

**An Analysis of the Critical Factors of ISO 9001:2000
Management Practices and Customer Satisfaction of the Selected
Listed Manufacturing Companies in Sri Lanka**

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Abstract

This paper analyses the impact of ISO 9001:2000 management practices on customer satisfaction among the manufacturing companies listed in the Colombo Stock Exchange. The scope of this paper was limited to the companies that applied ISO 9001:2000 certifications for at least 3 years until 2007. The International Organization for Standardization widely known as ISO is an international-standards-setting body composed of representatives from various national standards organizations. The objective of this paper is to assess whether the management practices indicated in the ISO 9001:2000 framework brings about Customer satisfaction as a reduction of the customer complaints among the listed manufacturing companies in Sri Lanka. The management practices included in ISO 9001:2000 are Management policies, plan and actions; Focus on Customers, Capable employees, Reliable Suppliers, Sound communication System, Steady processes and Consistent quality output.

A total of 161 questionnaires were distributed among the 10 listed manufacturing companies targeting managers responsible for quality, production, procurement and other key areas. This paper proves empirically that there is a relationship between the management practices and reduction of the customer complain as a customer satisfaction among the listed manufacturing companies in Sri Lanka and further management practices which introduced by ISO 9001:2000 reduce the customer complaint, product returns, increase repeat customers, customer loyalty. Finally the management practices of the ISO increase customer satisfaction.

Key Words: ISO 9000, ISO 9001:2000, Management Practices, Organizational Performance,

Introduction

The term quality cannot be defined in one particular way, as researchers and scholars alike have brought about many perspectives to the definition of quality. Some definitions of quality include "fitness for use" (Juran, 1988), "Conformance to requirement" (Crosby, 1979) and "Quality meaning getting everyone to do what they have agreed to do and to do it right the first time is the skeletal structure of an organisation, finance is the nourishment, and relationships are the soul". (Crosby, 1992). Therefore it is very difficult to define quality in one particular way, nevertheless quality has become a necessity and something which companies cannot do without, quality is seen as the source for survival.

Many different techniques and concepts have evolved to improve product or service quality, including SPC, Zero Defects, Six Sigma, Malcolm Baldrige National Quality Award, quality circles, TQM, Theory of Constraints (TOC), Quality Management System (ISO 9000 and others) and continuous improvement.

However most of the popular quality philosophies have been developed using the TQM and ISO 9000 approaches. TQM philosophy is seen as being static, while ISO 9000 has been growing around the world especially in Europe, USA and also become a centre of focus in the developing countries including Sri Lanka which is the focus of the paper. ISO 9000 standard certification is seen as a very valuable quality management process, and many countries in the world are adopting such standards.

The ISO certification has also been valued by customers. Corporate customers and final consumers alike have shown great trust towards standard certification such as the ISO 9000 certifications. The most recent ISO standard being practiced in Sri Lanka is the ISO 9001:2000 Quality management System, which will be the focus of the paper.

Quality Certifications can be identified to be certifications which are provided by independent organisations that provide assurance that companies maintain a standards of quality and are in conformance with predetermined standards. There have been many standards certifications introduced world wide and the ISO 9001:2000 standard is one of the many certification offered by the International Standards. ISO is a network of the national standards institutes of 157 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system.

The purpose of this paper is to assess the management practices in accordance to the ISO 9001:2000 standard and its impact on the customer satisfaction of the listed manufacturing organization in Sri Lanka. The process of certification is seen as a long and tedious process which involves a large degree of documentation and conformance which can be very costly for organisations. In the local context and internationally there are still companies are pessimistic about the certification as they see it as only a paper qualification and as something which does not improve organisational performance.

Objectives of the paper

The objectives are key criteria to provide focus and direction in carrying out this paper. The main objectives are as follows.

- To identify how well the listed manufacturing companies are following the management practices according to the ISO 9001:2000 standard excluding inter-company variations.
- To find out the relationship between selected ISO 9001:2000 management practices of customer focus, capable employees, reliable suppliers, communication, steady processes, quality out put and customer satisfaction.

Literature Review

Evolution of ISO 9000

The International Organization for Standardization widely known as ISO, is an international standard-setting body composed of representatives from various national standards organizations. Founded on 23 February 1947, the organization promulgates worldwide proprietary industrial and commercial standards. It is headquartered in Geneva, Switzerland while ISO defines itself as a non-governmental organization, its ability to set standards that often become law, either through treaties or national standards, makes it more powerful than most non-governmental organizations. In practice, ISO acts as a consortium with strong links to governments.

The origin of the ISO 9000 standard can be traced back to the US armies military standards, which specified certain standards of quality for its suppliers, soon after the U.K. army in 1972 also incorporated the standards. However in

1985 the International Organisation for Standards with its technical committee on quality management and assurance undertook a series of standards for quality management, which was successfully followed by the British Standards Institution. In the year 1987 further additions to the ISO 9000 standard was made through the ISO 9001, ISO 9002 and ISO 9003, and these standards were followed by many national standard bodies and was regarded as the national standard in the United Kingdom. The ISO 9000 was also established as a European standard series EN29000. Furthermore revision to these standards was made in the year 1994, after which further revisions were made in the year 1996 and 2000. The most up to date standard series is the ISO 9001:2000 series. The new ISO standard can be obtained only against the ISO 9001 series and the ISO 9001:2000 series. The new ISO standard can be obtained only against the ISO 9001 series and the ISO 9002 and ISO 9003 has been withdrawn.

ISO 9001:2000

ISO 9001:2000 combines the three standards 9001, 9002 and 9003 into one, now called 9001. Design and development procedures are required only if a company does in fact engage in the creation of new products. The 2000 version sought to make a radical change in thinking by actually placing the concept of process management front and centre. ("Process management" was the monitoring and optimizing of a company's tasks and activities, instead of just inspecting the final product). The 2000 version also demands involvement by upper executives, in order to integrate quality into the business system and avoid delegation of quality functions to junior administrators. Another goal is to improve effectiveness via process performance metrics numerical measurement of the effectiveness of tasks and activities. Expectations of continual process improvement and tracking customer satisfaction were made explicit.

During the last four decades, the Japanese have successfully utilized quality tools and methodologies as part of a successful effort to become a leading nation in the manufacture of a vast array of electronic, automotive and other goods. Prior to the 1950s, Japan was not known for production of quality, but their quality has continuously improved until today many American firms are using Japanese products as a standard against which to measure.

The term *quality* means different things to different people. For example, a quality automobile may be one which has no defects and works exactly as we

expect. Such a definition would fit with an oft-repeated definition by J.M. Juran (1988). "Quality is fitness for use." However, there are other definitions widely discussed. Quality as "conformance to specifications" is a position that people in the manufacturing industry often promote. Why? Presumably because manufacturing can do nothing to change the design; hence this definition. Other promote wider views (Gitlow et. al., 1989 or Ozeki and Asaka, 1990), which include the expectations that the product or service being delivered 1) meets customer standards, 2) meets and fulfills customer needs, 3) meets customer expectations, and 4) will meet unanticipated future needs and aspirations. Still others simply ignore definitions and say "I'll know quality when I see it." It seems that we all 'know' or 'feel' somehow what quality is. A product or services that exceeds our preconceived idea about the quality of that product or service is likely to be judged as having "high quality". It is equally clear that the best of a group of bad products is not likely to be perceived as a quality product.

Management Policies, Plan and action and Business performance

Management policies, plans and actions can be seen as key determinants for quality in an organisation. This independent variable for management practice refers to the policies and plans towards quality set by the senior management in a given company.

This variable refers to the senior managements commitment towards quality or inferred to mean, that the management being quality focus. Relationships between quality improvement approaches and financial performance have also been explored to confirm the theory that using various quality improvement techniques will lead to improvements in quality, operating, and/or financial performance (Adam, 1994; Sluti, 1992; Benson et. al. 1991). Therefore it can be understood that management policies to improve quality may bring about improvements to the business or financial performance of companies.

Powell (1995) established a link between senior management leadership, a commitment to employee training, empowerment, involvement and the application of systematic fact finding and decision making processes, and organizational performance (measured by employee relations, quality, productivity, customer satisfaction, profitability). Therefore this depicts that senior management decision making helps to bring about greater business performance.

Furthermore in the paper carried out by Rao et al (1997) their findings suggest that there is a relationship between ISO 9001:2000 management practices and financial measures which included turnover and profit of companies, this paper was carried out among companies in Mexico, China and the United States. Therefore it leaves us with an opportunity to assess whether the management practices as per the ISO 9000 standard improves the business performance of companies.

Briscoe (2005) in his research concluded that the more a firm internalizes ISO practices on a day-to-day basis, the more likely it is to achieve improvements in quality and financial performance. The internalizing of ISO practices starts off with the commitment of the management as they would set the trend and interest to assess whether the management practices as per the ISO 9000 standard improves the business performance of companies.

The above literature explains the importance of management policies, plans and actions on business performance of companies over a period of time. During the period 1992-1994 it was understood that quality improvement techniques will bring about improvements to companies financial performances, and in 1995 it was understood that companies required greater management and employee involvement to bring about greater improved organizational performance, which included greater planning and action skills to be demonstrated through effective decision making. Further on it was made evident that ISO management practices brought about improvements to non financial indicators such as improvements to market shares of companies as well. During the period 1999 it was emphasized that management had a very important role to play strategically in terms of planning and action deployment to attain financial performance. More recently it was understood that internalizing practices or maintaining the management practices on a day to day basis was important to achieve financial performance for companies.

Sound Communication System and consistent quality output

In reference to research by Kirchenstein and Blake (1999), Withers et al. (1997), Naveh et al. (2004), Hoyle (1998), Tsiotras and Gotzamani (1996), Anderson et al. (1999), Karapetrovic and Willborn (2001) and ISO 9001 (2000, Clause 4.3 (g), Factual approach to decision making) Sound communication systems are referred to as data/documents on quality are readily available, timely, reliable and valid; the quality manual covers all requirements for quality and is

updated when processes change; obsolete documents do not cause confusion with new versions because they are 'properly' dealt with, and it is possible to identify inspection status of raw and in-process materials and quality-related details of finished products.

Managers are expected to create the appropriate communication system to achieve a continuous flow of accurate and reliable information that reduces guesswork and increases certainty, speed and flexibility and products and services with a higher acceptability Naveh and Erez, (2004), Naveh et al (2004).

According to Capezio and Morehouse (1993), two-way communication, trust, teamwork and cross-functional coordination are building blocks for TQM implementation.

Barry et al. (1994) concluded the need for employee research, employees are the customers of the internal services and are thus the only people that can accurately assess internal service quality. Employees can offer insight into conditions that reduce service quality in the organisation.

The above cited literature provides insight into the importance of communication especially within the company. Managers are expected to provide systems and processes to provide continuous communication to employees, and as a result all employees become well aware of the requirement in terms of quality and reduces guess work, this as a result would lead to consistent quality output. Furthermore TQM is based on the premise of zero defects and consistent quality output, and for the successful implementation of TQM two-way communication is considered necessary. The literature also emphasizes on the need for employee research, which means to obtain feedback from employees as well if good quality is to be achieved, as employees are more aware of efficiencies and deficiencies in the processes to achieve quality output within the organization.

Focus on customer and Satisfied customers

Raynor and Porter (1991) have found that the primary push for certificate in the UK was the perception of the customer. While the pursuit for ISO 9000 accreditation may reflect an organization's strategic intent to be quality-focused, research indicates that the driving force could essentially be customer's expectations and contractual requirements Brown & Van der Wiele, (1995) and Rayner &

Porter, (1991). Companies "Stamped" with the quality logo increase customer confidence and help speed up the supplier-selection process Dale, (1994) Yamada (2001). Further improvements to serve customers better will help to improve the level of customer satisfaction. Consequently, ISO 9000 certified firms are likely to increase their customer based and market share and, therefore, sales. These coupled with internal-process improvements could lead to improvements in overall financial performance. Brown and Van der Wiele (1995), Dale (1994), Lee (1998), McLachlan (1996), Mo and Chan (1997), concluded that the ISO 9000 framework improves customer satisfaction, this was the result of a greater level of customer focus created through the ISO 9000 framework.

Methodology

The Population

For the purpose of this survey a sample needs to be selected. All companies listed in the Colombo Stock Exchange categorized into the manufacturing Industry has been selected to be the population. However due to time constraints of surveying all 32 companies, it was decided to narrow down to a sample of 10 manufacturing companies having a registered office in the Colombo region and companies that manufacturing products and services for global and domestic market. The selected companies which have acquired and used the ISO 9000-2000 certificate for at least 3 years for the business purpose. The following shows all the Listed Manufacturing Companies in the CSE which represents the population.

- | | |
|--------------------------------|--|
| 1. Lanka Ceramic Limited | 12. Tokyo Cement Co. (Lanka) |
| 2. Parquet (Ceylon) Limited | Limited |
| 3. Lanka Watile PLC | 13. Alufab Limited |
| 4. ACL Cables Limited | 14. Ceylon Grain Elevators Limited |
| 5. Lanka Cement Limited | 15. Chevron Lubricants Lanka PLC |
| 6. Dankotuwa Porcelain PLC | 16. Pelwatte Sugar Industries Limited |
| 7. Blue Diamonds Jewellery | 17. Sierra Cables Limited |
| Worldwide Limited | 18. Ceylon Glass Company Limited |
| 8. ACL Plastics Limited | 19. Dipped Products Limited |
| 9. Royal Ceramics Limited | 20. Kelani Cables Limited |
| 10. Acme Printer and Packaging | 21. Bogala Graphite Lanka Limited |
| Limited | 22. Samson International Limited |
| 11. Regnis Lanka Limited | 23. Lanka Aluminium Industries Limited |

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|---|--|
| 24. Kelani Tyres Limited | 28. Lanka Tiles Limited |
| 25. Tokyo Cement (Lanka) Pvt. Limited | 29. Swadeshi Industrial Limited |
| 26. Associated Electrical Corporation Limited | 30. Printcare (Ceylon) PLC |
| 27. Abans Electrcals Limited | 31. Central Industries PLC |
| | 32. Singer Industries (Ceylon) Limited |

The Sample

The sample includes the following 10 companies, selected on the basis of its location in Colombo and close suburbs and also companies which have the ISO 9001:2000 standard certification.

- | | |
|------------------------------------|--|
| 1. Abans Electricals Limited | 6. Dipped Products Limited |
| 2. ACL Cables Limited | 7. Ceylon Glass Company Limited |
| 3. Tokyo Cement Co.(Lanka) Limited | 8. Central Industries PLC |
| 4. Royal Ceramics Limited | 9. Lanka Tiles Limited |
| 5. Samson International Limited | 10. Singer Industries (Ceylon) Limited |

The above represents the sample population which includes the companies which were used in this research.

Selection of the Sample

The method of selection of the sample follows a multi stage sampling technique. Initially a cluster of 32 companies were selected according to the manufacturing companies listed in the Colombo Stock Exchange. This was the population for the paper. After having defined the population a further cluster was selected, all companies which had the ISO 9001:2000 certification and companies having a registered head office in Colombo and suburbs were further clustered together. The sample selected included 10 companies who had the ISO 9001:2000 Quality Management Standard and were also located in Colombo and its suburbs, a total of 161 questionnaires were distributed among the 10 companies with expectations of at least 10 questionnaires to be filled by managers in the respective companies. The selection of the 10 respondents from each company was done using a random proportionate sampling technique.

Respondents of the survey

Personnel involved in the Production, Procurement, Quality, operations management, sales, marketing and other key functions in the organizations were selected as the respondents, and distributed 10 questionnaires at each of the 10 listed manufacturing companies in the Colombo region. The respondents of the survey are in line with the research strategy by singh (2007).

Data methods and sources of data

The sources of data for this research are based on primary and secondary information. Primary research is based on first hand information obtained through questionnaires, interviews and observations to name a few. In order to analyse the data obtained different data analysis techniques were used. For the purpose of this paper statistical data analysis techniques have been used, and they are in line with the techniques used by past researchers in the similar area of paper.

Distribution of questionnaires

The research included the use of primary and secondary data. The primary data was obtained through the distribution of questionnaires to ten ISO certified manufacturing companies listed in the Colombo Stock Exchange. The distribution and response rates from the questionnaires are shown below.

Table 1 : Distribution of Questionnaires

Company Name	Issued	Received	Usable	Used	Response Rate
1. Abans Electricals	20	14	12	10	70
2. ACL Cables	20	16	11	10	80
3. Ceylon Glass Company	20	11	11	10	55
4. Central Industries/National PVC	20	16	13	10	80
5. DSI Samson Group	20	12	12	10	60
6. Dipped Products	15	11	11	10	73
7. Lanka Wall Tiles	12	10	9	9	83.3
8. Royal ceramics	10	10	10	10	100
9. Singer Industries	12	9	9	9	75
10. Tokyo Cement	12	7	7	7	58
Total	161	116	105	96	73.4

A total of 161 questionnaires were issued and 96 questionnaires were usable, this provided a response rate of 73.4%. A self administration strategy for the questionnaires was also used to obtain feedback form a few companies.

Correlation: Focus on Customers and Satisfied Customers

The table 2 shows the correlation between the management practices such as Customer focus, capable employees, reliable suppliers, communication, steady processes, quality output and reduction of the customer complains as a satisfied customer. The Significance value (p value) is 0.00, which depicts a relationship between the variables that there is a strong linear relationship between the two variables.

Furthermore the Person Correlation value of 0.582 or 58.2% indicates that if on Customers Focus starting increases then there is a likely hood that the satisfied customers will increase by 58%. If on customers Focus reduces then there is a tendency that the satisfied customer will also decline by 58%.

Previous Researchers in this area such as Brown and Van der Wiele (1995), Dale(1994), Lee (1998), McLachlan (1996), Mo and Chsn (1997), concluded that the ISO 9000 framework improves customer satisfaction, this was the due to the greater level of Focus on Customers created through the ISO 9000 framework..

Table 2 : Satisfied Customers

	Product Returns	Customer Complaints	Repeat Customers	Loyal to the Company
Mean	4.3125	4.1875	4.3646	4.3021
Median	4.0000	4.0000	4.0000	4.0000
Mode	4.0000	4.0000	5.0000	5.0000
Std. deviation	0.58602	0.60372	0.71259	0.75561

Table 3 : Correlations

		Average Managemet Policies, Plans and Actions	Average Focus on Customer	Average Capable Employees	Average Reliable Suppliers	Average Sound Communica- tions	Average Steady Processes	Average Consistent Quality Output	Average Satisfied Customers
Average Management Policies, Plans and Actions	Pearson Correlation Sig. (2-tailed) N	1.000 96.000							
Average-Focus on Customers	Pearson Correlation Sig. (2-tailed) N	.028 .788 .96	1.00 96.000						
Average-Capable Employees	Pearson Correlation Sig. (2-tailed) N	.169 .100 .96	.211* .039 .96	1.000 96.000					
Average Reliable Suppliers	Pearson Correlation Sig. (2-tailed) N	.212* .038 .96	.371* .000 .96	.453** .000 .96	1.000 96.000				
Average Sound Communications	Pearson Correlation Sig. (2-tailed) N	.227* .026 .96	.379** .000 .96	.636** .000 .96	.278** .006 .96	1.000 96.000			
Average -Steady Processes	Pearson Correlation Sig. (2-tailed) N	.145 .158 .96	.431** .000 .96	.424** .000 .96	.325** .001 .96	.512** .000 .96	1.000 96.000		
Average Consistent Quality Output	Pearson Correlation Sig. (2-tailed) N	.243* .017 .96	.251* .014 .96	.725** .000 .96	.578** .000 .96	.598** .000 .96	.475** .000 .96	1.000 96.000	
Average Satisfied Customers	Pearson Correlation Sig. (2-tailed) N	.052 .616 .96	.582** .000 .96	.273** .007 .96	.414** .000 .96	.379** .000 .96	.514** .000 .96	.584** .000 .96	1.000 96.000

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Findings and Discussion

This paper highlights the key findings and will be discussed in relation to the objectives defined at prior stages of the paper. The findings from this research will be analysed and discussed marking reference to previous literature and researchers who have carried out similar studies. The main aim of the discussion is to bring to light new findings and value additions to the area of paper.

This first management practice which was included in the research was the construct Focus on Customers. The questions developed to assess the compliance to this structure were based on the companies attitude towards customers, customer feed back and customer based decision making. A total of 10 questions were asked, and the average mean and mode values recorded were 3.9 and 4.1 respectively. Here again the responses indicated a positive approach towards the compliance towards the management construct Focus on Customers because the responses were skewed towards the options in the likert scale of 3,4 and 5 (Frequently, Most of the time and Always). The frequency of responses shows a higher practice with higher response frequencies in the range of 3, 4 and 5 which denotes good practice.

The second management practice used in the framework included the capable employees. The objective of this variable is to assess how well companies are taking measures to maintain a good pool of employees and also follow the requirements in relation to employees as recommended by the standards. The ISO standards advocates that all employees are well trained and capable for the work they perform and also advocate the existence of human resource development programs. Based on the responses obtained in relation to this variable the mean and mode values were recorded to be 3.974 and 4.167 respectively. The mode values for the individual questions asked to assess the compliance with this management practice were recorded to be 4 and 5. Based on the statistics it is evident that most of the companies are following the management practice capable employee as most of the responses are skewed towards the options 3, 4 and 5. (Frequently, Most of the time and Always). The frequency of responses shows a higher practice with higher response frequencies in the range of 2, 3 , 4 and 5 which denotes good practice.

The third management practice which was used was the practice of reliable suppliers. Clause 7.4 of the ISO 9001:2000 Quality Management Standard

specifies supplier evaluation and suppliers should be reliable and understand the requirements of the company. The questions asked to assess this management practice were in line with the standards specification. The responses from the questionnaires showed an average mean and mode value of 4.247 and 4.5 respectively. The mode values for the individual questions asked were 4 and 5 which represented dual modes and thus represent positive feedback towards this management practice.

The fourth management construct identified in this paper was the variable of sound communication systems. This management practice pays particular attention to the flow of information relating to quality within the organisation. A total of 8 questions were used to assess a company's compliance to this management practice. Based on the feedback received the mean and mode values were calculated to be 3.501 and 3.857 respectively. The final management practice used in this framework is the management practice of Steady Processes. This management practice assesses how well companies processes are effective and whether continuous improvements to processes are made. The mean and mode values for this management construct was calculated to be 3.885 and 4.250, this denotes that the responses are skewed more towards a positive feedback implying that companies are following the management practice. The frequency of responses shows a higher practice with higher response frequencies in the range of 2,3,4 and 5 which denotes good practice.

The finding in this paper are in line with the previous literature and findings by previous researchers such as Lee et al (1999), (Carr, Mak, & Needham, 1997, p. 387) and Powell (1995). Furthermore Zhang (2000) concluded that companies following the ISO management practices tended to achieve improvement in employee morale and personal accountability for job performance and as a result of employees to provide quality assurance and are in a better position to provide better consistent quality outputs.

The positive relationship between sound communication system and consistent quality output is in line with previous literature. For instance Capezio and Morehouse (1993), Barry et al. (1994), furthermore Naveh and Erez (2004) and Naveh et al (2004) propagated the fact that a continuous flow of accurate and reliable information that reduces guesswork and increases certainty, speed and flexibility and products and services with a higher acceptability. Therefore the findings in our justifies a relationship within the selected manufacturing companies in Sri

Lanka. The questions which were asked to assess the existence of sound communications systems were expected to assess the flow of information on quality and the ease and speed of scch communication. Most of the responses rated these questions with positive feedback with an average mode value calculated at 4.375.

The finding of this research reiterrate the fact that there needs be good communication within an organisation if a company needs to obtain consistency of quality in its output. This finding can be used by companies to invest more on communication within the organisation to provide a conducive work environment which will promote the flow of accurate, relevant and timely information.

However the above finding have not been established in Sri Lanka, however the findings in this research provides empirical evidence of a strong finding between the existence of steady and fine tuned business processes with the ability to achieve consistent quality output. The existence of this finding is of practical significance as the findings provide justification for companies to focus more on steady and effective processes even though at times it may require a lot of effort and bureaucracy such as documentation and strict procedures, companies will be satisfied with this finding because they will become aware that the increased hassles needed to bring about the steady processes will be justified by the ability to achieve consistent quality output.

In order to identify the relationship between the ISO 9001:2000 Management Practices and satisfied customers, the management practices of Focus on Customers and steady processes have been used test for a relationship with satisfied customers. The discussion below analyses the findings of this paper to test the relationship with satisfied customers.

This relationship explains that if companies have capable employees who are well trained for the work they perform, motivated and employees continuously improving their work it brings about improvements to business performance of companies. The definition of the variable capable employees in this research was developed through an analysis of past literature and in line with the ISO 9001:2000 framework and requirements. The existence of capable employees may bring about improvements to productivity of operations and tasks which may as a result help to improve the business performance of companies. Furthermore the existence of well trained and employees who continually improve their work are in a better position to contribute positively towards organizational effectiveness. Furthermore findings by MileA Terziovski (1999), found employee growth and employee

morale related to organisational performance, the level of employee morale and employee growth have been tested in our research by the inclusion of questions such as "Do employees continuously improve their work?, and the organization promotes individual employee development and motivation?" employee growth and employee morale would come about through employees who are capable to cope with requirements of quality and who show a positive attitude towards quality in organisations, this as a result will help to improve the financial performance of companies. Lester Davis (1998) concluded that capable people are more able to respond to the demands of a rapidly changing and ambiguous environment where there is a requirement to do more with less, turn a profit no matter what or be innovative.

The findings are in line with previous literature supported by researchers such as Elmuti and Kathawala's (1997), Muhktar (1998), McAdam & McKeown, 1999 and Simmons & White, 1999 who all propagated the fact that employees who are equipped and capable will be able to influence the financial performance of companies. The findings by the cited researchers relate to relationships established between capable employees and business performance abroad and not many research have been done with this regard and special reference to the ISO 9001:2000 frameworks structure of capable employees and business performance, therefore these findings provide valuable insight into the position of the relationship within the local Sri Lankan context.

Another valuable finding in this paper was the existence of a relationship between reliable suppliers and business performance measures. The finding here again is unique to the area of paper as not many researchers have established relationships between reliable suppliers and business performance especially in relation to business performance indicators such profit margins, Return on Assets, Return on Equity and Earnings per share.

Conclusion

In order to achieve the stated objectives identified it was imperative that a sound foundation for the research paper was put in place. The strong foundation for the paper came about at the outset by defining the exact problem statement and the appropriate justification for the selected research problem. The significance of this research proposal has been gauge and justified by reference to previous literature and the importance of the paper to the industry, after which a careful

development of the objectives was done. However the paper is not without its limitations, for which the scope and limitations of the paper was identified. Previous literature in the form of research articles and other publications has been referred to broaden the knowledge of the selected area of paper.

Previous research papers have drawn attention to a longitudinal approach to ISO 9001:2000 Management practices and Customer satisfaction based on before and after implementation of the ISO certification, how ever the expectation of the paper was assess the Customer satisfaction of the listed manufacturing companies in Sri Lanka for the period of 2004-2007 financial years. The findings in this paper proves empirically that there is a relationship between the management practices and reduction of the customer complain as a customer satisfaction among the listed manufacturing companies in Sri Lanka.

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