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CUSTOMER INFORMATION SYSTEMS IN LEBANESE ORGANIZATIONS

A Research Topic
Presented To Business School
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Master of Science in Business
Management

BY
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DEDICATION

To Those I Deeply Love
My Father
My Mother

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ABSTRACT

Customer Information System (CIS) is an issue of great importance at the present time. The time that is witnessing fundamental changes in the economic climate including tough competition, high standards of living, and minimal differences among various products in terms of price and quality; the time the customers are becoming more selective for the companies they are dealing with, more concerned about the rights for a high service quality, and more demanding for a prompt and satisfactory type of response to his \ her complaints; the time information technology became a crucial success factor for achieving an efficient organizational performance.

The purpose of the study was to assess the success of organizational performance upon implementing an efficient CIS. Moreover, the research had a purpose of describing and evaluating the CIS and the methods followed in handling customer complaints. It also intended to study the factors that are most likely to be associated with aiding or hindering the successful implementation of the system.

To elaborate more on the historical background of CIS, a library search was conducted. For better understanding of this purpose, regression analysis, One-Way ANOVA, crosstabulation, and correlation analysis were conducted to test its validity by considering all pertinent factors.

According to the results of the analysis, managers' training in both information technology and the importance of the complaining process, will help to build a positive attitude towards the adoption of a well developed CIS. Moreover, computerized and proper application of Customer Information Systems will add to the customer satisfaction and to the organization's performance.

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CHAPTER I
INTRODUCTION

1.1 Overview

With the increasing global competition where price and quality differences are becoming minimal, greater emphasis is placed on the concept of customer service as a strategic factor in achieving success to organizations. Thus, whether you sell $100 million planes or 79-cent pens, your buyers have changed enormously in the past few years. Their demands are lengthening; their patience is shrinking. Epochal shifts in global economy have given customers a sultan's power to command exactly what they want, the way they want it, when they want it. It is the company's job to provide it or vaporize. Customers form a highly valuable factor in determining where the organization is moving. If they are treated well, they will become satisfied, and will thus be the organization's best source of advertising and marketing. When they are given good value, they will continue to reward the company they are dealing with their money year after year. All the efficient financial and marketing techniques that an organization can adopt are no substitute for an army of satisfied customers. One might think of buildings, computers, consultants, or even employees as a company's major assets. This is correct, yet every company's greatest assets are its customers, because without customers there is no company.

Thinking of success in business, most of people think in terms of dollars, statistics, facts, and figures. Yet all those measures of success are determined by the behavior of customers and the employees who serve them. Management may allocate the money, but

the customer determines how much there is. And the more he is rewarded, the better it flows. When organizations reward customers, they will create and keep them, and when they fail to reward them, they will be out of business. Caring about customers is a very important thing, providing them with what they need in terms of product and service after selling will really differentiate one company from another.

When customers feel dissatisfied, organizations should do their best to remove this dissatisfaction. Seeking out and identifying customer complaints is one of the most potentially profitable activities that a business can engage in. This conclusion was reached in a study done by the Federal Office of Consumer Affairs in 1986. Some companies such as General Electric, General Motors, Polaroid, and American Express have initiated certain innovative programs to seek out and resolve customer complaints. The programs include toll-free hotlines for customers, identifying root causes of complaints, and teaching employees how to deal with angry customers. "According to the study, the programs are providing a return on investment ranging anywhere from 15 to 400 percent."[1]

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[1] Michael Le Boeuf, How to Win Customers and Keep Them For Life, (N.Y: Berkley Publishing Corporation, 1987), P.134.

1.2 Importance of Handling Consumer Complaint Information

A study done at the Office of Fair Trading in 1990 showed that 51 percent of the sample who had complained about a service and 23 percent for product were not completely satisfied with the response they received.[2] In fact, customer complaint handling should be taken more seriously and there are several reasons for this.

First, in the light of continued market development and increasing numbers of more rapidly changing products, the probability that a manufacturer or a retailer encountering a customer having certain dissatisfactions is expected to be higher. This is highly prevailing in the food industry which introduces a variety of product lines each year.

Second, handling consumer complaints properly and effectively will provide the company with a high competitive advantage. In today's economic climate characterized by tough competition, manufacturers are realizing the fact that it has become increasingly beneficial for them to differentiate themselves in order to enhance or maintain a high market share. Since the late 1980s there has been a shift away from price as the key competitive factor.

" On the whole, a better standard of living and an increase in the number of dual career households are two factors which have acted as the main catalytic agents for this change"[3]

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2 V.W. Mitchell, "Handling Consumer Complaint Information: Why and How", Logistics Information Management, (Vol.6, No.3, 1993), PP. 20-26.

3 Ibid, P.20.

At the present time, more emphasis is being placed upon service quality and after-sale support which can be categorized into those relating to specific support activities such as warranties and user assistance and those related to feedback, namely, complaint handling, dispute resolution, refunds and refund policies.[4]

Third, the legal implications for defective products, especially food, is also a factor contributing to the importance of complaint handling. Fighting the Cheating Act 1983 of decree number 54 introduces an efficient and effective concept to food law which is the food safety requirement. According to Mr. Khalil Haddad, the director of the Consumer Protection Department at the Ministry of Economics, the government's overriding aim of this Act is the protection of the consumer.[5] Food that is beyond expiration date, unfit for human consumption, or food that is so contaminated that it would not be reasonable to expect it to be used for human consumption in that state are issues now covered in several sections under that Act.[6] Consumers should be aware of these legal aspects since they will enable more consumers to undertake judicial action should they experience a defective product. The effect on manufacturers and retailers would thus be expected to be high. First, to reduce the number of defective products reaching the final consumer and second, to step-up their complaint handling activities to ensure customer satisfaction.

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4 M.M. Lele and J.N. Sheth, "The Four Fundamentals of Customer Satisfaction", Business Marketing, (Vol.3, June 1988), PP. 80-94.

5 Interview conducted with Mr. Khalil Haddad, Director of Department of Consumer Protection, Ministry of Economics, Beirut, March 94.

6 Memeographed Sheets for Decree #54, Department of Consumer Protection, Ministry of Economics, Beirut.

Finally, customers are becoming more sophisticated in their choice of goods, and the service element is becoming a more important part of the product which the consumer now demands. " As companies become more responsive, customers' expectations are increased. The last decade has seen a focus on marketing activity by organization with the result that many more customers now expect, rather than hope for, efficient complaint handling."[7]

Based on what has just been mentioned, it is important now to emphasize upon the importance of establishing customer complaint programs.

1.3 The Importance of Customer Complaint Programs

Customer complaint programs are highly important for organizations and they should be seriously thought of and properly established . They pay off for three basic reasons:[8]

a. Complaints point out areas that need improvement

They indicate to the organization how they are doing and how they can get better. Companies and employees must learn to gather and use complaint information to identify weak spots and take corrective action. A business that does not know how or where it needs to improve is vulnerable to lose a lot of profitable opportunities.

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7 Mitchell, "Handling Consumer Complaint Information: Why and How", P.21.

8 Le Boeuf, P.133.

b. Complaints give companies a second chance to provide service and satisfaction to dissatisfied customers

A survey on "Why customers quit" found that a typical business hears from only 4 percent of its dissatisfied customers. The other 96 percent just quietly go away and 91 percent will never come back.[9] They are just going to leave, take their money elsewhere, and tell others about the lousy service the business gives. On the other hand, a complaining customer will give the company another opportunity to improve and make good.

c. Complaints are a wonderful opportunity to strengthen customer loyalty

In fact, most customers do not think about what kind of service they are given when everything goes well. They simply take it for granted. But when there is a problem, they will start thinking of the organization and its service a lot. Here is the chance of the organization to show them a great service and whatever is reasonably possible to see that they are satisfied. It is worth mentioning here that 70 percent of complaining customers will buy again if the problem is resolved in their favor, and 95 percent will buy again if the problem is resolved on the spot.[10] Consequently, the most important thing in this aspect is to reward complaints with fast and positive action.

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9 Ibid, P.13.

10 Ibid, P.134.

1.4 Information Technology in Customer Service

To be on a high competitive edge, companies will have to recognize the importance of and deal with two major forces: the primacy of customer service as a competitive weapon and the pervasive role of information technology (IT) in enhancing performance. These forces cannot be viewed as being independent. "Although information technology has the ability to redefine businesses, alter industry structure and foster entirely new types of enterprise, its greatest unrealized potential is in the area of customer service."[11] As customer service emerges as a competitive factor, it becomes natural to say that businesses that anticipate the power of IT and employ it creatively in their service domain should enjoy a competitive advantage over their rivals. Conversely, that fail to make it an integral part of their service strategy, view it as a cost rather than an asset, or who use the technology inappropriately, will likely be at a competitive disadvantage.

A basic point to start from is that customer service begins with a combination of products and services that have been designed to meet the expectations of the customer. Classification based on the service expectations of customers will increasingly become the backbone of most service strategies. It can play an important supporting role in this process, especially when the profitability analyses of product and service design are taken into consideration. Of course, segmentation and profitability analysis are common domains

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11 Peter A. Clarke and David Murray, "Information Technology in Customer Service", Business Quarterly, (Spring 1990), PP.91-94.

for IT, but as service is becoming an increasingly important element of the marketing mix nowadays, and a determining factor for the organization's profitability, the revenues and expenses associated with alternate service offerings will need to be better understood. Thus firms that work to "shape their market research and accounting systems to enable them to capture service as well as product issues will be in a much better position to make the kinds of service sensitive decisions that will be necessary in tomorrow's service economy."[12]

1.5 The Need for the Study

Information technology has profoundly changed business practice, and "... is transforming the nature of products, processes, companies, industries, and even competition itself".[13] The impact of computers and expanded information capabilities has been evident within many fields. Considering information as a valuable resource and using technology to generate reliable and fast information have achieved significant cost reductions. Information technology has also resulted in improvements in profitability, market share and customer service levels. The impact of information technology upon customer service in general and especially upon complaint handling has to be taken into consideration.

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12 Ibid, P.92.

13 M.E. Porter and V.E Millar, "How Information Gives You Competitive Advantage", Harvard Business Review, (Vol.63, No.4, July-August 1985), PP.149-60.

A complaint from a consumer is a clear manifestation of dissatisfaction, and serves as customer feedback about a product, service or company performance. A marketing manager's attitude toward the complaint process and ultimately toward how complaints should be handled, may affect the utilization of the organizational resources and the resultant level of consumer satisfaction. The basic need for this study stems from the importance of having an efficient customer information system in order to guarantee a proper and successful service strategy and an efficient method of complaint handling. Also, there is a need for assessing the present aspects prevailing in the service domain in organizations operating in Lebanon. Besides, studying the present facts would reveal some basic problems that might impede the way for successful implementation of computerized customer information systems, and thus should be avoided.

For example, at the present time, companies, especially the merchandising and manufacturing companies work with the concept that the customer is always right. However, the whole process is only limited to this. There are no real customer information systems that will study the service needs of customers, receive complaints, analyze them and use them for strategic planning and for assessing the company's performance. Another problem lies in the nature of people (customers) themselves here. People here seldom show any care about defections. Companies with quality and control departments rarely receive complaints about products and services. Most of the times, the attitude of customers is to stop buying that product or dealing with that company. The responsible people at the Department of Consumer

Protection believe that the Lebanese customers lack awareness in this aspect; they do not exercise their rights and do not know to whom they should complain in case anything goes wrong. Customers are the fundamental source of an organization's profitability. Some organizations often feel that customers should tell them about their service expectations and complaint resolutions. However, organizations with more efficient management experiences take into consideration all the aspects related to customers since they consider them an important point in their organizations' strategy. They thus believe that spotting out their customers' product and service needs, opening their door for complaints, and taking positive actions to handle them are among the challenges that they have to undertake in order to ensure successful performance, long-run efficiency, and competitive advantage.

Statement of the Hypotheses or Research Questions:

This study intends to deal with the following hypotheses:

1- In Lebanon, the ways followed to deal with customers and handle their complaints are not efficient due to certain factors such as lack of consumer awareness and lack of proper concern on the part of companies.

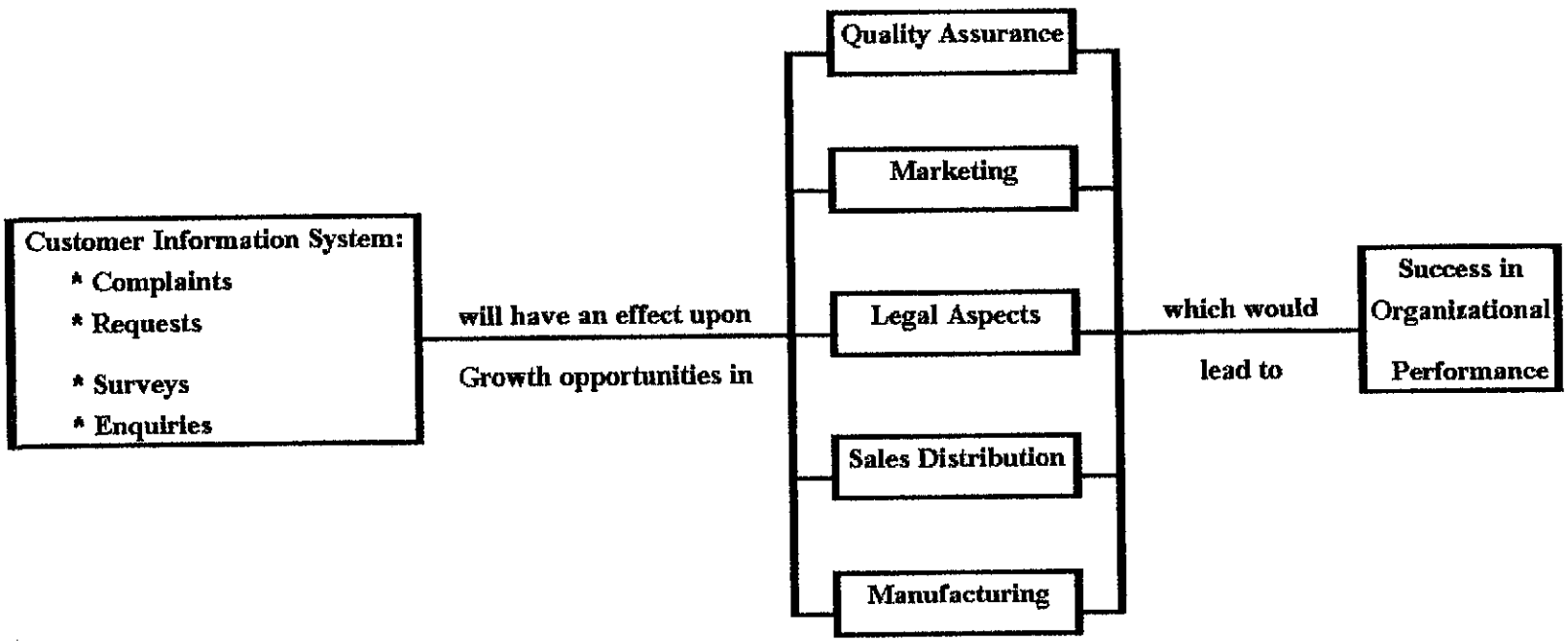
2- Computerized and proper application of Customer Information Systems will add to the customer satisfaction and to the organization's performance.

1.6 The Purpose of the Study

Establishing and implementing an efficient and effective Customer Information System has a certain effect on the success of organizational performance. The basic intent of this study is to assess this statement, describe and evaluate the Customer information systems and the methods followed in handling customer complaint, and to investigate the factors that are most likely to be associated with aiding or hindering the successful implementation of this system. This, of course would enable management to encourage and enhance the positive influences and reduce or eliminate the negative ones.

Success in organizational performance will be measured in terms of production rate, sales performance, inventory turnover and market share or profitability. The effect of the independent variable, the application of a computerized Customer Information System, especially in handling complaints, in determining this will also be studied. Thus, the basic model of this study is as shown next page.

The study will be conducted in three phases. In the first phase, consumers will be asked to give their opinions about a Customer Information System that would aid in service offering and complaint handling. They will also be asked to give their opinion about the quality of service provided to them in terms of responsiveness, customer care, and complaints handling. The second phase will investigate the opinion of employees from various companies concerning the quality of service provided by Lebanese companies and their concern for customer satisfaction. The last phase will investigate the opinion of managers from various companies. The manager will be asked to provide information about organization's policies and


Customer Information System:
* Complaints
* Requests
* Surveys
* Enquiries
will have an effect upon
Growth opportunities in
Quality Assurance
Marketing
Legal Aspects
Sales Distribution
Manufacturing
which would
lead to
Success in
Organizational
Performance

objectives, methods followed in handling complaints, managers' perceptions about such a system and their expectations about the effect of this system upon success in organizational performance. The sample of respondents here will be managers belonging to the three management levels (first, middle and top management levels) and working in organizations belonging to various economic sectors especially food, clothing, and others. The chosen companies all use computerized information systems. In chapter II, a review of the literature dealing with the issue of Customer Information Systems is presented. Chapter III describes the methodology adopted in this study to gather and analyze data, and chapter IV presents the findings of the data analysis, and compares these findings with findings from other studies. Finally, in chapter V a summary of the findings is made and recommendations are proposed.

CHAPTER II
REVIEW OF LITERATURE

2.1 General Overview

In today's fiercely competitive market, no business can long survive without satisfied customers. It does not matter whether a company is large or small - or whether its business is manufacturing, sales, service, or distribution. Trying to compete solely on the basis of product or price is insufficient, majorly because product differentiation is becoming increasingly difficult. Looking at organizations such as airlines, hotels, fast-food restaurants, hospitals, and banks, one can find that the distinguishing factor is rarely product superiority. Instead, the key is service: attention to the customer. Service is now the standard by which customers are measuring an organization's performance. It is not a competitive edge; it is the competitive edge. In other words, it is the era of service revolution.

In fact, calling it the age of service revolution is not a strange thing. The fastest growing segment of economy today is the service sector, a factor that helps give service its status as the competitive edge. "Already, the service sector accounts for two-thirds of our gross national product. More than 60 percent of all people employed in this country today work in service jobs; by the year 2000, this figure is expected to reach 90 percent"[1]. Figure 2.1 depicts a figuring out of the employment picture in 2000. These numbers signify a heightened

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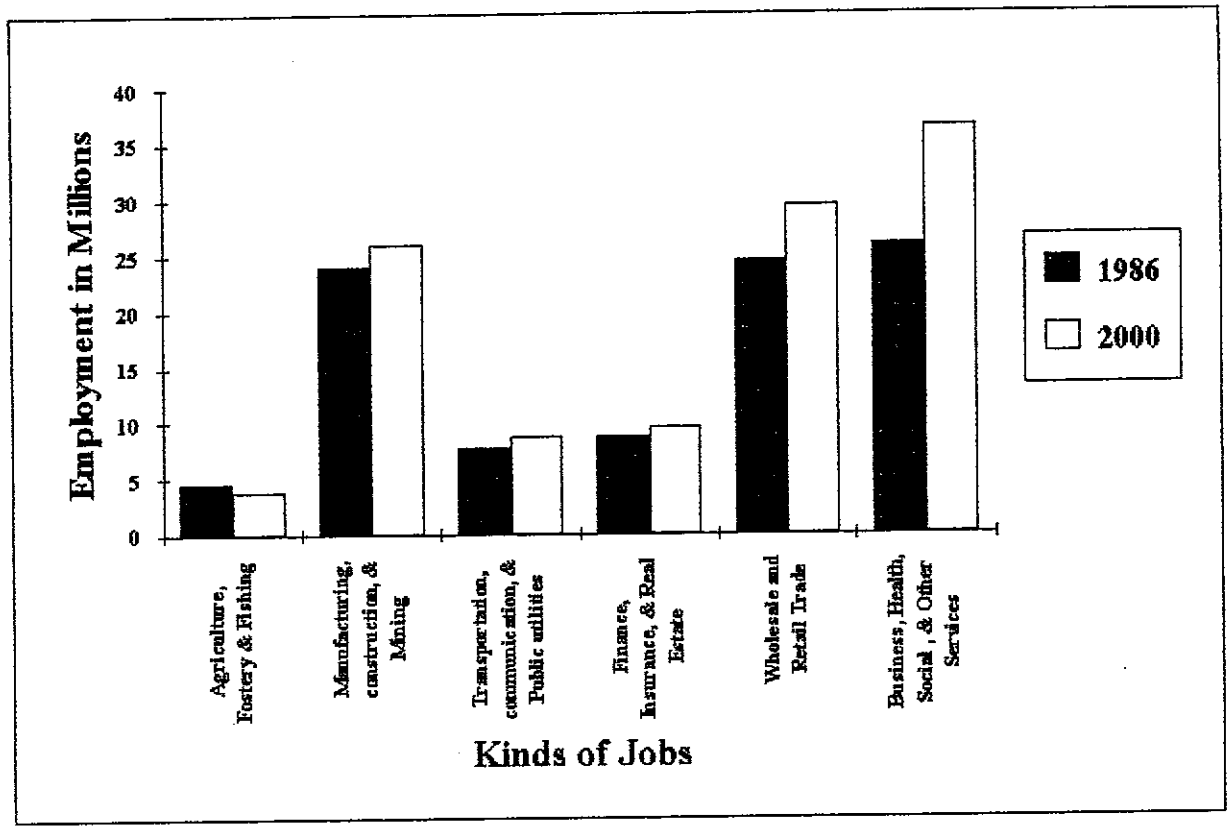
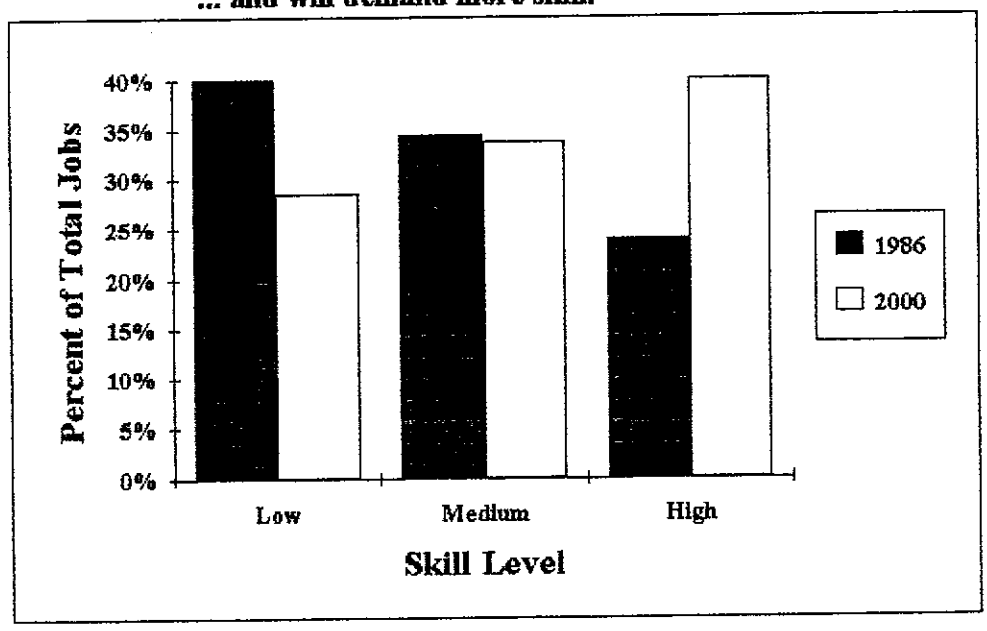
1 Robert L. Desatnick and Denis H. Detzel, Managing To Keep The Customer, (San Fransisco, California: Jossey-Bass Inc., Publishers, 1993), p. 4.

Figure 2.1 The employment Picture in 2000

Most new jobs will be in services....



... and will demand more skill.



Source: L.S. Richman, "Tomorrow's jobs: Plentiful, But...", Fortune, (April11, 1988), pp. 42-56.

awareness on the part of customers. The numbers also signify that the importance of the service sector will keep on increasing since most people, if not all, are in the service business.

This leads one to say that quality service must be each organization's primary goal, as well as its most important market strategy, because it is the key to survival for the coming decades. Superior service will increase sales and market share as well as reduce costs. Therefore, what will it take a business organization to be one of the most rapidly growing business? It is natural to say that it will require a total service orientation, i.e, a service-oriented organization culture. The challenges facing any business might change over the years, but they will remain focused on increasing the level of service and customer satisfaction.

What is needed thus is a genuine, corporate-wide commitment (from both management and employees) to the customer. Ted Levitt, a recognized marketing advisor from Harvard University, notes that a company should approach the relationship with the customer as if it were a lifelong one[2] . However, most frequently, the promises made by sales and marketing are not fulfilled by the service delivery system. As a consequence, after a sale is made, the relationship often goes unpleasant and the customer might be lost. Most people encounter poor service with the stressing repetition, and, in fact, the only one thing worse than the service may be the response to the complaints.

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2 Ibid, p.5.

2.2 Customer Satisfaction and the High Cost of a Dissatisfied Customer.

Customer satisfaction is a vital ingredient to a company's success. But what is customer satisfaction? Here is a definition[3] :

> Customer satisfaction is the degree of happiness experienced by the customer. it is produced within and throughout an organization- among all departments, all functions, and all people. Customers include external purchasers of goods and services from the organization, suppliers, the local community, employees, managers, and supervisors (and shareholders, if the organization is publicly held).

Whatever the definition is, the facts show that customer satisfaction should be the main concern of every company. Considering the following information will be a good illustration:

* According to the Strategic Plan Institute (SPI), revenues of companies with high levels of customer satisfaction (what SPI refers to as "relative perceived product or service quality") grow at an average of 12 percent annually, compared with no growth for companies with lower levels of customer satisfaction. Further, profits of service-oriented companies grow at an average of 10 percent a year, compared with 1 percent a year for those perceived not to have superior service[4].

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3 J. Melone, Quoted in Building Customer Satisfaction, (Chicago:Dartnell Corporation, 1990), p.9.

4 W.A. Sherden, "Gaining the Service Quality Advantage", Journal of Business Strategy, (March/April, 1988), pp. 45-48.

* According to a research conducted by Desatnick and Detzel[5] , 91 percent of retail customers will avoid a company that served them poorly. Of those, 80 percent will go out of their way to find a comparable store that offers superior service and 70 percent will pay more for that service.

* A customer with satisfactorily resolved problems provides three times the revenue of customers who have not had problems. In addition, customers request adjustments that are reasonable in relation to what the company is willing to offer 90 percent of the time[6] .

Given these rewards, clearly the goal should be to put all the required effort to have an efficient customer service, and to cultivate customer satisfaction. But what would happen if the required attention is not given to customers, thus resulting in customer dissatisfaction? The answer could be found in the significant findings reached to in recent studies conducted by Technical Assistance Research Programs (TARP)[7] :

*Ninety-six percent of consumers who experience a problem with a small-ticket product (for example, small packaged goods) do not complain to the manufacturer. Of these, 63 percent will not buy again.

* Forty-five percent of consumers who experience a problem with a small-ticket-service (for example, cable television or local

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5 Desatnick & Detzel, Managing to Keep the Customer, p.9.

6 Ibid, p.9.

7 TARP, Quoted in Managing to Keep the Customer, pp. 7-8.

telephone service) do not complain. Of these, 45 percent will not buy again.

* Not surprisingly, only 27 percent of unhappy consumers of large-ticket durable products (for example, automobiles, computers,...) do not complain. Of these, 41 percent will not buy again.

* Thirty-seven percent of unhappy customers of large-ticket services (for example, insurance, loans,...) do not complain. Of these, 50 percent will not buy again.

These numbers alone are significant and can make a major difference in future sales. But TARP has confirmed that a negative word of mouth can create an even more serious problem. Unhappy consumers share their experiences with others. A dissatisfied consumer with a small problem tells ten other people; those with large problems tell sixteen others. On the other hand, each consumer whose small problem is satisfactorily resolved can be expected to tell five other people. Each consumer whose large problem is satisfactorily resolved can be expected to tell eight other people. Of these people, some will then become new customers. Further, most consumers whose complaints are satisfactorily resolved go on to buy again. These figures range from 92 percent of purchasers of small-ticket products to 70 percent of consumers of large-ticket services.

So whatever happens, and whatever changes a company could be exposed to, customer satisfaction should always be the major priority. The rapid pace of the times in which we live results in constant change as a way of life. In his book, Managing in Turbulent Times, Peter Drucker strongly suggests the need to "slough off

yesterday"[8] . According to him, the time to change and reassess, to question every aspect of our operation is not when in trouble but while we are successful. Drucker notes that it is particularly important to reassess management strategies and tactics after a long period of relative calm and predictability. In these turbulent times, every service, both internal and external, every process, and every activity needs to be put on trial every few years. Drucker suggests that all institutions - public and private, for -profit and not-for-profit - examine how their customers define "value" and how they perceive the institution in relation to its competition.

2.3 Organizational Factors Affecting Customer Satisfaction.

The best-managed organizations continuously strive for perfection in everything they do. They know that even once they achieve a superior level of customer service, they cannot relax. "Top-quality service needs to be sustained and reinforced, never allowed to slip; it is an ongoing, never-ending process."[9] All supervisors, all managers, and all employees at every level should continually remember the organization's customer-oriented values.

This process must reach every single employee, and it must start at the top. Management actions set the example. Employee awareness of the importance of customer service is influenced by the degree of importance management attaches to customer service,

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8 P.F. Drucker, Managing in trubulent Times, (N.Y.: HarperCollins, 1980), p.26.

9 Desatnick & Detzel, Managing to Keep Customers, p.20.

through its supporting attitude and behavior and the total budget it allocates to customer service.

2.3.1 The Role of the CEO.

The role of the CEO is to provide the overall service direction, set the organization's service policy, define the customer service objectives, and direct the organization's overall integrated service efforts. Once the overall strategy and plans are formulated, the CEO provides the proper funding, conducts regular and periodic service progress reviews, and evaluates service accomplishments against plans.

In his book, Managing Strategic Change[10] , Noel Tichy states that in order for managers to create an environment that focuses on the customer, they must ensure that:

1- The process is CEO driven.

2- There is a recognition of the need to change, coupled with knowing where to change.

3- Management has the capacity and willingness to make the required changes.

4- Skills training is provided in order to effectively implement the change.

In this aspect, management style is very important. In fact, an organization's culture is reflected in its management style, and that style dictates how any system of performance management, as for

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10 N.M. Tichy, Managing Strategic Change, (N.Y.: Wiley, 1983), p.73.

example management by objectives, is to be introduced and implemented if desired results are to be obtained. A research study conducted by Daniel R. Denison of thirty-four large U.S. corporations over a period of five years confirms that "cultural and behavioral characteristics of organizations have a major effect on a company's performance."[11] Dension found that organizations with a participative management style - for example, with shared decision making - actually performed better than their competitors in such key measures of financial performance as return on investment and return on sales over a five-year period.

Moreover, the Research Institute of America (October 1987)[12] confirmed that participative management pays off in many ways. In thirteen of fourteen measures of financial achievement, firms practicing variations of participative management outperform those managed more traditionally. Of the 101 large U.S. industrial companies surveyed, those with participative management rated better on turnover, grievances, absenteeism, pay, and benefits. The results of the research confirmed what managers have observed in their own organizations.

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11 D.R. Dension, "Bringing Corporate Culture to the Bottom Line", Organization Dynamics, (Autumn, 1984), quoted in Managing to Keep the Customers, p.27.

12 The Research Institute of America, quoted in Managing to Keep the Customer, p. 27-28.

2.3.2. The Role of Employees in Determining Customer Satisfaction.

> " Take care of your employees and they will take care of your customers. There is a strong correlation between employees' perceptions of how they are treated and customers' perceptions of the quality of service they receive."[13]

As was mentioned earlier, in the 1990s and perhaps throughout the entire decade, the major source of profit growth will come from a better service system which in turn requires better management of human resources. In a research conducted by Desatnick & Detzel,[14] it was suggested that 80 percent of the opportunity for productivity and profitability improvement lies in effective management of the work force. A work force committed to excellence in customer service - internally and externally - will provide most of the opportunity.

Managing an organization's human resources equates with managing its customer services. To put it in another way, " employee relations equal customer relations."[15] The impact of motivated employees upon productivity has been recently quantified, and in the process, a broader range of business needs is being addressed such as customer service and customer satisfaction, cost containment, and management of the work force.

As a review of literature, the authors presented the results reached by a research conducted by David E. Bower who examined the notion that taking care of human relations equates to taking care of

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13 D.E. Bower and B. Shneider, "Employee and Customer Perceptions of Service in Banks: Replications and Extension." Journal of Applied Psychology, (Vol. 70, No. 3), pp. 423-433.

14 Desatnick and Detzel, Managing to Keep the Customer, pp. 42-45.

15 Ibid, p.42.

the business.[16] The sample population used by Bower consisted of two groups of branch banks. One group had twenty-three and the other twenty-eight. The results reached by him were the following:

1- There is a strong correlation between customer and employee views of service quality and the internal climate of service.

2- When employees view favorably an organization's human resource policies, customers view favorably the quality of service they receive.

3- A positive work climate directly affects customer service for the better.

4- The area of human resources is an excellent vehicle for satisfying both employee and customer needs.

Many organizations are just now becoming aware of the impact that employee relations have on customer service. Trying to provide ideas on how to ensure that the impact is positive, Desatnick and Detzel stated that a company must have a good sense of its employees and their attitudes toward the organization and its customers. In fact, understanding employee attitudes is crucial, because to enjoy the highest standards of service superiority, employees should be motivated. But to have motivated employees, they must have motivated supervisors and managers. To have motivated managers, organizations should be put in order. Now, to put one's organization in order requires good and clear relationships between management and labor. If this is not fulfilled, and the relationships of trust and

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16 D.E.Bower, "Taking Care of Human Relations Equals Taking Care of the Business", HR Reporter, (Nov.1985), quoted in Desatnick and Detzel, Managing to Keep the Customer, p.43.

openness degenerate, the customer suffers as much as management and labor.

Looking at a set of employee problems that Desatnick and Detzel faced and solved at Mac Donald's would be a good example of what can happen if employee relations problems affect customer relations. The researchers were worried about problems in service timeliness and service quality at six restaurants in the Midwest. The restaurants were earning low profits and suffering from high employee turnover, and customers endured a three-minute average wait for a meal - exactly twice the company standard. Upon examining the situation there, it was found that:

1- Employee turnover was more than 300 percent annually in each of the stores.

2- There was a 60 percent annual turnover of the stores' managers.

3- Stores were understaffed.

4- There were few crew meetings.

5- New-employee orientation was at its minimum.

6- Training manuals and procedures were not being followed closely.

A survey of the restaurants' employees indicated a high level of dissatisfaction with jobs, work hours, and working conditions. The end result was that the employees were unhappy, the service deteriorated, and the customers were unhappy.

As a first step toward improvement at the problem sites, the researchers introduced "behaviorally oriented interviewing - that is, using a candidate's job and life experiences to predict how that person

will perform in a given position and organization."[17] Formal orientation processes were instituted, regular surveys of employee job satisfaction were conducted, and more time in training manuals and procedures was invested. As a consequence, employee turnover decreased to less than 100 percent (versus the more normal 200 percent) in less than a year. Management teams were stabilized, and service timeliness went back to normal standards.

Using these steps, management could reinforce an atmosphere of respect for the employee. This respect was then reflected in increased customer satisfaction.

2.4 Understanding Consumer Complaint Intentions and Behavior.

The study of consumer complaint intentions and corresponding behavior (CCB) has been the extensive body of research. Researchers find this useful and important in understanding the extent of marketplace dissatisfaction and in devising programs to handle consumer complaints.

A study conducted by Jagdip Singh[18] dealt with the issue pertaining to the nature and structure of the consumer complaint behavior (CCB). The basic purpose for the study is the fact that the development of CCB has been minimal despite the obvious importance of the CCB concept. Review of literature made by the researcher showed that previous work in marketing had attempted to understand

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17 Ibid, p. 46.

18 Jagdip Singh. "Consumer Complaints Intentions and Behavior: Definitional and Taxonomical Issues", Journal of Marketing. (Vol. 52, January 1988), pp. 93-107.

how CCB results from market-place dissatisfactions (e.g. Day, 1984)[19] as well as the psychological and behavioral reactions to CCB (e.g. Gilly and Gelb, 1982)[20]. However, relatively little work had been done to understand the nature and structure of the CCB concept itself.

To start with the definition of CCB, there is considerable agreement about the conceptual meaning of the consumer complaint behavior construct. First, the CCB phenomenon is believed to be triggered by some feelings or emotions of perceived dissatisfaction[21]. Without perceptions of dissatisfaction, consumers' responses cannot qualify as CCB[22]. Second, CCB responses generally are considered to fit into two broad categories: behavioral and non behavioral. Behavioral responses constitute any or all consumer actions that convey an "expansion of dissatisfaction". Also, behaviors involving third parties (e.g. legal actions) or even friends and relatives (e.g., negative word-of-mouth communication) are also regarded within the category of behavioral responses. Further, Singh states that some researchers contend that non behavioral responses, such as when the consumer forgets about a dissatisfying matter and does nothing, should be considered as legitimate CCB responses. The researcher also talked

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19 Ralph L. Day, "Modeling Choices Among Alternative Responses to Dissatisfaction", in Advances in Consumer Research, (Vol. 11, 1984), pp. 496-499.

20 Mary C. Gilly and Betsy Gelb, "Post-Purchase Consumer Process and the Complaining Consumer", Journal of Consumer Research, (Vol. 9, 1982), pp. 323 - 328.

21 Day, 1984.

22 Jacob Jacoby and James J. Jaccard, "The Sources, Meaning and Validity of Consumer Complaining Behavior: A Psychological Review", Journal of Retailing, (Vol. 57, Fall 1981), pp. 4-24.

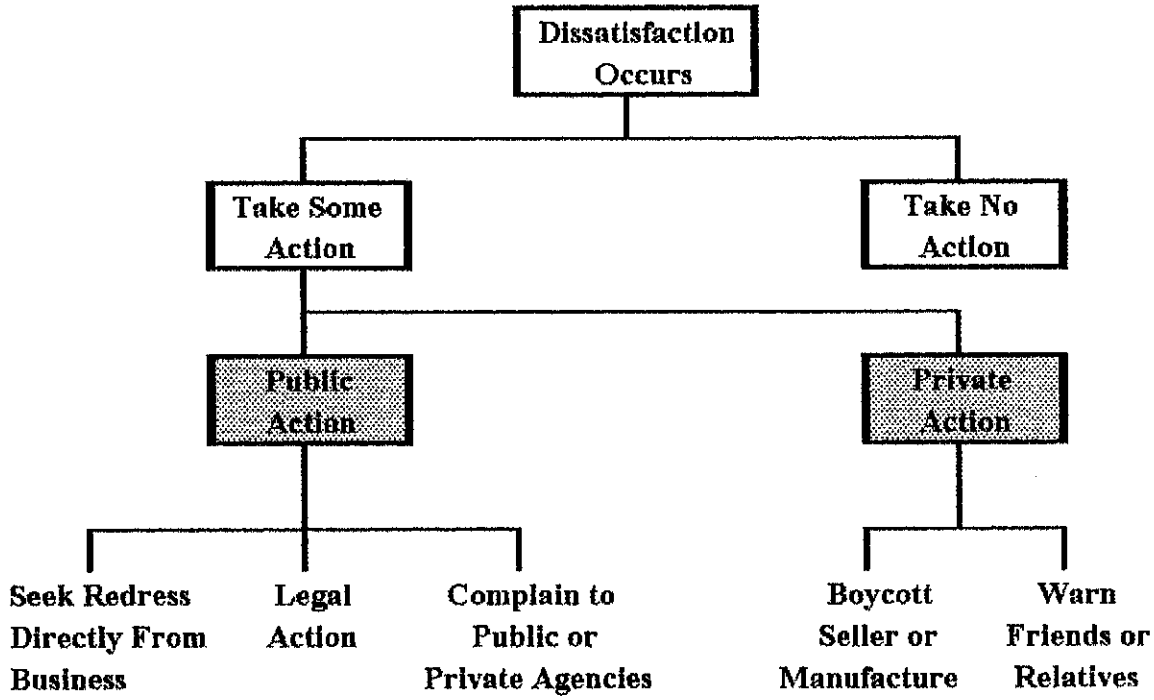
about two issues pertinent to CCB: classification issues and operationalization issues.

2.4.1 Classification Issues.

A review of literature conducted by Singh showed two major attempts to address taxonomic issues related to the CCB construct. In the first attempt, some researchers (Day & London, 1977) proposed a two-level hierarchical classification model (Figure 2.2). The first level distinguishes behavioral from non behavioral responses. The second level represents the distinction between public and private actions. Public actions include seeking replacement or refund from the seller, complaining to a consumer organization, and legal actions. Private actions could be word-of-mouth communications to friends and relatives and ceasing to patronize a store. Day and London stated that the action / no action distinction follows directly from the conceptualization of CCB, whereas they justify the public / private dichotomy on the grounds of the nature and importance of the product involved in the dissatisfaction. For example, for complex and expensive products, such as durable goods, consumers are expected to engage more often in public actions.

Empirical support for the validity of the preceding distinction is limited, however. As it is stated by Singh, "for instance, Day and Ash (1979) report some typical findings for complaint behaviors in the case of non durable and durable goods. After dissatisfaction with durable goods, 32.5% of the respondents reported warning family and friends (i.e. private action). For non durable goods, the comparable was

Figure 2.2 Day and London's (1977) Classification of Consumer Complaint Behavior



Source, Singh, "Consumer Complaint Intentions and behavior", p. 95.

reported to be 33.3%. In contrast, the percentage of respondents who complained to the seller for a replacement or a refund (i.e. public action) was 48.8% and 57.9% for durable and non durable goods, respectively."[23] That is, as the product complexity increased (non durable - durable), the extent of private actions remained about the same but public actions actually decreased. This finding is inconsistent with Day and London (1977). Other studies, however, do tend to support that hypothesis (e.g. Day et al. 1981). These contradictory findings "raise some doubts about the basis of the proposed classification schema".[24]

2.4.2. Operationalization Issues:

According to Singh, research attempting to operationalize CCB as a construct is limited. Bearden and Teel (1983) were the first researchers " to view CCB explicitly as a construct, propose an operationalization (i.e., Guttman Scale), and report some psychometric properties"[25] (e.g., alpha reliability, dimensions, etc.). The data collected by Bearden and Teel on a 5-item CCB scale have coefficients of reproducibility and scalability of 0.98 and 0.78, respectively. Table I shows a list of the items used.

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23 Singh, "Consumer Complaint Intentions and Behavior", p. 95.

24 Ibid, p.95.

25 Ibid, p. 96.

Table I
Items Used by Bearden and Teel (1983)
to measure CCB

1. Warned family and friends.
2. Returned vehicle for rework and/or complained to management.
3. Contacted manufacturer.
4. Contacted Better Business Bureau, state office of consumer affairs, or private consumer agency.
5. Took some legal action.

Source:- Singh, "Consumer Complaint Intentions and Behavior", p. 105.

In designing a research study to address the preceding issues, certain steps were considered important. First, the proposed operationalization of CCB should be comprehensive. Second, the number of items in the proposed scale should be sufficient for empirical assessment. Third, the study should be conducted in several different complaint situations so that the validity of the claims about the nature and structure of the CCB construct can be properly investigated.

Fifteen items were collected from published research reports to measure the diversity of the CCB construct. On the basis of the analysis of pretest results, a revised scale of 10 items was developed. A list of the items used in the research is shown in table II.

While previous researches, as the literature reported by Singh shows, are based on recall of past dissatisfaction and the complaint actions undertaken, in the study conducted by Singh, " respondents also were asked to recall a dissatisfying experience that they remember most clearly."[26] Responses concerning CCB actions were obtained on a dichotomous (Yes/No) scale of 7 items. Respondents were also asked what they should do if a similar situation incident happened again. The intentions data were obtained on a most likely / least likely Likert Scale (coded 1 through 6).

As to data collected, four different complaint situations were considered: grocery stores, automobile, repair shops, medical care providers (e.g. physicians and hospitals), and banks and financial

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26 Ibid, p. 97.

Table II

Items Used to Measure CCB Intentions

How likely is it that you would:	
CCB1	Forget about the incident and do nothing?
CCB2	Definitely complain to the store manager on your next trip?
CCB3	Decide not to use that repair shop again?
CCB4	Go back or call the repair shop immediately and ask them to take care of your problem?
CCB5	Speak to your friends and relatives about your bad experience?
CCB6	Convince your friends and relatives not to use that repair shop?
CCB7	Complain to a consumer agency and ask them to make the repair shop take care of your problem?
CCB8	Write a letter to the local newspaper about your bad experience?
CCB9	Report to the consumer agency so that they can warn other consumers?
CCB10	Take some legal action against the repair shop manufacturer?

Source:Singh, " Consumer Compaint Intentions and Behavior", p.105.

services. As a means for data collection, a questionnaire consisting of CCB intentions and behavior items, dissatisfaction questions, and some background questions to a random sample of households in Southwest Texas. Four different questionnaires were developed to represent each of the four complaint situations. 4,000 questionnaires were sent out, 1,000 for each situation. Responses obtained were between 15.5% (automobile repair) and 17.6% (grocery shopping). Results showed some variability in demographic characteristics. This could be attributed to the various settings that were used in the research. The response range (15-18%) is not uncommon in dissatisfaction research with a random sample of households.

As an initial analysis, the mean and standard deviation values for each of the 10 CCB items were examined, covariance matrix is identical across the four samples is strongly rejected (Chi-square: X^2 = 385, p = 0.000)." This outcome is not surprising because the questionnaire asked respondents to provide CCB for one and only one complaint situation."[27]

Moreover, exploratory analysis was used as a procedure that would afford a reasonable test of the validity of the proposed structure of data responses to the extent that the four CCB data sets are independent and distinct. The automobile repair data were selected (randomly) for exploratory data analysis. As a first step, the correlation matrix for the 10 intention items was examined. A wide variation was present in the observed correlations, which range from 0.50 to 0.70." The Kaiser - Mayer- Olin measure of sampling

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[27] Ibid, p. 97.

adequacy (0.76) and the Barlett's test of sphericity ($x2 = 401.64$, $p = 0.0000$) indicate the presence of some shared variance among the 10 CCB items".[28]

A factor analysis was also conducted. A three-factor solution was supported since three eigen values are greater than 1.0 (values 3.76, 1.61, and 1.33). Also a Varimax-Rotated Factor Structure was done, and eigen values are also greater than 1.0 (Table III). The first factor, representing items CCB7 through CCB10, seems to signify actions directed at some formal third parties (e.g., newspaper, Better Business Bureau, legal system, etc.). This factor therefore can be referred to as "the third party CCB". Items CCB3, CCB5, and CCB6 clearly load on factor 2. This factor seems to combine the notions of word-of-mouth communications and exit from an exchange relationship. The researcher here reports that this factor appears to be consistent with the Day and London's (1977) private CCB actions category and is referred to as such in the study. The third shows significant loadings for items CCB1, CCB2, and CCB4. CCB2 and CCB4 pertain to seller-related responses, whereas CCB1 pertains to doing nothing about the felt dissatisfaction. Though it is difficult to base a conclusion on a single item (CCB1), Hirschmann's (1970)[29] observations suggest the reason why "no action" may sometimes

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28 Ibid, p. 99.

29 Albert O. Hischermann, "Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States", quoted in Singh, "Consumer Complaint Intentions and Behavior", p. 100.

30 Ko de Ruyter and Joost Zaurbier, "Customer Information Systems: Approaching a new field in information systems from a new perspective", Information and Management, (Vol. 24, 1993), pp. 247 -255.

31 Ibid, p. 247.

Table III
Varimax-Rotated Factor Structure for Auto Repair Data

	Factor 1	Factor 2	Factor 3
CCB1	-0.04	0.13	0.519
CCB2	0.17	0.05	0.708
CCB3	0.22	0.654	0.22
CCB4	0.18	0.082	0.721
CCB5	0.17	0.743	0.02
CCB6	0.25	0.762	0.13
CCB7	0.673	0.29	0.24
CCB8	0.559	0.14	-0.08
CCB9	0.878	0.14	0.22
CCB10	0.574	0.18	0.12
Eigenvalue	1.77	1.74	1.48

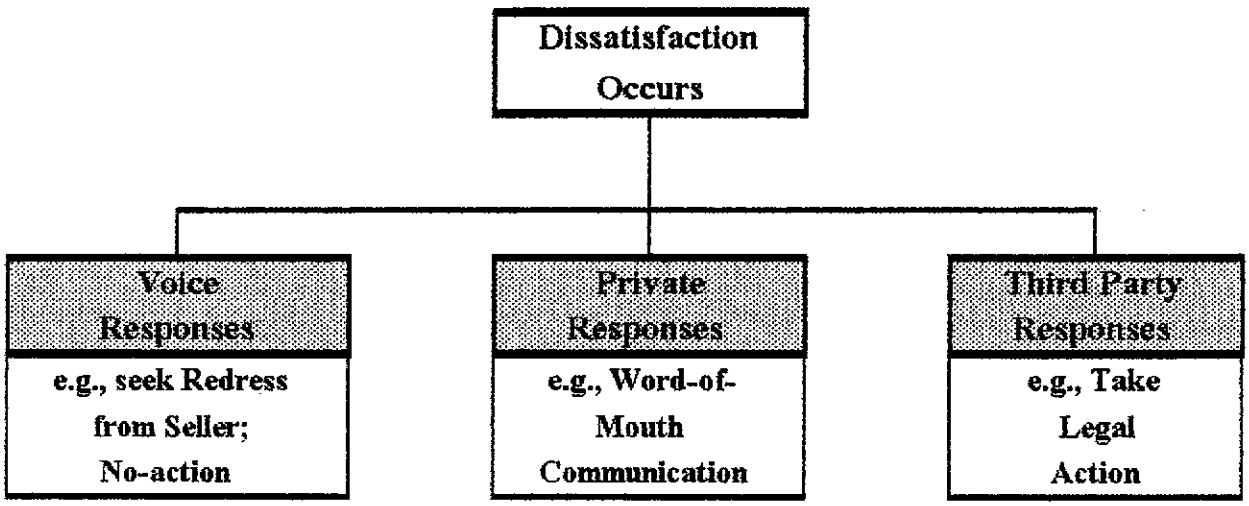
Source: Singh, "Consumer Complaint Intentions and Behavior, p. 100.

reflect predominant feelings towards the seller. He suggests that people may take no action even when dissatisfied if they are loyal to the seller or if they perceive that complaining to the seller is probably fruitless. Both possibilities reflect feelings toward the seller. Singh reports that some researchers have discussed the notion of "voicing" complaints to the involved party (e.g., manufacturer / retailer) and this particular factor seems to be consistent with such a notion. This factor therefore can be referred to as voice CCB actions.

It is also worthmentioning that the alpha reliability for the voice, private, and third party CCB dimensions is 0.70, 0.80, and 0.80 respectively, further supporting the presence of three distinct factors. Based on the aforementioned results, Singh states that Day and London's (1977) classification could be an adequate representation of the structure underlying the CCB responses, if the public actions category is considered as two distinct dimensions (voice actions and third party CCB). The resulting classification schema for CCB is thus three dimensional, and is shown in figure 2-3.

Validity check using behavior data was also performed. Complaint behaviors that consumers recalled having engaged in were categorized first into the three dimensions of CCB (Figure 2-3): Voice, private, and third party. For each dimension, responses were coded as 0 (no) or 1 (yes). Within each behavior dimension means and standard deviations were calculated for CCB intentions by summing over the items in each dimension. Moreover, in order that the sources of variation in each dimension of CCB categories could be identified, a MANOVA analysis was performed with the three CCB behavior categories as the treatment variable. The results not only appeared to

Figure 2-3: Proposed Taxonomy of CCB responses.



Source: Singh, "Consumer Complaint Intentions and behavior", p. 101.

support the expectations of CCB-intentions-behaviors, but also lend credence to the contention of three distinct dimensions for CCB.

2.5 Customer Information Systems.

A research conducted by Ko de Ruyter and Joost Zuurbier was based upon the fact that "recent years have witnessed an increasing awareness and need for information systems that can fulfill a role on the boundary between organizations and their environments."[30] Examining these information systems, so-called customer information systems (CIS), the researchers found that they have been developed using a traditional design approach with an emphasis on information systems that ignores the role of social systems in business decision-making. Thus, "a number of well-known problems concerning the use of information technology have also risen in the CIS area". The purpose of the research was therefore to propose a new design approach to CIS that "addresses responsibilities and norms in business decision-making and focuses on the interplay between information systems design and organizational design."[31]

A review of literature conducted by Ruyter and Zuurbier showed that a greater emphasis is nowadays placed on the concepts of customer service as a strategic factor in achieving a competitive edge for organizations. According to the Total Quality Management tradition, a company should not depend on internal standards any more. Rather, the customer's perception of quality is what should be

used to assess organizational performance.[32] Organizational Information systems design did not really respond to this need. The focus has been extensively on internal operations, providing reports on production and sales volumes, finance, quality control, etc., while hardly telling anything about their customers. "Although many organizations make use of a customer database containing straightforward facts, such as account numbers, addresses, purchasing and payment records, etc., they do not contain any information customer expectations and perceptions and how the organization's performance relates to this."[33] Moreover, according to the literature review conducted by the two researchers, as early as 1983, research revealed that "many companies do not take advantage of information available... thereby spending almost all of the necessary resources but gaining only some of the benefits."[34] Because of this, there is a need for designing systems that adopt a more "boundary spanning" role, providing the organization interaction with its customers. Such Customer Information Systems should assist management in planning, analysis, decision-making and control in the customer service strategy.[35]

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32 C. Hakes, Total Quality Management, (London: Chapman Hall, 1991), quoted in Ruyter and Zuurbier, "Customer Information Systems", p. 247.

33 J.Anton, T.R.Bennett and R.Widdows, Customer Response and Information Systems, (Whitehaven: The Waterfront Press, 1991), quoted in Ruyter and Zuurbier, "Customer Information Systems", p. 248.

34 Ruyter and Zuurbier, "Customer Information Systems", p. 248.

35 F. Selig, "Managing information technology in the nineties", Information and Management, (Vol. 21, 1991), pp. 251-255.

2.5.1 Practical Problems Available in Current CIS.

Ruyter and Zuurbier's research based on analyzing a case material for a large moderately-priced U.S. department store chain that specializes in nationally branded and high quality private-label, casual apparel. The CIS within the company's Information Center has been operational for three years. In the course of the three years, company management has gradually lost interest in the customer information provided by the information center. After providing information to all store managers, 22 district managers, and 110 corporate managers, the information center is presently not performing well: "the quality of its information is considered very poor."[36] According to respondents, this was due to three attributes of the information.

First, the content of the information was not in accordance with management's needs for decision making. For example, the data processed by the CIS within the Information Center was not integrated with customer satisfaction data as acquired by other departments, such as Market Research and Quality Control. Thus, trends in complaints or product returns could not be related to the company's customer satisfaction index. Also, the information could not be related to previous periods e.g., for correction of seasonal influences.

Second, the information format was not considered as user-friendly. As a rule, the results of both quantitative and qualitative analysis of customer data were presented in long "laundry lists" pertinent to nearly each and every department within the company.

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36 Ruyter and Zuurbier, "Customer Information Systems", p. 248.

These were very time-consuming, and thus, most of the time the Information Center reporting was not read or was ignored.

Third, timeliness was another factor needing improvement. On one hand, reporting to quarterly intervals did not provide timely enough information. On the other hand, access to information in the form of ad hoc reporting related to particular problems or questions was highly limited and time consuming.

2.5.2 A Solution Using Semantic Analysis and Norma Analysis.

Ruyter and Zuurbier attempted to conceptualize the problem field into two observations: problems of meaning and the role of the informal system in business decision-making. Thus semantic and norm analysis were introduced. This was attributed to the fact that business decision making is information processing in an organization. Problems related to decision-making due to conflicts of view can only be solved by incorporating the informal, social system. Formal organizational decision-making is largely dependent upon an informal system. On this level, people have to negotiate to reach a consensus, which is considered as the starting point for formal decision-making. "Without this consensus, solid bureaucracy and information technology (IT) systems cannot be built"[37], and this may lead to variable formal decision-making. Moreover, defining responsibilities is important; i.e., knowing 'who' is to do 'what'. "The 'who' are the 'agents' in our social

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37 Ibid, p. 251.

system. The 'what' is the 'behavior' desired by the system."[38] Semantic analysis leads to a representation of the responsibility structure, thereby addressing problems of meaning. Norm analysis leads to a further specification of authorities, thus attempting to formalize a part of the informal system for the purpose of business decision-making.

2.6 Consumer Complaints and Managerial Response.

Another research, "Consumer Complaints and Managerial Response: A Holistic Approach", conducted by Resnik and Harmon proved an exploratory study that examined manager and consumer perceptions of appropriate responses to complaint letters[39]. The research is based on the idea that the essence of many marketing activities including complaint handling involves the synchronization of company resources with consumer needs and with the marketing environment; however, achieving an acceptable match between a particular response that a consumer desires and the response that managers are willing to give may be difficult. Thus, the study offers some insights concerning this complaint resolution process.

To start with, the study intended to answer basic questions as how the complaint handling should be administered and where it should be located within the organization. The purpose was to "gain insight into the nature and variability of consumer expectations of response to

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38 Ibid, p. 252.

39 Alan J.Resnik and Robert R. Harmon, "Consumer Complaints and Managerial Response: A Holistic Approach", Journal of Marketing, (Vol. 4, Winter 1983), pp. 86-97

40 Ibid. p. 86 - 87.

complaints; concomitantly, we gathered information on how marketing managers are most likely to respond "[40]. The perceived legitimacy of the complaints, the cost of responses and the objectives of complaint handling were also explored.

A review of the complaint literature was conducted by the researchers, and it was found that there is considerable variability in studies that have attempted to measure the overall level of dissatisfaction. For example, while Andreasen and Best (1977), in a telephone survey, found dissatisfaction with one of five purchases, West-brook, Newman and Taylor (1978) found dissatisfaction in about one out of ten purchases. In a national study, Grainer, McEvoy and King (1979) found that 32.4% of 2,513 households surveyed reported consumer problems during the previous year. According to Resnik and Harmon, these differences in findings are common in the complaint literature. Moreover, Robinson (1978) has identified several general limitations of the complaint research. most studies, for example, have not been generalizable, the complaint behavior - dependent variable typically has been oversimplified, and most research has been limited to analysis of demographic correlates. It was also reported that complaint rates reached to about 14% for consumers of low-priced products, while other studies showed higher rate of 45%. Also, the consumer most likely to voice a complaint differs from the noncomplainer on a number of demographic characteristics.[41]

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41 Quoted in Resnik and Harmon, "Consumer Complaints and managerial Response", Journal of Marketing, p. 87.

In addition, several studies have involved the rates of response to complaints, levels of consumer satisfaction with complaint responses, and other managerially-oriented questions. Kendall and Russ (1975) found that in 82% of instances, manufacturers responded to complaint letters. Pearson (1976) found the response rate to letters to be about 74%, whereas Hill & Garner found it to be 60%. Pearson also noted that of those consumers receiving responses, 52.7% were satisfied. Kendall & Russ also found that there is considerable variation in managerial policies toward complaint letters, in internal use of information and the frequency with which complaints were received[42].

The study conducted by Resnik and Harmon uses a field survey to compare consumer desires for complaint resolution with recommended action by managers. As to the methodology followed, two phases were used. In the first phase, consumers in geographically-dispersed areas were asked to examine complaint letters and to play the role of the complaint writer. Subjects were then asked to suggest a response to the complaint and describe who should respond, what the response should be and how the subject evaluated the legitimacy of the complaint. The second phase investigated responses to the same complaints by branch managers from the company to which the responses were directed. Each manager was asked to provide information about company objectives and policies, the employee designated to respond, perceived complainant motivations and the legitimacy of the complaint. "By asking similar questions of consumers

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42 Ibid, p. 87.

and managers, consumer expectations and desires could be compared with the responses of branch managers. These comparisons were made on both a qualitative and quantitative basis."[43]

As to the study findings, consumers in the study were more likely than managers to view complaints as legitimate. "This finding is particularly true for complaints that do not suggest obvious solutions. Although both consumers and managers viewed such complaints as being less legitimate than complaints with obvious solutions, managers were more skeptical."[44] When confronted with an ambiguous situation, some consumer subjects were willing to give the benefit of doubt to the complainant. Managers who believed that a complaint was not legitimate were asked to explain their perceptions of the consumer's motivation for complaining. Here, in 34.9% of the cases, managers believed that consumers desired something for nothing from the company. Managers also attributed consumer confusion (22.9%) and the consumer incorrectly believing he / she was right (14.5%) as reasons for less than legitimate complaining behavior[45].

Managers were asked what they expected consumers' reactions to be after the complaint had been handled. Table IV shows that managers were optimistic about how their responses would be received.

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43 Ibid, p. 88.

44 Ibid, p. 93.

45 Ibid, p. 91.

Table IV
Managers' Perceptions of Anticipated Consumer Reactions

Anticipated Reaction	Percentage
Satisfaction	47.40
Acceptance	22.90
Dissatisfaction	13.00
Uncertain	9.40
Other	7.30

Source: Resnik and Harmon, "Consumer Complaints and Managerial Response", p. 91.

It was also reported that customer satisfaction was the primary response objective for managers. In order to achieve this satisfaction, managers appeared willing to go beyond consumer expectations in resolving the complaint. As shown by TableV, consumer satisfaction (45.5%) and protecting the firm (41.0%) were the most important managerial objectives. Keeping the dealers satisfied (17.5%) and minimizing costs (11.5%) did not appear to be as important as other response objectives.

2.7 Computerizing CIS.

A firm's complaint management entails two basic functions: by individual and by aggregate. It is mainly the latter point that many companies fail to achieve. One of the easiest ways in which to achieve both objectives is to have a comprehensive computerized complaint handling system[46]. "Most companies spend 95 percent of their resources reacting to the individual complaint and less than 5 percent analyzing and answering them."[47]

An example of a computerized complaint and handling system is the consumer response system (CRS). CRS is written in a powerful fourth generation language so it is easy to use and easy to modify. The system has major advantages. First, it has extensive archival and reference options which virtually eliminate the need for manual record

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46 V. W. Mitchell, "Handling Consumer Complaint Information: Why and How?", Logistics Information Management, (Vol. 6, No. 3, 1993), pp. 20-26).

47 C. Adamson, "Complaint Handling: Benefits and Best Practice", Consumer Policy Review, quoted in V. Mitchell, "Handling Consumer Complaint Information", p. 24.

Table V
Managers' Response Objectives

Objective	Percentage
Customer Satisfaction	45.50
Dealer Orientation (Satisfaction)	17.50
Minimize Cost	11.50
Protection of Firm	41.00
Response will not accomplish much	4.00
Others	14.50

Source: Resnik and Harmon, "Consumer Complaints and Managerial Response", p. 91.

keeping. The second major advantage of the system is its ability to collate and analyze data. Summary reports can display up to nine years of historical data to provide companies with prior periods by ratios, percentages, averages, and so on. Detailed reports show one line of data per contact which can be selected from any field in the database. For example, the user may request to see all the complaints for a specified product that was produced in a particular factory during the last 48 months. The system allows easy administration of surveys and questionnaires to complainants. Finally, the reference manual is a useful reference source for experienced staff as well as an excellent training tool for new staff.[43]

What was presented above was a review of the literature reported by previous researchers and authors concerning customer information systems. This study will describe the customer information systems applied in organizations operating in Lebanon, and will examine the various factors affecting an efficient and effective implementation of the system.

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43 V. Mitchell, "Handling Consumer Complaint Information", p. 26.

CHAPTER III
RESEARCH DESIGN AND METHODOLOGY

3.1 The Basic Research:

This study has been conducted with the intent of describing and evaluating Customer Information Systems and the methods followed in handling complaints.

Moreover, the study also attempts to examine the various factors that are most likely to be associated with successful implementation of the Customer Information Systems. The measures used and the type of analysis followed were selected according to the model proposed in Chapter I.

3.2 Sources of Information:

A field survey was conducted to test the hypotheses presented in Chapter I. The survey sample covered managers, employees, as well as customers of the various economic sectors. Questionnaires, along with follow-up interviews were used as a major technique to gather data concerning the organizational procedures followed and the consumer satisfaction with these procedures.

The respondents were categorized into three groups:

1- The management as well as Quality and Control managers working in organizations belonging to different economic sectors in the Lebanese Market such as companies dealing with consumer products, along with financial, educational, health, and utility .

2- The employees that work for these companies.

3- The customers that deal with these various companies.

3.3 Survey Design:

The questionnaires and follow-up interviews were used to collect data from managers and employees that are daily exposed to the process of handling customer complaints, and from customers dealing with these companies as being the source of the companies' complaints.

The management questionnaire was developed to measure factors affecting customer satisfaction in relation to methods followed for complaint handling and the possibility of Customer Information Systems implementation. The instrument included eleven sections. It contained eight questions on Demographic Characteristics, four questions on Computer Use, four questions on Computer Training, five questions on Computer Knowledge and Experience, sixteen questions on Beliefs about Requirements of a Good Service, twelve questions on Beliefs about Using Information Technology in Customer Service, eighteen questions on Management's Concern for Customer Satisfaction, fifteen questions on Customer Information Systems Available, eighteen questions on Attitudes Towards a New Customer Information Systems, six questions on Monitoring Service Through Organizational Performance, and twelve questions on Job and Career Attitudes. (See appendix A for a sample of the questionnaire).

The employees' questionnaire-a smaller one- was developed to measure factors affecting employees' satisfaction with their jobs. This

point is of great importance because there is a strong correlation between customer satisfaction and employee satisfaction as was found in the research conducted by D.E.Bower and B. Schneider. Thus, the employee satisfaction would eventually be translated into customer satisfaction. This survey studied employee satisfaction by considering the Style of Management, Management's Concern for Customer Satisfaction, Quality of Service, Corporate Leadership, effectiveness of Communication, and Job Satisfaction. (See appendix B for a sample of the questionnaire).

The customer questionnaire was designed for the customer to express his/her opinion about the quality of service provided by companies and their satisfaction with these services. This is a very important mean for comparison with the information provided by managers and employees. It is worth mentioning that the customer and his satisfaction constitute the aim of every company and form the factor that would justify its existence. This survey studied customer satisfaction by considering some important Demographic and Personal Data, Customer Opinion of Service Provided by Companies Operating in Lebanon, and their Attitude Towards Complaining (See appendix C for a sample of the Questionnaire in English and appendix D for the Arabic version).

Three hundred questionnaires were distributed. The response rate was sixty one percent for managers, sixty nine percent for employees, and eigthy percent for customers. The process involved meeting with the respondents, explaining the nature of the study, clarifying any questions, and picking up the completed questionnaire.

Although no random sampling technique was applied, the managers, employees, and customers sampled came from a wide variety of organizations belonging to various economic sectors. This, according to previous researchers such as Yaverbaum[1] , seems to represent a fair sample for this area and can be regarded as truely representative of a complete spectrum of attitudes and beliefs.

Most responses concerning the dependent and the independent variables were scored on a five-point scale, ranging from (1) strongly disagree to (5) strongly agree. For example on the Attitudes Towards a New Customer Information System factor a score of (1) meant a complete dissatisfaction with the proposed system, while a score of (5) meant that the system is very much accepted.

3.4 Research Variables:

The proposed factors that influence customer satisfaction and the customer information system implementation are chosen on the basis of their perceived importance in the organizational context as was presented by previous research.

3.4.1 Computer Use.

Based on previous research on MIS usage [Delone (1988), Srinivasan (1985), Igbaria et al. (1989)], the dimensions of computer usage that are included in this study are the following:

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1 Yaverbaum, Gayle J.,"Critical Factors in the User Environment", MIS Quarterly, (Vol. 12, No.1, March 1988), p. 79.

1. Inclusion of computer analysis in user tasks: Here, the emphasis would be on the inclusion of computer analysis in customer service. A good indication of the overall computer analysis inclusion in customer service and the variety of tasks performed on the computer was analyzed using a scale that was developed for measuring eight tasks: collecting data about customers' preferences and expectations, conducting profitability analysis, recording complaints and actions taken, assessing company's performance, finding problems, taking actions, historical reference, and planning. Ordinal scaling was used to measure each task category. Five ordinal answers were listed. No usage at all made up the low end of the scale and was assigned the value of 1. A great extent of usage was assigned a value of 5. For each of the eight tasks, respondents were asked to indicate the extent to which they used computers in a scale ranging from "not at all" to "to a great extent". The number of these tasks was used as an index for this measure.

2. Actual daily use of computers: this dimension is widely used in MIS studies. For the purpose of this study, the scale used by Igbaria (1989) will be applied. Self reported time was used, as measured on a six point scale ranging from "almost never" to "more than 3 hours per day".

3. Frequency of use: this dimension was suggested by Raymond[2] (1985) and Delone (1988) and was used by Igbaria (1989). It provides a slightly different perspective than duration of use.

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2 L. Raymond, "Organizational Characteristics and MIS Success in the Context of the Small Business", MIS Quarterly, (Vol. 9, No. 1, March 1985), pp. 37-52.

Srinivasan (1985) and Igbaria (1989) included actual daily use and frequency of use of computers in their measures of usage. Frequency of use was measured on a six point scale ranging from "less than once a month" to "several times a day".

3.4.2 Computer Experience & Training:

Computer experience was assessed by asking respondents to indicate whether they had experience in using different types of computer software, languages, and development of computerized information systems. Responses were coded 0 for no experience, and 1 for some or more experience. The total that the respondents reported was used as a measure. Computer training was measured by individual's response to a question which asked them to report the extent of training they have received from four resources: college or university courses; vendor & outside consultants training; in house training; and self training. This scale was proposed by Nelson & Chenney[3] and used by Igbaria et al. (1989). The mean of the responses to these four questions was used as an indicator of computer training. The validity of the scale was proved by Igbaria since it has an internal consistency reliability 0.86.

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[3] R. Nelson and P. Chenney, "Training End Users: An Exploratory Study", MIS Quarterly, (Vol. 11, No. 4, Dec. 1987), pp. 547-559.

3.4.3 Demographic Variables:

Single item questions were used to ascertain respondents' gender, age, education, and organizational position and division. The level in the organizational hierarchy consisted of four categories: professional staff, first level supervisor, middle management, and strategic management. As to functional division, 11 categories were used: finance, accounting, marketing, general management, personnel, information systems, sales, manufacturing, production, engineering, research and development, and others.

3.4.4 Job and Career Attitudes:

This factor is measured by asking respondents to indicate their agreement and disagreement with statements related to career and job aspects. The scale included dimensions such as general satisfaction, promotion and pay level, status, job security, specific satisfactions, internal motivation, and task significance. Each dimension involves many items that are responded according to a five-point Likert-type scale ranging from (1) strongly disagree to (5) strongly agree. The scale was validated by Yaverbaum (1988) in a job diagnostic survey (JDS) he conducted. The score measure of this variable is the mean of the responses for the item statements.

3.4.5 Beliefs About Using Information Technology in Customer Service.

This measure reflects the general attitude of management about using Information Technology (IT) in the customer service field and whether that leads to better analysis and thus, better decisions. It is reflected in the management's beliefs about the impact of such technology upon cost efficiency, information integrity, creative analysis, segmentation , revenue & expense evaluation, service enhancement, and others. The instrument asked managers to indicate their agreement or disagreement with 12 statements reflecting the beliefs of managers about the advantages and disadvantages of using Information Technology in Customer Service. The response options in this scale range from strongly disagree (1) to strongly agree (5). The mean of the responses was used as a measure for this variable.

3.4.6 Management's Concern For Customer Satisfaction:

This measure is used to assess the support and concern of management about their customers through providing them with the requirements that would lead to their satisfaction such as the well trained, cooperative employee and the concerned departments such as Quality and Control Department. The instrument through 18 statements asked managers to indicate their agreement and disagreement about the role of management in matters such as discussing customer aspects and problems, suggesting better ways of handling matters, setting standards and goals, encouraging cooperation, and providing training

for its employees and justifying their importance in achieving customer satisfaction. The response option used Likert-type scale and the mean was used as a measure for this variable.

3.4.7 Beliefs About Requirements of a Good Service:

It is an important indicator of the organizational orientation. The instrument determines the requirements of a good service as seen by managers and whether factors like proficiency in a job, flexibility with customers, personal attention, responsiveness, timeliness, politeness, keeping records and using those for guidance, are requirements for a distinctive customer service. Each dimension involves many items that are responded according to five-point scale and the mean of this variable was used as a measure.

3.4.8 Monitoring Service Through Organization Performance:

This serves to measure organizational performance as affected by service monitoring. For each of the four different statements, respondents were asked to indicate their agreement or disagreement using a three point scale, (1) for increasing, (2) for decreasing, and (3) for maintaining the same level. Managers were asked to indicate their opinions concerning the organization's place in the market, growth in sales earnings, percentage of turnover, as compared to the overall market. Also, they were asked about their beliefs concerning the impact of service on Return On Investment (ROI), Return On Assets

(ROA), and Earnings per Share using a three point scale dividing the impact into (1) positive, (2) negative, and (3) no effect. Finally, a single item question was used whereby managers were asked to provide the percentage of the company's budget that is devoted for creating and maintaining service superiority in comparison to those budgets' percentages of the marketing and sales.

3.4.9 Customer Information System Available:

This factor is measured by asking respondents to provide their attitudes towards the present adopted ways in handling customer information. The scale included dimensions such as organization's rank in light of customer service, customer complaint handling, use of mail or suggestion boxes or special telephone number, policies used such as refund, guarantee and replacements, computer use in recording and analyzing complaints for further use in planning, and the availability of certain departments responsible of handling customers. The response options in this scale is of Likert-type and their mean was used as a measure for this variable.

3.4.10 Attitudes Towards a New Customer Information System:

The last measure reflects the general attitudes of managers toward the adoption of a computerized Customer Information System that handles customer's information, expectations, complaints to be used in planning in the future to avoid the pitfalls of the past. Other

dimensions were measured such as employee skill required, information communication, use of computer applications, performance monitoring, and the system's ability to provide timely and accurate information.

A list of all the variables used in this research, their description, and coding could be referred to by the reader in appendix E.

3.5 Data Analysis:

Responses were analyzed using the facilities of the statistical package SPSS (Statistical Package for Social Sciences). Using this facility, a descriptive analysis was used to:

1. Investigate managers, employees, and customers attitudes concerning Customer Information Systems implementation, and the relationship between each dimension and demographic variables, computer experience, user training, beliefs about customer service, customer satisfaction, and other variables. To achieve this, the frequencies, One-Way ANOVA, crosstabulation, and correlation facilities were used.
2. Build a regression equation that explains the variations in managers' attitudes towards Customer Information Systems and computerized Customer Information Systems.

Having identified the design and the methodology of this research, the variables to be included, and the analysis tools to be used, it is an important step now to list the findings and the implications of the study and to evaluate them in the light of the hypotheses to be tested. This is in fact the objective of the following chapter.

CHAPTER IV
RESEARCH FINDINGS

After presenting the methods followed and tools used for analyzing the data collected for this study, it is the intent of this chapter to present the findings and analyze them.

In Chapter One, the hypotheses to be tested were listed as follows:

1- In Lebanon, the ways followed to deal with customers and handle their complaints are not efficient due to certain factors such as lack of consumer awareness and lack of proper concern on the part of companies.

2- Computerized and proper application of customer Information systems will add to the customer satisfaction and to the organization's performance.

This chapter intends to test these hypotheses in the light of the results obtained and the analyzed findings.

4.1 Profile of Respondents.

The respondents included in the study, as was mentioned in Chapter Three, formed 61 percent response rate for managers and the size of the sample upon which the study was conducted was 100 managers. Managers surveyed by this study belong to different functional areas (Accounting, Finance, Marketing, sales, Personnel,

Information Systems, Engineering, Manufacturing, General Management, R&D, and other) and work in organizations operating in the various Lebanese economic sectors (manufacturing, educational, merchandising, public sector, ...etc.). The managers in the sample belong to different managerial levels (professional staff, first level supervisor, middle management, strategic management, and others) that interact with a computer during the process of job accomplishment.

Concerning the managers' general characteristics, of the 61 respondents, 37.7% were female and 62.3% were males. As to their organizational level, 41% of the managers belonged to middle management (median = 3.00), followed by 23.0% in strategic management, 16.4% as professional staff, and so on. The ages of the respondents ranged between 23 and 65 years, with the average age coming to be 37.9 or almost 38 years. These characteristics along with the education level are shown in Table VI which presents the profile of the respondents.

4.2 System Use.

System usage was measured along two dimensions: Actual time (hours) spent on system usage, and (2) frequency of system usage. A descriptive analysis was used along the two dimensions, and to identify the relationship between each dimension and another variable assumed to be important in the process of examining the attitude of managers towards the idea of an advanced customer information

Table VI : Profile of Respondents.

Characteristic	Range	Percentage	
User Characteristics			
* Age	23 - 29	19.7	
	30 - 39	47.5	
	40 - 49	18	
	50 and above	14.8	
Mean = 37.9	Median = 36.0	Mode = 30.0	
* Gender	Male	62.3	
	Female	37.7	
* Education	< High School	0	
	High School	6.6	
	Some College	9.8	
	B.S Degree	44.3	
	Some Graduate/Professional	23	
	Graduate/professional	16.4	
		Computer	Information Systems
* Computer Experience	None	6.6	57.4
	Some or more	93.4	42.6
Job Characteristics			
Job Level	Professional Staff	16.4	
	1st Level Supervisor	14.8	
	Middle Management	41	
	Strategic	23	
	Other	4.9	
Organizational Characteristics			
Organization Business	Manufacturing	19.7	
	Educational	1.6	
	Merchandising	34.4	
	Public sector	1.6	
	Health Care	1.6	
	Insurance	3.3	
	Utility	1.6	
	Financial Services	18	
	Other	18	

system (CIS). That factor is managers' beliefs about introducing and / or enhancing the use of information technology in the field of customer servicing. The distribution of the two dimensions could be presented as follows:

4.2.1 Actual Time Spent on System Usage.

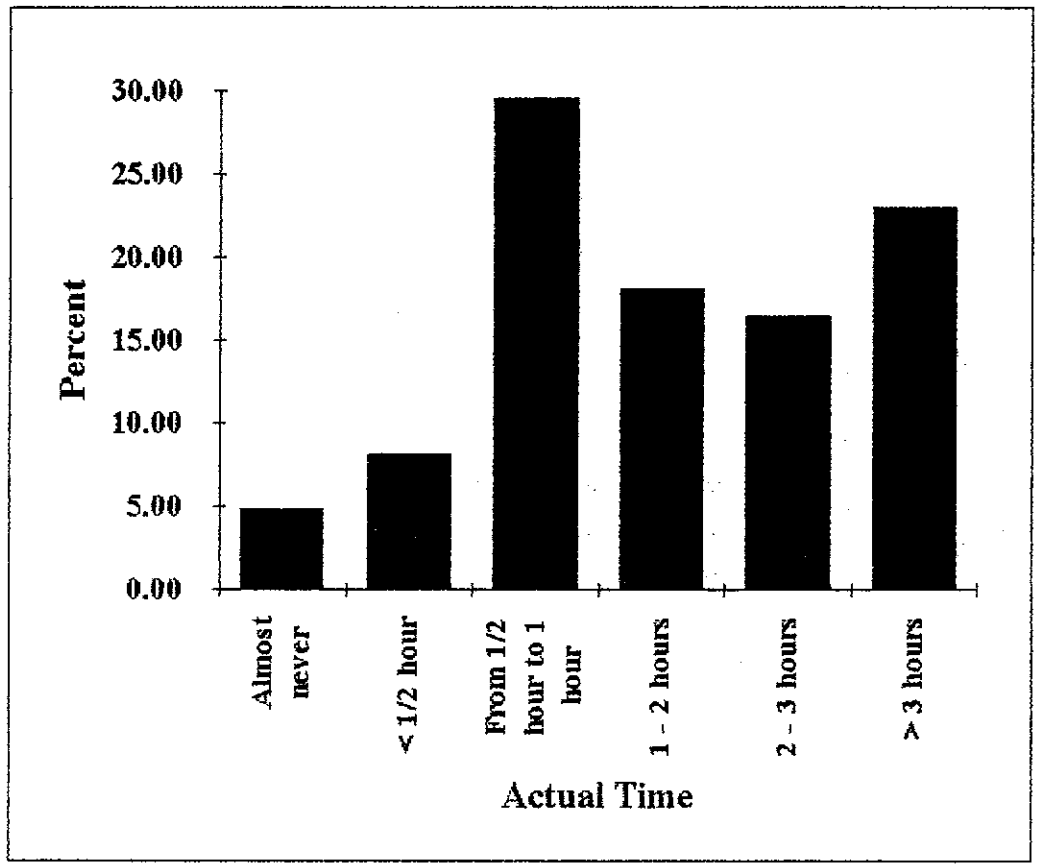
The frequency of this dimension is shown in Table VIII and in Figure 4.1.

Table VII : Actual Time Spent

Hours Spent	Frequency	Percent	Cumulative Percentage
Almost never	3	4.90	4.90
< 1/2 hour	5	8.20	13.10
From 1/2 hour to 1 hour	18	29.50	42.60
1 - 2 hours	11	18.00	60.70
2 - 3 hours	10	16.40	77.00
> 3 hours	14	23.00	100.00
	61	100.00	

As could be noticed, respondents spent an average time using the computer system. Some respondents reported using the system for around 2 hours per day (median is 1 - 2 hours / day). At least, 39% of the respondents reported using the system for 2 to more hours / day. This use of the system could be attributed to the fact that a part of the work of these respondents involves the use of the computer.

Figure 4.1 : Actual Time Spent on System



4.2.2 Frequency of System Use.

The extent of system usage could also be measured by the frequency of use. The respondents' reported frequency of use is presented in table VIII, and a graphical presentation of this measure is shown in Figure 4.2.

Table VIII : Frequency of Use

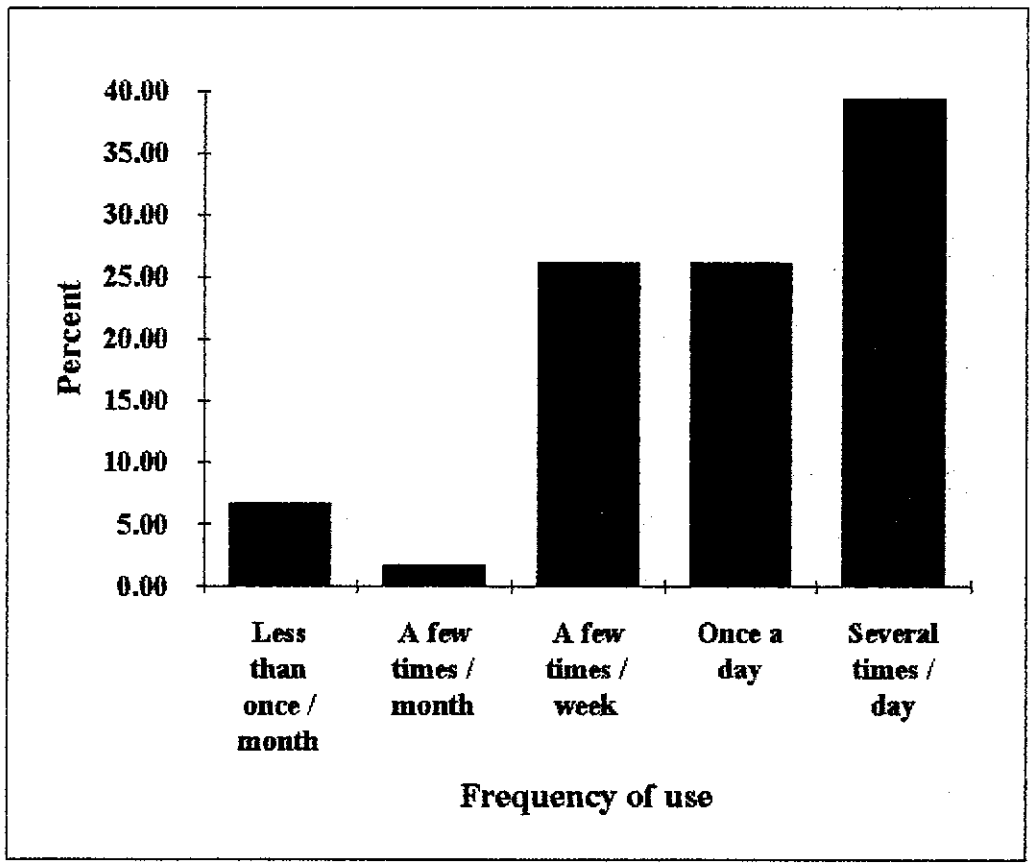
Frequency of Use	Frequency	Percent	Cumulative Percentage
Less than once / month	4	6.60	6.60
A few times / month	1	1.60	8.20
A few times / week	16	26.20	34.40
Once a day	16	26.20	60.70
Several times / day	24	39.30	100.00
	61	100.00	

The results show that only 39.3% of the respondents classified themselves in the category indicating the use of the system for several times a day (Median is category 5; implying once a day). It could be thus noticed that the level of system use is not really high.

4.2.3 The Relationship Between System Use and Beliefs about Using Information Technology in Customer Service.

Despite the awareness of and exposure to computer systems, the organizational coherence with the machine has not always been

Figure 4.2 : Frequency of Use



reached. This could be attributed to the fact that people have various reactions and various beliefs about the benefits of adopting a computer system into the jobs. One explanation for such reaction may lie in the fact that people by nature resist change. Another explanation may be that some employees could not cope with the new technology for certain reasons such as inadequacy of training or lack of the belief that this technology could provide them with efficiency in doing the job.

Because of the general idea that the level of system use could affect the beliefs about introducing computer technology in various fields - specifically the field of customer servicing, the intent here is to study the relationship between the two dimensions of system use and the beliefs of managers about the adoption of technology in the form of customer information systems. To examine this relationship, a pearson-correlation analysis was conducted. The results, shown in Table IX, indicate that there is no relationship between managers' beliefs about the use of technology in customer service and the level of system use.

Table IX : Pearson Correlation between System Use and XBELITCS.

	Hours Spent	Frequency of Use	Years of System Use
XBELITCS (N = 61)	0.1727 (P = 0.183)	0.2034 (P = 0.116)	-0.2776* (p = 0.030)

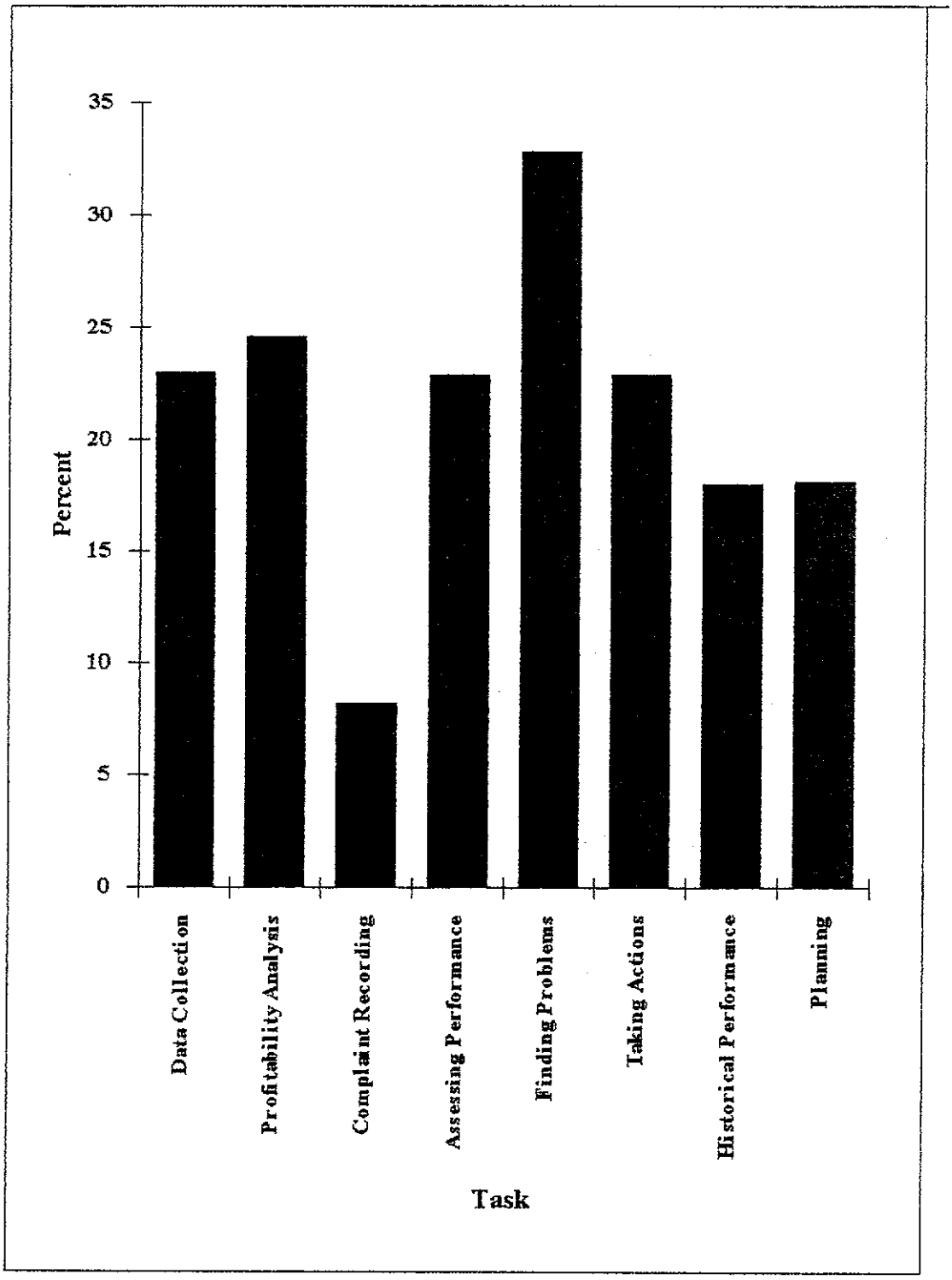
* Significance at P < 0.05.

This could be attributed to several factors. First, the measure is dealing with the beliefs of adopting the technology in a specific field (customer service) so that the concept of customer information systems could be enhanced. Managers here are aware of the use and benefits of technology in areas that require a lot of intensive labor effort and a lot of calculations. The computer is highly used to input data about transactions taking place in the organization, to help in analyzing data, produce statements that would depict the financial stand of the organization, aid in planning and taking actions, help in historical reference, and aid users in adequately reporting to superiors. Using computer technology in the area of customer service could be considered by some managers as a cost rather than an asset, and a step which is not cost justified. Looking at the distribution of percentages pertinent to the tasks for which the computer is used (see Table X and Figure 4.3), one finds that the computer is rarely applied in tasks related to customer service and complaint handling.

Table X : System Usage to Perform Tasks.

Task	Percent
1- Data Collection	23
2- Profitability Analysis	24.6
3- Complaint Recording	8.2
4- Assessing Performance	22.9
5- Finding Problems	32.8
6- Taking Actions	22.9
7- Historical Performance	18
8- Planning	18.1

Figure 4.3 : System Usage to Perform Tasks.



The results reported show that 32.8% of managers reported using the computer for the task of problem finding in the customer service area, followed by profitability analysis for various service strategies (24.6%), collecting data about customers' desires and expectations (23%), taking actions concerning certain problems within this area, and assessing the performance of the company in meeting customers' expectations (22.9%). These are followed by planning service strategies (18.1%), historical reference for past complaints and actions (18%), and, finally, far from this for complaint recording (8.2%).

Coming back to the correlation analysis conducted between system use and beliefs about using computer technology in customer service (Table IX), one can find a significant correlation between the length of the period the computer system available in the organization has been used and the beliefs about using it in the customer service area. Surprisingly enough, the correlation coefficient is negative, indicating that the longer the period of managers' use for the available system is, the less would he / she be inclined to adopt the system in the customer service area. This could be attributed to the trend that the computer system is more applied in routine tasks such as reporting to superiors rather than implementing it in more critical situations such as complaint recording and handling and assessing the organization's performance according to the type of complaints, the way of handling them, and the level of customers' satisfaction. Another factor could be that once users have been trained and got used to a certain framework, including applications and procedures, of using the computer system, they will more likely stick to that framework without adding new applications to it. Finally, one could say that the cost factor might play

an important role here. This is important especially, if the managers believe that customers in this country do not care and will not put any effort to submit complaints and follow up the process of handling them. In this study 48% of the responding managers reported that they agree with the statement that customers are not aware and do not care, 14.8% stated that they are uncertain, and 36.1% reported that they believe that customers will do some effort to complain; if a customer gets dissatisfied with a certain product or service, he / she will look for substitutes.

4.3 Factors Affecting a Good Service.

Customer satisfaction is a factor of not only the price and the product quality, but also a factor of the quality of service provided by the various organizations. Now, because the ability of a success-oriented organization to provide a high level of consumer satisfaction should be its most important attribute, and because a high quality service is a vital ingredient in the process of achieving this attribute, it would be thus interesting to examine the factors that are most likely believed to lead to good service and, consequently, to higher customer satisfaction. Factors such as managers' beliefs about the requirements of a good service, management concern for customer satisfaction, beliefs about the importance of introducing information technology in the area of customer service will be the issue to be discussed in the following sections.

4.3.1 Beliefs about the requirements of a Good Service.

In product manufacturing, there are two schools of thought on how best to improve quality.[1] One school holds that quality improvement properly begins internally at the work-group level, with the focus on improving the degree to which the group meets technical standards. The competing view asserts that quality improvement begins with the customer's evaluation of quality itself, and only then works backward into the organization. Here comes the importance of the managers' attitudes towards providing an efficient service and their beliefs about the requirements of a good service. This is because such attitudes and beliefs will affect the overall organizational culture and performance concerning this issue, and will determine the strategies, standards, and procedures the managers will set in order to achieve a competitive edge with the service they are providing their customers with.

In this study, the data analysis showed some interesting findings concerning this factor - beliefs about the requirements of a good service (XBELRGS). To start with, a one-way analysis of variance was used to test for significant differences in these beliefs across the different divisions (functional area). This result was obtained at a significance level of 0.05 ($p <= 0.05$), and is shown in Table XI. When using one-way ANOVA, the observed significance level is obtained by comparing the obtained F to the value of F distribution with K-1 and

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1 Ron Semke and Dick Schaaf. The Service Edge. (N.Y: New American Library, 1989), p. 47.

N-K degrees of freedom. K here is the number of groups and N is the number of cases in the entire sample. The observed significance level is the probability of obtaining an F-statistic at least as large as the one calculated when all the population means are equal. If this probability is small enough, the hypothesis that all population means are equal is rejected. in other words, if F STATISTIC < F CALCULATED, then there is significance between the means.

Table XI : One-Way ANOVA : XBELRGS by Functional Area.

Source	Degree of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between Groups	8	0.6688	0.0836	0.9169	0.5102
Within Groups	52	4.741	0.0912		
Total	**60**	**5.4098**			

Since in this case, F PROBABILITY is equal to 0.5102, and F RATIO is equal to 0.9169, then F PROBABILITY > F RATIO which means that there is a significant difference in the beliefs about the requirements of a good service among the various functional areas. Of course, this would seem natural if the nature of work or the type of job in each functional area is taken into consideration. With respect to customer service, the responsibilities carried out by managers belonging to the various functional areas could be grouped into line and staff responsibilities. It is expected that people involved in jobs requiring frequent contact with customers (e.g. Sales), and getting information about their expectations

and preferences that would affect the standards and the service strategies to be set (e.g. Marketing and General Management) would have a better perspective of the requirements of a good service - a perspective that would match with what is demanded in the market and with what is needed to achieve a competitive edge through a better service quality.

On the other hand, another One-Way ANOVA showed that there are no significant differences in these beliefs along the various organizational levels (Table XII). Here, **F RATIO = 0.6284 is < F PROBABILITY = 0.6443,** which means that the hypothesis that there are significant differences in the means of groups belonging to different levels of management is rejected. This could be attributed to two possible factors. First, as it is noticed in the Frequency distribution results mentioned in the profile of respondents, a great percentage of the respondents are middle and strategic managers (64%) involved majorly in tasks belonging to the functional area of general management. Add to this the fact that the higher percentage of them work within the merchandising and financial sectors (52.4%) would give the implication that variability in beliefs among different managers in various levels does not exist or is very low. Another factor could be that the respondents were given, in this part of the survey, general statements that had to do with what they believe rather than with what is really applied. This again could have contributed in reducing the variability aspect along the various management levels.

Table XII : One-Way ANOVA : XBELRGS by Organizational Level

Source	Degree of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between Groups	4	0.2324	0.0581	0.6284	0.6443
Within Groups	56	6.1775	0.0925		
Total	**60**	**5.4098**			

Examining the significant differences in the managers' beliefs about the requirements of a good service along the various educational levels, it was found that there are significant differences among the various groups. The results of the One-Way ANOVA (Table XIII) show that the $F_{RATIO} = 3.2020$ is $> F_{PROBABILITY} = 0.0299$.

Table XIII : One-Way ANOVA : XBELRGS by Educational Level.

Source	Degree of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between Groups	3	0.7802	0.2601	3.202	0.0299
Within Groups	57	4.6296	0.0812		
Total	**60**	**5.4098**			

This means that significant differences along the various educational levels of the responding managers do exist. Consistent with expectations, respondents with a higher educational level contribute to a higher level of agreement with the statements relevant to the beliefs about the requirements of a good service. These make up 96.3% of those holding a B.S. degree (43% of the whole sample size) and 91.7%

of those holding higher degrees (36% of the whole sample size). Moreover, of the whole sample size, while taking the educational level into consideration, 90.2% had positive beliefs about the good service requirements, and 9.8% did not agree with the stated requirements. These results were obtained from the procedure of using the crosstabulation function of XBELRGS by the educational level variable. The result is shown in Table XIV. A calculation of the Chi-square here also led to a similar result.

Table XIV : Crosstabulation of XBELRGS by Educational Level.

Crosstabulation : XBELRGS
By X6 Educational level

X6	Count					Row
XBELRGS	Col Pct	1	2	3	4	Total
2.00		2	1	1	2	6
		50.00	16.70	3.70	8.30	9.80
3.00		2	5	26	22	55
		50.00	83.30	96.30	91.70	90.20
	Column	4	6	27	24	
	Total	6.6	9.8	44.3	39.3	

Chi-square	D.F.	Significance	Min E. F.	Cells with E.F. < 5
8.79742	2	0.0321	0.393	5 of 8 (62.5%)

In the Chi-square test of independence, the hypothesis that two variables are independent of each other is tested. If the probability which is also known as the observed significance level is small enough (usually less than 0.05 or 0.01), the hypothesis that two variables are

independent is rejected. In this case, the value of the Chi-square is 8.79742. The observed significance level is 0.0321. At a significance level of 0.05, the observed significance level, 0.0321 is < 0.05, implying that the two variables XBELRGS and Educational Level are not independent of each other.

Finally, the relationship between XBELRGS and other individual variables was investigated through the use of correlation analysis. Table XV shows the intercorrelation matrix among the variables.

Table XV : Pearson Correlations between XBELRGS and Other Variables.

	Organization Business	Years of Employment	Number of Subordinates	Age	Sex	XJCA
	X3	X4	X5	X7	X8	
XBELRGS	0.0493	-0.3335 *	-0.0657	-0.3334 *	0.3110 *	0.3974 **

* P <= 0.01
** P <= 0.001

Examination of zero order correlations shows that the type of organization business is unrelated to the beliefs about the requirements of a good service. This might be the result of the fact mentioned earlier that providing a good service quality level has become a major concern of any organization irrespective of the type of business. The customer nowadays differentiates among companies according to the level of satisfaction provided to him / her in terms of good customer care and efficient and prompt service strategies.

An interesting finding here is that the years of employment has a significant correlation with XBELRGS. This correlation, however, is a

negative one. This means that the longer the period of time spent working with the company, the lower would be the agreement level with the stated requirements of a good service. This could probably be explained by the attitude that the manager will develop after working with the organization for many years, knowing its market and its customers, and getting adapted to the service strategy adopted by the organization concerned. The stated requirements might thus seem unfactual, impractical, costy or unnecessary.

Another negative correlation coefficient was obtained between XBELRGS and the number of subordinates a manager has. One could say here that the wider the span of control is, the more would the manager be concerned with controlling and coordinating the work activities assigned to the various groups, and thus the less would he be concerned with developing his / her beliefs about the requirements of a good service. However, it was found that there is no significant relationship between these two variables.

As expected, and consistent with the finding reached concerning the type of correlation existing between XBELRGS and years of employment, age had a negative correlation coefficient with XBELRGS. The higher the age is, the less would be the concern about changing what one has got used to in terms of dealing with customers and establishing policies in this respect, and about changing the attitudes already developed.

According to Sex, results show that it has a positive and significant correlation coefficient with XBELRGS. This implies that males are more apt to develop their beliefs about the requirements of a

good service. This could be attributed to the trend that marketing and sales activities are more handled by males than by females.

Finally, and consistent with expectations, there is a positive and highly significant correlation between XBELRGS and a manager's job and career attitudes (XJCA). The higher the level of job satisfaction is, and the more positive the manager's attitudes towards his / her job are, the more would the manager work towards achieving the organization's objectives in a competitive way.

4.3.1.1 Regression Analysis: Building a Model Relating the Independent Variables to the Dependent Variable XBELRGS.

After investigating the various aspects related to managers' beliefs about the requirements of a good service, the intent of the study now is to identify the critical factors that are likely to be associated with these beliefs. This section will describe the various steps followed in order to reach a regression equation that will form a reasonable fit for XBELRGS along with the independent variables.

A. The correlation matrix.

In order to avoid multicollinearity among independent variables, and because multicollinearity could substantially affect the results of the multiple regression analysis, a correlation matrix was prepared to check the availability of large coefficients. The final correlation matrix presented below shows relatively low correlation coefficients among variables.

Correlation Coefficients Among Variables.

	XMCCSAT	XBELRGS	XBELITCS	X1	X2	X3	X4	X5	X6	X7	X8
XMCCSAT	1.OOO	0.634	0.525	0.292	0.342	0.243	0.054	0.248	0.32	-0.045	0.198
XBELRGS	0.634	1.OOO	0.787	0.15	0.072	0.02	-0.35	-0.086	0.214	-0.378	0.134
XBELITCS	0.525	0.787	1.OOO	0.219	-0.068	0.038	-0.182	-0.055	0.235	-0.224	0.105
X1	0.292	0.15	0.219	1.OOO	0.286	0.36	0.184	-0.011	0.276	0.191	0.289
X2	0.342	0.072	-0.068	0.286	1.OOO	0.192	0.384	0.255	0.153	0.381	0.203
X3	0.243	0.02	0.038	0.36	0.192	1.OOO	0.157	0.146	0.158	0.005	-0.043
X4	0.054	-0.35	-0.182	0.184	0.384	0.157	1.OOO	0.408	-0.163	0.876	0.033
X5	0.248	-0.086	-0.055	-0.011	0.255	0.146	0.408	1.OOO	0.09	0.302	-0.113
X6	0.32	0.214	0.235	0.276	0.153	0.158	-0.163	0.09	1.OOO	-0.132	0.144
X7	-0.045	-0.378	-0.224	0.191	0.381	0.005	0.876	0.302	-0.132	1.OOO	0.067
X8	0.198	0.134	0.105	0.289	0.203	-0.043	0.033	-0.113	0.144	0.067	1.OOO

B. Results of the Regression Analysis.

After preparing the correlation matrix, the regression analysis was started. The stepwise method was selected to follow the inclusion of the independent variables one by one into the equation according to their significance as possible indicators of XBELRGS. In step number 1, the regression function SPSS included XBELITCS (beliefs about information technology use in customer service). The regression output in step 1 resulted in a factor of determination, $R^2 = 0.619$, which means that about 62% of the variations in XBELRGS could be explained by the attitudes towards and beliefs about the computer technology in the area of customer service. The F RATIO in the output, computed as Sum of squares / Mean square, is = 96.01431. The F SIGNIFICANT is = 0.0000. In step number 2, the variable XMCCSAT was included, and finally, the number of employment years. A list of these variables, their coefficients (Beta), Test statistic, T, and the T significant is presented as follows:

Variable	Beta	T	Sig. T
XBELITCS	0.39655	6.9	0.0000
XMCCSAT	0.30931	4.591	0.0000
X4	-0.01523	-3.964	0.0002
(constant)	105563	6.853	00000

The last step in the regression output, along with the information about the variable coefficients just listed, helped in deriving a regression model equation as follows:

XBELRGS = 1.55630 + 0.39655XBELITCS + 0.30931XMCCSAT

(0.000) (0.0000) (0.0000)

- 0.01523X4

(0.0002)

R^2 = 0.754 = 75.4%.

F = 58.3357 Significant F = 0.0000.

C. Significance of the Regression Equation.

R^2, the coefficient of determination, is equal to 75.4%. This implies that about 75% of the variations in managers' beliefs about the requirements for a good service could be explained by these three variables.

By using the analysis of variance, the usefulness of the regression equation tested using the F-distribution. From the output presented, F = 58,3357. Comparing the Sig. F-value to the P-value used = 0.05, it could be concluded that there is a relationship between XBELRGS and the three variables included in this equation. This result shows that the regression model is a significant one.

D. Significance of the Regression Coefficient.

The significance of the correlation coefficients could be derived from examining the P-value of the T-statistic. This P-value is listed above under Sig. T. Taking into consideration that the level of significance (alpha) is = 0.05, then one would conclude that a statistically significant relationship exists between each of the included three variables (holding others constant) and the dependent variable XBELRGS.

4.3.1.2 Interpretation of the Equation.

The interpretation of the equation is quite straightforward. As to XBELITCS, the value of b = 0.39655. This indicates that for each added value in beliefs about information technology (while other variables remain constant), beliefs about requirements for a good service will be added by 0.39655. The positive sign shows that there is a positive relation between the attitude towards applying information technology in customer service and beliefs about good service requirements. The higher the user's positive beliefs about the benefits of technology in this area, the higher would be his agreement with the stated items about the service requirements. This could be attributed to the fact that a good service nowadays requires competence, promptness, accurate retention and rapid retrieval of records pertinent to customers, resolving complaints, developing new service strategies, and analyzing their effect upon the organization's performance and productivity measures. Such things, of course, could be highly facilitated through the use of efficient and advanced computer or information technology systems.

The same interpretation method could be applied to the variable XMCCSAT. The positive beta coefficient for this variable suggests that the more concerned the manager is with customer satisfaction, the more likely will be his / her tendency to think positively about the stated requirements for a good service. If a manager is concerned about customer satisfaction, then he / she will be flexible with the customer, investigate changes in customers' desires and expectations in order to meet them, motivate employees to perform well in customer

servicing, and measure and follow up customer satisfaction. In other words, he / she will have a positive attitude towards performing tasks considered essential for a good service.

Finally, coming to the years of employment variable, it is observed (as it was observed in the correlation analysis previously conducted) that it has a negative relationship with XBELRGS. The major reason for this, as was mentioned earlier in the correlation analysis section, could be that the manager's attitude towards good service requirements and, towards adopting new servicing strategies by what he learned and acquired during years he / she spent in the organization will be affected. The effect will be a negative one if the stated requirements contradict what is applicable in the organization in terms of what is considered practical, inexpensive and in conformity with what they think their customers.

4.3.2 Management Concern for Customer Satisfaction.

Management support is an indispensable factor for the successful implementation of any process, procedure or strategy. If the objective is to work hard towards achieving a good and an efficient service edge, then management support would be considered as an indebatable critical success factor. It is widely believed and commonly agreed upon that the managerial attributes and abilities would positively affect the overall organizational (internal) environment and push it towards achieving and maintaining service superiority.

Successful managers use motivation, training, communication, and recognition as their key management tools. The manager is the key

to creating the kind of positive environment that encourages people to produce. No matter which emphasis is chosen to improve productivity and customer service, without management concern and support, the process will turn out to be a failure. Consistent excellence is the only proven formula for success in the service industry. Good managerial practices, effective supervision, and sensitivity to individual aspirations can all greatly improve employee morale, productivity and service and lower employee turnover. This is important since high turnover is expensive and it can kill any standards of service superiority.

This study investigated the relationship between management concern for customer satisfaction and other variables. to start with, a One-Way ANOVA was conducted to test for significant differences in management concern for customer satisfaction along the various functional areas, organizational levels, and educational levels. The results for this test are shown summarized in Table XVI.

Table XVI : One-Way ANOVA : XMCCSAT by Functional Area, Organization Level, and Educational Level.

Description	F Ratio	F Prob.
XMCCSAT By Functional Area	1.0509	0.04113
XMCCSAT By Organization Level	2.225	0.0778
XMCCSAT By Educational Level	3.3124	0.0263

Results show that there are significant differences in XMCCSAT along the three selected variables since in the three tests,

F RATIO was found to be > F PROBABILITY. Concerning the functional area, respondents belonging to various functional areas have various concerns and attitudes towards customer satisfaction. This is natural since some functional areas do not have a direct involvement with customer and service issues. General managers and managers in the marketing, sales and R&D departments are expected to have a bigger concern in these issues.

As to the organizational level, a crosstabulation was prepared to trace the differences along the various levels. Table XVII shows the results of this tabulation.

Table XVII : Crosstabulation of XMCCSAT by Organizational Level.

Crosstabulation : XMCCSAT
By X2 Organizational Level.

X2	Count						Row
XMCCSAT	Col Pct	1	2	3	4	5	Total
		2	1	5	1		12
	2.00	50.00	11.10	20.00	7.10		19.70
		5	8	20	13	3	49
	3.00	50.00	88.90	80.00	92.90	100	80.30
	Column	10	9	25	14	3	61
	Total	16.4	14.8	41	23	4.9	100

Chi-square	D.F.	Significance	Min E. F.	Cells with E.F. < 5
8.36519	4	0.0791	0.59	6 OF 10 (60%)

As could be noticed, middle and higher levels of management showed a higher concern about customer satisfaction (59%) than those at the supervisory levels (13%) and at the level of professional staff (8%).

The result of the Chi-square, as could be noticed, showed complete insignificance, with the value of the observed significance being 0.0791 > 0.05 the level of significance, and with the number of cells having an estimated frequency < 5 to 60%.

Now concerning the significant differences of XMCCSAT along various educational levels, this could be attributed to the fact that people with higher educational levels, in general, are more capable of thinking about problems, analyzing situations, and developing service strategies that would pave the way towards more customer satisfaction and better organizational performance.

Finally, the relationship between XMCCSAT and individual variables was tested using the correlation analysis. The results are shown in Table XVIII, and they indicate that there are no significant relationships between XMCCSAT and the organizational business, years of employment, number of subordinates, and age. This could be attributed to the type of data being received from the responding managers.

Table XVIII : Pearson Correlations between XMCCSAT and Other Variables.

	Organization Business	Years of Employment	Number of Subordinates	Age	Sex	XJCA
	X3	X4	X5	X7	X8	
XMCCSAT	0.2501	-0.1605	0.0683	-0.2027	0.2106	0.4828 **

** P <= 0.001

They all showed high concern for customer satisfaction, which reduced its variability along the individual variables. However, some interpretations could be given concerning the negative sign of the

correlation coefficients for the years of employment and age. Management's concern for customer satisfaction is inversely affected by the length of the time period spent in the organization. Managers responsible for customer service jobs may not be well motivated or properly oriented to accomplish what is really required to achieve a competitive service edge. Other managers may be highly involved in and busy doing their jobs without getting involved in the issue of customer satisfaction. With time, such trends will more and more have a negative effect upon their concern about the subject. As for age, the same interpretation as before could be given. As the manager gets older, his concern about introducing changes and new developments and strategies to enhance the process of customer servicing would be less.

XMCCSAT was found to have a high significant relationship with job and career attitudes. This is natural and well expected. Job satisfaction will enhance the morale and thus increase the productivity. It will also strengthen the manager's concern to enhance and improve factors that would positively affect the organization's performance, and of course a very important and basic factor to be thought of and concerned with is the level of customer satisfaction.

4.3.2.1 Regression Analysis: Building a Model Relating the Independent Variables to the Dependent Variable XMCCSAT.

The same steps that were followed in building a regression model equation for XBELRGS are applied here to derive a regression

equation that will study the variations in managers' concern for customer satisfaction.

The resulting equation included three variables: XBELRGS, X2 - the organizational level, and XJCA. A list of the variables, their Beta coefficients, T-Test and the Sig.T is presented below:

Variable	Beta	T	Sig. T
XBELRGS	0.79596	6.488	O.000
X2	0.11339	3.698	O.0005
XJCA	0.17025	2.318	O.0240
(constant)	-0.43769	-1.221	O.2272

Moreover, the final regression output was as follows:

Dependent Variable ... XMCCSAT	
Variable(s) entered on step number 3 ... XJCA	
Multiple R	0.77337
R square	0.59810
Adjusted R square	0.57695
Standard Error	0.26070
Analysis of Variance	
	DF
Regression	3
Residual	57
F = 28.27555	Sig. F = 0.0000

The resulting equation, therefore, is:

XMCCSAT = -0.43769 + 0.79596XBELRGS + 0.11339X2

(0.2272) (0.0000) (0.0005)

+0.17025XJCA

(0.0240).

R^2 = 0.598 = 60%

F = 28.27555 Sig. F = 0.0000

The equation is significant. **F = 28.27555**, and by comparing the significance **F-value = 0.0000** to the level of significance, **P-value = 0.05**, it could be conducted that there is a relationship between XMCCSAT and the three variables included in this equation. Moreover, R^2 = 60%. This means that about 60% of the variations in managers' concern about customer satisfaction could be determined by the three variables. These results show that the regression model is a significant one. Moreover, the significance of the correlation coefficients is also proved since the values of the sig. T value for the three independent variables is < the level of significance (Alpha) = 0.05.

4.3.2.2 Interpretation of the equation.

XBELRGS has a positive coefficient indicating a direct and a strongly significant relationship with XMCCSAT. This is expected since if the manager has a positive attitude towards the requirements of a good service, then his feasibility of applying the concern about customer satisfaction will be more.

Concerning X2, which stands for the organizational level of the manager in the company, it was again found that it has a positive coefficient with XMCCSAT. This means that the higher the organizational level, the more could be the concern with customer satisfaction. This could be attributed to the fact that managers at lower organizational levels are more specific task oriented rather than corporate-wide task oriented. Concern about customers is an important thing that should be initiated by top management. Policies, standards and strategies will be developed so that this concern will be translated into real fruitful implementations by lower management levels.

Non surprisingly, job and career attitudes have a positive effect upon XMCCSAT. Satisfied managers will contribute more to work productivity than will dissatisfied managers. They thus will look for strategies and methods that will improve the company's performance. Knowing that the customer is the major reason beyond the company's existence and recognizing the fact that his satisfaction means more profits and better good will, their concern about customer satisfaction and about developing means that would enhance this satisfaction would be higher.

4.3.3 Beliefs about Introducing Computer Technology in Customer Service.

In the literature review presented in Chapter II, it was mentioned that the greatest unrealized potential of information technology lies in the area of customer service. In this study, the factor XBELITCS was

studied for the strong belief that it is one of the basic factors that could lead to more efficient application of customer service strategies.

Testing for significant differences in managers' beliefs about information technology in customer service along certain variables, it was found, through using the One-Way ANOVA, that there are no significant differences in XBELITCS along the various functional areas. This result, along with the tests made for the factor along organizational levels and educational levels, are shown in Table XIX. The invariability of significant differences along the functional areas could be attributed to the assumption that the response rate showing high agreement with the statements pertinent to managers' beliefs about this issue has been very high independent of the functional area in which he / she works.

Table XIX : One-Way ANOVA : XBELITCS by Functional Area, Organization Level, Educational Level.

Description	F Ratio	F Prob.
XBELITCS By Functional Area	**0.484**	**0.862**
XBELITCS By Organization Level	**1.1125**	**0.3598**
XBELITCS By Educational Level	**1.4894**	**0.2177**

Concerning the organizational level, certain significant differences were observed in the One-Way ANOVA, where F_{RATIO} = **1.1125 and is greater than** $F_{PROBABILITY}$ = **0.3598**. This significant difference could be explained by the fact that managers at various levels in the organizational hierarchy do not use the computer in the same extent, manner, and application. Lower level managers are

expected to use the computer system more frequently than those at higher levels of the hierarchy. This is presented in the negative value of the correlation coefficient (-0.0497) shown in the analysis depicted in Table XX. Some researches have reported that system use has a strong and direct correlation with the beliefs and attitudes of users. The more the computer is used, holding other things constant, the better knowledge and experience about its use will be gained, the better its advantages are used, and thus the more positive the users' beliefs about technology will become.

Table XX : Pearson Correlations between XBELITCS and Individual Variables.

	Organizational Level	Organization Business	Years of Employment	Number of Subordinates	Age	Sex	XJCA
	X2	X3	X4	X5	X7	X8	
XBELITCS	-0.0497	0.0282	-0.2459	-0.035	-0.2535	0.2214	0.4308 **

** P <= 0.001

XBELITCS has also shown significant differences along various educational level. This is natural, since users with a high educational level are expected to have less resistance towards change. They will encourage change and development believing these will enhance the organizational performance providing efficiency and effectiveness in work. Variability, however, could not be traced using the crosstabulation method, since a large percentage of the respondents (83.06 %) reported having a B.S or a higher degree.

As to its relationship with individual variables, XBELITCS was found to be highly correlated to XJCA, job and career attitudes. Again,

this is expected since satisfied managers will adopt any new factor that promises the organization with more productivity, better performance, and higher levels of efficiency and effectiveness in accomplishing the various tasks. No significant relationship, however, was found between XBELITCS and the other individual variables.

4.3.3.1 Regression Analysis: Building a Model Relating the Independent Variables to the Dependent Variable XBELITCS.

A regression model is intended to be built to study the factors that are most likely to be associated with the managers' beliefs about introducing the information technology in customer services. This is important since as it was found earlier, this factor is important if a computerized customer information system is to be adopted and successfully implemented in the organization.

The regression equation that resulted here was a very simple, yet a highly significant one. Only one variable was included in the equation, XBELRGS, and that was expected. The variable had the following Beta coefficient, T, and Sig. T values.

Variable	Beta	T	Sig. T
XBELRGS	**1.1303**	**12.154**	**0.000**
(constant)	**-0.42727**	**-1.575**	**0.1206**

The equation come to be as follows:

XBELITCS = -0.427 + 1.13030 * XBELRGS

(0.1206) (0.0000).

R^2 = 0.714 = 71.4%.

F = 147.714 Sig. F = 0.0000.

R^2 = 71.4%, indicating that about 71% of the variations in managers' beliefs about the implementation of computer technology in customer service strategies could be the function of XBELRGS. The value of the F RATIO was calculated to be = 147.71393. The value of Sig. F is = 0.0000, which, if compared with the level of significance, P-value = 0.05, will indicate that XBELITCS could be determined by the variable XBELRGS.

As to the significance of the Beta coefficient of the independent variable, XBELRGS, it was found that Sig. T = 0.0000 which if compared to the level of significance used (0.05) will lead to the conclusion that this variable is highly significant in determining or explaining variations in the dependent variable.

4.3.3.2 Interpretation of the Equation.

The resulting equation can be easily interpreted. Managers who have positive beliefs about the requirements of a good service are expected to have a positive attitude towards adopting what would enhance its strategy implementation. The benefits of information technology in improving the quality of work cannot be underestimated, and in the area of customer service, the area that requires promptness

and efficiency in solving problems and making decisions, the area where managers should learn from past mistakes and plan for better strategies; in such an area, the benefits of information technology are highly emphasized.

4.4 Customer Information Systems.

This part of the study will shed the light upon two major things: (1) The characteristics of the customer information systems currently available and being applied in organizations, and (2) the managers' attitudes towards adopting and applying a new, specifically, computerized customer information system. After that, the relationships between these two variables and the variables mentioned as important factors contributing to good service will be examined and discussed.

4.4.1 Customer Information System Available (XCISA).

A list of 15 items describing the current customer information system was included in the questionnaire distributed to managers. Managers were asked to state whether they agree or disagree with the stated items intended to describe the system being applied in their organizations. Some items emphasized the part of the employees since they are considered the most important factor that could determine the successful selection and implementation of a service strategy. Other items mentioned the availability of standards, complaint methods followed, complaint handling, and using these quantitatively for future

planning. A frequency distribution analysis was conducted to study the level of agreement managers reported for the different statements, and thus to deduce the general features of the system applied. A list of these items with the reported frequencies for managers showing agreement and disagreement is presented in Table XXI.

Table XXI : List of the Items Pertinent to XCISA and Reported Frequencies.

Item		Agree	Uncertain	Disagree
1. Employees knowledge	(X75)	50.80%	44.30%	4.90%
2. Work standards	(X77)	78.7	16.4	4.9
3. Compensation vs. service	(X85)	14.7	24.6	60.7
4. Means of complaining	(X81)	60.6	14.8	24.6
5. Use of No-question refund policy	(X82)	3.2	21.3	75.4
6. Use of money-back guarantee	(X83)	14.7	14.8	70.5
7. Use of replacement	(X84)	73.7	13.1	13.1
8. Department for complaint handling	(X88)	59	11.5	29.5
9. Systems in handling complaints	(X87)	14.7	14.8	70.5
10. Priority of customer service	(X76)	77.8	11.5	13.1
11. Keeping promises	(X79)	85.3	9.8	4.9
12. Promptness of complaint resolution	(X80)	39.4	45.9	14.8
13. Review of complaints	(X78)	32.8	11.5	55.7
14. Use of quantitative measures	(X86)	26.2	27.9	45.9
15. Complaint usage in future planning	(X89)	49.2	39.3	11.5

As could be derived from reading the table, the highest percentage concerning items related to employees and internal

environment was given to the availability of work standards (78.7%). Employees' knowledge of the organizational policies, objectives and strategies with respect to customer service was given an agreement level of 50.8% and an uncertainty level of 44.3%. Concerning employees' compensation according to the service they perform, only 14.7% agreement level was reported by managers; meaning that employees are not really given incentives according to their service performance.

As to the means of complaining provided to customers, 60% agreement was given to their availability. They mostly include suggestion boxes and letters or complaints submitted on personal basis. This goes in conformity with the agreement about the availability of departments for complaint handling. As to the ways followed to satisfy customers, the most commonly reported was the use of replacements (73.7%), followed by the use of money-back guarantee (14.7%), and finally, as expected, the use of No-question refund policy (3.2%).

Moreover, and in conformity to what organizations always state, priority of customer service was highly agreed upon (77.8%). Because of its priority, promises given to customers are well considered and kept (85.3%). However, there could be some delay in complaint resolution, with the item "promptness of complaint resolution" given an agreement percentage level of 39.4% only. This could be attributed to another finding one can notice in the table, which is somehow, the lack of systems (14.7%) (efficient, computerized and advanced ones) used in handling complaints. Such a fact will reduce the efficiency in handling complaints, and will decrease the probability of reviewing

complaints (32.8%), and using quantitative measures (26.2%) to assess the performance and to plan for future service strategies (49.2%).

Now, what are the factors that are most likely to be associated with the customer information system applied in Lebanese organizations?

To answer this question, a regression analysis was done. Demographic variables along with budget percentage (X124), beliefs about requirements of a good service (XBELRGS), beliefs about introducing information technology in customer service (XBELITCS), level of computer training (XTR), and job and career attitudes (XJCA) were included in the analysis. The resulting regression equation identified three variables as being determinants for the variations in XCISA. These are XMCCSAT, XJCA and XBELRGS. The final regression output was as follows:

Dependent Variable ... XCISA

Variable(s) Entered on Step Number
3 ... XBELRGS

Multiple R	**0.65903**
R square	**0.43431**
Adjusted R square	**0.40454**
Standard Error	**0.32602**

Analysis of variance

	DF	Sum of Squares	Mean Squares
Regression	**3**	**2.13775**	**2.13775**
Residual	**57**	**8.57234**	**0.14529**

F = 14.71329 **Sig. F = 0.0003**

The coefficients of the independent variables are the beta values listed in Table XXII. As a result, the resulting regression equation is:

XCISA = 1.52856 + 0.4744 XMCCSAT + 0.3043 XJCA - 0.2850 XBELRGS

(0.0002) (0.0000) (0.0019) (0.0185)

R^2 = 0.434 = 43%.

Table XXII
Beta, T, & T-Sig. Values for Variables Determining XCISA

Variable	Beta	T	Sig. T
XMCCSAT	0.47437	4.904	0.0000
XJCA	0.30427	3.249	0.0019
XBELRGS	-0.28504	-2.425	0.0185
(constant)	1.52856	3.967	0.0002

Concerning the significance of the equation, it can be tested by looking at the values of R^2, F-value and Sig. F. R^2, the coefficient of determination, has a value of 0.434, implying that only 43.4% of the variation in XCISA can be explained by the three variables listed in the equation. F-value is = 14.587 which is not very high. Sig. F = 0.0000 and it is much $<$ 0.05, the level of significance. This leads to the conclusion that the established equation is significant in determining variations in XCISA. As to the significance of each of the individual variables, it was found that the values of Sig. T are $<$ the level of significance used, 0.05. This means that all the independent variables are significant in building the equation.

Interpretation of the Equation.

The interpretation of the equation here is straightforward. XMCCSAT has a positive Beta coefficient meaning that the efficiency of any customer information system being used is directly followed by the management's concern for customer satisfaction. The objective beyond adopting an efficient CIS is to reach a good level of customer satisfaction that will be positively reflected in high performance levels in the organization. Therefore, it comes natural to say that managers concerned with customer satisfaction will work towards improving the customer information system available in their organizations and making it more efficient.

XJCA also has a positive Beta coefficient. This means that the more satisfied the manager is, the more will he be concerned with enhancing and improving the characteristics of the customer information system available in their organizations. This was explained before by stating that satisfied managers work in their organizations as if they were theirs searching for all the factors that could increase productivity.

Finally, XBELRGS had a negative coefficient, indicating that the higher the managers' agreement with the listed requirements of a good service, the less would be their agreement level with the characteristics of the customer information system currently applied in the work environment. This could also be attributed to the probability that the features of the CIS available are not in conformity with the listed requirements for a good service.

4.4.2. Attitudes Towards a New Customer Information System (XANCIS).

Trying to investigate the attitudes of managers towards adopting a new customer information system, a list of 18 items describing the features of the advanced computerized customer information system was included in the questionnaire and managers were asked to state their agreement level with each one of them. The most important findings obtained from the frequency distribution analysis was that 55.8% of respondents showed agreement with having a computerized customer information system. 88.5% of the responding managers reported that they agree with the statement that a computerized customer information system will facilitate the process of complaint and expectation recording, and 67.3% agreed that such a system will enhance promptness in the process of complaint handling concerning customers' awareness and their concern about complaining and having their complaints resolved, only 36% of the respondents stated that customers do care about submitting complaints and following up the companies concerned to have their complaints resolved.

Concerning the factors that are most likely to be associated with the attitude towards a new customer information system, a regression analysis was done. Beliefs about the requirements of a good service (XBELRGS), managements' concern about customer satisfaction, budget percentage (X124), and the customer information system available (XCISA) were included in the analysis. The resulting regression equation identified one variable, XBELRGS, as being a

determinanat for the variation in XANCIS. The regression output was as follows:

Dependent Variable... XANCIS

Varaiable Entered on Step Number

1... XBELRGS

Multiple R	**0.91736**
R Square	**0.84156**
Adjusted R Square	**0.83887**
Standard error	**0.129**

Analysis of variance

	DF	Sum of Squares	Mean Square
Regression	**1**	**5.21490**	**5.21490**
Residual	**59**	**0.98182**	**0.01664**

F = 313.37705 **Sig. F = 0.0000**

The resulting equation is:

XANCIS = 0.3636 + 0.98182 XBELRGS

R^2 = 84%

Concerning the significance of the equation, it can tested by looking at the values of R^2, F-value and Sig. F. R^2 has a value of 0.84, implying that 84% of the variations in XANCIS can be explained by XBELRGS variable, which is very high indicating that the better are the beliefs about the requirements for a good service, the more positive will be the attitude towards adopting a computerized customer information system.

F- value 313.37 which is very high. Sig. F. = 0.0000 and it is much < 0.05, the level of significance. This leads to the conclusion that the established equation is significant in determining variations in XANCIS. As to the significance of each of the individual variables, it was found that the values of Sig. T is < the level of significance used. This meant that all the independent variable is significant.

Interpretation of the Equation.

The interpretation of the equation here is straightforward. XBELRGS has a positive Beta coefficient meaning that the attitude towards the adoption of a computerized customer information system is directly affected by the managers' beliefs about the requirements of a godd service. Therefore, it comes natural to say that managers concerned with customer satisfaction through the beliefs in improved customer service will work more towards the adoption of customer information systems.

4.5. Relationships Among The Various Studied Variables and other variables.

Interestingly findings were reached when the relationships among variables were studied. A correlation matrix was prepared to study the relationships, among the previously mentioned variables. This is shown in Table XXIII. Highly significant relationships could be noticed between XBELRGS, XBELITCS, XMCCSAT, and XANCIS. Such a result demonstrates the previously reported findings in this chapter. No significant findings were however found between XCISA and the remaining variables. A highly significant relationship was however reported between XCISA and X124 (Budget %), with a reported $R^2 = 0.199 = 20\%$. This means that the efficiency of general characteristics of the available customer information system are highly dependent on the amount of budget devoted to customer service.

Table XXIII : Correlation Matrix among the Dependent Variables.

	XBEL	XMCC	XBELITCS	XANCIS	XCISA
XBELRGS	1.OOOO	0.6674 **	0.8453 **	0.9174 **	0.0882
XMCCSAT	0.6674 **	1.OOOO	0.5416 **	0.5982 **	0.2699
XBELITCS	0.8453 **	0.5416 **	1.OOOO	0.8999 **	0.1054
XANCIS	0.9174 **	0.5982 **	0.8999 **	1.OOOO	0.1261
XCISA	0.882	0.2699	0.1054	0.1261	1.OOOO
No. of cases = 61		1-tailed significance: * -0.01			** -0.001

4.6 Customer survey.

To have a base for comparison, the data gathered by customers were also analyzed to find out the customers' preferences and opinions concerning the customer information systems available, the way their complaints are handled and whether they consider such a process a costy or beneficial and cost justified one. A summary of the frequency distribution of items pertinent to customer opinion about the available system is shown in Table XXIV.

Table XXIV : Frequency Distribution Summary about Customer Opinion.

Variable	Percent of Agreement
Responsiveness of companies	**55%**
Meeting requirements	**56.3**
Predetermined standards for service	**58.8**
Timely service	**36.3**
Easiness of complaining process	**33.8**
Employees' empathy	**33.8**
Priority of customer	**22.6**
Understanding problems	**47.5**
Concern by companies	**41.3**
Quality satisfaction	**45**

A contradictory finding with that of managers is the issue concerning customer priority. A high percentage of managers reported that customer priority is their major concern, whereas, 22.6% of customers (n = 80) only agreed with this statement. Moreover, 36.3%

only agreed with the statement that a timely service is available and 33.8% reported that the process of complaining is easy.

Moreover, a regression analysis was done to study the customers' attitude towards complaining. Demographic variables along with customer opinion (CUSTOP) were included. The resulting equation was as follows:

CATCOM = 2.05871 + 0.32441 CUSTOP

(0.0000) (0.0007)

R^2 = 0.1365

F = 12.3344 Sig. F = 0.0007.

As could be noticed, only customer opinion was included as a variable determining customers' attitude toward complaining. R^2 = 0.1365, implying that 13.65% of the variations in customers' attitudes towards complaining determined by customer opinion about the process of complaining and complaint handling. Although statistically not significant, yet qualitatively speaking, this has a great implication. The positive sign of the coefficient indicates that the more positive the customers' opinion about the complaint handling process available, the more positive would be his / her attitude towards complaining.

4.7 Concept of Customer Satisfaction.

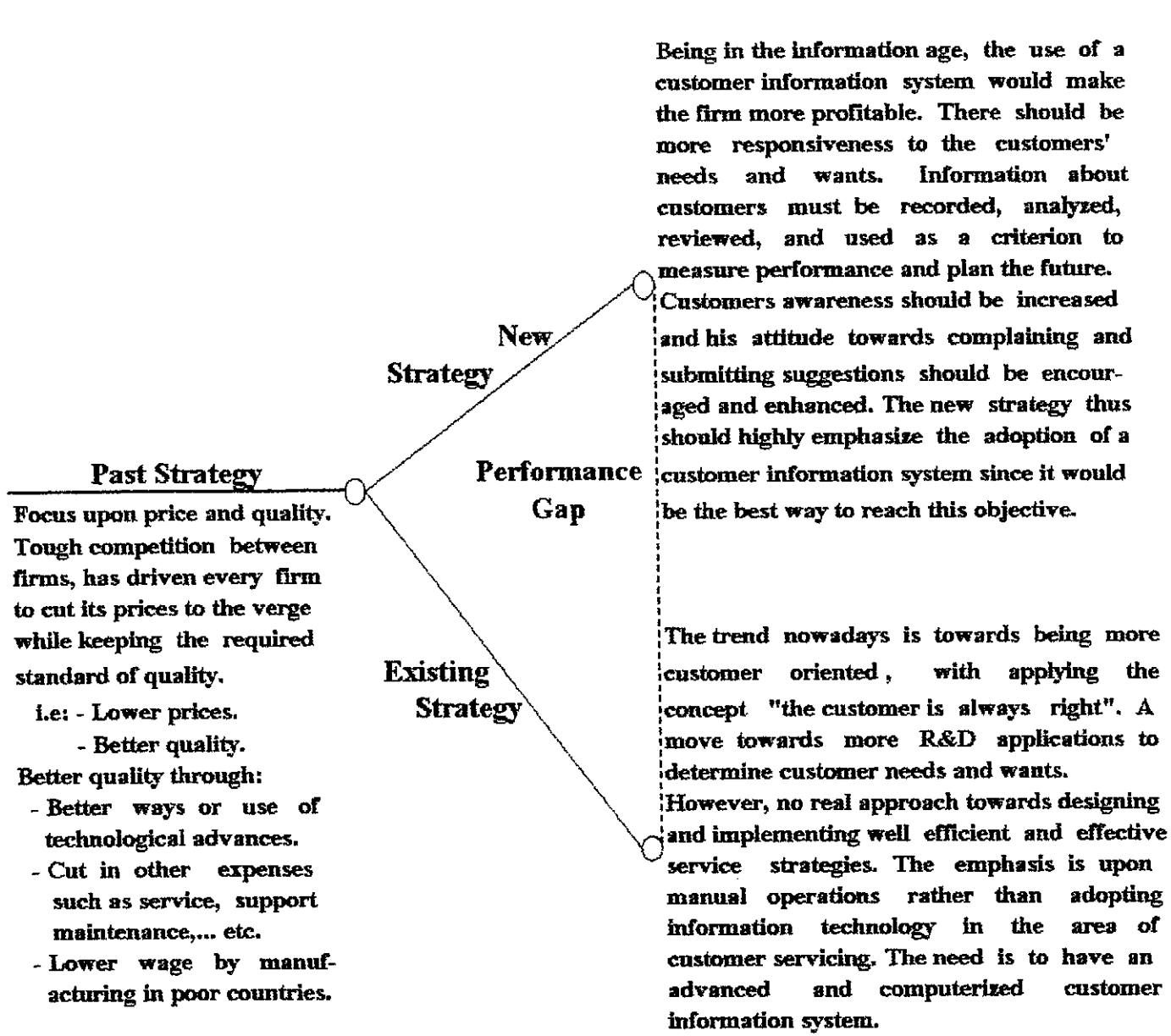
The results obtained along with some comparison made between managers' and customers' responses. In order to reach efficiency in customer servicing, and to achieve a competitive edge, managers

should put more effort towards improving the service strategies adopted and give the area of customer information systems a more serious concern. If it is true that customers are the first priority, then a serious step should be made to change certain concepts and application. These changes entail more the service aspects than the product design and price aspects. As was mentioned earlier, although customers might care about product and price differences, yet with the abundant availability of substitute products, the change in income levels, and the change in customers' needs and preferences, customers' concern has moved to achieve the amount of care and the quality of service provided to them.

This means that a strategic change should be made to shift managers' attitudes and practices towards matching with what is nowadays desired and appreciated by customers. "Customers do not care" should not be used as a criterion for setting the company's service strategies and procedures. Managers should believe that by being more customer oriented and more service quality oriented, they will increase the customers' awareness, make them more concerned with submitting complaints and giving suggestions, and use these to evaluate performance and better plan the future.

But for any strategic change to be justified, three conditions must be met:

1- The gap between the desired and the actual is perceived to be significant (perception). In this study, it was found that there is a gap between the measures adopted in any customer information system being applied and what they believe the requirements of a good service are.


Past Strategy
Focus upon price and quality. Tough competition between firms, has driven every firm to cut its prices to the verge while keeping the required standard of quality.
i.e: - Lower prices.
- Better quality.
Better quality through:
- Better ways or use of technological advances.
- Cut in other expenses such as service, support maintenance,... etc.
- Lower wage by manufacturing in poor countries.
New Strategy
Existing Strategy
Performance Gap
Being in the information age, the use of a customer information system would make the firm more profitable. There should be more responsiveness to the customers' needs and wants. Information about customers must be recorded, analyzed, reviewed, and used as a criterion to measure performance and plan the future.
Customers awareness should be increased and his attitude towards complaining and submitting suggestions should be encouraged and enhanced. The new strategy thus should highly emphasize the adoption of a customer information system since it would be the best way to reach this objective.
The trend nowadays is towards being more customer oriented, with applying the concept "the customer is always right". A move towards more R&D applications to determine customer needs and wants.
However, no real approach towards designing and implementing well efficient and effective service strategies. The emphasis is upon manual operations rather than adopting information technology in the area of customer servicing. The need is to have an advanced and computerized customer information system.

2- Managers must be motivated to reduce the gap without management's' concern and support - a crucial factor, no change process could be considered a successful or fruitful one. This was investigated in the study through XMCCSAT.

3- Decision makers must believe that the gap can be reduced. This factor was investigated through XANCIS.

4.8 Emplyees' Opinion about Customer Satisfaction.

Employees' performance in the area of customer service is a highly important thing. A survey was done with employees to investigate their opinion concerning the quality of service and to study the factors affecting their job satisfaction. A regression analysis was conducted for this purpose.

The quality of service was studied against management style (XMS), corporate leadership (XCL), effectiveness of communication (XEFFCOM), and job satisfaction (XJS). Two variables were included in the equation: XCL, XMCCSAT. The resulting regression equation came as follows:

XQS = 1.02965 + 0.42888xcl + 0.30408XMCCSAT

(0.0001) (0.0000) (0.0041)

R^2 = 0.66806 = 67%

F = 66.416% Sig. F = 0.0000.

The equation is significant based on the above results. Also, the individual variables proved to be significant since the significant T for each of the individual variable was less than P-value, level of significance = 0.05.

The interpretation of the equation is simple and straightforward. the positive signs of the Beta coefficients of both XCL and XMCCSAT indicate that there is a positive and direct relationship between these two variables and XQS. Such a result is self explanatory. The more effective the corporate leadership is, the more would employees be motivated to work, increase their productivity and be concerned with applying the strategies put by management, including the service strategies. Moreover, management concern with customer satisfaction is believed to play a crucial role in determining the quality of service. This goes in conformity with the findings reached to in the Management survey.

Now because employees perform better if they are well satisfied with their jobs, the factors affecting the job satisfaction of employees were investigated. The regression analysis resulted in this equation:

XJS = 0.52235 + 0.74002XMS

(0.1745) (0.0000)

R^2 = 0.424 = 42.4%

F = 49.39251 Sig. F = 0.0000

The equation is significant and the variable XMS is significant in determining the variations affecting job satisfaction. Managers are

always expected to be a good example for their subordinates when deciding to implement any strategy managers should have the initiative to encourage participation and adopt a style that would motivate employees to efficiently implement the strategy.

This chapter presented a detailed description of all the findings obtained from the survey conducted. As was noticed, some of the findings were consistent with other researchers' findings of surveys conducted within the same field, and other findings were new in this field of study.

CHAPTER V
CONCLUSION AND RECOMMENDATIONS.

Although it is a relatively new practice, Customer Information System (CIS) has stirred considerable interest in the customer service field and has been the subject of many works of research.

In Lebanon, it could be noticed that the use of computers is wide spread through various organizations belonging to different economic sectors: Manufacturing, Educational, Merchandising, Public Sector, Health Care, Insurance, Utility, Financial Service, and others.

In this study, computer usage was investigated. A scale developed by previous researchers was used to study the computer usage along three dimensions. Actual time spent, frequency of use, and the number of tasks performed with the aid of computers. The results of this investigation provided us with an insight about the various aspects related to computer usage. First, a critical finding in this study was that most managers had a notably positive attitude towards the use of computers. Computer usage measured by the actual time spent on the system showed that at least 39% of respondents used computers for 2 or more hours / day but the median is 1 - 2 hours / day. With respect to frequency of use, 39.3% indicated the use of the system for several times a day and had a median in category 5 implying once a day usage. Considering the computer aid in performing managerial tasks, one finds that the computer is rarely applied in tasks related to customer service and complaint handling. However, managers are aware of the use and benefits of computers in areas that require a lot

of intensive labor effort and a lot of calculations. Concerning the belief about introducing computer technology in various fields - specifically the field of customer servicing, it was studied with the two of the dimensions of system use- actual time spent and frequency of use - and the results indicated the absence of any significant relationship between them. Moreover, the effect of number of years of system use on XBELITCS was studied for the belief that it would affect the idea of introducing IT in the customer service field, and a negative significant coefficient proved the existence of this relation. This negative relation with numbers of years of usage and level of usage (Actual time spent and frequency) could be attributed to three factors:

- People resist change by nature.
- Lack of proper level of training.
- Lack of belief in the efficiency of introducing IT in customer service.

Add to this, in relation with the number of years factor, that as years pass, people do like to take things easy, and the routine work is what they prefer and such an idea would be a tough challenge full with uncertainties. This was coupled with another proof, where in One-way ANOVA testing XBELRGS by Years of employment and XBELRGS by Age. Both relations proved significant with an inverse effect on the beliefs for a good service. Thus, the longer the employment years, which means the older the manager, the less would be the concern about changing what one has got used to. Lack of positive belief about the Introduction of IT in Customer Service is revealed clearly in managers' beliefs about the nature of the Lebanese customer, since the majority believed that customers are not aware of their right to

complain and do not care about putting any effort to submit complaints. One point to mention is that males had a more positive attitude and are more apt to develop their beliefs about the requirements of a good service. This, when compared with customers opinion of how easy is the complaining process, only a small percentage (34%) agreed with the issue, 55% only believed that companies would be responsive to their needs, and 47% said that their problems will be understood. This suggests a very important aspect and that is the Lebanese consumer does not lack the awareness and care of submitting a complaint but probably lacks the understanding, concern, and empathy of some of the Lebanese firms.

To increase the validity of this result, Managements' concern for Customer Satisfaction (XMCCSAT) was considered. This is a two phase relationship affecting the employee and then the customer. It is believed that customer satisfaction is directly affected by employee satisfaction and concern.

In order to understand factors affecting XMCCSAT, One-way ANOVA revealed a significant relationship with organizational and educational levels. This is natural since as these levels increase, the ability to analyze and evaluate various matters and situations increases, and this would pave the way towards accepting changes that would positively affect customers satisfaction.

In Employees opinion, there is a very significant positive relationship between XMCCSAT (dependent) and the Quality of Services (XQS, independent). Thus, both employees and managers agreed upon the importance of XMCCSAT in determining the quality of services provided and thus customers satisfaction. When results are

compared to customers opinion of management's concern, 41% only agreed that Lebanese companies are concerned with the customer satisfaction. Customer satisfaction is not confined to price and product quality, but its boundaries broaden to include service quality, and from this aspect, studying factors affecting the service quality became essential. One way to improve quality is internally, i.e. satisfaction of people working to provide customer satisfaction.

Job and Career Attitudes (XJCA) was tested against the various dependent variables believed to lead to customer satisfaction such as XBELRGS (using One-way ANOVA), XMCCSAT (using Pearson Correlation and Regression Analysis), XBELITCS (using Pearson Correlation), revealed a high significant relationship. This suggests that the higher the level of job satisfaction is, the more positive the manager's attitudes and beliefs about requirements of a good service, their concern towards customer satisfaction, their beliefs in introducing information technology in customer service, and thus their orientation towards customer satisfaction.

If this is compared to the results obtained from Employee Job Satisfaction, it could be found that satisfied employees perform better in applying service strategies; thus, customers will be more satisfied. One way to improve employee satisfaction is by having motivated, well developed and supportive management. From this point, the dependent variable, employee job satisfaction was tested against management style (using Regression), and showed a highly significant relationship which conforms with what was said about managers' satisfaction. Both managers' and employees' job and career satisfaction

would lead to better customer service and thus, better customer satisfaction.

However, for this result to be sound, it must be supported with satisfaction with Quality of service on the part of customers. Customers opinion did not really show a really significant satisfaction level with the quality of services where only 45% showed agreement with the level of satisfaction they get from the quality of services provided. Moreover, in the customers opinion survey, only 34% agreed that employees had empathy with customers.

From the above result, all agreed on the importance of job satisfaction in determining the quality of services provided, and in turn customer satisfaction. And because customers' satisfaction is directly related to employees' satisfaction, the low level satisfaction with employees' attitude is a reflection of their low level satisfaction with their jobs and careers which could be due to low level of concern on the managements' part interpreted in its inefficient management style.

The study of previous variables concerned with customer, directly or indirectly, may or may not be in accordance with the following study about the characteristics of the Customer Information System Available (XCISA) and the possibility of adopting a New Computerized Customer Information System (XANCIS). Using regression analysis, XMCCSAT and XBELRGS had a positive significant relationship, which means that the management concern for customer satisfaction and/or the more positive their beliefs about the requirements of a good service, the better application of CIS can be expected. This then could be related to customer satisfaction. Also, job and career satisfaction (XJCA) had a positive coefficient with

XCISA, thus, as the manager becomes more satisfied, the more he will be concerned with enhancing and improving the characteristics of the CIS available in his organization. Again, this must be in conformity with employees motivation and satisfaction.

Managers' opinion of the items pertinent to XCISA (frequency distribution) showed that 60% of the Lebanese companies having means of complaining, 59% having departments for complaint handling, and 49% of them using complaints for future planning. However, 39% only agreed with the promptness of complaint resolution which could be considered a low percentage and could mean a high percentage of dissatisfied customers that may be lost by the firm. Also, only 14.7% agreed to having systems in handling complaints.

51% of managers agreed with the statement stating the availability of employee knowledge of the organizational policies, objectives, and strategies and 78.7% with that concerning the availability of work standards. However, concerning employees' compensation according to the service they perform, only 14.7% agreement level was reported by managers, meaning that employees are not really given the incentives they deserve and which may affect their satisfaction and indirectly their job performance. This at the end could lead to customer dissatisfaction, especially, when we compare the above with the customers opinion. Customers opinion showed that 56% of the respondents agreed with the statements stating that Lebanese firms meet his/her requirements; however, a higher percentage, 59% of respondents, believed that standards of the quality of product and services are predetermined without taking into

consideration the customers' preferences and expectations. Also, not surprisingly, and in conformity with the above, only 36% agreed that services are provided in the appropriate time. This possible customer dissatisfaction along with the previously suggested employee job and career dissatisfaction, are very important if present, and may hinder the process of improving the CIS available or even prevent introducing a new CIS.

After analyzing the aspects related to XCISA, the dependent variable, the Attitude Towards a New Computerized Customer Information System (XANCIS) was examined. The purpose of this part is to examine the managers' attitude towards having a system that provides the organization interaction with its customers and which would assist management in planning, analysis, decision making and control in the customer service strategy. From the managers' frequency distribution, the general attitude was positive, where 56% agreed with having a computerized CIS, 89% agreed that this will facilitate the process of complaint handling. In the regression analysis between the dependent XANCIS and other variables, the variable XBELRGS had a positive significant relationship which could be explained by saying that as the beliefs in the requirements of a good service increase, the attitude towards new CIS would increase.

Moreover, the relationship among the various studied variables was examined, and a highly significant relation was noticed between XBELRGS, XBELITCS, XMCCSAT, and XANCIS, but no significance with XCISA was found. However, it is worth mentioning that a highly significant relationship existed between XCISA and X124 (Budget Percentage) which means that the efficiency of the

characteristics of the CIS available is highly dependent on the amount of budget devoted to customer service. This could be a logical and expected relation since the more management is concerned (with reference to budget), the more enhanced will be the characteristics available and thus the more improved customer satisfaction as well as organizational performance would be. This is important since the huge financial constraints faced by organizations - especially in this recovery period - might impede the adoption and successful implementation of a computerized CIS.

Finally, from the employee survey, another significant relationship was found and that was the relationship between the quality of service (XQS: dependent) and the corporate leadership. The relation is significant indicating that the more effective the corporate leadership, the more would employees be motivated to work, increase their productivity, and thus better services will be provided leading to the ultimate aim of every organization which is customer satisfaction and which in turn would lead to better organizational performance.

In order to reach this aim, managers should put more effort in order to reduce the performance gap between the expected outcome (existing strategy) and the desired outcome (new strategy) thus, bringing the expected as close as possible towards the desired outcome.

Limitations of the study:

There are three major limitation in the study . First, the sample that could be dealt with for data gathering and analysis was relatively a small one. A large number of questionnaires were not returned, thus

imposing a lack in variability among various managers' opinion and beliefs.

Second, there is a contribution in the nature of the sample itself. Not all respondents are aware about the concept of CIS and how a computerized one could lead to a more efficient application of customer service strategy. This accompanied with the finding that some managers do not have enough knowledge and experience in the field of computers, led to improper evaluation of a computerized CIS.

The last limitation could be attributed to the fact that some questions concerning beliefs about the requirements of a good service, managements' concern for customer satisfaction, and attitudes towards a new customer information system were believed to be answered positively just for the reason of not adversely affecting the status or image of managers.

Recommendations:

- Providing more training for managers in IT and methods of customer services.

- Managers should have the initiative to widely spread among customers the importance to complain and make them aware of their rights to submit complaints and have them resolved. This can be done in three ways:

(1) Developing corporate wide service strategies taking into consideration employees suggestions (employees' participation) and customers' expectations and desires.

(2) Adopting and implementing a well developed CIS that will keep record of customers' related information, their complaints, the way

they were handled, and that will use this information to measure the performance of the organization in accordance with the process of complaint handling and customer feedback.

(3) Directing and motivating employees to show responsiveness towards customers' service demands and to provide customers with a prompt and efficient solution to their complaints.

To have more organizational concern about the concept of service, thus allocating a higher percentage of the amount of budget allocated to Marketing and Sales activities to the area of Customer Services.

Finally, further research is recommended that will take into consideration the previously mentioned limitations and that will investigate factors that are most likely to be associated with the various beliefs that managers might have about the benefits of technology and about the possibility of enhancing their CIS.

APPENDIX A

DEMOGRAPHIC AND PERSONAL DATA:

This part of the survey is concerned with your background and work experience. This information will help identify trends in the data for different groups of managers. Please remember that your responses are completely confidential.

1- What is your functional area?

--- 1. Accounting --- 5. Personnel --- 9 . General Management
--- 2. Finance --- 6. Information Systems --- 10. Research & Development
--- 3. Marketing --- 7. Engineering --- 11. Other (Specify) ----------
--- 4. Sales --- 8. Manufacturing/ Production

2- What is your level in the organization hierarchy?

--- 1. Professional Staff
--- 2. First Level Supervisor
--- 3. Middle Management (Department head)
--- 4. Strategic Management (Executive)
--- 5. Other (Specify)

3- What is your Primary organization's business? (Please check one)

--- 1. Manufacturing --- 4. Public Sector --- 7. Utility (Electronic, Gas,...)
--- 2. Educational --- 5. Health Care --- 8. Financial Services (e.g. Banks)
--- 3. Merchandising --- 6. Insurance --- 9. Other (Specify) ----------

4- For how many years have you been employed in this organization?

---------- (to nearest year)

5- Number of subordinates reporting to you ----------

6- What is the highest level of education you have completed?

--- 1. Some high school or less
--- 2. High school
--- 3. Some college
--- 4. Bachelor's degree
--- 5. Some graduate or professional study
--- 6. Graduate or professional degree

7- Age: --------

8- Gender

--- 1. Male
--- 2. Female

COMPUTER USE

Please answer the next set of questions with regard to the actual time spent on and frequency of using the computer system available in your organization.

1- On an average working day that you use a computer, how much time do you spend on the system?

1. Almost never
2. Less than 1/2 hour
3. From 1/2 to 1 hour
4. 1 - 2 hours
5. 2 - 3 hours
6. More than 3 hours

2- On the average, how frequently do you use a computer?

1. Less than once a month
2. Once a month
3. A few times a month
4. A few times a week
5. About once a day
6. Several times a day

3- How long have you been using this system? -------- months ------- years.

4- With respect to customer service, please indicate to what extent is the computer used in your company to perform the following tasks:

	Not at all				To a gre Extent
1. Collecting data about customers' preferences and expectations	1	2	3	4	5
2. Conducting profitability analyses concerning various service strategies	1	2	3	4	5
3. Recording information about complaints received and actions taken	1	2	3	4	5
4. Using customer related data to assess the company's performance	1	2	3	4	5
5. Finding problems / alternatives	1	2	3	4	5
6. Taking actions in customer service	1	2	3	4	5
7. Historical reference to past complaints and actions taken	1	2	3	4	5
8. Planning new service strategies	1	2	3	4	5

COMPUTER TRAINING

Which of the following categories best describes the level of training you have had in the use of computers.

	None				Extreme Extensiv
1. General courses at a college or university	1	2	3	4	5
2. Training provided by vendors or consultants	1	2	3	4	5
3. In house company courses	1	2	3	4	5
4. Through self study	1	2	3	4	5

COMPUTER KNOWLEDGE AND EXPERIENCE

The next set of questions assesses the actual experience you have working with computers and your knowledge about computers in general.

1. How many courses have you taken in computers? ----------
2. How many courses have you taken in information systems? ----------
3. How long have you used computers in general? ---------- years
4. How long have you participated in technical analysis and design of information systems? ---------- years
5. How long have you used financial, statistical or other models on a computer system? ---------- years

BELIEFS ABOUT REQUIREMENTS OF A GOOD SERVICE

In this part of the questionnaire, we are concerned with determining the requirements of a good service. You are kindly required to circle the number that most fits your opinion or belief about the importance of each stated requirement in determining a good service.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. Customer service is not just what is done to customers, but also how it is done	1	2	3	4	5
2. A good service requires flexibility in dealing with your customers	1	2	3	4	5
3. Human contact is important in providing a service	1	2	3	4	5
4. Customers value human contact and find it highly rewarding	1	2	3	4	5
5. Prompt service (timeliness in service) is an important factor in determining a successful servicing system	1	2	3	4	5
6. A good service does not require personal attention	1	2	3	4	5
7. Responsiveness and politeness on the part of employees lead companies to enjoy reputations for distinctive service performance	1	2	3	4	5
8. A good service means keeping record about each customer along with promises and comments that are revealing or interesting	1	2	3	4	5
9. A good service means treating each person and his requests as unique, special, and highly important to you	1	2	3	4	5
10. A good service requires going beyond the ordinary and doing whatever is reasonable to give the customer what he wants	1	2	3	4	5
11. Customers' expectations and desires are basic to good service	1	2	3	4	5
12. Hearing from customers from time to time to know where our service performance stands is an essential requirement for a good service	1	2	3	4	5
13. To achieve and maintain a good service performance level, standards should be set, and the quality of your services should be rated according to these standards	1	2	3	4	5

14. Motivating employees to provide a good service and rewarding them on doing such a job are essential things for doing a job	**1**	**2**	**3**	**4**	**5**
15. A good service requires searching for unmet wants in each customer and meeting them	**1**	**2**	**3**	**4**	**5**
16. One of the most common characteristics of the outstanding service providers is their dedication to measuring customer satisfaction and using the results to guide action and organizational operations	**1**	**2**	**3**	**4**	**5**

BELIEFS ABOUT USING INFORMATION TECHNOLOGY IN CUSTOMER SERVICE

In this section, we would like to find out what you believe are the advantages and disadvantages of using information technology in the field of customer service.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. Using a computer in the field of providing a customer service will only add to the cost of operation without adding anything to efficiency	1	2	3	4	5
2. Using information technology could provide me with information that would lead to better analyses, evaluations and decisions in customer service	1	2	3	4	5
3. To be successful, companies should recognize the important role of information technology in enhancing customer service	1	2	3	4	5
4. Using a computer allows me to be more innovative by providing the opportunities for more creative analysis and outputs especially those related to service design	1	2	3	4	5
5. Segmentation based on the service expectations of customers can best be supported by information technology	1	2	3	4	5
6. The profitability analysis of product and service design trade-offs can best be done by using the facilities of information technology	1	2	3	4	5
7. Using information technology helps us better understand and evaluate the revenues and expenses associated with alternate service offerings	1	2	3	4	5
8. Using a computer can take up too much of my time in performing many tasks	1	2	3	4	5
9. Using a computer exposes me to vulnerability of computer breakdown and loss of data	1	2	3	4	5
10. Information technology in customer service should be viewed as an asset rather than a cost	1	2	3	4	5

11. Because of the importance of information technology (IT) in customer service, leadership in many IT applications should increasingly come from the customer service people within the company	1	2	3	4	5
12. Executive and line management should put all the effort required to make IT integral part in the customer service design	1	2	3	4	5

MANAGEMENT'S CONCERN FOR CUSTOMER SATISFACTION

The following items are established to assess how important you consider customer satisfaction is. Please circle the number that best fits your opinion and present action.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. We always place top priority on customer satisfaction	1	2	3	4	5
2. I regularly discuss the importance of customer service with my subordinates	1	2	3	4	5
3. I encourage my subordinates to suggest ways to improve customer service	1	2	3	4	5
4. We insist on the highest standards for customer service	1	2	3	4	5
5. We recognize and reward excellence in customer service	1	2	3	4	5
6. Goals for improving customer service are clearly defined to our employees	1	2	3	4	5
7. Cooperation and teamwork are encouraged	1	2	3	4	5
8. The importance of customer service is regularly communicated to our employees	1	2	3	4	5
9. Customer complaints are well received, properly handled and promptly solved	1	2	3	4	5
10. We are so sure of our products / service quality that we consider most customer complaints as invalid, and thus do not handle them	1	2	3	4	5
11. Customers can come any time to talk about their problems and expectations	1	2	3	4	5
12. We cannot afford having our doors always open to customers' problems, expectations and suggestions	1	2	3	4	5
13. To be honest, customers should not expect prompt solutions to their problems	1	2	3	4	5
14. The organization has a quality control department which is majorly concerned with providing our customers with the best quality service	1	2	3	4	5

15. We periodically measure customer satisfaction	1	2	3	4	5
16. The organization has a specialized department to talk to customers in case of problems, receive complaints and handle them on time	1	2	3	4	5
17. We have an excellent system for training people in quality of service	1	2	3	4	5
18. Overall, customer satisfaction is our major aim and concern and our first priority	1	2	3	4	5

CUSTOMER INFORMATION SYSTEM AVAILABLE

This part of the survey is concerned with describing the ways presently adopted in your company to handle customer information and providing customers with the required service.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. All our employees are knowledgeable about our products and services	1	2	3	4	5
2. Customer service is management's number-one priority	1	2	3	4	5
3. We have excellent work standards in our work unit	1	2	3	4	5
4. We periodically review customer complaints and the ways they were handled	1	2	3	4	5
5. Our organization is well known for keeping its promises to customers	1	2	3	4	5
6. Customer complaints are resolved quickly	1	2	3	4	5
7. We have mail boxes, suggestion boxes, specific numbers to handle customer questions about many of our products	1	2	3	4	5
8. We apply the no-questions asked refund policy	1	2	3	4	5
9. We offer a money-back guarantee for customers who are not satisfied	1	2	3	4	5
10. We provide replacements to dissatisfied customers	1	2	3	4	5
11. We do customer surveys, and the results of the surveys determine employee bonuses	1	2	3	4	5
12. We use quantitative measures to monitor the effectiveness of service and of personnel policies, practices, programs and procedures	1	2	3	4	5
13. Systems (probably computerized) are used to record complaints, analyze them, and use them to assess customer satisfaction and organization's performance	1	2	3	4	5
14. A department concerned with talking to dissatisfied customers, receiving complaints, and taking proper actions to resolve their problems is available in the organization	1	2	3	4	5
15. Complaints are used to help determine future customer service strategies	1	2	3	4	5

ATTITUDES TOWARD A NEW CUSTOMER INFORMATION SYSTEM

Please circle the number that best describes your attitude towards and opinion of each of the following items that represent a description for a suggested computerized information system

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. A computerized customer information system is recommended for more efficient customer service operations	1	2	3	4	5
2. There should be various ways to facilitate customers' contact with the organization such as mail boxes, suggestion boxes, specific numbers and / or consumer affairs office	1	2	3	4	5
3. Information about customers, their complaints and expectations should be well kept and organized to facilitate using them and dealing with them appropriately at the proper time	1	2	3	4	5
4. The operator or the employee of the customer service representative should be one of the best and most skilled salespeople in the company	1	2	3	4	5
5. It is important that information received from customers be shared, in summary from, at least monthly (if not weekly) with the entire organization, from top to bottom	1	2	3	4	5
6. Maintaining awareness of the customer service helps to keep the total organization focused on customer satisfaction	1	2	3	4	5
7. A specific computer application (such as CRS) is recommended to be used to manage more information in less time with increased accuracy, thus improving the quality of response	1	2	3	4	5
8. Direct computer access by other departments helps to overcome some of the problems associated with intra-organizational communication	1	2	3	4	5
9. A computerized customer information system will only add to the cost of operation, and thus should be avoided	1	2	3	4	5
10. A computerized customer information system will help the company overcome problems such as information distortion, inaccuracy, and time wasting	1	2	3	4	5

11. Customer information, if properly recorded and handled through an information system, can provide managers with a monitor for any number of problems	1	2	3	4	5
12. An efficient customer information system will aid in making use of consumer feedback in areas such as the design process and new product planning	1	2	3	4	5
13. The comprehensive handling of complaint information by a computerized system helps to overcome some of the traditional problems associated with complaints	1	2	3	4	5
14. Customers in this country "do not care", and thus there is no cost-justified reason beyond adopting a customer information system	1	2	3	4	5
15. With improved response, resulting from a computerized customer information system, more customers may well begin to complain, thus forming a new source of profit to the company	1	2	3	4	5
16. Keeping records or complete files on consumers who have submitted complaints to the company provide valuable information for future handling	1	2	3	4	5
17. Customer information systems help management efficiently analyze organizational performance and devise ways to improve it in the future	1	2	3	4	5
18. Overall, I am for adopting a computerized customer information system	1	2	3	4	5

MONITORING SERVICE THROUGH ORGANIZATIONAL PERFORMANCE

Please check the answer that best describes the status of each of the following organizational performance measures for your company.

1- Comparing the company's market share with the competitors', you find that it is :

---- increasing
---- decreasing
---- maintaining the same level

2- Comparing your sales growth against your own history and against the growth of the total market, you find that it is:

---- increasing
---- decreasing
---- maintaining the same level

3- Comparing yourself against yourself in terms of operating results and earnings as a percentage of sales, you find that you are:

---- gaining
---- losing
---- maintaining the same level

4- Has turnover of management, supervisors, and employees,

---- increased
---- decreased
---- remained the same

5- In your opinion, the impact of service on measures as: return on investment, return on assets, earnings per share, and new business is a:

---- positive impact
---- negative impact
---- no effect (zero effect)

6- What percent of the company's total budget is devoted to creating and maintaining service superiority, as contrasted with marketing and new sales? ---------- %

JOB AND CAREER ATTITUDES

Please indicate your agreement or disagreement with each of the following items by circling the one number to the right of each statement that corresponds most closely to your desired response.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. I am satisfied with the success I have achieved in my career	1	2	3	4	5
2. I am satisfied with the progress I have made toward achieving my overall career goals	1	2	3	4	5
3. If I had it to do all over again, I would have never made the career choices I have made	1	2	3	4	5
4. I am satisfied with my rate of promotion during my career	1	2	3	4	5
5. I am satisfied with the pay level I have achieved during my career	1	2	3	4	5
6. I am satisfied with the status that I have achieved during my career	1	2	3	4	5
7. Generally speaking, I am very satisfied with my job	1	2	3	4	5
8. I frequently think of changing my job	1	2	3	4	5
9. Usually, I feel detached from my job	1	2	3	4	5
10. I am generally satisfied with the kind of projects I work on in my job	1	2	3	4	5
11. I like to be absorbed in my job most of the time	1	2	3	4	5

APPENDIX B

1 = Strongly Disagree (SD)
2 = Disagree (D)
3 = Uncertain (U)
4 = Agree (A)
5 = Strongly Agree (SA)

STYLE OF MANAGEMENT

	SD	D	U	A	SA
1. My management treats me the way it wants me to treat our customer	1	2	3	4	5
2. I get regular feedback on the quality of my service performance	1	2	3	4	5
3. My supervisor helps me solve my work problems	1	2	3	4	5
4. My management works to create a positive work climate	1	2	3	4	5
5. My management is interested in me and my work	1	2	3	4	5

MANAGEMENT'S CONCERN FOR CUSTOMER SATISFACTION

	SD	D	U	A	SA
1. My management places top priority on customer satisfaction	1	2	3	4	5
2. My supervisor regularly discusses the importance of customer service with me	1	2	3	4	5
3. I am encouraged to suggest ways to improve customer service	1	2	3	4	5
4. My management insists on the highest standards for customer service	1	2	3	4	5
5. My management recognizes and rewards excellence in customer service	1	2	3	4	5
6. In my job, goals for improving customer service are clearly defined	1	2	3	4	5
7. Cooperation and teamwork are encouraged	1	2	3	4	5

QUALITY OF SERVICE

	SD	D	U	A	SA
1. The quality of service is excellent in my department	1	2	3	4	5
2. High-quality service is expected and demanded	1	2	3	4	5
3. My department has goals for customer service	1	2	3	4	5
4. We accomplish our goals for customer service	1	2	3	4	5
5. My management does all that is possible to improve customer satisfaction	1	2	3	4	5
6. In my department, we help each other to improve customer service	1	2	3	4	5
7. In my department, training is provided for better customer complaint handling	1	2	3	4	5

CORPORATE LEADERSHIP

	SD	D	U	A	SA
1. I am proud to work in this organization	1	2	3	4	5
2. Management does all it can to improve customer service	1	2	3	4	5
3. Management is concerned with conducting surveys to assess customer satisfaction	1	2	3	4	5

EFFECTIVENESS OF COMMUNICATION

	SD	D	U	A	SA
1. I get the information I need to do my job	1	2	3	4	5
2. I am kept informed about changes that affect my job	1	2	3	4	5
3. The importance of customer service is regularly communicated to me	1	2	3	4	5
4. I get worthwhile information from the organization's newsletter	1	2	3	4	5
5. The organization's newsletter emphasizes the importance of customer service	1	2	3	4	5

JOB SATISFACTION

	SD	D	U	A	SA
1. I am satisfied with the success I have achieved in my career	1	2	3	4	5
2. I am satisfied with the pay level I have achieved during my career	1	2	3	4	5
3. I frequently think of changing my job	1	2	3	4	5
4. I like to be absorbed in my job most of the time	1	2	3	4	5
5. Overall, I am satisfied with my job	1	2	3	4	5

APPENDIX C

DEMOGRAPHIC AND PERSONAL DATA

1- Your occupation:

--- 1. Executive or Managerial
--- 2. Professional
--- 3. Government or Military
--- 4. Sales
--- 5. Student
--- 6. Homemaker
--- 7. Retired
--- 8. Other ---------- (Please Specify)

2- Are you self-employed?

--- Yes
--- No

3- Your annual income:

--- 1. Under $5,000
--- 2. $5,000 - $9,999
--- 3. $10,000 - $19,999
--- 4. $20,000 - $29,999
--- 5. $30,000 - $39,999
--- 6. $40,000 - $49,999
--- 7. $50,000 or more

4- Your educational level:

--- 1. No formal diploma
--- 2. High school diploma
--- 3. Bachelor's degree
--- 4. Master's degree
--- 5. Doctoral degree

5- Your age:

--- 1. Under 18 years
--- 2. 18 - 24 years
--- 3. 25 - 34 years
--- 4. 35 - 49 years
--- 5. 50 - 64 years
--- 6. 65 or above

21- Your sex:

--- Male
--- Female

22. Your Nationality: ----------

CUSTOMER OPINION OF SERVICES PROVIDED BY COMPANIES OPERATING IN LEBANON

In the space provided, please circle the answer that best fits your opinion about each matter stated.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. Companies here are highly responsive to my needs	1	2	3	4	5
2. The quality of services / products of companies rarely meet my requirements	1	2	3	4	5
3. I believe that companies predetermine standards for the the quality of services / products provided to customers	1	2	3	4	5
4. In general, service commitments are always delivered to me in a timely manner	1	2	3	4	5
5. When I have a problem with a certain company concerning a certain product or service, you know where and who to to go to for a solution	1	2	3	4	5
6. In case there is a problem, employees show a lot of understanding and empathy	1	2	3	4	5
7. 'The customer is our first priority' is only said to attract customers, but none of it in fact is applied	1	2	3	4	5
8. A lot of companies here make me feel that they understand my problems, complaints and expectations	1	2	3	4	5
9. A lot of companies here show concern with helping me solving my problem and resolving my complaint	1	2	3	4	5
10. Overall, I am well satisfied with the service quality provided to me by companies in general	1	2	3	4	5

ATTITUDE TOWARDS COMPLAINING

Please answer the following set of items by indicating the number that best fits your opinion.

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

1. Complaining is a costly process that won't lead to any beneficial result	1	2	3	4	5
2. In case there is a problem, I intend to go to the concerned company and submit a complaint	1	2	3	4	5
3. Substitutes are always available. In case a problem is faced, with a product or a service, I can select others from other companies	1	2	3	4	5
4. Refunding or replacement cannot be obtained easily	1	2	3	4	5
5. If I know that there is a complaint handling system or a system concerned with customer needs and expectations I would be attracted to contact the company	1	2	3	4	5
6. Overall, complaining here is a time consuming process and companies do not really care for solving problems	1	2	3	4	5

Thank you very much for your time and cooperation. When you are finished, please return the questionnaire to the person conducting the survey.

APPENDIX D

موافقك من الشكاوي

في المساحة التالية, ارسم دائرة حول الجواب الذي تراة مناسبا

1- أعارض جدا
2- أعارض
3- غير متأكد
4- أوافق
5- أوافق جدا

1. ان تسجيل الشكوى عملية مكلفة لن ينتج عنها اية نتائج ايجابية	1	2	3	4	5
2. في حال وجود اية مشكلة, اذهب الى الشركة المعنية لتسجيل شكوى	1	2	3	4	5
3. البدائل دائما موجودة, في حال مواجهة مشكلة مع اية خدمة او سلعة, استطيع استبدالها بأخرى من شركة أخرى	1	2	3	4	5
4. استعادة المال أو استبدال السلعة عملية معقدة	1	2	3	4	5
5. سوف أنجذب للتعامل مع الشركة, اذا عرفت أنها تملك نظاما يهتم بشكاوي الزبون, أو نظاما يهتم بحاجات وتوقعات الزبون	1	2	3	4	5
6. بشكل عام, الشركات لا تهتم فعليا بحل مشاكل الزبون, فتسجيل الشكاوي هدر للوقت	1	2	3	4	5

نشكر لك تعاونك معنا.
الرجاء تسليم الاستبيان للشخص المسؤول عند الانتهاء منه.

APPENDIX E

1. FA (x1) Functional Area	1. Accounting (ACC)	1
	2. Finance (FNC)	2
	3. Marketing (MKG)	3
	4. Sales (SLS)	4
	5. Personnel (PRS)	5
	6. Information Systems (INFS)	6
	7. Engineering (ENG)	7
	8. Manufacturing (MFG)	8
	9. General Management (GMG)	9
	10. R & D (R&D)	10
	11. Other (Other)	11
2. ORGL (x2) Organizational level	1. Professional Staff (PFS)	1
	2. First level supervisor (FLS)	2
	3. Middle Management (MDM)	3
	4. Strategic Management (STM)	4
	5. Other (other)	5
3. ORGB (x3) Organization business	1. Manufacturing (MFG)	1
	2. Educational (EDU)	2
	3. Merchandising (MDG)	3
	4. Public Sector (PLS)	4
	5. Health Care (HCR)	5
	6. Insurance (INS)	6
	7. Utility (UTY)	7
	8. Financial Services (FNS)	8
	9. Other (other)	9
4. YOE (x4) Years of Employment		number
5. NOS (x5) Number of Subordinates		number
6. LOE (x6) Level of Education	1. Some high school (<=HS)	1
	2. High school (HS)	2
	3. Some college (SC)	3
	4. Bachelor's degree (BS)	4
	5. Some graduate/professional (SG)	5
	6. Graduate or Professional (GD)	6
7. Age (x7)		number
8. Sex (x8)	1. Male (M)	1
	2. Female (F)	0

9. C-actuse (x9) Actual use of computers	1. Almost never	1
	2. Less than 1/2 hour	2
	3. From 1/2 to 1 hour	3
	4. 1-2 hours	4
	5. 2-3 hours	5
	6. More than 3 hours	6
10. C-frquse (x10)	1. Less than once a month	1
	2. Once a month	2
	3. A few times a month	3
	4. Afew times a week	4
	5. About once a day	5
	6. Several times a day	6
11. C-sysuse (x11) Usage of System		number
12. C-task1 (x12)	Data collection 1. Not at all (NAL) 2. Some of the time (ST) 3. About half of the time (HT) 4. Most of the time (MT) 5. To a great extent (TGE)	(1-5)
13. C-task2 (x13)	Profitability analysis	(1-5)
14. C-task3 (x14)	Complaint recording	(1-5)
15. C-task4 (x15)	Performance assessing	(1-5)
16. C-task5 (x16)	Problem finding	(1-5)
17. C-task6 (x17)	Action taking	(1-5)
18. C-task7 (x18)	Historical reference	(1-5)
19. C-task8 (x19)	Planning	(1-5)
20. CT_CCU (x20) Computer training	University courses 1. None (N)	1
	2. Few (F)	2
	3. Some (S)	3
	4. Extensive (E)	4
	5. Extremely Extensive (EE)	5
21. CT-VOC (x21)	Training by vendors	(1-5)
22. CT-IHS (x22)	Inhouse courses	(1-5)
23. CT-SS (x23)	Self study	(1-5)

24. CEXP1 (x24)	No. of computer courses	number
25. CEXP2 (x25)	No. of Inf. Systems courses	number
26. CEXP3 (x26)	Length of computer use	number
27. CEXP4 (x27)	length of system use	number
28. CEXP5 (x28)	Participation in system analysis	number
29. BELRGS1 (x29)	Customer service,how&what	
	1. Strongly disagree (SD)	1
	2. Disagree to some extent (DE)	2
	3. Uncertain (UN)	3
	4. Agree to some extent (AE)	4
	5. Strongly Agree (SA)	5
30. BELRGS2 (x30)	Flexibility with customer	(1-5)
31. BELRGS3 (x31)	Human contact importance	(1-5)
32. BELRGS4 (X32)	Human contact reward	(1-5)
33. BELRGS5 (x33)	Prompt service importance	(1-5)
34. BELRGS6 (x34)	Personal attention	(1-5)
35. BELRGS7 (x35)	Responsiveness & politeness	(1-5)
36. BELRGS8 (x36)	Recording promises & comments	(1-5)
37. BELRGS9 (x37)	Customer uniqueness	(1-5)
38. BELRGS10 (x38)	Reasonable service	(1-5)
39. BELRGS11 (x39)	Customer's expectation & desire	(1-5)
40. BELRGS12 (x40)	Hearing customers	(1-5)
41. BELRGS13 (x41)	Performance standards	(1-5)
42. BELRGS14 (x42)	Employee motivation	(1-5)
43. BELRGS15 (x43)	Unmet wants	(1-5)
44. BELRGS16 (x44)	Measuring customer satisfaction	(1-5)
45. BELIT1 (x45)	Computer inefficiency	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
46. BELIT2 (x46)	Better analysis & decisions	(1-5)
47. BELIT3 (x47)	Role of IT	(1-5)
48. BELIT4 (x48)	More innovative	(1-5)
49. BELIT5 (x49)	Segmentation supported by IT	(1-5)
50. BELIT6 (x50)	Profitability analysis using IT	(1-5)
51. BELIT7 (x51)	Better evaluation	(1-5)
52. BELIT8 (x52)	Timeliness	(1-5)
53. BELIT9 (x53)	Vulnerability of breakdown	(1-5)
54. BELIT10 (x54)	IT as an asset	(1-5)
55. BELIT11 (x55)	Leadership in IT	(1-5)
56. BELIT12 (x56)	IT integration in service	(1-5)

57. MCCS1	(x57)	Priority of customer satisfaction	
		1. SD	1
		2. DE	2
		3. UN	3
		4. AE	4
		5. SA	5
58. MCCS2	(x58)	Discussion with subordinates	(1-5)
59. MCCS3	(x59)	Ways of improvement	(1-5)
60. MCCS4	(x60)	Implementation of standards	(1-5)
61. MCCS5	(x61)	Reward of excellence	(1-5)
62. MCCS6	(x62)	Goals for improving	(1-5)
63. MCCS7	(x63)	Teamwork & cooperation	(1-5)
64. MCCS8	(x64)	Communication with employees	(1-5)
65. MCCS9	(x65)	Customer complaints	(1-5)
66. MCCS10	(x66)	Validity of complaints	(1-5)
67. MCCS11	(x67)	Open-door policy	(1-5)
68. MCCS12	(x68)	Open-door policy affordance	(1-5)
69. MCCS13	(x69)	Prompt solutions to problems	(1-5)
70. MCCS14	(x70)	Purpose of Quality&Control Dept.	(1-5)
71. MCCS15	(x71)	Measure of customer satisfaction	(1-5)
72. MCCS16	(x72)	Dept. for customer complaint	(1-5)
73. MCCS17	(x73)	Training in quality of service	(1-5)
74. MCCS18	(x74)	Concern in customer satisfaction	(1-5)
75. CISA1	(X75)	Employees knowledge	
		1. SD	1
		2. DE	2
		3. UN	3
		4. AE	4
		5. SA	5
76. CISA2	(x76)	Priority of customer service	(1-5)
77. CISA3	(x77)	Work standards	(1-5)
78. CISA4	(x78)	Review of complaints	(1-5)
79. CISA5	(x79)	Keeping promises	(1-5)
80. CISA6	(x80)	Promptness of complaint resolution	(1-5)
81. CISA7	(x81)	Means of complaining	(1-5)
82. CISA8	(x82)	Use of No-question refund policy	(1-5)
83. CISA9	(x83)	Use of money-back guaranttee	(1-5)
84. CISA10	(x84)	Use of replacement	(1-5)
85. CISA11	(x85)	Compensation Vs. service	(1-5)
86. CISA12	(x86)	Use of quantitative measures	(1-5)
87. CISA13	(x87)	Systems in handling complaints	(1-5)
88. CISA14	(x88)	Dept. for complaint handling	(1-5)
89. CISA15	(x89)	Complaint usage in future planning	(1-5)

90. ANCIS1 (x90)	CIS for more efficient service	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
91. ANCIS2 (x91)	Facilitation of human contact	(1-5)
92. ANCIS3 (x92)	Complaint & expectation recording	(1-5)
93. ANCIS4 (x93)	Skill of employees	(1-5)
94. ANCIS5 (x94)	Information communication	(1-5)
95. ANCIS6 (x95)	Customer satisfaction awareness	(1-5)
96. ANCIS7 (x96)	Use of computer applications	(1-5)
97. ANCIS8 (x97)	Access to information	(1-5)
98. ANCIS9 (x98)	Cost efficiency of CIS	(1-5)
99. ANCIS10 (x99)	Satisfaction with CIS	(1-5)
100. ANCIS11 (x100)	Recording customer information	(1-5)
101. ANCIS12 (x101)	Use of consumer feedback	(1-5)
102. ANCIS13 (x102)	CIS complaint handling	(1-5)
103. ANCIS14 (x103)	Awareness of customer	(1-5)
104. ANCIS15 (x104)	Complaining customers	(1-5)
105. ANCIS16 (x105)	Complaints as a source of information	(1-5)
106. ANCIS17 (x106)	CIS and performance analysis	(1-5)
107. ANCIS18 (x107)	Willingness to adopt CIS	(1-5)
108. JCA1 (x108)	Satisfaction with career	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
109. JCA2 (x109)	Satisfaction with progress	(1-5)
110. JCA3 (x110)	Regret or bad choice	(1-5)
111. JCA4 (x111)	Satisfaction with promotion	(1-5)
112. JCA5 (x112)	Satisfaction with pay-level	(1-5)
113. JCA6 (x113)	Satisfaction with status	(1-5)
114. JCA7 (x114)	Satisfaction with job	(1-5)
115. JCA8 (x115)	Change of job	(1-5)
116. JCA9 (x116)	Detachment from job	(1-5)
117. JCA10 (x117)	Project satisfaction	(1-5)
118. JCA11 (x118)	Being absorbed in job	(1-5)

119. MS (x119)	**Level of market share**	
	1. Increasing (I)	**1**
	2. Decreasing (D)	**2**
	3. Maintaining the same level (M)	**3**
120. SG (x120)	**Level of sales**	**(1-3)**
121. ORES (x121)	**Level of operating results**	
	1. Gaining (G)	**1**
	2. Losing (L)	**2**
	3. Maintaining the same level (M)	**3**
122. TO (x122)	**Rate of turnover**	
	1. Increased (I)	**1**
	2. Decreased (D)	**2**
	3. Remained the same (R)	**3**
123. IS (x123)	**Service impact**	
	1. Positive (P)	**1**
	2. Negative (N)	**2**
	3. No effect (NO)	**3**
124. BUD% (x124) **Budget percentage**		**number**

****

1. SOM1 (X1) **Style of Management**	**Emplyee treatment by Mngmt.**	
	1. SD	**1**
	2. DE	**2**
	3. UN	**3**
	4. AE	**4**
	5. SA	**5**
2. SOM2 (X2)	**Feedback on Quality**	**(1-5)**
3. SOM3 (X3)	**Supervisor's help**	**(1-5)**
4. SOM4 (X4)	**Positive work climate**	**(1-5)**
5. SOM5 (X5)	**Interest in employee**	**(1-5)**

6. MCCSAT1 (X6)	Priority of customer satisfaction	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
7. MCCSAT2 (X7)	Discussion with employee	(1-5)
8. MCCSAT3 (X8)	Employees' suggestions	(1-5)
9. MCCSAT4 (X9)	Standards of service	(1-5)
10. MCCSAT5 (X10)	Reward for excellence	(1-5)
11. MCCSAT6 (X11)	Customer service goals	(1-5)
12. MCCSAT7 (X12)	Cooperation and teamwork	(1-5)
13. QOSER1 (X13)	Department service	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
14. QOSER2 (X14)	Expected & demanded quality	(1-5)
15. QOSER3 (X15)	Department goals	(1-5)
16. OOSER4 (X16)	Goals accomplishment	(1-5)
17. QOSER5 (X17)	Improvement by Mangmt.	(1-5)
18. QOSER6 (X18)	Help between employees	(1-5)
19. QOSER7 (X19)	Training for employees	(1-5)
20. CLEAD (X20)	Pride in employees	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
21. CLEAD (X21)	Improving services	(1-5)
22. CLEAD (X22)	Conducting surveys for assessment	(1-5)
23. EFFCOM1 (X23)	Availability of information	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
24. EFFCOM2 (X24)	Communication of changes	(1-5)
25. EFFCOM3 (X25)	Comunication of service imp.	(1-5)
26. EFFCOM4 (X26)	Worthwhile newsletter	(1-5)
27. EFFCOM5 (X27)	Service in newsletter	(1-5)

5. AGE (X5)	Age	
	1. Under 18 years	1
	2. 18 - 24	2
	3. 25 - 34	3
	4. 35 - 49	4
	5. 50 - 64	5
	6. 65 or above	6
6. SEX (X6)	Sex	
	1. Male (M)	1
	2. Female (F)	0
7. NAT (X7)		1
Nationality		0
8. CUSTOP1 (X8)	Responsiveness of companies	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
9. CUSTOP2 (X9)	Meeting requirements	(1-5)
10. CUSTOP (X10)	Predetermeined standards	(1-5)
11. CUSTOP (X11)	Timely service	(1-5)
12. CUSTOP (X12)	Complaining process	(1-5)
13. CUSTOP (X13)	Employees' empathy	(1-5)
14. CUSTOP (X14)	Priority of customer	(1-5)
15. CUSTOP (X15)	Understanding problems	(1-5)
16. CUSTOP (X16)	Concern by companies	(1-5)
17. CUSTOP (X17)	Quality satisfaction	(1-5)
18. ATTCOMP1 (X18)	Costly complaining	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
19. ATTCOMP2 (X19)	Complaint submission	(1-5)
20. ATTCOMP3 (X20)	Availability of substitutes	(1-5)
21. ATTCOMP4 (X21)	Refund and replacment	(1-5)
22. ATTCOMP5 (X22)	Customer Information System	(1-5)
23. ATTCOMP6 (X23)	Complaining Process	(1-5)

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28. JOBSAT1 (X28)	Success in career	
	1. SD	1
	2. DE	2
	3. UN	3
	4. AE	4
	5. SA	5
29. JOBSAT2 (X29)	Satisfaction with pay level	(1-5)
30. JOBSAT3 (X30)	Changing jobs	(1-5)
31. JOBSAT4 (X31)	Absorbed by job	(1-5)
32. JOBSAT5 (X32)	Satisfaction with job	(1-5)

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1. OCCU (X1)	Occupation	
	1. Executive or managerial	1
	2. Professional	2
	3. Government or military	3
	4. Sales	4
	5. Student	5
	6. Homemaker	6
	7. Retired	7
	8. Other	8
2. SELF-EMP (X2)	Self-employed	
	1. Yes	1
	2. No	0
3. INCOME (X3)	Annual income	
	1. Under $5000	1
	2. $5000 - 9,999	2
	3. $10,000 - 19,999	3
	4. $20,000 - 29,999	4
	5. $30,000 - 39,999	5
	6. $40,000 - 49,999	6
	7. $50,000 or more	7
4. EDUCATION (X4)	Educational level	
	1. No formal diploma	1
	2. High school diploma	2
	3. Bachelor's degree	3
	4. Master degree	4
	5. Doctoral degree	5

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