sig. (1-tailed)	,035	,256	,190	,000	,001	,021	,203	.	,011	,005	,033	,173	,002	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
organizational change	Correlation Coefficient	,069	,139	-,076	,345(**)	,496(**)	,354(**)	,164	,230(*)	1,000	,276(**)	,418(**)	,148	,307(**)	
	Sig. (1-tailed)	,247	,084	,227	,000	,000	,000	,052	,011	.	,003	,000	,071	,001	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
bpr (R)	Correlation Coefficient	,273(**)	,085	,175(*)	,199(*)	,290(**)	,293(**)	-,015	,260(**)	,276(**)	1,000	,355(**)	,144	,208(*)	
	Sig. (1-tailed)	,003	,200	,041	,024	,002	,002	,442	,005	,003	.	,000	,076	,019	
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	
company politics	Correlation Coefficient	,230(*)	,285(**)	,013	,429(**)	,407(**)	,284(**)	,175(*)	,185(*)	,418(**)	,355(**)	1,000	,030	,261(**)	

		Sig. (1-tailed)	,011	,002	,448	,000	,000	,002	,041	,033	,000	,000	.	,382	,004
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	marketing	**Correlation Coefficient**	,022	,004	,093	-,010	,158	,084	,111	,095	,148	,144	,030	1,000	,196(*)
		Sig. (1-tailed)	,415	,483	,179	,460	,058	,202	,136	,173	,071	,076	,382	.	,025
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer habits	**Correlation Coefficient**	,254(**)	,194(*)	,046	,064	,390(**)	,291(**)	,347(**)	,289(**)	,307(**)	,208(*)	,261(**)	,196(*)	1,000
		Sig. (1-tailed)	,005	,027	,323	,262	,000	,002	,000	,002	,001	,019	,004	,025	.
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
** Correlation is significant at the 0.01 level (1-tailed).															
* Correlation is significant at the 0.05 level (1-tailed).															

B.11.2 Nondirectional hypotheses

Correlations

			crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
Kendall's tau_b	crm effectiveness (CC)	Correlation Coefficient	1,000	,231(**)	,072	,167	,301(**)	,342(**)	,222(*)	,167	,054	,255(**)	,212(*)	,019	,238(*)
		Sig. (2-tailed)	.	,010	,445	,064	,001	,000	,014	,069	,565	,006	,022	,834	,010
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer privacy	Correlation Coefficient	,231(**)	1,000	,025	,152	,252(**)	,113	,223(**)	,055	,126	,074	,257(**)	,009	,176(*)
		Sig. (2-tailed)	,010	.	,781	,076	,004	,202	,010	,527	,158	,405	,004	,916	,047
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer loyalty (R)	Correlation Coefficient	,072	,025	1,000	,108	-,018	,094	-,028	,082	-,071	,163	,012	,085	,046
		Sig. (2-tailed)	,445	,781	.	,232	,845	,312	,757	,376	,450	,081	,894	,346	,623
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer care and service	Correlation Coefficient	,167	,152	,108	1,000	,429(**)	,208(*)	,074	,299(**)	,313(**)	,179(*)	,386(**)	-,010	,058
		Sig. (2-tailed)	,064	,076	,232	.	,000	,019	,398	,001	,000	,046	,000	,903	,514
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	determining customers	Correlation Coefficient	,301(**)	,252(**)	-,018	,429(**)	1,000	,275(**)	,209(*)	,279(**)	,467(**)	,266(**)	,380(**)	,141	,363(**)
		Sig. (2-tailed)	,001	,004	,845	,000	.	,002	,019	,002	,000	,004	,000	,107	,000

		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	business rules	Correlation Coefficient	,342(**)	,113	,094	,208(*)	,275(**)	1,000	,151	,186(*)	,328(**)	,271(**)	,265(**)	,075	,269(**)
		Sig. (2-tailed)	,000	,202	,312	,019	,002	.	,092	,040	,000	,003	,004	,398	,003
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	software (R)	Correlation Coefficient	,222(*)	,223(**)	-,028	,074	,209(*)	,151	1,000	,075	,151	-,014	,160	,096	,322(**)
		Sig. (2-tailed)	,014	,010	,757	,398	,019	,092	.	,395	,096	,875	,074	,265	,000
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	integration	Correlation Coefficient	,167	,055	,082	,299(**)	,279(**)	,186(*)	,075	1,000	,213(*)	,240(**)	,169	,088	,266(**)
		Sig. (2-tailed)	,069	,527	,376	,001	,002	,040	,395	.	,020	,008	,062	,312	,003
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	organizational change	Correlation Coefficient	,054	,126	-,071	,313(**)	,467(**)	,328(**)	,151	,213(*)	1,000	,257(**)	,393(**)	,132	,289(**)
		Sig. (2-tailed)	,565	,158	,450	,000	,000	,000	,096	,020	.	,006	,000	,138	,002
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	bpr (R)	Correlation Coefficient	,255(**)	,074	,163	,179(*)	,266(**)	,271(**)	-,014	,240(**)	,257(**)	1,000	,334(**)	,127	,191(*)
		Sig. (2-tailed)	,006	,405	,081	,046	,004	,003	,875	,008	,006	.	,000	,151	,038
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	company politics	Correlation Coefficient	,212(*)	,257(**)	,012	,386(**)	,380(**)	,265(**)	,160	,169	,393(**)	,334(**)	1,000	,026	,242(**)
		Sig. (2-tailed)	,022	,004	,894	,000	,000	,004	,074	,062	,000	,000	.	,771	,008
		N	100	100	100	100	100	100	100	100	100	100	100	100	100

	marketing	Correlation Coefficient	,019	,009	,085	-,010	,141	,075	,096	,088	,132	,127	,026	1,000	,174(*)
		Sig. (2-tailed)	,834	,916	,346	,903	,107	,398	,265	,312	,138	,151	,771	.	,049
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer habits	Correlation Coefficient	,238(*)	,176(*)	,046	,058	,363(**)	,269(**)	,322(**)	,266(**)	,289(**)	,191(*)	,242(**)	,174(*)	1,000
		Sig. (2-tailed)	,010	,047	,623	,514	,000	,003	,000	,003	,002	,038	,008	,049	.
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
Spearman's rho	crm effectiveness (CC)	Correlation Coefficient	1,000	,256(*)	,075	,181	,322(**)	,367(**)	,243(*)	,182	,069	,273(**)	,230(*)	,022	,254(*)
		Sig. (2-tailed)	.	,010	,456	,071	,001	,000	,015	,070	,494	,006	,021	,830	,011
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer privacy	Correlation Coefficient	,256(*)	1,000	,028	,175	,285(**)	,128	,259(**)	,066	,139	,085	,285(**)	,004	,194
		Sig. (2-tailed)	,010	.	,783	,082	,004	,203	,009	,513	,168	,400	,004	,966	,054
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer loyalty (R)	Correlation Coefficient	,075	,028	1,000	,121	-,019	,100	-,031	,089	-,076	,175	,013	,093	,046
		Sig. (2-tailed)	,456	,783	.	,232	,848	,323	,761	,380	,454	,082	,896	,357	,647
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer care and service	Correlation Coefficient	,181	,175	,121	1,000	,470(**)	,229(*)	,080	,333(**)	,345(**)	,199(*)	,429(**)	-,010	,064
		Sig. (2-tailed)	,071	,082	,232	.	,000	,022	,427	,001	,000	,048	,000	,920	,525
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	determining	Correlation	,322(**)	,285(**)	-,019	,470(**)	1,000	,300(**)	,229(*)	,307(**)	,496(**)	,290(**)	,407(**)	,158	,390(**)

	customers	Coefficient													
		Sig. (2-tailed)	,001	,004	,848	,000	.	,002	,022	,002	,000	,003	,000	,117	,000
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	business rules	Correlation Coefficient	,367(**)	,128	,100	,229(*)	,300(**)	1,000	,165	,204(*)	,354(**)	,293(**)	,284(**)	,084	,291(**)
		Sig. (2-tailed)	,000	,203	,323	,022	,002	.	,101	,042	,000	,003	,004	,403	,003
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	software (R)	Correlation Coefficient	,243(*)	,259(**)	-,031	,080	,229(*)	,165	1,000	,084	,164	-,015	,175	,111	,347(**)
		Sig. (2-tailed)	,015	,009	,761	,427	,022	,101	.	,406	,104	,885	,082	,272	,000
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	integration	Correlation Coefficient	,182	,066	,089	,333(**)	,307(**)	,204(*)	,084	1,000	,230(*)	,260(**)	,185	,095	,289(**)
		Sig. (2-tailed)	,070	,513	,380	,001	,002	,042	,406	.	,021	,009	,065	,347	,004
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	organizational change	Correlation Coefficient	,069	,139	-,076	,345(**)	,496(**)	,354(**)	,164	,230(*)	1,000	,276(**)	,418(**)	,148	,307(**)
		Sig. (2-tailed)	,494	,168	,454	,000	,000	,000	,104	,021	.	,005	,000	,143	,002
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	bpr (R)	Correlation Coefficient	,273(**)	,085	,175	,199(*)	,290(**)	,293(**)	-,015	,260(**)	,276(**)	1,000	,355(**)	,144	,208(*)
		Sig. (2-tailed)	,006	,400	,082	,048	,003	,003	,885	,009	,005	.	,000	,152	,038
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	company politics	Correlation Coefficient	,230(*)	,285(**)	,013	,429(**)	,407(**)	,284(**)	,175	,185	,418(**)	,355(**)	1,000	,030	,261(**)

		Sig. (2-tailed)	,021	,004	,896	,000	,000	,004	,082	,065	,000	,000	.	,765	,009
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	marketing	**Correlation Coefficient**	,022	,004	,093	-,010	,158	,084	,111	,095	,148	,144	,030	1,000	,196
		Sig. (2-tailed)	,830	,966	,357	,920	,117	,403	,272	,347	,143	,152	,765	.	,050
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
	customer habits	**Correlation Coefficient**	,254(*)	,194	,046	,064	,390(**)	,291(**)	,347(**)	,289(**)	,307(**)	,208(*)	,261(**)	,196	1,000
		Sig. (2-tailed)	,011	,054	,647	,525	,000	,003	,000	,004	,002	,038	,009	,050	.
		N	100	100	100	100	100	100	100	100	100	100	100	100	100
** Correlation is significant at the 0.01 level (2-tailed).															
* Correlation is significant at the 0.05 level (2-tailed).															

B.12 Frequencies

B.12.1 Frequencies of external variables

5: Strongly Agree, 4: Agree, 3: Neither Agree nor Disagree, 2: Disagree, 1: Strongly Disagree

		crm effectiveness (CC)	customer privacy	customer loyalty (R)	customer care and service	determining customers	business rules	software (R)	integration	organizational change	bpr (R)	company politics	marketing	customer habits
N	Valid	100	100	100	100	100	100	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		4,37	3,23	4,40	3,56	3,84	4,14	3,28	3,35	3,94	3,93	4,15	3,21	4,17
Std. Error of Mean		,095	,138	,079	,116	,107	,100	,129	,115	,083	,095	,102	,144	,097
Median		5,00	4,00	5,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00
Mode		5	4	5	4	4	4	4	4	4	4	4	4	4
Std. Deviation		,950	1,384	,791	1,157	1,070	,995	1,288	1,149	,827	,946	1,019	1,445	,975
Variance		,902	1,916	,626	1,340	1,146	,990	1,658	1,321	,683	,894	1,038	2,087	,951
Skewness		-1,891	-,237	-1,597	-,627	-1,287	-1,417	-,483	-,520	-1,420	-1,468	-1,419	-,356	-1,484
Std. Error of Skewness		,241	,241	,241	,241	,241	,241	,241	,241	,241	,241	,241	,241	,241
Kurtosis		3,348	-1,413	2,675	-,749	1,031	1,594	-1,164	-1,047	2,422	2,126	1,434	-1,399	1,935
Std. Error of Kurtosis		,478	,478	,478	,478	,478	,478	,478	,478	,478	,478	,478	,478	,478
Range		4	4	3	4	4	4	4	4	4	4	4	4	4
Minimum		1	1	2	1	1	1	1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5	5	5	5	5	5	5

crm effectiveness (CC)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,0	2,0	2,0
	2	7	7,0	7,0	9,0
	4	34	34,0	34,0	43,0
	5	57	57,0	57,0	100,0
	Total	100	100,0	100,0	

customer privacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	12,0	12,0	12,0
	2	30	30,0	30,0	42,0
	3	1	1,0	1,0	43,0
	4	37	37,0	37,0	80,0
	5	20	20,0	20,0	100,0
	Total	100	100,0	100,0	

customer loyalty (R)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	6	6,0	6,0	6,0
	3	1	1,0	1,0	7,0
	4	40	40,0	40,0	47,0
	5	53	53,0	53,0	100,0
	Total	100	100,0	100,0	

customer care and service					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	4	4,0	4,0	4,0
	2	23	23,0	23,0	27,0
	3	5	5,0	5,0	32,0
	4	49	49,0	49,0	81,0
	5	19	19,0	19,0	100,0
	Total	100	100,0	100,0	

determining customers					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	5	5,0	5,0	5,0
	2	12	12,0	12,0	17,0
	4	60	60,0	60,0	77,0
	5	23	23,0	23,0	100,0
	Total	100	100,0	100,0	

business rules					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	2	2,0	2,0	2,0
	2	10	10,0	10,0	12,0
	3	1	1,0	1,0	13,0
	4	46	46,0	46,0	59,0
	5	41	41,0	41,0	100,0
	Total	100	100,0	100,0	

software (R)					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	11	11,0	11,0	11,0
	2	26	26,0	26,0	37,0
	4	50	50,0	50,0	87,0
	5	13	13,0	13,0	100,0
	Total	100	100,0	100,0	

integration					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	5	5,0	5,0	5,0
	2	29	29,0	29,0	34,0
	3	2	2,0	2,0	36,0
	4	54	54,0	54,0	90,0
	5	10	10,0	10,0	100,0
	Total	100	100,0	100,0	

organizational change					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	1	1,0	1,0	1,0
	2	10	10,0	10,0	11,0
	3	1	1,0	1,0	12,0
	4	70	70,0	70,0	82,0
	5	18	18,0	18,0	100,0
	Total	100	100,0	100,0	

bpr (R)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	3,0	3,0	3,0
	2	10	10,0	10,0	13,0
	4	65	65,0	65,0	78,0
	5	22	22,0	22,0	100,0
	Total	100	100,0	100,0	

company politics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	2,0	2,0	2,0
	2	11	11,0	11,0	13,0
	4	44	44,0	44,0	57,0
	5	43	43,0	43,0	100,0
	Total	100	100,0	100,0	

marketing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	18,0	18,0	18,0
	2	22	22,0	22,0	40,0
	4	41	41,0	41,0	81,0
	5	19	19,0	19,0	100,0
	Total	100	100,0	100,0	

customer habits					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	2	2,0	2,0	2,0
	2	9	9,0	9,0	11,0
	3	1	1,0	1,0	12,0
	4	46	46,0	46,0	58,0
	5	42	42,0	42,0	100,0
	Total	100	100,0	100,0	

B.12.2 Frequencies of demographic variables

Statistics							
		industry	age (nominal)	income (nominal)	position	gender	education (nominal)
N	Valid	100	100	100	100	100	100
	Missing	0	0	0	0	0	0
Mean			1,38	1,38	2,11	1,34	1,51
Std. Error of Mean			,049	,049	,062	,048	,056
Median			1,00	1,00	2,00	1,00	1,00
Mode			1	1	2	1	1
Std. Deviation			,488	,488	,618	,476	,559
Variance			,238	,238	,382	,227	,313
Skewness			,502	,502	-,070	,686	,490
Std. Error of Skewness			,241	,241	,241	,241	,241
Kurtosis			-1,784	-1,784	-,372	-1,561	-,804
Std. Error of Kurtosis			,478	,478	,478	,478	,478
Range			1	1	2	1	2
Minimum			1	1	1	1	1
Maximum			2	2	3	2	3

Frequency Table

industry					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid		6	6,0	6,0	6,0
	advertisement	2	2,0	2,0	8,0
	architecture	1	1,0	1,0	9,0
	art design	1	1,0	1,0	10,0
	automotive	6	6,0	6,0	16,0
	business machinery	1	1,0	1,0	17,0
	chemicals	7	7,0	7,0	24,0
	commerce	3	3,0	3,0	27,0
	construction	3	3,0	3,0	30,0
	education	20	20,0	20,0	50,0
	electronics	1	1,0	1,0	51,0
	finance	6	6,0	6,0	57,0
	food	7	7,0	7,0	64,0
	furniture	1	1,0	1,0	65,0
	government	1	1,0	1,0	66,0
	health	1	1,0	1,0	67,0
	information technologies	10	10,0	10,0	77,0
	logistics	1	1,0	1,0	78,0
	marketing	1	1,0	1,0	79,0
	oil	1	1,0	1,0	80,0
	production	6	6,0	6,0	86,0
	research	3	3,0	3,0	89,0
	services	2	2,0	2,0	91,0
	student	3	3,0	3,0	94,0
	telecommunications	6	6,0	6,0	100,0
	Total	100	100,0	100,0	

age (nominal)					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	62	62,0	62,0	62,0
	2	38	38,0	38,0	100,0
	Total	100	100,0	100,0	

income (nominal)					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	62	62,0	62,0	62,0
	2	38	38,0	38,0	100,0
	Total	100	100,0	100,0	

position					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	14	14,0	14,0	14,0
	2	61	61,0	61,0	75,0
	3	25	25,0	25,0	100,0
	Total	100	100,0	100,0	

gender					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	66	66,0	66,0	66,0
	2	34	34,0	34,0	100,0
	Total	100	100,0	100,0	

education (nominal)					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**1**	52	52,0	52,0	52,0
	2	45	45,0	45,0	97,0
	3	3	3,0	3,0	100,0
	Total	100	100,0	100,0	

REFERENCES

Aguayo, R., Dr. Deming: Japon Mucizesinin Mimarı, Form Yayınları, 1994.

Alagöz S.B., Bilişim Teknolojilerinin CRM Üzerine Etkileri ve Bankacılık Sektöründe Bir Uygulama, T.C. Selçuk Üniversitesi Sosyal Bilimler Enstitüsü İşletme Ana Bilim Dalı Üretim Yönetimi ve Pazarlama Bilim Dalı, 2003

Aronson, 1996, "Introduction to Systems Thinking". Available on site http://www.thinking.net/Systems_Thinking/OverviewSTarticle.pdf.

Arthur Andersen, İnternetle Gelişimde Türkiye, Türkiye İş Bankası Kültür Yayınları, 2001

Bacun, D., 2000, "CRM: Technology alone is not the answer!". Available on site http://www.sitepoint.com/article/287.

Bank, J., The Essence of Total Quality Management, Prentice Hall, 1992.

Baran B., Enformasyon Teknolojilerinin Müşteri İlişkileri Yönetiminde Kullanılması ve Bireysel Bankacılık Uygulamalarına Dönük Bir Model Önerisi, İTÜ Sosyal Bilimler Enstitüsü, 2001

Bardwell J, 2000, An Implementation Cookbook for CRM Project Managers, Gartner Group Symposium IT Expo 2000, Cannes, France, November 6-9

Business Rules Group, 2001, "Defining Business Rules, What is a Business Rule?". Available on site http://www.businessrulesgroup.org/brgdefn.htm.

Collins, K., 2004, "The Future of Marketing Arrives with MRM". Available on site http://www.gartner.com.

Compton, J., 2003, "One Company, Two CRM Strategies". Available on site http://www.destinationcrm.com/articles/default.asp?ArticleID=3543&TopicID=10.

Crucible Multimedia, 2004, "What is computer telephony integration?". Available on site http://www.telecomsadvice.org.uk/infosheets/cti.htm.

CSIRO Australia, 2004, "Business Intelligence - What is it?". Available on site http://www.cmis.csiro.au/bi/what-is-BI.htm.

Daft, R.L., Management, Dryden Press, 5th Edition, 2000.

Department of Alternative Channels, Türkiye İş Bankası, 2003, "Interactive Channels Report".

Dyche, J., The CRM Handbook: A Business Guide to Customer Relationship Management, Addison-Wesley, 2001.

eMarketer Inc., 2004, "Online Banking from a Customer Perspective". Available on site http://www.emarketer.com/Article.aspx?1002795.

eMarketer Inc., 2004, "Interactive Banking in the US: Making the Most of a Multi-Channel World". Available on site http://www.emarketer.com/Report.aspx?banking_on_nov03.

eMarketer Inc., 2004, "Is Online Banking at a Crossroads or Traffic Jam?" Available on site
http://www.emarketer.com/Article.aspx?1003131

eMarketer Inc., 2004, "The Future of Internet Banking". Available on site http://www.emarketer.com/Article.aspx?1002767&trackref=edaily.

Erdem, Y.C., 2003, "Yeditepe University MBA Program Customer Relationship Management Course Lectures"

Fraone, G., 2001, "Wireless CRM yet to kick in". Available on site http://www.eweek.com/article2/0,1759,1242419,00.asp.

Gottesdiener, E., 1997, "Business Rules, Show Power, Promise". Available on site http:// www.ebgconsulting.com/powerpromise_article.htm.

Güven, E., Müşteri İlişkileri Yönetimi ve Bankacılık Sektöründe Uygulama; T.C. Marmara Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Ana Bilim Dalı, Üretim Yönetimi ve Pazarlama Bilim Dalı; 2002

Hernandez, R., 2001, "Business Rules are the Key to CRM and One-to-One Personalization". Available on site http://www.bizrules.com/us/page/art_keytocrm.htm.

Hürriyet Newspaper, January 13, 2004, "Alternative Banking Channels".

Johns, T., Perfect Customer Care, Random House Business Books, 1999.

Khera, M., 2000, "Customer Relationship Management -- Beyond the "buzz"". Available on site http://crm.ittoolbox.com/documents/document.asp?i=430.

Koçak S. C., Elektronik Ticaretin Müşteri İlişkileri Yönetiminin İçindeki Önemi ve Finans Sektöründeki Uygulamaları, T.C. Marmara Üniversitesi, Sosyal Bilimler Üniversitesi, İşletme Ana Bilim Dalı, Üretim Yönetimi ve Pazarlama Bilim Dalı, 2001

Kotler, P. and Armstrong, G., Principles of Marketing, Prentice Hall, 2001.

Malhotra, Y., 1993, "Role of Information Technology in Managing Organizational Change and Organizational Interdependence". Available on site http://www.kmbook.com/change/ intro.htm.

McNamara, P. C., 1999, "Basic Definition of Organization". Available on site http://www.mapnp.org/library/org_thry/org_defn.htm.

Meltzer, M., 2004, "CRM Getting the People Part of the Equation Right". Available on site http://www.crm2day.com/editorial/EpZVEAFFyEcIabKsPW.php.

Merriam-Webster's Online Dictionary, Encyclopedia Britannica, Inc., 2004, "Loyalty". Available on site http://www.britannica.com/dictionary?book=Dictionary&va=loyal&query=loyal.

Merriam-Webster's Online Dictionary, Encyclopedia Britannica, Inc., 2004, "Privacy". Available on site http://www.britannica.com/dictionary?book=Dictionary&va=privacy&query=privacy.

Merriam-Webster's Online Dictionary, Encyclopedia Britannica, Inc., 2004, "Software". Available on site http://www.britannica.com/dictionary?book=Dictionary&va= software&query=software.

Odabaşı, Y., Müşteri İlişkileri Yönetimi, Sistem Yayıncılık, 2000

Ouchi, W., Teori Z, İlgi Yayınları, 1989.

Özdamar, K., Paket Programlar ile İstatistiksel Analiz Cilt 1, 5. Baskı, Kaan Kitabevi, 2004

Parekh, S., 2003, "Improving Online Customer Relationships". Available on site http://www.destinationcrm.com/articles/default.asp?ArticleID=3047

Perner, L., "The Psychology of Consumers". Available on site http://www.gecities.com/lazaridous/consumer.htm.

Power Magazine, October 2003, "Bonus Card'a İki Ödül Birden",1 Numara Hearst Yayıncılık A.Ş., pp 28-29

Power Magazine, October 2003, "Oyak Bank CRM'le Farklı", 1 Numara Hearst Yayıncılık A.Ş., pp 30

QCI International, 1997. "An Interview with Masaaki Imai". Available on site http://www.qualitydigest.com/june97/html/imai.html.

Rational Inc, 2000, "Unified Sales Kit CDs 1&2".

Reddin, W.J., Managerial Effectiveness, McGraw Hill, 1970.

Rosenfield, J.R., 2002, "Customer Relationship Management: A Brief History, and a Big Mystery". Available on site http://www.jrosenfield.com/articles/CRM-History.htm.

Ross, J. E., Total Quality Management: Text, Cases and Readings, CRC Press LLC, 1999.

Senge, P. M., The Fifth Discipline: The Art and Practice of the Learning Organization, Random House, 1990.

Şenver, B., 2003, "Yeditepe University MBA Program E-Banking Course Lectures"

Üysen, P., Bankacılık Hizmetlerinin Pazarlanmasında İnternetin Kullanılması ve Banka Müşterilerinin İnternet Bankacılığını Kullanmı Üzerine Bir Araştırma, Eskişehir Anadolu Üniversitesi Sosyal Bilimler Enstitüsü, 2003

TechTarget, 2004, "Interactive Voice Response". Available on site http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci213678,00.html.

CURRICULUM VITAE OF THE AUTHOR
Bilgehan BOZKURT

Contact Information:

E-Mail : bilgehanbozkurt@yahoo.com

Personal Information:

Date of Birth : October 01, 1974
Place of Birth : Ankara
Marital Status : Single

Education:

High School	1985-1990	T.E.D. Karabük High School
	1990-1992	T.E.D. Zonguldak High School
Undergraduate	1993-Fall 1999	Yıldız Technical University Faculty of Science and Literature Department of Statistics
Graduate	2001-2005	Yeditepe University Institute of Social Sciences Master of Business Administration Program E-Business Track

Institutions that the Author have Worked:

2003- Continuing	Anadolu Hayat Emeklilik A.Ş., Department of Research and Development
2002-2003	Anadolu Hayat Emeklilik A.Ş., Department of Information Technologies

ÖZGEÇMİŞ
Bilgehan BOZKURT

İletişim Bilgileri:

E-Posta : bilgehanbozkurt@yahoo.com

Kişisel Bilgiler:

Doğum Tarihi : 01.10.1974
Doğum Yeri : Ankara
Medeni Durumu : Bekar

Eğitim:

Lise	1985-1990	T.E.D. Karabük Koleji Vakfı Özel Lisesi
	1990-1992	T.E.D. Zonguldak Koleji Vakfı Özel Lisesi
Lisans	1993-Güz 1999	Yıldız Teknik Üniversitesi Fen Edebiyat Fakültesi İstatistik Bölümü
Yüksek Lisans	2001- 2005	Yeditepe Universitesi Sosyal Bilimler Enstitüsü İşletme Bölümü E-İş Dalı

Çalıştığı Kurumlar:

2003- Devam ediyor	Anadolu Hayat Emeklilik A.Ş., Araştırma Geliştirme Müdürlüğü
2002-2003	Anadolu Hayat Emeklilik A.Ş., Bilgi İşlem Müdürlüğü