

QUALITY : A KEY TO IMPROVE PRODUCTIVITY FOR SERVICE INDUSTRY

ABSTRACT

With increased growth in service industries in the United States in the last decade, service productivity, has been the target of criticism. This research project will attempt to analyze the ways and means of improving quality and productivity at nations offices.

DESCRIPTION OF THE PROJECT

Starting about 1960, more Americans began working in offices than worked in factories. Today, 60 million of us are in offices versus 20 million in factories (6). Women and baby boomers joined the labor force in large number in the 1970s and 1980s. Workers being plentiful, companies tended to hire lots of cheap help instead of raising productivity. Accordingly, the productivity of office workers has dropped about 7 percent since 1973. In contrast, factory productivity climbed some 51 percent in the same period (7). But now, there are no more baby boomers in the pipeline and the increase in working women appears to be over. The baby boom (76 million born between 1946 and 1964) was followed by a baby bust (born between 1965 and 1978). The baby busters are few, which further restricts the source of employees (7).

Besides, in many organizations such as banks, insurance companies, all employees are office people. Even in manufacturing, about two-thirds of the jobs are white-collar works (9). Competition no longer allows us to pass costs on to our customers. We must improve our office productivity to stay competitive in our businesses. In pursuit of this goal we must take a hard look at the white-collar productivity concepts, the processes involved in office operations, and the ways and means to control these processes in order to achieve higher productivity and quality.

Most all office processes consist of a series of customer - supplier relationships (1). Based upon customer expectations, the service processes are normally designed. A customer is the one who receives the outputs, whereas the supplier is the one who provides the inputs. Often, the same customer could be the supplier of another organization (11). Most all processes are driven by customers requirements and specifications, and in a competitive environment the success of an organization depends on its customers satisfaction. More satisfied customers means more business and increased market share (15). Again customers satisfaction depends on the

promptness and quality of the service as well as the charge for the service. Customers preferences generally vary around the three variables: promptness, quality, and price (8). Some customers are willing to pay prime price for a quality and prompt service, whereas the others shop around for a competitive price. Therefore, it is most important to know who the customers are, and what are their expectations (16). Customers' expectations must be translated into process targets that serve in place of, or as surrogates for, customers' needs. Then, the process involving a series of value added activities must be designed to meet the targets, and in turn, the suppliers' requirements for inputs be set to meet the process requirements (5). Similarly, the suppliers must be sought, evaluated, and established accordingly.

Service profiling may be defined as a way to ascertain the degree of fit between the capability of a business in providing quality services in a continuously changing business environment. It brings a strategic fit between the choices of processes and the order winning criteria for the company's services. If a company invested in a process that embodied a set of trade-offs inconsistent with its market, it would induce mismatch between the process and its market. Service profiling attempts to draw attention to these mismatches involved. Where the customers' needs have changed over time, service profiling maps the fit between the requirements of the current market and the characteristics of existing services, and seeks repositioning of service strategies in line with the order winning criteria of the business (9).

A company needs to have a comprehensive understanding of the implications of changing market environment, and must continuously assess how well existing processes fit the company's current service requirements. Based upon this assessment, appropriate choices of processes to meet the future service needs must be made. Since investment in processes are generally high and must be depreciated over a long period of time as capital investment, companies often are unable or unwilling to maintain the degree of fit desired. In spite of this, service profiling increases awareness of a company regarding the mismatch, allows a conscious choice among available process alternatives, and brings strategic alertness. This project will attempt to determine how the service oriented companies in the State of Michigan are continuously (1) assessing the needs of the market and customers' expectations, (2) assessing the current process targets and the process strategies, (3) reposition the processes and develop control, and (4) evaluate their processes and make necessary adjustment for improving their competitiveness.

RESEARCH METHODOLOGY

This research involves extensive interview of management executives of various service oriented companies. A stratified sampling procedure will be used for choosing 300 companies from six different service categories viz, (1) bank, (2) auto dealership, (3) hospital, (4) retail shop, (5) fast food, (6) restaurant, (7) real estate agencies, (8) educational institution, (9) medical services, and (10) recreational services. Telephone interview will be used to gather majority of the information, and 10% of the respondent top executive will be directly interviewed for obtaining information related to strategic directives. The personal interview will be open ended whereas the telephone interview will be a structured one. A preliminary design questionnaire for this interview is enclosed in Appendix I.

The information collected will be tabulated and plotted for presentation. Inference and recommendation will be made based upon the analysis of this information. A research paper will be sent for presentation/ publication in a Conference Proceedings/ Professional Journal after the completion of the project. A termination report will also be submitted to the appropriate authority as a requirement of the Research Excellence Project funding of Central Michigan University.

How this research relates to social/economic development in Michigan?

This research will unveil significantly important information related to the current practices in service profiling strategies of various categories of service oriented companies in the State of Michigan. This information may be used by Michigan service organizations in improving their competitiveness in the nations market place which will result in socio-economic development.

How this research relates to existing university programs and priorities?

Central Michigan University's Management Department has a major program in Production and Operations Management. Quality Management is a part of this program. There has been tremendous emphasis on quality in manufacturing in this program. American Society for Quality Control (ASQC) has sponsored this program and granted a charter to start a student chapter of ASQC in 1991. Since service industry comprise one of the largest sector of American businesses, our program will benefit from this research from dissemination of information related to quality strategies in service industry. The department is also planning to develop an interdisciplinary minor in Quality Management in the near future and this research experience will definitely benefit us in developing this program.

Assessing the Needs of the Market

The needs of the market and customers' expectation have been changing significantly and continuously in service industries. Customers are demanding more and more quality of services from their providers at a reasonable price. Quality of services no longer depends on just meeting the customers' needs but also on various factors known as satisfiers such as convenience, safety, speed, promptness, courtesy, honesty, sincerity, and trust from the providers of services.

The degree and the intensity of many of these factors may vary from business to business and from one company to another within the industry.

As America prospered in the post-war years service industry benefited from population boom, and sustained rise in incomes, grew significantly, and companies found that they could skimp on services without losing customers. But things are coming in full circle. Because of slow growth in population and incomes, "customers are precious commodity and quality of service is the way to differentiate your service", says Leonard Berry, a marketing professor at Texas A & M University (17). In retail stores, quality is the way to differentiate your store, since stores often carry the same products at the same price. But the problem is that the definition of quality in retailing is broader than ever. Yet quality for financial services companies has another dimension: safeguarding the customers' assets. "There is no better way to deliver quality in banking than to be safe", says Jeffrey C. Keil, president of Republic National Bank of New York (11). To drum up additional trading business with big pension and mutual funds, the Wall Street houses are making commitment to high technology, spending \$13.8 billions in 1990 alone to buy hardware, software, and personal computers (11). During a decade of deregulation, airline services took a middle seat to growth, mergers, and competition. The airlines have always trumpeted their services. But when talk did not build brand loyalty, they turned to frequent flier programs. Health care providers are being pushed to adopt quality management techniques by employers and the government, who foot most of the nation's \$666 billion annual medical tab (19).

Assessing Process Targets and Process Strategies

All processes usually have targets which may or may not relate to the customers' needs. It is important to identify the characteristics of the process with targets which directly relate to the customers expectations. These characteristics should include all those needed to control and improve the process to meet the needs and expectations of the customers. The development of

such a control mechanism is key to the successful improvement of the process towards the achievement of its goal which is eventually customers satisfaction. In order to monitor the performance of the process, it is important to put in place a measurement mechanism to track what the process is actually producing. Measurement of key characteristics are essential to ensure that the process is meeting its targets. Collection of actual measurement data that represent the process outputs are taken over a period of time against specific process targets. These data will be used to determine whether the process needs to be changed, if so, then which specific parts of the process should be modified. Also data should be gathered to measure the results of any changes.

Repositioning the Processes and Develop Control

If the current process strategies fail to meet the current market needs, then new and appropriate processes must be positioned in order to align the process targets with customers' expectations in order to stay competitive in the market place. For many retailers, technology has become the competitive weapon. Computer technology keeps operating expenses for Wal-Mart stores at 16% of sales, well below Kmart's 20% (17). Technology also helped J.C. Penney increased its catalog sales significantly. High tech also help solve lots of nagging problems such as slow checkouts, and long lines, which cause huge amount of lost sales in discount stores and supermarkets. Most every stores now a day use scanners for reading bar codes, record prices, and print out itemized bills (17). Similarly, bankers, in order to improve services and cut costs, have made a huge investment in computer technology. Six big dealers in Treasuries, including Solomon Brothers, Inc. offer UniVu system, an electronic service providing information and analysis Treasury bonds, to institutional bond portfolio managers.

A process may involve a large number of value added activities. In order to control the process all these activities must be under control. A good way to start is to map all these activities in a diagram commonly known as a flow chart (4). A flow chart can help spot duplicate activities and eliminate waste and delays. It also helps identify the points where the process should be measured. Identifying the basic measure of performance at each major point of the process is an important step in documenting the knowledge about the process. The measurement method provides an window through which the process can be observed (3). All observations must be properly assessed using criteria such as timeliness and whether the data

relate to customers' requirements. Data must be translated into meaningful information using which intelligent decisions about corrective actions to be taken on the process should be made.

Control of the process involves the control of the activities within the process to prevent the production of less than satisfactory services. First the standard or process target is established based upon customers' requirements and specification. Since a process is a series of activities, the standards for each activity must also be established in order to accomplish the overall process target. Using a flow chart the critical activities must be identified, and any wasteful activity be eliminated. Then the control parameters for each critical activity and the activities to be controlled, must be identified for the purpose of implementing control mechanisms. At each control point, a measuring instrument must be installed for collection of data related to performance measures. By periodic comparison of observed performance data with the target performance standards, it is possible to determine whether the process is under control or not. It also helps detect exactly when the process goes out of control so that the process can be stopped immediately to prevent producing wasteful and unsatisfactory services.

In the heart of the theory of process control is the concepts of variables under control at each control point such as inventory level, percent defects, etc.(13). Acceptable parameters of each of these variables are defined in their standards, sometimes with a tolerance limits. All processes generally encounter some random disturbance assignable to unknown causes. This random fluctuation can be calculated from analysis of past data and a control band using upper control limit and lower control limit can be drawn in the form of a *process control chart* as shown in figure 3 for each variable under control. Process weakness and performance problems may occur not only due to technical or design problems, but also due to human errors and random errors. The control band provides the measure of random errors. When a observation goes beyond the control band, it flags that the process has gone out of control due to some assignable cause (technical, design, or human error) which is eventually controllable and can be corrected. An immediate corrective action would be necessary to prevent the process producing defects or unsatisfactory services. If the observation remains within the control band, then the process is under control. Random disturbances are generally inherent with the particular process or activity. By upgrading a process or an activity the random error can be reduced. For example, when an old and out dated equipment is replaced by a new upgraded equipment, the random error of the process is generally significantly reduced, thus the quality can be significantly improved. While top management has the authority to upgrade equipment and the process, little can be done without the help of the work force who actually monitor and control the process.

Therefore, employees participation is an essential element of the control process along with design and process perfection and top management commitment to quality. "What management needs to understand that it is not in charge of customer satisfaction", says Stanley M. Cherkasky, President of Gunnerson Group International Inc., a quality consulting company in Landing, N.J. " It is the employees who talks to the customers" (8). This has far reaching implications. It means that employees have to like their job a lot lot more than mere job satisfaction. This means more authority and job enrichment through " empowerment training". They are the "cast members" not just employees. University Micro-films, Inc. a Bell & Howell subsidiary in Ann Arbor, Michigan , has spent \$1.5 million since 1988 to put its 1000 plus employees through quality training. Nissan Motor Company spends about \$40,000. into a six day training course that its Infinity division requires for dealer employees (8).

Thus, the way to improve any process is, first, to remove the assignable causes (technical, design, human etc.) one-by-one. Then, what is left is a predictable process with its random errors. If the customers requirements and specification demand better quality than what the process can produce with its random errors, then the process must be upgraded with respect to its precision by replacing outdated equipment with new better equipment, improving the design of the process and procedures, and providing training to the work force. Thus, the process should be continuously improved not only to meet the customers needs and requirements, but also that the customers will brag about the quality of your services (12). This may require a hefty spending on technology from upgrading phone systems for customer-service representative to lap top computers for the sales staff and may be more in many other sophisticated processing equipment. The United Parcel Service, Inc. installed advanced computer technology at a cost of \$1.5 billion to improve its services, and it was worth spent (14).

CUSTOMER RETENTION: AN YARD-STICK TO MEASURE QUALITY AND PRODUCTIVITY

" In a service business, knowledge and information are the raw materials, and the assets are loyal customers and employees" says Fredrich F. Reichheld, founder and director of consultant Bain & Co's. From his works with regional banks he found out that boosting customer retention by 2% can have the same effect on profits as cutting costs by 10% (2). These payoffs are not limited to banks only. Commerce Clearing House, Inc. of Riverwoods, Illinois, finds that its long time subscribers are easier to sell new services, lowering the cost of marketing these products (3). Reputation for remarkable services can be tapped to win new customers as loyal

customers refer family and friends, bringing new customers. Therefore, customer retention yardstick is the tool to measure and improve quality and productivity in service industry. Customer retention measures whether companies consistently provide quality service. It also drives profit, since long time customers are cheaper to deal with. In his book *Customers for Life*, Dallas Cadillac dealer Carl Sewell stated that a lifetime customer will spend a total of \$332,000. at one of his 10 dealerships (10). William R. Bruce, General Manager of Nissan Motor Company indicated that its luxury brand model Infinity brand was founded with the idea that superior customer service by its dealers would distinguish it from other brands. The company pays a bonus of up to \$100,000. a year based on customer satisfaction scores gathered from surveys and evaluators posing as customers. "Thst's worth more than the accountants could ever save by haggling over every \$100. repair bill", said Mr. William R. Bruce (8). More and more companies are learning to view their customers as potential disciples for life.

CONCLUSION

Winning in the competitive global market-place of 1990s will require much more than selling with speeches and quick-fix quality programs. Despite the billions of dollars invested in automations, quality and productivity in service industry still stagnates. It needs unwavering commitment from the top management, a new look at the company's goals, a sweeping change in the organizational structure, worker participations, and implementation of quality at all levels. Quality can become the most potent competitive weapon in the global arena of the 20th and early 21st centuries.

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