

Management Issues, Volume 2- Issue (I), December 2017.

Research Publication **Management Issues**



The Open University of Sri Lanka

Faculty of Humanities and Social Sciences

The Department of Management Studies

Nawala, Nugegoda

ISSN 2513-2377

Management Issues

Volume 2- Issue (I), Dewcember 2017.

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Editors' Note

Presenting the inaugural issue of the annual research publication of the Department of Management Studies of the Open University, Sri Lanka, "Management Issues" gives us utmost pleasure and satisfaction. Disseminating knowledge of research in the discipline of management is the main purpose of this effort. More importantly, this will pave the way for the participants of the master programme conducted by the Department of Management Studies to publish their research work. This will further help to enhance conceptual and empirical knowledge of those who show keen interest in areas of Management studies.

Finally we would like to extend our sincere gratitude to MBA graduates whose research articles have been selected for the publication and also their supervisors. We also thank the praise worthy contribution made by the academic staff of the Department of Language studies for language editing.

L.P.S Gamini

Editor in Chief
Editorial Board

GREEN BANKING PRACTICES AND CUSTOMER SATISFACTION: A CASE IN SRI LANKAN COMMERCIAL BANK

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Abstract

Green banking is becoming a long-term business strategy, which in addition to the pursuit of profit also focuses on sustainability of nature and society. Therefore, nowadays the banks make emphasis on greener approaches and this has created gap between what the customer expect and what they acquire. In the light of this, the present study attempts to identify the green banking practices adopted by Sri Lankan commercial banks and its impact on customer satisfaction. The study adopted a correlation survey method to investigate the impact of green banking practices on customer satisfaction. Stratified random sampling technique was used to select one hundred and five respondents, the customers of commercial bank of Ceylon PLC. The data collected was analyzed using descriptive and inferential statistical techniques. Findings revealed that E-banking service is the best predictor in determining the customer satisfaction. Similarly, paperless banking is found to have a significant effect on customer satisfaction. Also, results have shown that customers have a higher level of awareness about green banking attributes such as paperless banking, green financing and E-banking. The implication of these findings is that if the banks need to increase their customer satisfaction, E-banking services and paperless banking activities are critical to be considered and any strategies to be utilized to increase the banks' customer satisfaction should focus on improving the quality of E-banking services and paperless banking activities.

Keywords: Green Banking, Green Finance, Paperless Banking, E-Banking, Customer Satisfaction

INTRODUCTION

The contribution of banking sector in expediting economic growth and development of any country is well documented and well accepted. Banking sector is the major source of financing investment for commercial projects and this is one of the major determinants of economic growth. Therefore, this sector can play a pivotal role in promoting environmentally sustainable and socially responsible investment. The banks all over the world are now moving towards the green banking approaches to achieve this target. Green Banking is the operation of the financial sector with special focus on the environmental, ecological and social factors targeting the conservation of nature and natural resources.

Although the Banks are considered environment friendly and do not impact the environment greatly through their own internal operations, the external impact on the environment through the activities of their customers is substantial. The financial sector

is one of the major sources of financing industrial projects such as steel, paper, cement, chemicals, fertilizers, power, textiles, etc. and these activities cause maximum carbon emission. Therefore, banks can play an intermediary role between economic development and environmental protection, for promoting environmentally sustainable and socially responsible investment. So, to aid the reduction of external carbon emission, when providing finances banks should give priority to project that aims at utilizing green technology and also reducing pollution. The approach of Sri Lankan banks to sustainability is based on a broad understanding of its duties as a provider of financial services, its responsibilities to society and the environment and also its role as an employer. Therefore, the banks are increasingly adopting Green Banking because it has become a driving force behind banks' competitive strategies and it helps to enhance bank rating to obtain approval from the Central Bank to open up new branches and operations of the existing network. Accordingly, Sri Lankan banks adhere to Social and Environment Management System (SES) guidelines enforced at the time of granting lending facilities to projects, introduce paperless electronic cash and cheque deposit machines, promote e-banking and mobile banking facilities, encourage green buildings with solar power systems and carry out environmental friendly CSR projects as green banking activities. With the implementation of green bank approaches there are some concerns whether the customers are promptly aware on the same and whether they are satisfied with the newer loans. Therefore, this study attempts to identify the green banking practices adopted by Sri Lankan commercial banks and its impact on customer satisfaction.

OBJECTIVES OF THE STUDY

The main objective of this study is to ascertain the impact of green banking practices on customer satisfaction in Sri Lankan commercial banks.

The specific objectives of the study are,

1. Ascertain the level of awareness on green banking approaches among the customers of Commercial banks in Sri Lanka and.
2. To analyze the influence of each attribute of green banking on customer satisfaction.
3. To make suggestions for improving green banking activities of Commercial banks in Sri Lanka.

METHODOLOGY

This study adopted a correlation survey method to investigate the impact of green banking practices on customer satisfaction. The sample size used for the study is one hundred and five respondents, are the customers of Commercial Bank of Ceylon PLC banking with Welimada, Pelmadulla, Rathmalana, Matara and Ampara branches representing Uva Province, Sabaragamuwa Province, Western Province, Southern Province and Eastern Province respectively.

Table 1: Selection of the Sample

	Administered	Returned/ Completed	Percentage %
Welimada Branch	21	20	95
Pelmadulla Branch	21	18	86
Rathmalana Branch	21	17	81
Matara Branch	21	16	76
Ampara Branch	21	19	90
Total	105	90	86

The questionnaire used for the study was divided broadly into three sections. Personal information would be the first part of the questionnaire. The second part included questions to measure the level of awareness of green banking practices and a five-point Likert Scale type questions were included to measure green banking attributes that tend to affect satisfaction level of the customers. Third section of the questionnaire consisted a space for suggestions of the customers for further improvements and based on the same recommendations were provided to determine how to use green banking effectively towards the customer satisfaction.

The researchers first sought permission from the Branch Managers of all five (5) branches used for the study. The research questionnaires were distributed via customer relationship officers of the five branches during business hours. A pilot test was conducted using twenty five personal banking customers. These customers were chosen from two branches, the Welimada and Pelmadulla branch. Respondents to the pilot test were asked to recognize any ambiguity or potential source of error either in the format or wordings of the questions. The instrument was later refined based on the feedback.

The reliability analysis is used to establish both the consistency and stability of the research instrument. Cronbach's Alpha value is calculated to test the internal consistency reliability of the instrument. A rule of thumb suggests that the acceptance Cronbach alpha value should exceed 0.7. Below table depicts a summary of scores of all the response ranking of the factors that related to green banking practices in Sri Lanka. All factors exhibit a Cronbach's alpha coefficient of 0.70, indicating that the reliability level of the questionnaire is sound. Hence, all the variables are retained. Among the factors, paper less banking has the highest ranking of Cronbach alpha of 0.764, followed by the E-banking practices and green finances. The dependent variable, customer satisfaction found to be above the 0.7 of Cronbach's alpha which is higher than cut off value.

Table 2: Reliability Analysis

Variable	Cronbach's Alpha	No of Items
Green Finance	0.739	5
Paperless Banking	0.764	5
E – Banking	0.755	5
Customer Satisfaction	0.721	5

DATA ANALYSIS AND DISCUSSION

In the first phase of the study, data were collected from 105 customers of Commercial Bank of Ceylon PLC using structured questionnaire. 15 responded questionnaires were removed from further analysis due to incompleteness. According to gender 59 among the 90 respondents were male and 31 were female, respective percentages were 65.6 and 34.4.3%. Distribution of respondents according to their marital state shows that 38 were not married, 48 were married, 02 were separated and 02 were widowers. Considering the level of education, 46.7% of the respondents had secondary education and 25.6% of the sample had only basic education. Only 16.6% of respondents were graduates. The statistics pertaining to the occupation indicated that 13.3% of respondents were employed in the state sector while 45.6% were employed in the private sector. Out of total 90 respondents, 23 engaged in business activities representing the 25.6% of the sample. The balance 15.6% is engaged in other activities such as agriculture or self-employment.

AWARENESS OF GREEN BANKING ATTRIBUTES

With the implementation of green bank approaches there are some concerns that whether the customers are promptly aware on the same and whether they are satisfied or not with the newer looms. The purpose of this study is to measure the awareness level and satisfaction level of the customers of Commercial Banks in Sri Lanka due to green bank approaches adopted during the recent past.

Table 3: Awareness Level of Green Banking

	Strongly Agree %	Agree %	Null %	Disagree %	Strongly Disagree %
Awareness of Green Finance	11.1	50	16.7	17.8	4.4
Awareness of paperless Banking	21.1	44.4	22.2	10	2.2
Awareness of E-Banking	66.7	27.8	2.2	2.2	1.1

Table 4.6 reveals that 61% of the respondents were promptly aware of the green finance while another 16.7% of the respondents has no idea about the green finance. The analysis reveals that the majority, 65.5% of the respondents were promptly aware about the paperless banking and 22.2% were not aware of the same. This means that customers have a higher level of awareness about the paperless banking. The figures given in the above table further reflects that level of awareness of e- banking is very high and as a percentage it was 94.5%.

GREEN FINANCE

Currently the banks are moving to greener approaches and a gap could very well exists between customer expectations and actual standard of service in this regard. Green financing is that financing awarded towards the project which has either direct or indirect positive contribution towards environment-friendly products, operations etc. Such credit can be provided to the environment-friendly businesses including waste reduction,

alternative and renewable energy, green manufacturing endeavors, green bricks etc. Rasul and Abedin (2015). Therefore, it is important to ascertain whether the customers are satisfied or not with green banking concept.

Table 4: Satisfaction Level of Green Finance.

	Strongly satisfied %	Satisfied %	Null %	Dissatisfied %	Strongly dissatisfied %
Compatibility of green finance with bank finance needs	2.2	67.8	27.8	2.2	-
Easiness to obtain green loans	6.7	73.3	16.6	2.2	1.1
Interest rates of green loans	16.7	63.3	16.6	1.1	2.2
Bank charges of green loans	48.9	47.8	3.3	-	-
Prefer to obtain green loans as green loans are environmental friendly	44.4	37.8	17.8	1.1	1.1

The result of the descriptive analysis of green finance reveals that majority, 73.3% of the respondents were satisfied about the easiness to obtain green loans while 67.8% were satisfied about the compatibility of green finance with their bank finance needs. Another 63.3% of customers were satisfied about the interest rates of green loans. Findings further indicate that 48.9% of respondents were strongly satisfied about the bank charges of green loans. A large number of respondents (82.2%) agree that they prefer to obtain green loans as green loans are environmentally friendly. Further the results indicate that majority 96.7% were satisfied or strongly satisfied about the Bank charges of green loans. Finally, 80% of respondents were strongly satisfied or satisfied about the easiness to obtain green loans and Interest rates of green loans.

PAPERLESS BANKING

Paperless banking is very important not only for implementing ecologically friendly practices but also it leads to saving cost to the bank because through automation they can avoid the cost of storage of paper and the cost of courier vehicle fuel consumption and emissions.

The result of the descriptive analysis of paperless banking reveals that majority, (92.2%) of respondents indicated that they were satisfied or strongly satisfied with the availability of paperless banking while 91.1% were satisfied or strongly satisfied with the technical capabilities of paperless banking. More than half of the respondents were satisfied about the reliability of paperless banking. However, only 54.4% of respondents were satisfied or strongly satisfied with the bank charges of the paperless banking.

Table 5: Satisfaction Level of Paperless Banking

	Strongly satisfied %	Satisfied %	Null %	Dissatisfied %	Strongly dissatisfied %
Reliability paperless banking	14.4	56.7	25.6	2.2	1.1
Compatibility of paperless banking with customer needs	23.3	51.1	22.2	1.1	2.2
Bank charges of paperless banking	22.2	32.2	41.1	2.2	2.2
Availability paperless banking	11.1	81.1	4.4	2.2	1.1
Technical capability of paperless banking	27.8	63.3	5.5	1.1	1.1

E- BANKING

Sri Lankan banks have recently introduced several E- banking initiatives such as introduction of internet banking, mobile banking, electronic cash and cheque deposit machines etc. Customers’ satisfaction of these E-banking activities is determined by several factors: usefulness, comparability, ease of use, security and financial benefits.

Table 6: Satisfaction Level of E-Banking

	Strongly satisfied %	Satisfied %	Null %	Dissatisfied %	Strongly dissatisfied %
Usefulness of e- banking	6.7	74.4	16.6	1.1	1.1
Compatibility of e-banking with customer needs	2.2	72.2	22.2	2.2	1.1
Ease of use the e- banking services	15.6	56.7	22	2.2	3.3
Security and privacy e- banking	46.7	48.9	4.4	-	-
Financial benefits of e- banking	42.2	43.3	11.1	1.1	2.2

The result of the descriptive analysis of E- banking reveals that majority (74.4%) of the respondents were satisfied about the usefulness of e banking services while 72.2% were satisfied about the compatibility of e banking with customer needs. Fifty-one respondents (56.7%) believe that the e-banking service is easy to use. Another important concern for respondents (95.6%) was that security and privacy of e-banking services. Of the respondents, 77(85.5%) agree that they were satisfied or strongly satisfied with financial benefits of the E-banking services.

RESULTS OF REGRESSION ANALYSIS

To examine the effect of green banking practices on customer satisfaction in Sri Lankan commercial banks, multiple regression analysis has been carried out. Before presenting econometric results, several tests were carried out to test the multicollinearity among independent variables.

Table 7: Collinearity Statistics

	Collinearity Statistics	
	Tolerance	VIF
Green Finance	0.398	2.513
Paperless Banking	0.276	3.620
E-Banking	0.235	4.254

Test of multicollinearity gives statistic values for the Variance Inflation Factor (VIF) and tolerance of all the variables. According to the standards, all VIF values should be below 5 or all Tolerance value should be higher than 0.1 to be considered as no Multicollinearity in data. As it can be seen from this table, VIF values for all independent variables are much less than five, and tolerance values are much higher than 0.1 suggesting that there is no multicollinearity within these data set.

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 ^a	.673	.661	.23487

a. Predictors: (Constant), EB, GF, PLB

Table 8: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.749	3	3.250	58.909	.000 ^b
	Residual	4.744	86	.055		
	Total	14.493	89			

a. Dependent Variable: CS

Table 9: Regression Results

Variable	Co-efficient	t-statistics	Sig.
Constant	0.866	3.348	.001
Green finance	0.018	0.186	.853
Paperless banking	0.220	2.167	.033
E banking	0.559	4.556	.000

The R² value for the model of Customer Satisfaction with green banking was 0.673 which indicates that the green banking attributes (green financing, paperless banking and e banking) explained 67.3% of the variation in customer satisfaction. The calculated F – ratio is 58.9 which is significant at 1% level of significance (p<0.001) and, supports the reliability of the explanatory power of the model.

The econometric result of regression analysis reveals that E- banking services has shown a highest regression coefficient of 0.559 with the 0.01% level of significant. Hence E-banking service can be considered as the best predictor in determining the customer satisfaction. This shows that customers are interested to perform some

transactions through the machine rather than doing it manually. Similarly, paperless banking ($b=0.22$, $p < 0.05$) is found to have a significant effect on customer satisfaction. This finding is consonance with the findings of Sahitya et al. (2014) who found that all the banks are making efforts to make banking paperless and it has been fully supported by technology in terms of electronic fund transfers, ATMs, internet and mobile banking. Further regression result shows that there is no significant impact of green finance on the customer satisfaction as it has recorded a regression coefficient of 0.018 at the significant value of 0.853 ($p > 0.05$). This finding indicates that, Si Lankan commercial bank have not taken enough initiative in this regard.

CONCLUSION AND RECOMMENDATIONS

Findings of this research have significant managerial implications for banks to maintain a good relationship with their customers so as to improve customer satisfaction. This study was focused on the relationship between green banking activities and customer satisfaction. It also addresses the customer's awareness on Green Banking initiatives in selected private sector banks in Sri Lanka. Green banking is the environment-friendly banking practices that encourage their customers to reduce the carbon footprint through their banking activities. In the present study, green financing, paperless banking and E-banking are considered as main green banking activities. This study provided empirical evidence that E-banking activities has greatest influence on the customer satisfaction followed by paperless banking activities. The implication of these findings is that if the banks need to increase their customer satisfaction, E-banking services and paperless banking activities are critical to be considered and any strategies to be taken to increase the banks' customer satisfaction should focus on improving the quality of E-banking services and paperless banking activities.

In recent past, the Sri Lankan banks have implemented several green banking initiatives with a view to reduce disposal of papers to the environment. Some of these initiatives are introducing paperless electronic cash and cheque deposit machines, increased levies on ATM receipts and statements with a view to discourage obtaining of paper receipts, promoting e-passbook facilities instead of paper based passbooks free of charge, promoting e-statement free of charge. However, according to literature (Bihari, 2011), E-banking is not the only aspect of green banking; Green Banking has a much wider perspective. Therefore, as green financing activities, Sri Lankan banks should maintain a specific target for investment in environment friendly sectors and/or projects. Preference should be given to environmental infrastructure projects including, adoption of renewable energy or energy-efficient technology, supply of clean water, establishment of waste water treatment plant, solid and hazardous waste disposal plant, biogas plant, bio-fertilizer plant etc. Further, to implement environment friendly practices, the banks should identify specific environmentally harmful activities and reduce its financing activities in those areas and target certain percentage of its portfolio on ecofriendly and environmental loans. Such policy and technology can enhance the efficient implementation of green banking in a country.

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THE IMPACT OF JOB SATISFACTION ON INTENTION TO LEAVE; WITH A SPECIAL REFERENCE TO TEACHERS IN INTERNATIONAL SCHOOLS OF COLOMBO DISTRICT.

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Abstract

Internationally, a considerable amount of literature has emerged on the factors influencing job satisfaction and intention to leave among school teachers. However, there is a paucity of recent, comprehensive empirical research in this area in the context of International schools. In view of ongoing changes in schools and curricula as well as the working conditions of teachers, identifying factors influencing job satisfaction and intention to leave is timely as the ability to cope with change has become increasingly important for teachers and principals. Teacher job satisfaction and intention to leave can have both economic and personal implications as it can lead to stress-related employee absenteeism, burnout and a negative impact on pupil outcomes as well. This research explores the factors which influence the teacher's intention to leave in international schools. It is important to note that often a combination of personal and intra organisational factors that affect perceived satisfaction, intention to leave or intend to remain and also employee motivation. In addition, research explore the influence of background variables, such as gender, age, teaching experience and type of school, on teacher's intention to leave; which has produced contradictory findings. The research was conducted to determine the impact of job satisfaction on intention to leave in International schools in Colombo district. The results indicate that the critical factors influencing the intention to leave by the international school teachers are career development and acquiring more qualifications and skills.

Keywords: Turnover, Retention, Job satisfaction, Motivation and communication.

INTRODUCTION

Employee turnover has come to gain greater attention of most governments and organisations all over the world because they have faced this problem at some stage of their development (Zahra, Irum, Saad & Chishti, 2013). Intention to quit has been acknowledged to be the best predictor of actual turnover (Micheal & Spector, 1982; Mobley, 1977; Horn & Griffeth, 1995). Increasing body of research on employee turnover behaviour indicates that, tenure, job satisfaction, age, and organisation commitment are consistently related to turnover intentions and the actual turnover (Jonathan, Thibeli, & Darroux, 2013; Samad, 2006; Mbah & Ikemefuna, 2012). Intention to quit is defined as conscious wilfulness of employees to seek for other alternatives in other organisations (Tett & Meyer, 1993), Jacobs and Roodt (2007) cited in Hussain and Asif, (2012) contended that intention to quit is the mental decisions prevailing between an individual's approach with reference to a job to continue or leave the job. Intention of employee to quit is an indication of the level of job dissatisfaction of the employees in the organisation which is influenced by motivation (Mbah & Ikemefuna, 2012).

Mueller, Boyer, Price and Iverson (1994) and Martin (2011) are of the view that job motivation and satisfaction are the most influential factors of intention to quit. Moreover, though, the identified studies are efforts to resolve the problem of teacher retention, the simultaneous relationship among motivation, job satisfaction, organisational commitment and intention to quit have seldom been researched. Meanwhile an understanding of the linkages among the variables is critical to ensuring teachers retention. This is especially the case that various governments are striving to implement strategies to retain teachers (Mohan, 2010). This study therefore seeks to examine the influence of motivation and job satisfaction on intention to quit teaching among teachers in private international schools. Traditionally it has been thought that teachers' careers begin in the university with pre-service teacher education and continue with in-service teacher education, eventually ending in retirement (Christensen & Fessler, 1992). However, teachers' careers are more varied and teaching careers are formed in different stages. In addition, teachers develop differently and have different skills, attitudes, knowledge and behaviours during their work-life cycle (Woods & Lynn, 2001). Over their career, teachers face different incidents and challenges that may influence motivation and job satisfaction.

In the teaching profession, the most common reason for job satisfaction is working with young people (Moreira, Sparkes & Fox, 1995; Macdonald, 1999b). Good working conditions and administration, the job itself, organization as a whole (colleagues, etc.), persistence of regular physical activities, and job security are also identified as common sources of satisfaction among teachers (Bizet, Laurencelle, Lemoune, Richard & Trudeau, 2010; Koustelios, Theodorakis & Goulimaris, 2004; Moreira, Fox & Sparkes, 2002). On the other hand, teachers are dissatisfied with pay, opportunities for promotion, lack of status, and workload (e.g. Koustelios et al., 2004; Kougioumtzis, Patriksson & Stråhlman, 2011; Macdonald, 1999b; Moreira et al., 1995; Shoval, Erlich & Fejgin, 2010). If a person feels more dissatisfying moments than satisfying ones and finds his or her job unfulfilling and unchallenging, that person may decide to leave the profession. Job satisfaction is closely linked to commitment to the organization.

An intention to leave may be a consequence of emotional exhaustion, burnout, depersonalization, or feelings of low personal accomplishment in the teaching profession (Goddard & Goddard, 12, 2006). If these feelings are unbearable or a continual source of stress, factors related to turnover intentions may increase. Teachers may also face alternative employment opportunities that can eventually have an influence on turnover decisions (Chen, Ployhart, Thomas, Neil, & Bliese, 2011). In recent decades, teacher turnover has been identified as a major concern in educational research and policy analysis, because it causes instability in the teaching force and impacts negatively on teaching organizations (Harris & Adams, 2007). In the literature, former teachers are divided either as movers (still working in school-related positions) or *leavers* (working outside of a school context) (Boe, 2007, 19).

The only extensive research in this area is from Australia (1994), which suggests that only 37% of degree-holding teachers working as a teacher five year after their graduation (Macdonald, Hutchins & Madden 1994). Teachers' career pathways are varied, but certain directions are common for teachers. Administrative posts are identified

in many studies as a good option and a natural way to get promoted (Bizet et al., 2010; Macdonald et al., 1994; Moreira et al., 1995; Sum & Dimmock, 2013).

In addition to having common challenges with the teaching profession on the whole, it has some unique aspects that may cause dissatisfaction or challenges to performing the work. These include, for example, physical workload, isolation, marginalization of the subject, and lack of facilities or equipment (Bizet et al., 2010; Macdonald, 1995; Parker, Patton & Tannehill, 2012; Shoval et al., 2010; Kougioumtzis et al., 2011). In Sri Lanka, there is lack of information about teachers' careers, career intentions and job satisfaction. There is also a gap in the literature about aspects that put a strain on teachers' work and hence may have an influence on the quality of teachers work life. Even though there is a plethora of literature about teacher turnover including quantitative research, there is no study concentrated on International school teacher turnover. This study provides information about international school teacher turnover and their career intentions, present job and job satisfaction. Because of the large sample, this study provides an overview of the situation in Sri Lanka.

A person should acquire wider range of knowledge with regard to people, society and history, to name but a few areas. Teachers face the challenges of the emerging post-modern world, the knowledge society to be a successful teacher in the modern day environment. The knowledge society expects more collaboration between teachers and colleagues, society and parents. Increased national standards for pupil attainment with regular testing have increased pressures and demands for teachers. Furthermore, today the teachers don't wield much authority and autonomy as in the past. In the future, people will have to make difficult choices, because of the increasing complexity of societies and consequently, their inherent dangers. In such a world, teachers will have to possess an acute sense of pedagogy to guide their students in a proper path. Alongside these, teachers are trying to influence students' decisions that will have a bearing on lifelong physical activity. School atmosphere is changing, and this brings new challenges, some such challenges are lower levels of physical activity, increased tendencies towards a sedentary lifestyle, an "obesity crisis" and polarization of fitness among children and youth. Even though there may be variances in the requirements for teachers in different countries, it is believed that teachers everywhere are expected to have an ability to teach a wide range of subjects.

RESEARCH PROBLEMS

In conducting research, researchers have selected one of the reputed International schools in Colombo. In this school over the period of time there has been an increasing trend for teachers to leave the branches. Therefore, researchers need to identify the reasons for such a state. Most of the international school teachers are not going to stay for a long period of time. If they found a new job they would leave the school at once and most of them do not give any prior notice. Therefore, it can be observed that the international school industry is threatened by high teacher turn over. Through this research, researcher intends to provide solutions to this problem enabling the teachers to work with happiness in providing knowledge to students. Statistics show that early career teachers are leaving in droves, with close to 40% exiting from the profession within the first year of their teaching career, a number that has tripled in the last 6 years. And it's affecting the students in the International schools. However, there can be several reasons

for the industry exodus, including the lack of job security in teaching contracts, being restricted in the way they can contribute to students' learning and wellbeing, poor mentoring, and difficulty in their new workplace.

International schools that lose highly qualified teachers lose their investment in training those teachers, whether the teachers quit teaching or whether the teachers move to another school. To a greater extent, the teachers that leave their current places find difficulties compared to their previous places and sometimes they re-join the previous organisation. In contrast, when teachers move to another profession, international schools as a whole lose out. Many teachers are dissatisfied due to not receiving expected financial and non-financial benefits from the current work place. Basically, two-thirds of leavers either take a non-teaching job in or move into retirement. Neither of these "destinations" raises a concern about teachers finding more attractive careers outside.

The statistics which reflects that two-fifths of teachers quit within the first five years is often bandied about, even though no one seems quite sure where it comes from. But new research suggests there's some truth in it – many of those undergo training to become teachers at one stage decided to quit and don't expect to see out their careers in the profession. The last five to 10 years has seen a great number of changes in quick succession. There's been dramatic change to the curriculum, changes to pay structures and GCSE and A-level reform. The benefits of teacher satisfaction for both teachers and pupils points to the importance of studying how teachers feel about work. This study undertakes an examination of how teachers feel while carrying out their daily tasks.

RESEARCH OBJECTIVES

The main objective of this study is to determine whether the level of job satisfaction among teachers in international schools significantly influence on their intention to leave. The specific objectives of the study are,

1. Assess how level of job satisfaction influence intention to leave among teachers in international schools.
2. To analyze the influence of Career development, Qualification and skills, Work load, and Working environment on intention to leave of the international school teacher.
3. To make suggestions for improving job satisfaction and minimized intention to leave among international school teacher.

LITERATURE REVIEW

The two theoretical frameworks used in the study are Herzberg's two-factor theory (Herzberg et al., 1959) and the Effort-Reward Imbalance (ERI) Model (Siegrist, 1996; 1998). The theoretical framework section starts by exploring the various motivational and hygiene factors that determine the job satisfaction of teachers within school environments. According to the two-factor theory (Herzberg et al., 1959), factors motivating workers are independent to factors creating dissatisfaction.

The Effort-Reward Imbalance (ERI) Model (Siegrist, 1996; 1998) in addition to personal characteristics emphasises on the reward rather than the control structure of work. Rewards are distributed to employees/employers by three transmitter systems:

money (i.e. adequate salary), esteem (e.g. respect and support) and security/career opportunities (e.g. promotion prospects, job security and status consistency). The ERI Model claims that lack of reciprocity between 'costs' and 'gains' (i.e. high effort/low reward conditions) may cause a state of emotional distress which can lead to cardiovascular risks and other strain reactions like poor subjective health and sickness absence.

The study will therefore look at both intrinsic and extrinsic motivational variables and how they influence teachers' job satisfaction and organisational commitment. Samuel and Chipunza (2009) found that training and development have significant influence on retention on both public and private organisations. Currall, Towler, Judge and Kohn (2005) found that pay satisfaction is significantly related with the intention to quit of public school teachers. Pay satisfaction has also been found to be associated with increased job satisfaction and greater intention to stay (Lum, Kervin, Clarki & Sirola, 1998). Samuel and Chipunza (2009) noted that recognition and rewards for good performance are significant determinants of employees' retention, in both private and public sector organisations.

The literature review section of the study explores the four factors that are the predictor variables of the study. Literature is in relation to the specific factors of job satisfaction and dissatisfaction within schools and the teaching environment reviewed for the study. The criterion variable of the study is a teacher's intention to remain or leave the international school. Thus, a review of literature on teacher retention and attrition was conducted. Since the samples used in the study are teachers from an international school, the final portion of the literature review focused on teacher satisfaction and retention within international schools.

Job Satisfaction

Job satisfaction level appears to be related to various aspects of working practices, such as accidents, absenteeism, turnover and productivity. Most studies have shown that low staff absenteeism reflects high satisfaction with their work. The job satisfaction is said to be the strongest indicator of intention (Martin, 2007) of turnover. Therefore, literature was reviewed on job satisfaction in connection with intention to leave.

Job Satisfaction can be an important indicator of how employees feel about their jobs and a predictor of work behaviours such as organizational citizenship, absenteeism and turnover. Further, job satisfaction can partially mediate the relationship of personality variables and deviant work behaviours. One common research finding is that job satisfaction is correlated with life satisfaction. This correlation is reciprocal, meaning people who are satisfied with life tend to be satisfied with their job and people who are satisfied with their job tend to be satisfied with life. However, some research has found that job satisfaction is not significantly related to life satisfaction when other variables such as non-work satisfaction and core self-evaluations are taken into account. With regard to job performance, employee personality may be more important than job satisfaction. The link between job satisfaction and performance is thought to be a spurious relationship; instead, both satisfaction and performance are the result of personality.

Career Development

The professional training and coaching industry enables business professionals to achieve their career goals with non-traditional support. Traditional training courses feature instructors in classrooms. Participants register for sessions, listen to lectures and take exams. In many cases, these activities fail to prepare people to work in today's competitive and dynamic global workplace. Alternative methods of improving performance have evolved using new technology. These techniques include distance learning using web-based conferencing software, self-paced training courses and collaborative strategies to learn new skills, knowledge and behaviour. A coach advises a person in order to help him navigate through structured activities. By repeatedly observing behaviour, a coach can provide an objective opinion and suggestions. These enable a person to become more productive. Through this type of relationship, a business professional can define measurable goals, establish a vision, maintain momentum and remove obstacles that impede progress.

The employer can make sure that employees are aware of their achievements. These employers can show appreciation for those achievements. Conversely, employers should take notice when employees become overwhelmed and attempt to alleviate the daily burden by offering more help when it is obviously needed.

Qualifications and Skills

It is surprising how much the qualifications and skill levels of a teacher affect the job satisfaction and job performance. Qualifications and skills deflate employee morale, cause stress that results in employee sometimes seeking a better job in a competitive firm and cost the company more than just the cost of high turnover. Disgruntled and mishandled employees stop caring about how well they perform in their jobs, are likely to demand more money for extra tasks, and may even hurt the company via theft. Some managers are in a hurry and can't be bothered to take the time to give thorough instructions, while others may simply not be skilled at giving direction. Regardless, when employees have to guess what they are supposed to do they will likely to get it wrong, which results in poor work performance. An unskilled manager will then blame the employee for his confusion, causing resentment and anger.

Lack of communication in the workforce is a major contributor to dissatisfaction. This is usually the result of managerial staff that is isolated and does not know how to relate their employees on a personal or professional level (Branham, 2005). Bad communication leaves employees feeling disconnected from the organization. This is detrimental to the wellbeing of the company because when an employee feels neglected, he or she will tend to perform at a lower level. This employee becomes unsure of his or her position within the company, and wonders what his or her purpose is within the workplace. Employees may be unaware of how their performance measures up to that of their co-workers and have no sense of how they can improve. Without communication, it becomes difficult for employees to make any progress in their efficiency. The employer has a responsibility to ensure the satisfaction of all of its employees. There are many precautions that managers can take to make certain that they are meeting the working needs of their employees. Employers also should be more cautious during the hiring process. Having multiple people interviewing final candidates will help ensure that the employee will work well with the company.

Work Overload

Work overload, or just plain old too much work, is a common problem today. Workers today certainly have more stress due to the increased responsibility and work additional load due to smaller workforces. In addition to the above employees have to deal with large volume of information which too brings additional pressure on them. Dissatisfaction with the job may come from sources other than stress or weak link between employee and job. When employers care exclusively about company revenues, rather than the employees that are working for them, employees tend to have a negative perception about their employers. This perception of an employer may lead to job dissatisfaction and raise the company's turnover rate. Dissatisfaction may also arise, with the same result in turnover, when the work environment fails to have any flexibility or any source of amusement for the employees; the tone of the business will become stressful or tedious (Kaye & Jordan-Evans, 1999).

It is natural for the employees to have different perceptions about their superiors. The performance review presents the perfect time to bring together these different perspectives, to correct negative behaviour, and to reward productivity. Providing employees with the opportunity for growth is also a major contributor to satisfaction. Because performing the same job becomes uninteresting, it is important to challenge employees with work that they can accomplish but stretches their abilities (Timpe, 1986). It is a good opportunity to see the abilities of lower level employees. Giving employees new projects or goals allows them to become creative and skilled in new areas. Recognition of an employee's hard work is essential to his or her satisfaction in the workplace (Kaye & Jordan-Evans, 1999). Letting employees in on the decision making processes gives those employees a feeling that their opinions are respected and that they hold a place of importance within the company.

Work Environment

The term work environment is used to describe the surrounding conditions in which an employee operates. The work environment can be composed of physical conditions, such as office temperature, or equipment, such as personal computers. It can also be related to factors such as work processes or procedures. It is important that employers care about the happiness of their employees. Recent statistics show that throughout their careers, American workers hold an average of eight jobs (Rudman, 2003). The rate of turnover because employees are unhappy is alarming. Even in an economic downturn, employers must spend an enormous amount of money recruiting new employees, going through the hiring process, and finally training new employees. Dissatisfaction has many negative side effects for the company, while satisfaction results in a much better retention rate.

Employer need to convey a good understanding of the mission and goals that the company is trying to attain so that the staff recognize what the organization is working towards. Clarification, of the expectations associated with different positions, assists employees in comprehending their direct relationship with the company and how their work affects that of others. Performance reviews are a good managerial tool because they give administrators an idea of those employees that are contributing to the organization's success and those who need to work harder (Branham, 2005). It also offers employees the ability to gauge their performance. Connection to the company gives staff a better feeling

of belonging and worth. Supervisors should set an example by promoting friendly relationships with the staff, so the work environment is healthier (Kaye & Jordan-Evans, 1999). They need to learn to listen to the employees when they have a concern or a question about the work that they are doing or the direction that the company is taking. It is imperative that managers show respect for all employees, their opinions, and their work.

Intention to Leave

The intention to leave any organization and with complete willingness is called turnover intention (Tett & Meyer, 1993). In other words, turnover intention exactly means actually quitting from some job (Ongori, 2007). Turnover intention was an emotional variable of the trend to leave any organization (Janseen, 1999). The intent of this rotation is one of the behavioural intentions to quit.

The retention of teachers has been a focus of education reform policy for more than a quarter century (Macdonald, 1999; Ronfeldt, 2012; Taylor & Bogotch, 1994). Ronfeldt (2012) discovered pre-service teachers who learn to teach in “difficult-to-staff” field settings have lower retention rates than peers placed in less difficult settings. Each year school administrators must identify, recruit, and employ teachers to replace those who either move to another school or leave the profession (Ingersoll, 2001). Finally, Gilpin (2011) concluded wages have a significant effect on inexperienced teachers leaving the profession but no significant effect on experienced teachers leaving the job.

The effects of dissatisfaction that results in an employee’s withdrawal from job and company can range from mild to severe. Tardiness, in showing up for work and coming back from breaks, shows a lack of interest by the employee for his or her responsibilities. This may escalate to the employee not showing up to work entirely. Some less obvious signs of withdrawal from the job include: taking care of personal matters while at work, playing games, engaging in non-work related talk, spending time on social networks, and diminishing job performance. These withdrawal behaviours, clear evidences of dissatisfaction, may end with an employee leaving the workplace; “the heuristic model posits that thinking of quitting is the most probable outcome of job dissatisfaction” (Koslowsky & Krausz, 2002). Therefore, withdrawal will lead either the employee voluntarily leaving the organization or being terminated for unprofessional behaviour.

RESEARCH METHODOLOGY

Methodology used in the research to collect data is through a carefully designed Questionnaire to be given to the teachers in a private sector International school, Royal Institute’s four branches located in Colombo district. Data was collected from the both Primary and Secondary sources for the research. For Primary data collection the Questionnaire technique has been used since it is the most appropriate way to obtain the data related to the job satisfaction in teaching career. Researcher has visited the four branches of the school separately and collected the most recent, accurate and reliable data to conduct the research successfully. Questionnaire was used to elicit relevant information about the demographic data of the teachers (age, gender), school working environment, teacher’s educational background, qualifications and participation in academic and extracurricular activities. In the selected schools, students’ academic

achievements were measured through a structured data analysis method in order to assess the job satisfaction of teachers and their intention to leave.

Each item in the model has corresponding questions to address the four variables namely, career development, qualifications and skills, work overload and work environment. The sample size is 150 international school teachers representing the four branches and the Random sampling technique was used to deliver the questionnaires. The population of teachers under the study was made up of Art, Science, Mathematics and Commerce in four branches of International School located at Colombo district. The collected data was analysed based on correlation and regression analyses using the statistical package for social sciences (SPSS) computer programme.

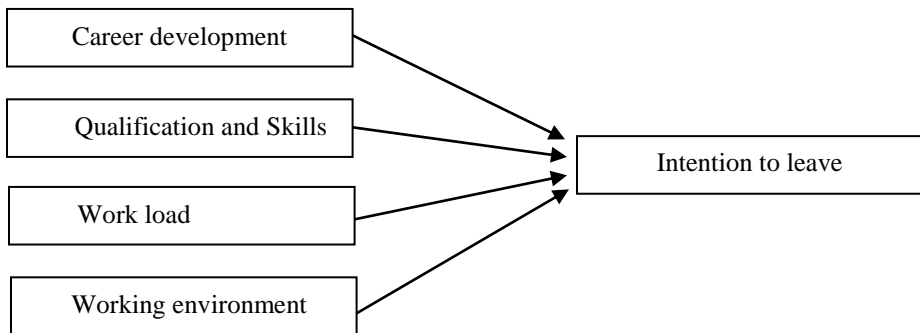


Figure: 1 Conceptual frame of the study

Based on the above conceptual framework following hypotheses were formed:

- H1:** Career development has a positive influence over the international school teacher's intention to leave.
- H2:** Qualification and skills have a negative influence over the international school teacher's intention to leave.
- H3:** Work load has a positive influence over the international school teacher's intention to leave.
- H4:** Working environment of the international school has a negative influence over the international school teacher's intention to leave.

DATA ANALYSIS AND FINDINGS

Sample Descriptive Analysis

Among 150 respondents of the research, 83.3% are female teachers whereas male teachers are only 25 in numbers representing 16.7%. Therefore, this shows that the majority of the respondents are female teachers to the research. In majority teachers and lecturers in Sri Lanka are females.

Out of the total sample only 6% of the teachers are in the age category of 20-29. 62% of the teachers numbering 93 represent belonged to the age category of the 30 – 39. Between 50 -59 years of age, only 12% are working in the school. According to the

figures given above 32% are in between 40 – 59 age group. Nearly 70% of the teachers are a combination of young and middle aged category. According to the statistics, almost all the teachers in the international school are full time teachers. It seems that the school is not employing part time teachers in delivering the educational services.

Only 4% of the teachers have no previous experience in teaching, whereas 32% of the teachers numbering 48 of the total respondents are having less than one year experience in teaching with the particular school. However, there are teachers working with the school between 1- 3 years' time, representing 39% (58 in number). 23% of the respondents have the served the school for a period of 3-5 years. Only 2.7% are teaching in the school for more than 5 years time. 25% of the sample or 38 teachers in fact have served the school for more than three years. Out of the total sample 12% represents Maharagama branch, 56% represents Nugegoda branch and 17.3% and 14.7% represents Havelock town and the Maya avenue respectively.

Validity and Reliability

All the questions used in this study were tested in all aspects and validated. The questions which do not support the validity were eliminated and readjusted by using the tools available in the SPSS 20 in order to increase the validity of the research. The value of the 30 manifested variables was summed from its measurement items. The measurement items were inspected with the same dimension on its manifest variables Table 5.1 show Cronbach’s alpha for the 30 manifested variables that was generated via SPSS “Reliability Analysis” on both pre-test and post test data sampling.

Table: 1 Reliability Analysis

Variable name	Cronbach’s Alpha
Career development	0.650
Working Environment	0.651
Qualifications and skills	0.720
Work overload	0.715
Intention to leave	0.722

The Cronbach Alpha of 0.7 or above is considered as acceptable reliability test. The results from the Table: 1 shows the most measurement sets were exceeded 0.7 level, which indicated good internal consistency on the test results.

Data Analysis

Multiple regression Enter method used to analyse depended and independent variables in the given model. According to the table 5.2 Qualifications and skills are significant and have negative effects (-0.223) to the intention to leave. The career development and working environment are not significant but there is a positive effect to the intention to leave. The work overload is not significant and has a negative relationship of -0.13. According to the results R² is 8% which indicates that the selected independent variables explained 8% of the dependent variables. The overall model is also significant.

Table: 2 Results of Regression Analysis

Model	Unstandardized Coefficients		Coefficients ^a		t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Standardized Coefficients				Lower Bound	Upper Bound
			Beta					
(Constant)	4.520	.449			10.061	.000	3.632	5.408
1 CD	.062	.077	.066		.807	.421	-.090	.215
WE	.045	.076	.049		.600	.549	-.104	.195
QS	-.223	.066	-.268		-3.358	.001	-.354	-.092
WO	-.013	.085	-.012		-.152	.880	-.180	.155

Table: 3 Model summary for the Intention to leave

Model	R	R square	Adjusted R square	Std. Error of the estimate	Change statistics				
					R square change	F change	Df1	Df2	Sig. F change
1	.284 ^a	0.080	0.055	0.36510	0.080	3.171	4	145	0.016

Table: 4 Model summary of the all variables

Variables	IL	R square	Std. Error	F change
Career Development	.084 (.153)	0.007	0.375	1.054 (0.306)
Working Environment	.035 (.337)	0.001	0.376	0.178 (0.674)
Qualifications and skills	-.272 (.000)	0.074	0.362	11.849 (0.001)
Work overload	-.013 (.439)	0.000	0.376	0.024 (0.877)

Career Development

H1. Career development has a positive influence over the international school teacher’s intention to leave.

Findings of H1 suggest that, there is a positive association between the career development and intention to leave. ($\beta = 0.084$) And there is no significant relationship between the dependent and independent variables, since the value is 0.306. As per the respondents, the learning opportunities provided by the school have a positive influence towards the career development. The same way reflect of the practices and the evaluation of the teacher’s performance also depicts a positive relationship. Only the follow up provided by the school to enhance the career development is shown as a negative factor. Therefore, the HI is accepted according to the research findings.

Working Environment

H2. Qualification and skills have a negative influence over the international school teacher's intention to leave.

As per the findings of the research, the H2 suggests that, there is a negative association between the qualifications and skills and intention to leave. ($\beta = -.272$) The regression results show that there is a significant value between the independent and dependent variables. However, the positive relationship to be proven through the research has not taken place. Among the other dimensions, the qualifications and skills are somewhat affecting and explains the dependent variable intention to leave by 7.4%. Therefore, H2 hypothesis is accepted.

Qualifications and Skills

H3. Work overload has a positive influence over the international school teacher's intention to leave.

Findings of the H3 suggest a negative association between Work overload and the intention to leave by the teachers. ($\beta = -.013$) And the regression results of the research show an insignificant value of 0.877, which demonstrate no relationship between the independent and dependent variables. As per the respondents, the support received from the parallel teachers, in order to prepare papers, covering syllabus, working both as a class and a subject teacher and when feeling stress after the day finish is at dissatisfactory levels. So, H3 hypothesis is not accepted.

Work Overload

H4. Working environment of the international school has a negative influence over the international school teacher's intention to leave.

The Regression results show that the working environment is not significant since the value is 0.674. But it positively influences the intention to leave with 0.035 values. As per the respondents, the space availability and the access to technology provided by the school are at satisfactory or the agreed levels, whereas the physical environment at the school is at dissatisfactory levels. The environmental healthiness at the school is also at much satisfactory levels. Therefore, the independent variable, working environment explains 0.1% of the dependent variable. So, H4 hypothesis is not accepted.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of the research is to identify the factors and the casual relationships that influence the intention to leave by the international school teachers in the Western province. The final model of the research is based on Effort Reward imbalance model (Siegrist, 1996; 1998), Herzberg two factor theory and Job Characteristics Model (JCM; Hackman & Oldham, 1976). Therefore, this current research mainly focussed on answering the research question of how the derived model explains the intention to leave by the teachers and the ways of increasing job satisfaction to retain them. With regard to the relationship among the determinants of organizational commitment and intention to

leave, the study result suggests that overall satisfaction had a significant effect on the commitment of both female and male academic staff.

The constructed model corresponds with the collected data and explains the constructs and casual relationships that result in intention to leave by the teachers. In addition, there is a positive and insignificant relationship between the career development and intention to leave. The career development dimension includes professional learning opportunities aligned to increase the professionalism of the academics, teachers own encouragement in reflecting the practice, follow up provided by the school to enhance the knowledge level and evaluation of the professional development.

According to the findings, there is a negative and statistically strong significant relationship between by the qualifications and skills towards intention to leave. Whereas, Skill raising programs organized by the school, Study leave provided by the school and financial contribution towards professional exams, for instance paying subscription, exam fees, registration fees etc. are influencing the independent factor, qualifications and skills.

As per the research findings, the work environment demonstrates positive weak and insignificant relationship with the intention to leave. This factor is not going to influence the intention to leave by the international school teachers. As the same way, work overload is also not affecting the intention to leave by the teachers. It demonstrates negative and insignificant relationship with the dependent factor. According to the results, H1 has been proved. So, there is a positive, however statistically insignificant relationship between the career development and intention to leave by the teachers. Also, H2 has been proved, hence there is a negative and statistically significant relationship between qualifications and skills and intention to leave. But the findings rejected H3 and H4.

The professional learning opportunities, teacher's encouragement to reflect own practice, follow up provided for the professional development and the evaluation of the professional development affect the career development towards intention to leave. Out of the above factors, professional learning opportunities, teacher's encouragement to reflect own practice and the evaluation of the professional development most critically affect career development thus the intention to leave. Therefore, by improving the follow up provided by the international schools can improve the career development.

Sufficient access to technology, adequate space to work productively, physical environment of the class rooms and laboratories and environmental healthiness affect the working environment, thus the intention to leave by the international school teachers. Among these factors, access to technology, available space to work and environmental healthiness critically affect the working environment thus the intention to leave. Furthermore, to improve the work environment the international schools should pay their attention on the physical environment of the classrooms in supporting the teaching as well as learning for students. Skills raising programmes, study leaves provided by the school and the financial help provided by the school in meeting the financial considerations in achieving higher qualifications are affecting the qualifications and skills and therefore intention to leave. By allocating more funds to organise skills raising programmes, allow teachers to get study leave and provide financial contributions will encourage them to work more. So that the loyalty and the job satisfaction will increase.

Availability of the supportive teachers, collaborative preparation of the term test papers, performing dual roles as a class teacher and subject teacher, balancing work life and enjoy teaching affect the work overload and therefore intention to leave. To overcome this the school should have a proper plan to balance the work load of the teachers, comparing all the factors, the qualifications and skills and career development have the bigger impact on intention to leave than work environment and work overload. Therefore, by increasing the job satisfaction among international school teachers, the intention to leave can be managed appropriately.

FURTHER RESEARCH

This current research focussed on Career development, Work environment, Work overload and Qualifications and skills. But there can be some other factor that could be considered. Several factors may affect the intention to leave, such as Transportation distance / cost, prestige of the school, number of students per class, salary etc. These factors were not considered in this research.

Other researchers found that there is a relationship between demographic factors and intention to leave. But it has not been considered during this research. So, doing a research in this area is valuable for International school authorities. There can be some other variables affecting the Job satisfaction, thus the intention to leave by the international school teachers. So, further research can be carried out to find rest of the factors as well. Although the working environment and work overload do not show a significant relationship with intention to leave, there can be mediating factors affecting them. So, above factors area has to be considered in further research.

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RELATIONSHIP BETWEEN EXPECTED INFLATION AND TREASURY BOND YIELDS IN SRI LANKAN MARKET

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Abstract

The purpose of this study is to examine the relationship between Government Treasury Bills and Treasury Bond yields and inflation in Sri Lanka during the period from January 2006 to October 2016 and to empirically test the Fisher effect in Sri Lankan government Treasury bond market. Based on the results obtained from the analysis, the best proxy either Contemporaneous or lagged inflation has to be selected to formulate the regression model to predict the future Bond yield on each maturity. The data on expected inflation from November 2016 to December 2017 obtained from the Senior Management the active participants of the secondary market. Findings of the study support a strong positive relationship between the bond returns and expected inflation. Further, according to the findings, this relationship decreases when the tenor increases. This can further be proven by high explanatory power of the model denoted in R squared value. Interestingly, this relationship is stronger for short tenor maturities compared to the longer tenor maturities.

Key words: Treasury Bond Yield, Expected Inflation, Fisher Effect, Sri Lanka Treasury Bond Market

INTRODUCTION

Generally, it is said that inflation has to have an impact on interest rates so that the investors are not penalized in terms of their returns. The researcher intends to provide empirical evidence in Sri Lankan context, on the generalized Fisher Hypothesis which states that nominal interest rates are positively related to expected inflation in a one-to-one correspondence. The Fisher hypothesis is the proposition by Irving Fisher that the real interest rate is independent of monetary measures, especially the nominal interest rate. The Fisher equation is:

$$hr_r = r_n - \pi.$$

This means that the real interest rate is the nominal rate minus inflation. Therefore, if r_n rises, so must π . If an economic theory or model has this property, it shows the Fisher effect. The Fisher effect implies that investors will be fully compensated for the expected loss of the purchasing power, and that nominal interest rates and expected inflation will have a one- to-one positive relationship. The Fisher Equation was developed in terms of the “expectations” of financial market participants. This means that an investor determines their required nominal risk less rate of return before they invest their money. The phrase often used is the “investor’s ex-ante required nominal rate of return”. The Latin term Ex-Ante means “from before, before the event” and reflects the fact that the decision is made before the investment. While the Fisher Equation only addresses the determination of the nominal risk less rate of return, it should be remembered that the risk less rate is the foundation upon which all other rates of return

are built. Furthermore, inflation risk, and the necessary inflation risk premium, can change dramatically in a very short time because inflation is caused by the nature of Economic activities of a particular government decision. In order to protect against inflation, investors use the following process. The investor first determines the required real risk less rate of interest or return. Next, an expectation of the future inflation rate is formulated. Based on this inflationary expectation, investors arrive at an appropriate inflation premium that is based on both the inflation expectations and the interaction between inflation and their investment return. The calculation of the expected (ex-ante) nominal rate is performed using the Fisher Equation.

This inflation adjusted nominal rate is then demanded in the hope that the inflationary expectations will be fulfilled and the actual (inflation adjusted) real return at the end of the investment period equals the desired real return identified at the beginning of the investment. However, there is no guarantee that the actual inflation rate over time equals the expectations of inflation that the investor held prior to the investment. In fact, the actual real rate of return will exactly equal the (ex-ante) anticipated real rate return only if the original inflationary expectation was a perfect forecast of actual inflation. This rarely happens. For a discussion of the implications of incorrect inflationary forecasts, see the discussion on the calculation of the “Ex-post Actual Real rate of Return.

OBJECTIVES OF THE STUDY

The main objective of this study is to empirically test the fisher effect in Sri Lankan government Treasury bond market and identify whether the expected inflation can be used to predict the Treasury bond yields.

This research investigates the relationship between government Treasury bond returns and expected inflation in Sri Lanka using monthly data. The period for which the research was done includes the period from January 2006 to October 2016 for one year bill and for two year to five year bonds and inflation.

Specific objectives of this research are;

1. To examine the relationship between Government Treasury Bills and Bond yields and inflation in Sri Lanka during January 2006 to October 2016 period.
2. To develop a model to predict the future returns of the bonds.
3. To estimate the total loss or gains of the portfolio that one would hold at a given point of time based on the predicted future Bond Yields.
4. To understand the need of shifting to timely based maturities.

METHODOLOGY

To identify whether the expected inflation can be used to predict the Treasury bond yields the researchers hypothesize the following relationship. Since Fisher has found relationship between expected inflation and nominal returns, this research tries to find empirical evidence for same relationship in Sri Lankan Bill/bond market. A causal and effect relationship has been found between expected inflation and Treasury Bill/ Bond returns.

Fisher (1930) hypothesized that the expected real return is determined by real factors such as productivity of capital, investor time preferences, and tastes for risk, and that the expected real return and expected inflation are unrelated. This can be generalized to all assets in an efficient market.

The methodology to establish the relationship between nominal returns and expected inflation includes regression analysis, correlation analysis and analysis of graphs. Interviews with industry players were conducted to support/challenge the results of research. After finding out the relationship based on the collected data and the interviews obtained, the Hypothesized Model will be used to predict the future bill / bond yields for each maturity based on the survey of expected inflation collected from the target group.

Data Collection and Analysis

This research aims at establishing relationship between inflation and the Treasury bond yields in Sri Lankan context. The researchers try to analyse data of inflation and Bill/ bond returns for the period from 2006 to 2016 using statistical models and graphs. This research is based on the secondary data, where the bond yields considered consist of secondary market bonds yields for 2-5 years. For 1 year returns, researcher considers weighted averages of treasury bills of 1 year as the 1 year treasury bonds are rarely traded in the secondary market.

For this study expected inflation will be measured using point to point inflation of National Consumer Price Index (NCPI) since the point to point inflation avoids the seasonal variations, and the normal practice of the market is to monitor the Point to Point inflation. Even though it is said that the annual average inflation reduce the major fluctuations, the point to point inflation shows the increase of the index compared with previous years index, which has already been adjusted over the time period. The historical CCPI data will be collected from monthly publications of the Department of Census and Statistics. Based on the results obtained from the analysis the best proxy either Contemporaneous or lagged inflation has to be selected to formulate the regression model to predict the future Bond yield on each maturity. The general form of a simple linear regression is

$$y_i = \alpha + \beta x_i + \varepsilon$$

In the above equation, the dependent variable is Y_i , which is used as R, i.e the nominal return (Bond Yield). X_i , is the expected inflation which is the independent variable. Obtaining value 1 for β will establish the relationship, which is being tested.

Once a regression model has been constructed, it is important to confirm the goodness of fit of the model and the statistical significance of the estimated parameters. The goodness of fit is checked with R-squared. Statistical significance is checked by an F-test of the overall fit, followed by t-tests of individual parameters.

A survey was conducted to estimate the expected inflation from November 2016 to December 2017. The survey data was obtained from the senior management of the active participants of the secondary market. The survey sample of 25 has been selected from the

total population of 25, consisting the Heads of the 13 Primary Dealers, CEO’s of the 07 Money brokering companies and the Chief Dealers of the Commercial Banks other than the Primary Dealers namely Nations Trust Bank, Standard Chartered Bank, Hatton National Bank, DFCC Bank and Ceylinco - Life that actively trade in the Secondary market. The expected inflation was predicted based on the last released inflation, in October 2016 and the data obtained for the expected inflation from the sample of 25, had been averaged for each of the forecasted months.

FINDINGS AND DISCUSSION

Figure 1 depicts the inflation over the period measured in terms of point to point and annual moving average. During the period from 2006 to 2008, the inflation rate had continuously increased and it reached the peak in 2008 June. A downward trend of inflation could be observed from 2009 onwards in both indices. This drop in inflation may be due to the end of civil war, and the changes made in relation to the Colombo Consumer Price Index.

Monthly Point to Point Inflation and 12 Month moving Average from 2006 – 2016

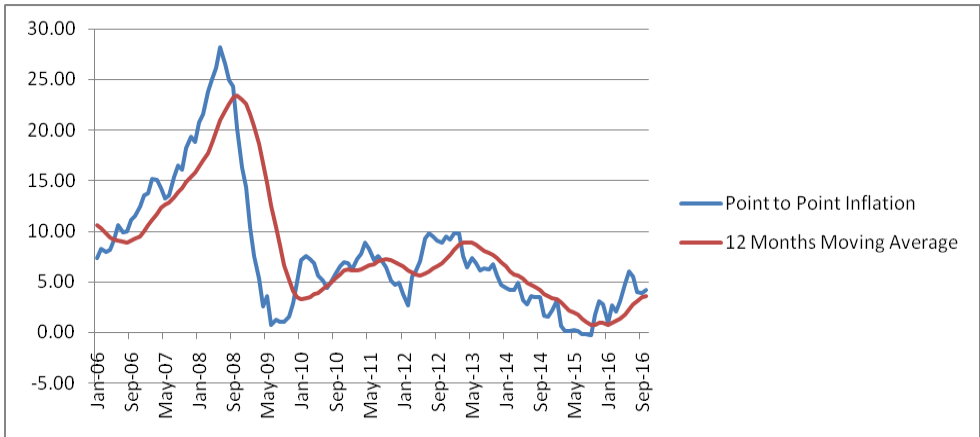


Figure 1. Monthly Point to Point Inflation and 12 Month moving Average from 2006 – 2016

From graphical presentation in Figure 2 a positive relationship could be observed between inflation and one year Treasury bill returns. Even though the relationship does not seem to be strong it appears that there is a positive adjustment on Treasury bill rates for inflation adjustments.

Monthly 01 Year Treasury Bills rates and Point to Point Inflation from 2006-2016

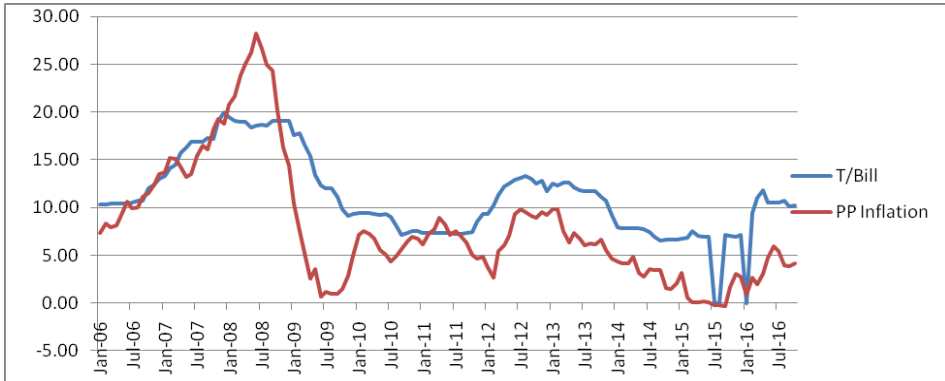


Figure 2. Monthly 01 Year Treasury Bills rates and Point to Point Inflation from 2006-2016

A very strong positive relationship between T- bill and PP inflation can be observed from July 2006 to July 2009. Further, during the periods from January 2008- July 2009, January 2012 – July 2013 there had been negative returns for the investors. The Inflation dropped drastically from January 2009 onwards providing positive returns to the investors.

Regression of One Year Treasury Bill Rates on Contemporaneous Inflation and Lagged Inflation

$$R_t = \alpha + \beta I_t + \epsilon_t$$

$$R_t = \alpha + \beta I_{t-1} + \epsilon_t$$

Table 1. Results of the Regression Analysis

Description	α	β	R^2	F	N
Contemporaneous Inflation as Proxies for Expected Inflation	7.20	0.50	0.65	240.42	130
1 Month Lagged Inflation as Proxies for Expected Inflation	7.10	0.51	0.68	267.94	130

[p- value is less than the significance value of 0.05]

The results of the regression analysis shown in table, reveal a strong positive effect of expected inflation on Treasury bill/ Bond returns in Sri Lanka during January 2006 to October 2016 period. Hence, the study accept the hypothesis H_{A1} i.e. there is a positive relationship between treasury bond/bill yields and expected inflation. Based on the analysis for 01 -05 year Treasury bill/ Bond returns and expected inflation, the table 2 below provides the summary of the results obtained for one month lagged inflation since it indicates more positive results compared to the contemporaneous inflation.

Table 2. Regression Results for the Tenor

01 Month Lagged Inflation	α	B	R²
01 Year Bill	7.10	0.51	0.68
02 Year Bond	7.36	0.47	0.64
03 Year Bond	7.79	0.44	0.62
04Year Bond	8.18	0.41	0.61
05 Year Bond	8.58	0.40	0.61

The overall results for each of the maturities based on lagged inflation indicates that when the tenor is getting higher, the beta factor is getting lower gradually, which means that when the tenor of the bond increases the Beta of the regression line for the bond yield and inflation is decreasing, which proves that there is no positive one to one relationship between the two variables and when the inflation increases by one unit, increase of the bond yields declines, when the tenor is higher.

Further it shows that the positive strong relationship between these two variables indicated by the correlation coefficient of the bond returns and expected inflation is also decreasing when the tenor increases. This implied that the strength of relationship between the variables is also diminishing. This can further be proven by high R² values (ranging 61%-68%) which explains the explanatory power of expected inflation in explaining changes in Treasury Bill yields.

Forecast on Bond Yields from November 2016 – December 2017

Based on lagged inflation for each of the Bond tenor, regression equation is used to forecast the future bond yields. Table 3 below shows the summary of the expected inflation estimated with the survey data.

Table 3. Forecasted Expected Inflation

Month	Inflation Rate	Month	Inflation Rate
Nov-16	4.2	Jun-17	4.4
Dec-16	4.2	Jul-17	4.8
Jan-17	7.4	Aug-17	5.6
Feb-17	7.6	Sep-17	5.1
Mar-17	8.3	Oct-17	5.1
Apr-17	8.2	Nov-17	5
May-17	5.8	Dec-17	4.5

One year Treasury Bill and two to five year Treasury Bond yields have been forecasted for November 2016 – December 2017 using the Regression equation based on the analysis done. The Regression equations are mentioned below.

Table 4. The Regression equations

Treasury Bill/ Bond Maturity	Regression Equation
One year	$R_t = 7.10 + 0.51 I_t$
Two year	$R_t = 7.36 + 0.47 I_t$
Three year	$R_t = 7.79 + 0.44 I_t$
Four year	$R_t = 8.18 + 0.41 I_t$
Five year	$R_t = 8.58 + 0.40 I_t$

The researchers find that bond returns has partial hedge against expected inflation. In other words the bond returns does not guarantee any investor with lost value of investment due to inflation, even though it could provide real returns. For example if an investor invests Rs. 100,000 in a bond and gets a real return of 5% and inflation is 10% he would not get nominal return of 15% instead he might get lesser than 15% and more than 5%.

When forecasting bond returns for day to day investment and trading decisions it is important to take inflation into account. In addition to that they must be aware that there are other variables which could affect the actual bond returns of respective periods. The research has proved that there is a strong support for these variables even though there is unexplainable part of nominal return variance in all the cases. The forecast of returns should keep a margin of error so that the total dependence on inflation would not be there.

CONCLUSION

It can be concluded that the shorter tenor rates have the strongest relationship compared to others, and what this implies is that the inflation expectations have a major impact on the shorter tenors, therefore based on the research outcome, it is advisable for a bond trader to take into account of the one month lag inflation and to predict the next month inflations and based on the inflation expectations to forecast the bond returns, and to take position or to cut off the position of the portfolio he/she holds. This aims at finding support buying and selling decisions of bonds and bills. As per the research findings it could be concluded that in Sri Lankan context there is a strong relationship between the short maturities compared to the bond returns and expected inflation.

The research proved that there is a strong support for these variables even though there is unexplainable part of nominal return variance in all the cases. The forecast of returns should keep a margin of error so that the total dependence on inflation would not be there. Hence in general, those who are forecasting bond returns for day to day investment and trading decisions should take inflation into account. In addition to that they must be aware that there are other variables which could also affect the actual bond returns of respective periods.

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PATIENT SATISFACTION WITH MEDICAL SERVICES AND NON- MEDICAL SERVICES AT THE MATERNITY HOSPITAL OF SRI LANKA

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Abstract

Sri Lankan government health care system is free to all at the point of delivery. Majority of the population attend Government hospitals in Sri Lanka. However, in spite of that majority of patients complain Government Hospital Medical service is substandard. Therefore, this study aims to focus on degree of patients' satisfaction and factors that contributing to their satisfaction. The descriptive cross-sectional study was conducted to determine the patient satisfaction level and also to identify factors that contribute to their satisfaction level. A Simple Random Sample of 422 diabetes patients was selected for the study. A pre-tested structured self-administrated questionnaire was used as study instruments for collecting data. Analysis of data revealed that patient's satisfaction level is higher in relation to Medical officers' service, Nursing officers' services, Technical services, and basic facilities at the Hospital. The final Overall satisfaction of the patients with regards to all the services provided by the hospital was 97.1%, which was a significance value that indicates highly satisfied services provided by the Kethumathie Maternity Hospital Panadura. Multivariate analysis of the data revealed that, there is a strong relationship between all the independent variables i.e. Medical and Non-Medical component, with overall satisfaction of the patients.

Keywords: Patient Satisfaction, Antenatal Clinic, Medical Services, Non-medical Services, Service Quality

INTRODUCTION

Over the decades, since independence, the Government of Sri Lanka has played a remarkable role in the health system; provision, financing, and regulation of health care across the country. Western, Ayurveda, Unani, Siddha, Acupuncture and Homeopathy systems of medicine are practiced in Sri Lanka. Of these, Western Medicine is the main sector catering to the needs of a vast majority of people in Sri Lanka. The public sector comprises Western and Ayurveda systems, while the private sector consists of practitioners of all types of medicine in the country. This provides the people with an opportunity to seek medical care from various sources, under different systems of medicine. Sri Lanka possesses an extensive network of healthcare institutions. The majority of the population has easy access to a reasonable level of healthcare facilities provided by both state and private sector through the extensive network of Healthcare Institutions. Allopathic healthcare delivery in Sri Lanka is provided by both public and private sector, while the total preventive care is provided by the state health sector. 95% of the inpatient care and 50% of the outpatient care is provided by the state healthcare system. The remaining 5% of the inpatient care and 50% of the outpatient care is provided by the private health sector. (Annual Health Bulletin 2012)

There has been plenty of studies done internationally but very few studies done in Sri Lanka regarding patient satisfaction of service provided by the health care institutes. Patient satisfaction is an important indicator for measuring the quality in health care and the success of doctors and hospitals (Prakash, 2010). It affects clinical outcomes, patient retention, and medical malpractice claims. Patient satisfaction has two components; medical and non-medical components. Medical component includes Doctor Services, Nursing services, and Technical services. Doctor Service include the components such as friendly manner, explanation of diagnostic results and treatment process, careful listening, respect and courtesy, attentive responses to the patient's needs, sufficient time spent on the patient, thorough history taking, and professional appearance. Nurse Service includes items such as friendly manner, explanation of the outpatient care process at check-in, careful listening, respect and courtesy, attentive responses to the patient's needs, explanation of the anticipated waiting time, explanation of the reason for delayed care, provision of post care instructions at check-out, protection of privacy, and professional appearance. On the other hand, technician service contained the items such as technician's friendly manner, explanation of the process of treatment or diagnostic procedure, careful listening, respect and courtesy, attentive responses to the patient's needs, provision of waiting list on board, explanation of the anticipated waiting time, explanation for delays, provision of post procedure instructions, protection of privacy, and professional appearance. (Ham, H.S., et.al, 2015)

Non-Medical component mainly focuses on responsiveness which relates to a system's ability to respond to the legitimate expectations of potential users about non-health enhancing aspects of care. It includes two major components: (a) respect for persons (including dignity, confidentiality and autonomy of individuals and families to decide about their own health); and (b) client orientation (including prompt attention, access to social support networks during care, quality of basic amenities and choice of provider) (Murray and Frenk, 2000) and in broad terms it can be defined as the way in which individuals are treated and the environment in which they are treated, encompassing the notion of an individual's experience of contact with the health system (Valentine et al. 2003a). Accordingly, this study focused on both medical and non-medical components of patient's satisfaction

OBJECTIVES OF THE STUDY

The main objective of this research is "To Study patient's satisfaction of service provided at an Antenatal Outpatient clinic in a Government Hospital of Sri Lanka. The specific objectives of the study are,

1. To analyze relationship between Medical Components and the satisfaction level of patients attending Antenatal clinic of the hospital.
2. To analyze relationship between Non-Medical components and the satisfaction level of patients attending Antenatal clinic of the hospital.
3. To describe overall satisfaction of patients attending Antenatal clinic.

METHODOLOGY

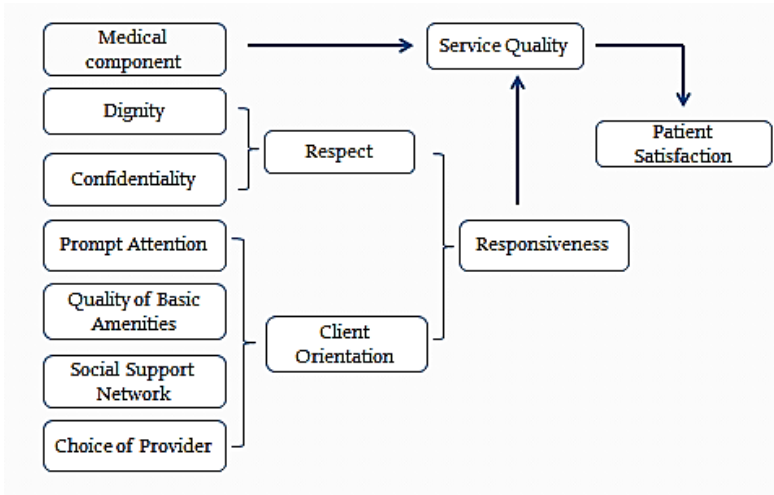
This study was conducted at the Antenatal clinic of the Kethumathie Maternity Hospital Panadura (KMH). "Kethumathi" is the fourth largest Hospital in Sri Lanka dedicated for Gynecology and Obstetrics. The hospital is a comprehensive one with a

special care baby unit of 36 beds and total bed capacity of 142 beds in five wards. Total no of admissions for 2014 had been 12340 and the bed occupancy ratio was 77.5%. In 2014, 4945 deliveries were done, and the institute has provided services to 26320 clinic patients and 8520 out patients via OPD. The present study was a descriptive study done over a period of three months, aimed at collecting data regarding attitudes of Patient satisfaction attending the Antenatal clinic. Out of 130 mothers a total of 80 mothers who attend the clinic were selected by simple random sampling technique. Accordingly, 422 Mothers attending the Antenatal clinic were selected as sample for the study.

Structured Self Administrated questionnaire was administered to the sample of patients selected. The questionnaire is classified into four major parts. The first part of the questionnaire is used to get the information on the socio-demographic information of the respondents. In the second part, questions were asked to obtain details in relation to satisfaction level of respondents forwards medical officers service, nursing officers service and technical services. The third part captures the information related to overall satisfaction of the services provided by the hospital. Respondents were asked to respond to each item on the widely used seven-point Likert scale, ranging from 5 being extremely satisfied to 1 representing extremely dissatisfied. The scale is often used for measuring satisfaction and other related-satisfaction variables (Marinkovic at al., 2011). The statistical analysis of data consists of descriptive statistics, multivariate data analysis and other necessary testing to ensure accuracy. Before presenting econometric results, several tests wear carried out such for example multicollinearity, based on variance inflation factor (VIF), and normalcy test.

CONCEPTUAL FRAMEWORK

The conceptual framework for the study was derived from well-known SERVQUAL model which was introduced by Parasuraman and others in 1988. Two major clusters of factors affecting patient satisfaction were mainly identified. Accordingly, Medical component and Non-Medical component were identified as independent variables whereas patient satisfaction is conceded as dependent variable. Medical-related component that was expected to affect patient satisfaction consisted of three factors. They included Medical officers' services, Nursing officers' services, and Technical staff services. Non-Medical component consisted of two factors: respect and client orientation which represent responsiveness.



Figur1: Conceptual Model

DATA ANALYSIS AND FINDINGS

Total number of patients participated in the study were 412 among which 330 were Sinhalese and 82 were Muslims and Tamils. Age of the patients attended the clinic ranged from 15 years to 45 years. About 32 percent of them were within the age group of 25-29 years and 1.7 percent patients were more than 40 years of age. When it comes to religion, majority were Buddhist (79.1%) and least was Hindu (0.7%) and the second largest was Muslims (13. 8%). As for the level of education 45.1% of respondents had studied up to the GCE ordinary level and 31.3% of respondents had studied up to the GCE Advance level, only 4.1% were graduated. Fair amount of patients had good education as the GCE (O/L) passed and above was 76.4% of the patients who attended the Antenatal clinic of Kethumathie Maternity Hospital Panadura.

As far as income level of patients is concerned, 40% of patient were between the income level of Rs.20, 000 and Rs.30, 000. However, 18% of patients had income of more than Rs. 30, 000. Another, 18% of respondents had income less than Rs. 20,000. Very few patients (4. %) had more than Rs.40, 000 income level. Majority (98.3%) of patients attended the clinic received the financial support from husband. Most of the patients (88%) attending the Antenatal clinic of the Kethumathie Maternity Hospital Panadura were unemployed housewives.

Satisfaction of patients attending the Antenatal clinic of the Kethumathie Maternity Hospital was assessed in relation to five aspects. Those five aspects were the Medical officers service, Nursing officers services, Technical services, basic facilities at the Hospital and Overall satisfaction of the services provided by the hospital. The received responses of above five factors are presented in the table1 bellow.

Table 1: Patients’ Satisfaction of Different Components of Health Services

Questions Regarding Satisfaction	Strongly Disagree (%)	Disagree (%)	Undecided (%)	Agree (%)	Strongly Agree (%)
Overall satisfaction of Medical Officers services	1.5	0.2	1.0	35.0	62.4
Overall satisfaction of Nursing Officers Services	1.7	0.5	4.8	39.1	53.9
Overall satisfaction of Technical Services	3.4	0.5	9.1	40.7	46.3
Overall satisfaction of basic facilities of Hospital	1.7	0.5	3.9	38.3	55.6
Overall satisfaction of Services provided at KMH	1.9	0.2	0.7	32.3	64.8

The data presented in Table 1, shows that 97 percent of patients are satisfied with Medical officers service. Data also revealed that 92 percent of respondents felt that the nursing staff have shown a kind of apathy towards them and 82 percent said they are satisfied with service provided by technical staff. Large majority (94%) of the respondents reported that the basic facilities provided by the hospital is at satisfactory level. Finally, 97 % of respondents agree that overall the hospital provided satisfactory service to their patients. This results clearly indicate that patients generally rated hospitals’ performance in terms of Medical officers’ service, nursing officers’ services, and Technical services very favorably.

Results of Regression Analysis

Multivariate analysis technique has been used to examine the relationship between patient satisfaction and Medical components and Non-Medical components. Accordingly, the results of the estimated regression model are presented in table 5.

Table 5 Multivariate linear Regression

Variables	β	SE	Beta	t-value	Sig. (p-value)	R	R ²
Doctor	0.186	0.059	0.167	3.120	=0.002	0.830	0.690.
Nurses	0.203	0.053	0.201	3.806	<0.001		
Technical staff	0.114	0.049	0.117	2.342	=0.020		F=180.02 p<0.001
Client orientation	0.184	0.051	0.180	3.636	<0.000		
Respect for Person	0.477	0.038	0.501	12.454	<0.000		

The calculated F – ratio is 180.02 which is significant at 1% significance level ($p < 0.001$) and supports the reliability of the explanatory power of the model. The value of R^2 implies that 69% of variation in patient satisfaction is explained by variables used in the regression analysis. The regression coefficients reveal that respect for person which is proxy variable for Non-Medical Service is the best predictor of overall satisfaction with a beta weight of 0.501. This value is significant at 1% level of significance. The beta weights of Nursing services and client orientation are 0.201 and 0.180 respectively. These coefficients are significant at 1% level of significance. Doctor's component has a beta weight of 0.167 which is significant at 5% level of significance.

DISCUSSION

Patient satisfaction is an utmost important and commonly used indicator for measuring the quality in health care in the world. Patient satisfaction has an impact on clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals (Prakash, B., 2010). "Satisfaction" is defined as the patient's "attitudes toward physicians and medical care." (Hulka et al. 1970). According to data analyzed in this study of patient satisfaction of KMH, there was a strong relationship between patient satisfaction and Medical component. A study done in Sri Lanka (Mudiyanse, R.M., et al. 2015a) found that significant proportion of patients (29%) felt that doctors do not entertain patient's point of view. But in this study (Study at KMH) showed that 97% of patients are satisfied with medical officer's service. Study done by Aiken, L.H., et al. (2012) for 12 countries in Europe and the United States found that patients' satisfaction level of their hospitals varied from (35% (Spain) to 78% (Switzerland)). But in our study the satisfactory level of nursing care was 92%. Senarath, U., et al. (2006) found that mothers who were satisfied varied from 10.1% to 28.9% for technical aspects of care. According to the findings the satisfactory level of the Technical services at KMH was 82% or more. The patient satisfaction with regards to Medical, Nursing and Technical components were very much higher in this study than the other studies done in nationally and internationally.

Study of satisfaction about non-medical components of Colombo National Hospital (Punchihewa CP et al. 2010) showed that patients who were satisfied with 29.9% for waiting time and 79.5% for physical facilities. In this study at KMH satisfactory levels were 90.1%, for the Waiting time and 94% for the Quality of basic amenities (water, toilets, wash area, canteen). In addition, a study conducted by Senarath, U., et al. (2006) showed lower satisfaction rates with regard to physical environment (10.1%). However, in KHM this value is 91.5% considerably higher than previous studies.

The findings of multivariate analysis indicate that all independent variables; medical services (Medical officers' services, Nursing officers' services, and Technical staff services) and non-medical services (respect and client orientation services) have significant impact on patient satisfaction. The implication of this findings is that if the hospital need to enhance the patient satisfaction, then both medical and non-medical services are critical to be considered and any strategies to be employed to increase patient satisfaction should focus on improving these two components.

CONCLUSION AND RECOMMENDATIONS

Present study aims at focusing on degree of patients' satisfaction and factors that contribute to their satisfaction. The descriptive cross-sectional study was conducted to determine the patient satisfaction, and all so identify factors that contribute to their satisfaction level. A Simple Random Sample of 422 diabetes patients was selected for the study. Analysis of data revealed that high satisfaction levels with regard to Medical officers' service, Nursing officer's services, Technical services, and basic facilities at the Hospital. Results of regression analysis revealed that, there is a strong relationship between all the independent variables i.e. Medical and Non-Medical component, with overall satisfaction level of the patients.

All the Health Staff in the Health department has to be trained with a view to improving technical skills and attitude. Because this will reflect on service quality and patient satisfaction. Each and every category should be trained because all of them come into contact with the patients who are our customers. It is very important to conduct more research on patients' satisfaction in other areas like clinic setups, in other institutions and inward, outpatient departments to identify the gaps and to improve the both medical and non-medical services.

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FACTORS AFFECTING PATIENT SAFETY CULTURE IN SRI LANKAN HOSPITALS

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Abstract

In the complex health care system, adverse events, medical errors and near misses are on the increase and have become a public health concern in the world. As the patient safety is a key principle of patient care, patient safety culture is an important tenet in the health care industry. The study based on two base hospitals in Sri Lanka with the purpose of exploring the factors affecting patient safety culture in Sri Lankan Hospitals. The sample covers 424 health care workers. Data pertaining to six dimensions of patient safety culture was collected through a self-administered questionnaire. The results of the regression analysis reflected a significant positive impact of all the identified dimensions; perception of patient safety, incident reporting, communication, organizational learning and team work on patients safety culture, while 'communication' having the strongest impact. These findings revealed that patient safety culture is in between pathological and reactive stage in Sri Lanka. The findings further highlight a strong need for patient safety process improvements in Sri Lanka.

Key words: Patient safety culture, Adverse events, Patient care, public health concern

INTRODUCTION

Medical errors consider as a public health issue in the world. Adverse event occurs as a result of failure of medical management. Active failure and latent failure are the two types of failures resulting from adverse events. Active failures result due to unsafe acts of health care personnel having close contacts with process, system or patient. Latent failure is an unavoidable condition which can be identified before the incident occurs. It needs proactive risk management (La Pietra et al.,2005).

Annually there has been a gradual increase in the number of patients suffering from adverse events such as medication errors, infection, falls, pressure ulcers and surgical errors. However most of such errors are preventable. These errors arise due to various factors such as professionals (health care staff), institutional level or from the system. Knowledge, attitudes and skills of health care staff, size of the hospital, facilities of hospital, safe clinical practice, safe use of medicines and equipment, infection control and provision of safe environment are some of the factors associated with patient safety (Brasaitte et al., 2016). Preventing, mitigating and learning from errors or mistakes are three important elements in improving patient safety. Medical errors or adverse events cause economic burden to the country. It has been revealed that some kind of medical error happened to 4 percent of patients during hospitalization. Similarly, 70% and 14 % of medical errors caused disability and even death. Several studies have shown the high rates of adverse events in the health care setting. A study done in Europe revealed that every tenth patient suffered from preventable errors. Adverse events exert an economic

burden to the country. This adversely affects to low and middle-income countries where there are economic transitions occur (WHO, 2004).

Patient safety culture is a framework having various dimensions. Hence, understanding of attitudes, beliefs and behavior of health care personnel is important to improve the safe and quality patient care (Chen & Li, 2010). Establishing safety culture is a growing need in health care organizations in the modern world. Health care organizations having patient safety culture are transparent and would be able to reduce adverse events (Barrow, 2012). Health care demands are rising now in the changing world, and therefore, health care managers face challenges frequently. Hence it is important to build a system which is sustainable, to provide the best care for the patients (Brasaitte et al., 2016).

As the patient safety culture is an important tenet in the health care industry, it must be incorporated in to our health system. Hence, current status of safety culture in the hospital, gaps and deficiencies of the organization must be explored. Similarly, attitudes, beliefs and values of the human resource in the system should be improved to attain the status of positive safety culture in the hospital. Hence it is necessary to have an overview of influential factors of patient safety culture in order to propose appropriate solutions.

OBJECTIVES OF THE STUDY

The main objective of this study is to explore the factors affecting patient safety culture in Sri Lankan hospitals. In order to investigate the above-mentioned objective, following research questions were raised.

1. What are the basic dimensions of patient safety in Sri Lankan hospitals?
2. What are the levels of patient safety culture in Sri Lankan hospitals?
3. To what extend the identified dimensions impact on patient safety culture in Sri Lankan hospitals?
4. What is the most influential factor of patient safety culture in Sri Lankan hospitals?

THEORETICAL BACKGROUND

The biggest challenge to moving towards a safer health system is changing the culture from one of blaming individuals for errors to one in which errors are treated not as personal failures, but as opportunities to improve the system and prevent harm (IOM, 2001). Hence the knowledge on failures in the system is vital in order to prevent them occurring. Nieva and Sorra (2003) defined safety culture as “performance shaping factor that guides the many discretionary behaviors of health care professionals towards viewing patient safety as one of the highest priorities.

In 2009, Singer and colleagues defined patient safety culture as “values shared among organization members about what is important, their beliefs about how things operate in the organization and the interaction of these with work unit and organizational structures and systems, which together produce behavioral norms in the organization that promote safety.

In response to enhance the safety culture in organizations, it is important to highlight the level of maturity of safety culture in the particular organization (Halligan et al., 2013). Assessing patient safety culture is important due to various reasons. As Halligan et al (2013) reports, there are five stages of maturity levels of safety culture. They are: Pathological, Reactive, Calculative, Proactive and Generative.

Interest in safety culture has been grown widely and it has been identified the safety culture as a core element of health care setting (Hughes & Lapane, 2006). Nieva and Sorra(2003) described improving safety culture as one of the important pillars of the patient safety movement. There are three interconnected components of safety culture in the organization. They are:

- Learning culture: learning from mistakes, errors, near misses and from safety concerns.
- Just culture: Trust, fairness and accountability are elements of just culture.
- Reporting culture: Incident reporting mechanism and feedback mechanism strengthen the reporting culture in the organization. (Ulrich & Kear, 2014)

To establish a safety culture, attitudes, values and behaviour of patients and employees are essential (IOM, 2000). Communication openness, acknowledged mutual dependency and team work are some of the elements of positive safety culture. Highly reliable organizations are now moving towards to foster a safety culture in their organizations. Organizations with positive safety culture identify the importance of safety practices and consider it as a priority (El-Jardali et al. 2010; Ugurluoglu et al., 2012).

Creating a patient safety culture in health care industry is a challenge to health care managers. This is mainly due to behavioral pattern and the attitudes of the person involved in the patient care. Exploration of perceptions of health care personnel towards patient safety culture is important as it would help to understand the attitudes in them. (Aboshaiqah, 2010). Hence, change of perceptions of patient safety culture of frontline workers in the organization helps in achieving quality and safety patient care. It has been revealed that health care organizations which embrace positive safety culture showed marked reduction of adverse events. Front line health care workers make the procedures and systems that prevent or minimize incidents. Literature revealed that the perceptions of front line health care personnel towards positive safety culture created the best care of patient in the organization (Barrow, 2012).

One of the most important components of patient safety culture is the adverse event reporting system in the organization. Studies have shown it as a major predictor of the patient safety culture (Barrow, 2012). Though there must be a zero-failure rate in the health sector, incidents rate is higher in the health care organizations than the other high reliable organizations such as military or commercial aviation (Gaba et al., 2003). People tend to hide the incidents due to the fear of blame and punishment. This leads to under reporting of errors or adverse events. However, the number of self-reported incidents reflects the safety performance (Yang et al., 2009). Some errors are serious causing death of patient while the others are preventable or minor errors. As health care organizations must be highly reliable organizations, administrators make an attempt to understand

where the mistakes and take necessary actions to learn about the errors and avoid them. Hence it is important to cultivate a safety culture in the organization through reporting system and learning from errors (Wiegmann, Thaden & Gibbons, 2007).

“Ineffective team communication is frequently at the root of medical error.” Communications failures at different levels resulted serious adverse events and death. It also acts as a signal of system issues. They found that 36.4 percent of errors were due to communication failures in the operating room (Lingard et al., 2004). Communication openness enables the employees to speak freely about patient safety issues and it encourages employees to identify them. Similarly, it gives an opportunity to rectify their errors, promoting the safety culture in the organization (Hernandez, 2016). Gaps in communication has been the major reason for errors made in health organization. Therefore, conducive environment should be established by the leaders to openly discuss about the incidents occurred in the organization. To prevent errors happening due to communication failure in the process, it is vital to establish a culture of open communication in the organization (Barrow, 2012).

Organizational learning is defined as “a process of increasing the capacity for effective organizational action through knowledge and understanding.” Many organizations are keen on developing capabilities of their employees to achieve the better outcomes. In the dynamic environment of health care industry, this process would help to discover new opportunities and create a culture of team work. Wide range of learning mechanisms is available to enhance the knowledge, skills and information flow of employees. Training, focused discussions immediately after events, problem investigations, shared observations, performance appraisals, audits, blameless reporting, “No blame” discussions and benchmarking are some of the effective mechanisms among them (Carroll & Edmondson, 2002).

“Teamwork is a dynamic process involving two or more people engaged in the activities necessary to complete a task” (WHO, 2009). Willingness to work towards a common goal is a major characteristic of it (Barrow, 2012). Teamwork is a critical success factor in any kind of organization. Various types of health care personnel such as medical officers, nurses, pharmacists, technicians and attendants, are working towards a common goal of provision of safe patient care in the team. Members of team understand the responsibility and accountability of them within the team and hence, occurrence of mistakes within the team is minimal than that of individuals (Baker, Day, & Salas, 2006).

Teamwork enhances sharing of experience, learning through mistakes and helps each other to prevent incidents. It has a great impact on establishing patient safety culture. In addition, it gives an opportunity to contribute to decision making process of the organization to improve patient safety in the organization (Barrow, 2012).

METHODOLOGY

Data Collection Technique and Sample

The Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire which was developed by the Agency for Healthcare research and quality (AHRQ) was adopted to suit the Sri Lankan set up and used as the study instrument. It is a self-administered

questionnaire. There are 6 dimensions in the questionnaire. 3-4 questions have been formed to seek the opinion of respondent on each dimension. Five point Likert Scale of agreement ranges from “strongly disagree” to “strongly agree” and frequency ranges from “Always” to “Never” were used in the questionnaire. A pilot study was conducted at Base Hospital Kiribathgoda for 20 health care personnel for four categories including doctors, nurses, attendants and junior staff. Validity and reliability were assessed. Base Hospital Angoda and Base Hospital Thangalle were selected randomly as study settings. Self-administered questionnaire was distributed to a total of 504 health care personnel and a total of 441 questionnaires were returned. Among these returned questionnaires, 17 were excluded due to missing responses on more than one complete section of the questionnaire. Response rate was 87.5%. Data analysis was done by SPSS version 16.0. Regression analysis was used to assess the impact of independent variables on patient safety culture in the study population.

Conceptual Framework

Based on the literature, the conceptual framework was developed considering five dimensions of patient safety culture.

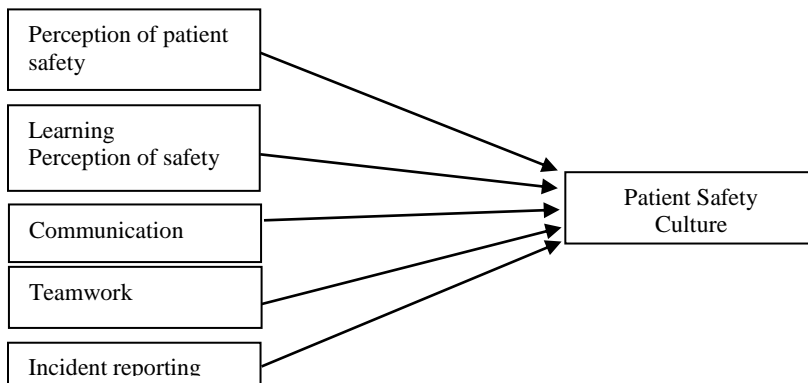


Figure 1: Conceptual framework.

The following hypotheses were tested in the study.

- H1: Perception of patient safety positively impact on patient safety culture
- H2: Incident reporting positively impact on patient safety culture
- H3: Learning positively impact on patient safety culture
- H4: Teamwork positively impact on patient safety culture
- H5: Communication and feedback positively impact on patient safety culture

FINDINGS AND ANALYSIS

Reliability Analysis

Reliability testing using Cronbach’s alpha revealed that values for all the dimensions were above 0.60. According to the survey done by Agency for Healthcare Research and Quality (AHRQ), Cronbach’s alpha values were ranging from 0.63 to 0.84

(Fleming ,2010). Similar type of study was conducted in 2010 by Sorra and Dyer revealed the range of Cronbach’s alpha as 0.62-0.85.

Table 1: Reliability Testing for HSOPSC

Dimension	Cronbach’s Alpha
Overall perception on patient Safety	0.647
Organizational learning- continuous improvement	0.667
Teamwork	0.653
Communication	0.655
Frequency of incident reporting	0.650

Descriptive statistics

As the values of 4 and 5 on the Likert Scale which were used for the response options, are equivalent to the responses of “strongly agree”, “agree”, “most of the times” and “always” positive responses were defined as having mean scale scores of ≥ 4.0 . Following mean values reveal that responses on perception of patient safety, learning, teamwork and communication were more towards positive in both hospitals while the responses on incident reporting were more towards “disagreed”.

Table 2: Descriptive statistics

Variable	Mean (SD)
Independent variable	
Perception on patient safety	3.90 (0.54)
Frequency of events reporting	2.03 (0.51)
Learning	3.20 (0.82)
Teamwork	3.57 (0.44)
Communication	3.22 (0.31)
Dependent variable	
Patient safety culture	3.22 (0.31)

Results of Regression Analysis

Regression analysis was used to assess the impact of independent variables on patient safety culture in the study population and results are illustrated in Table 3.

Table 3: Regression analysis results of the independent variables

Factors	R ²	Coefficients Beta	F- test	P value
Perception on Patient safety	0.234	0.484	129.00	0.000
Incident reporting	0.090	0.301	41.929	0.000
Communication	0.398	0.631	279.198	0.000
Team work	0.313	0.559	192.029	0.000
Learning	0.362	0.601	239.026	0.000

According to the results of the regression analyses, except frequency of incident reporting, all the other dimensions showed moderate positive linear relationship with

patient safety culture in Sri Lankan hospitals. Frequency of incident reporting showed weak linear positive relationship with patient safety culture. Accordingly, hypotheses 1-5 proposed in this study were accepted. Among the dimensions, communication had the greatest impact on patient safety culture in Sri Lankan hospitals

DISCUSSION

Almost half of the population had reported no events during past six months. Only about one fifth of the health care workers (21.37%) in the sample had reported at least one or two adverse events during past six months. This can be attributed to blame and shame culture, lack of knowledge on incident reporting mechanism, unavailability of incident reporting mechanism and lack of leadership commitment. This indicates that there may be unrecognized and unaddressed potential safety problems existing in the hospital. This was supported by previous studies (Suliman, 2015; Sorra et al., 2014). According to the survey data, both hospitals demonstrated the “Blame culture” of patient safety. Hence, these two hospitals are still climbing in between the “Pathological” and “Reactive” stages of patient safety ladder.

Among the dimensions, perception on patient safety scored the highest positive value (58.5%) in the study population. This was in contrast to the study done by Amarapathy et al., (2013) where the perception on patient safety scored 81.3% of mean positive response rate. According to Stock, McFadden, and Gowen (2010) health care personnel’s perceptions on patient safety culture go hand in hand with the improvement in quality of care. Most of the Sri Lankan hospitals irrespective of the level of the institution are concerned with quality initiatives. Good patient safety practices and procedures, adverse events or error preventing mechanisms and free or minimal patient safety issues are included in the domain of perception on patient safety dimension. Health care staff may be aware of the incidents happened in the hospital though it was underreported. On the other hand, staff might answer the questionnaire in a way to protect themselves setting bad reputation.

According to the AHRQ (2012) data, the mean positive response rate for frequency of incident reporting was 59 percent. In contrast the results of AHRQ, showed it as 0.23 percent which was very low. The study done by Amarapathy et al., (2013) showed the mean positive response rate for frequency of incident reporting as 36.3 percent in Sri Lanka. Hence this study was not in line with the study done by Amarapathy et al., (2013). These results may be supported by partial existence of no blame culture in those hospitals. Hence, underreporting of adverse events to greater extent may be supported by strong blame culture in the hospital and lack of leadership commitment towards it. There was a big gap in frequency of incident reporting seen in the study. This may be due to various factors. It could be due to unavailability of a proper incident reporting mechanism or lack of confidential and continent system.

The positive response rate for “organizational learning” was 22.9 percent. It was 82.5 percent in the study done by Amarapathy et al., (2013). Mean positive score of 44 percent was reported by Falco (2013) and the findings of this study related to organizational learning was fairly less compared to the other studies. The relatively low figure indicates that learning from the errors or events may not take place as such. This could be due to not analyzing the events regularly and properly. This was supported by

underreporting of adverse events. Hence there may not be an opportunity to learn from mistakes.

This study found that mean positive response rate for team work was 21.5 percent. Armellino, Griffin and Fitzpatrick (2010) found it as 74.4 and 42.35 percent respectively for team work within units and team work across the units. In 2013, Amarapathy et al., found that mean positive responses for teamwork within units and across units of a Tertiary care hospital were 84.8 and 65.9 percent respectively. This could be due to establishment of learning culture and continuous improvement in tertiary care hospitals than whether it is a rural or base hospital.

Effective communication keeps the health care workers in touch with patients and helps to prevent adverse events. Hence there should be a good link between sender and the receiver of the message. This study reported that the mean positive response rate was 27.6 for the dimension of communication. It was in line with the results of the study done by Falco in Southern Nevada in 2013. However, it was fairly low when compared to the findings of the study (62.1%) done at Sri Jayawardanapura Hospital, Sri Lanka by Amarapathy et al, (2013). The low figure of the current study may be due to lack of facilities, lack of new technological advancements, lack of training, unavailability of awareness programmes, unavailability of feed back mechanism, hierarchichal decision making, non-responsiveness of higher authority to reporting, attitudes and beliefs of health care staff that they do not make mistakes and lack of leadership support towards patient safety culture.

Except frequency of incident reporting, all the other dimensions showed moderate positive linear relationship. However, frequency of incident reporting showed weak linear positive relationship (0.259, $p < 0.01$) with patient safety culture. This was supported by the previous studies (Aboshaiqah, 2010; Barrow, 2012). Among the dimensions, communication had the greatest impact on patient safety culture in both hospitals. This was followed by organizational learning and continuous improvement. This highlights that communication and organizational learning are crucial to build and sustain a favorable patient safety culture in base hospitals in Sri Lanka.

CONCLUSION

Findings of the study revealed the need of having organizational level approach to enhance patient safety culture. Incident reporting mechanism has not been established well in hospitals. It seems to be a blame culture that has been established in hospitals. Blame culture may be a hindrance in reporting adverse events and hence it would affect the learning culture as well. Further, health care staff does not have learning opportunities to improve their knowledge and skills. Communication among the health care staff related to patient safety issues is not well established. Team work across the different units and within each unit cannot be seen as such. As there is a linear correlation between patient safety culture and dimensions of patient safety culture, fan attention should be made to improve the patient safety culture dimensions to create a favorable patient safety culture in the Sri Lankan hospitals.

Further research is needed to investigate the factors affecting patient safety culture at the blunt end of health system and patients perspectives to enhance patient safety in Sri Lankan health settings.

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IMPACT OF BRAND EQUITY AS A MEDIATOR ON THE RELATIONSHIP BETWEEN PERCEIVED QUALITY OF CARE OF HOSPITALS AND PATIENT LOYALTY: THE CASE OF COLOMBO SOUTH TEACHING HOSPITAL

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Abstract

In the competitive health care Industry, the impact of Perceived quality of care on the attitudes and behavior of re-visit intention of the patients towards hospital is becoming an important issue. The aim of this study is to examine the relationship between Perceived quality of care and patient's loyalty and how does the brand equity affect the association of perceived quality towards patient's loyalty. Data was collected from 375 respondents from surgical and medical units of the CSTH, Kalubowilla. Results reveal that Perceived quality of service has positive effect on the patient's loyalty towards hospital and hospital brand equity plays mediating role in this association. Patients' loyalty mainly depends on the qualitative aspects of the service, not on the socio-economic factors of the patients. Results imply that perceived quality of the care received by the patients leads to build up brand equity towards hospital which in turn leads to patient's loyalty towards CSTH, Kalubowilla.

Keywords- Brand Equity, Perceived Quality, Patients' loyalty

INTRODUCTION

During the past few decades, customer satisfaction and service quality have become a major area of attention to practitioners and academic researchers. Both concepts have strong impact on business performance and customer behaviour. Service quality leads to higher profitability (Gundersen et al., 1996) and customer satisfaction (Oliver, 1997). The brand affection can also be observed in health care system. Some of the patients visit particular hospitals because of their mental image on that hospital and sometimes to consult a medical practitioner or because of a special facility which is available in that hospital. Organizations that are concerned about the health of the business have always placed importance on understanding the internal and external environment. The value of the organization is referred to as brand equity. Various researchers have identified many determinants or antecedents to brand equity. Aaker (1991) studied five factors; perceived quality, brand loyalty, brand affection, brand awareness and brand trust, that affect brand equity. It is the same in the health care market. When patients were having good perception regarding a particular hospital, patients tend to seek help from that particular hospital for their health problems. Even in the public-sector hospitals, if the hospital has a good brand equity the patients will tend to seek the treatment facilities from that hospital because of free health care and their unique selling propositions and competitive advantage over the other hospitals. CSTH has its own USP which attracts the patients from all over the country. This study makes efforts to explore brand equity components in the healthcare sector that can contribute to the development of brand loyalty of services. It primarily evaluates perceived service quality, brand loyalty and brand equity, the three significant components of brand loyalty of services.

and establishes their relationships with service brand loyalty in the healthcare sector of Sri Lanka.

Healthcare organizations in Sri Lanka are limited in their ability to increase brand loyalty, primarily because they are not legally permitted to run any commercial advertising. Branding healthcare services can provide a platform for consumers/patients to reduce the influence of credence properties (i.e. the property in which one cannot evaluate healthcare service even after consumption or purchase, for example, surgery performed on a patient) (Corbin et al., 2000). The brand equity concept can bring an advantage to the Sri Lankan healthcare market as Sri Lanka is enjoying the benefit of being one of the most preferred healthcare tourism destinations for patients from developing as well as developed countries (Thantry et al., 2006). This consequently will increase the value of medical tourism industry in the near future.

The Colombo South Teaching Hospital Kalubowila, is a well-known, well recognized and well established teaching hospital in the Colombo district. It has been gradually expanding its services and is currently a leading hospital with good hospitality and good quality of service among the government Hospitals of Sri Lanka. At the moment, it has bed capacity of 1100 and bed occupancy for the whole hospital is more than 90%. At any given time, more than 90% of the beds were occupied by the patients. Hospital is catering for a nearly one million population, from south up to Balapitiya and from east up to Awissawella and up Puttalam from North. In spite of routine patients, the hospital is catering for the entire country for the Gastro-Intestinal disease in which there is a core-competency. Because of the facilities and the brand image patients were by passing small and large hospitals and coming for the inward and OPD and clinic treatment to CSTH. The medical and surgical units were over-crowded and their bed occupancy is more than 150%. Even though patients were not having a bed they were very reluctant to go to other hospitals to take treatment. These facts were revealed by during the surveys, done bi-annually. So, this study is mainly focusing on the role of brand equity of CSTH to attract heavy loads of patients.

OBJECTIVES OF THE STUDY

The key objectives of the research are,

1. To explore the service quality perception of the CSTH patients has any influence on the patient's loyalty towards the CSTH.
2. To ascertain the patient's loyalty towards CSTH
3. To assess the brand equity of the CSTH
4. To explore the mediating effect of brand equity on patient's loyalty and perceived quality of care of CSTH.

LITERATURE REVIEW:

Patients Satisfaction

Patient satisfaction goals may not always align with responsible patient care (Rothberg et al., 2008). The commonly held perspective is that consumers will be pleased or satisfied with a service encounter if patient meets or surpasses their expectations. In healthcare marketing, this encounter may include before, during, or after consumption of

a medical service. A systematic review identified interpersonal interactions with providers as the key element of patient satisfaction, with waiting times and perception of technical skills as major factors.

Not receiving help when needed, poor explanations of medical problems, and lack of transparency over waiting times and test results will lead to unsatisfied customer if they were not fulfilled according to the customer need. In the public-sector hospitals' proper communication with the patients, responsiveness of the staff and empathy are the main neglect areas and due to these factors most of the patients are dissatisfied even though they receive a very high standard technical and skilled service. Customer satisfaction is defined as customers' needs and goals when a service is providing a pleasurable level of fulfillment and emotional response (Oliver, 1997). Customer satisfaction is an important factor to understand in order to satisfy customers with what they need and want. Fulfillment increases pleasure or reduces displeasure or anxiety. Fulfillment is determined by the customers' expectations. Moreover, if the perceived service performance does not meet customer expectations, the likely result is dissatisfaction (Churchill and Surprenant, 1982; Oliver, 1980; Yi, 1990). The level of satisfaction or dissatisfaction is reflected from perceptions and attitudes from previous service experiences, and may also influence repurchase intentions (McGuire, 1999). Customer satisfaction is rated highly as a strategic end in and of itself, as it affects customer retention and profits directly (Jones and Sasser, 1995; Reichheld, 1996). Customer satisfaction will affect future repeat purchase intentions and the customers will share their positive experiences with other consumers.

Service Quality and Customer Satisfaction

Evidence indicates that perceived quality is the most important factor influencing consumer satisfaction, which in turn, affects patients' intentions to use the products and services in the future (Zeithaml, 1988). Therefore, considering patients' perceptions of the quality of service is of critical importance. Although different attempts have been made to measure the quality of services, there is no one acceptable approach on how this concept should be measured. The SERVQUAL model to the measurement of service quality has attracted considerable attention in recent times. For hospitals, satisfied patients are important because they are more likely to keep using medical services, follow the prescribed treatment plan, and maintain the relationship with a specific health care provider, and recommend the hospital to others (Hekkert et al., 2009). Undoubtedly, patient's satisfaction is the passport to profitability in the hospital setting.

Patient Loyalty

Loyalty is a positive propensity for an organization or brand (Da Silva and Alwi, 2008). Several studies used re-visit intention as a surrogate for patient loyalty in the health care environment (Boshoff and Gray, 2004; Kim et al., 2008b). It is more important to view patient loyalty as a behavioural intention. Regardless of whether the discussion focuses on patient loyalty in the health care context or customer loyalty in the general service context, there is no question that the same benefits of customer loyalty apply to a hospital as they do to a bank or retail business. In fact, loyalty has been illustrated as the market place currency for the twenty-first century (Singh and Sirdeshmukh, 2000). Hence, patient loyalty acts as a competitive asset for the hospital (Wu, 2011).

In the Sri lankan context, literature cannot be traced from health care industry on patient's loyalty and its associated factors. One could observe that in public sector hospitals there is a group of patients who use to come to a particular hospital due to various reasons. But they are not proven with studies. Most of the time they come due to their perceived quality of care in previous occasions, aiming a particular specialist or to get best modern health care facilities available in the hospital, free of charge health service and the hospital reputation or brand image.

Brand

A name, term, sign, symbol, design, or a combination of these, that identifies the products or services of one seller or group of sellers and differentiates them from those of competitors (Philip Kotler, 2014). Brand means a combination of identification and differentiation that draw strong attention to the product for customers. The brand brings value to customers as well as companies. In customers' point of view, companies try to satisfy their customers by providing customers desired list of values, where value means benefit. On the other hand, when customers are satisfied by getting values from organizations, customers may provide value to organizations. Keller (1993) defined brand equity as any brand aspect within the consumer memory. Lee Wu (2011) found evidence that brand equity had both direct and indirect influences on patient loyalty. Brand equity was reported to impact patient loyalty directly or it may demonstrate an indirect route via brand image, then service quality, patient satisfaction, and finally patient loyalty (Sciulli, 2015).

Brand Equity

Brand equity is recognized as a key strategic business asset of a company in contemporary marketing theory and practice. Building strong brand equity is essential for differentiating a firm's offerings from its competing brands (Yoo et al., 2000). Brand perceptions are attributes in consumer memory that are linked to the brand name (Keller 1993). Gardner and Levy (1955) have researched on this which articulated that the brand was more than just the sum of the functional qualities it offered. Brand perception was also considered to be a key aspect of brand equity (Aaker 1991, 1996; Zeithaml, 1996). Service quality is defined as how well the service meets or exceeds the customer's expectations on a consistent basis (Parasuraman et al, 1985). In a separate study conducted in Australia by Gill and White (2009) it was concluded that perceived quality was a proven construct in the adoption of healthcare services.

Hospital and Brand Equity

At its core, brand equity in healthcare is the idea hospitals and health systems must build a strong brand and position it over time to survive and flourish in a changing healthcare landscape. Brand equity in healthcare is built through the continuous accumulation of thoughts, feelings, opinions, and behaviors regarding a hospital or health system based on the experience it provides to the customer. By its very nature, brand equity - whether positive or negative - is determined by the customer. Therefore, a brand is the customer experience it provides. Customers share their thoughts with family and friends and become shareholders in the brand through their positive or negative actions. They influence the value of the brand.

Brand equity is considered as the power of the brand that is built in the minds of the consumers on the basis of what they have learnt, seen, felt, and heard about the brand (Keller, 1998). Because brand equity in healthcare is everything you stand for, building positive, long-lasting equity must be the focal point and end game for your brand. Our brand can do things nothing else can. It can create influences across the organization and shape strategic initiatives through a consistent vision. It can engage all levels of leadership. It can protect against competitive and political forces. It can unite employees under one shared idea to deliver a great customer experience. It can spread your big idea to customers and potential customers throughout the marketplace. It can attract top talent and serve as a powerful negotiation tool. It can become leverage to acquire additional resources. It can do all this, because at its heart, and in the most difficult circumstances, the brand never takes its eye-off from the customer, the only reason any hospital or health system exists at all.

Service Quality

Perceived service quality is the consumers' overall perception about the quality/superiority of a particular product or service in comparison to other available service products. Aaker (1991) considers it as an intangible overall feeling about a brand that affects market share, price, and profitability. Since service quality provides a base for service differentiation for a company in terms of reliability, responsiveness, assurance, tangibility and empathy (Parasuraman et al., 1985), the real test for its success depends on the competent quality of services it provides to the consumers. To qualify this test and to contribute to brand equity, hospitals must provide "service plus" that is, a combination of high quality professional service and best patient care, quality services that can delight patients. This subsequently will enhance brand name and image of the hospital (Shanthi, 2006) and add to its brand value. Regarding assurance, it is important to assure patients that they will obtain their desired level and quality of services at the time they are admitted to the hospital. All medical staff have to demonstrate excellent professionalism, technical skills, efficacy, and courtesy in order to gain the patients' confidence in the hospital. On the issue of empathy, the medical staff should put emphasis on the performance of soft skills, such as providing individualized attention, understanding patients' needs, giving caring concerns and so on. On the aspect of responsiveness, being swift and responsive to patients' requests, and communicating with them openly are essential components of medical service delivery. Relating to reliability, the medical staff ought to put efforts into the correct and dependable performance of medical services, such as registration, therapy, aftercare, and follow-up for patients. With respect to tangibles, hospitals must strive to provide and maintain the cleanliness of environment, the neatness of buildings, the decoration of wards, and the appearance of medical staffs (Wu, 2011).

Although patient perception of the service quality level significantly influences the choice of hospital, it is not easy for a patient to understand the level of service quality provided due to a hospital being a complex area that is unique in all its characteristics and which involves many dimensions to evaluate service quality (Arasli et al., 2008; Hariharan et al., 2004; Hoel and Saether, 2003). For example, Eleuch (2011) highlighted that patients lack the knowledge and skill to properly judge medical service quality by looking at the technical aspects of services, such as surgeon's skills or practitioner's diagnostics. Patients are more adequately qualified to measure functional quality dimensions, such as lab cleanliness, than technical quality aspects (Bakar et al., 2008). In

this sense, patients' evaluation of the quality of hospital services refers to the interaction between patients and doctors, and this interaction will develop the confidence of the patients in the quality of the medical services provided by a hospital (Suki et al., 2011).

Development of Hypothesis

H1-Service quality positively influences patient's loyalty.

In a review of earlier studies, loyalty can be an outcome of customer satisfaction (Oliver, 1997; Lai et al., 2009). In the health care environment, a positive relationship has been noted between patient satisfaction and loyalty (Woodside et al., 1989; Fisk et al., 1990). Furthermore, Kim et al. (2008b) examined the correlation between patients' satisfaction and re-visit intention in a large-sized hospital, and found that the influence of patient satisfaction on re-visit intention is significant. Therefore, it is most likely that satisfied patients will be more loyal to their hospital.

H2- Brand equity positively influences patient loyalty.

Researchers have found that customer loyalty is an important source of competitive advantage of a business. A number of studies discussed how satisfaction, trust, commitment, service quality, involvement and other factors impact upon loyalty (Bove and Johnson 2006; Russell-Bennett, McColl-Kennedy and Coote 2007; Rauyran and Miller 2007; Hsu 2008; Kim, Yen, and Kim 2009). In this study brand consideration, brand preference, brand image, brand trust and patient satisfaction are considered as influencing variables on brand loyalty.

H3- Brand equity mediates the relationship between service quality and patient loyalty.

The loyal customers are always willing to revisit when they need care again. Some studies have shown that there is a strong association between loyalty and willingness to return (Lee 2005). When the need arises again for receiving treatment, the patients revisit the same hospital. Returning to the same hospital may be influenced by brand consideration, brand preference, brand image, brand trust, patient satisfaction and brand loyalty. Hence, the researcher made an attempt to find the most influential predictor variables on revisit intentions. It is a fact that the branded hospital has a unique character on its services. Patients have more choices, more information and higher expectations than ever before. Hence, their brand preference is selective demand. Obtaining and sustaining brand consideration and brand preference is an important step on the road to gaining brand loyalty. The relationship between brand consideration and patient loyalty is well documented in literature

CONCEPTUAL FRAMEWORK

In this study, Perceived quality of care was taken as the independent variable and Patient's loyalty as the dependent variable. Brand equity plays the role of mediating variable and there are sub domains for each of these variables and each sub-domain have several dimensions which were operationalize [fig-1] by the questions of the questionnaire.

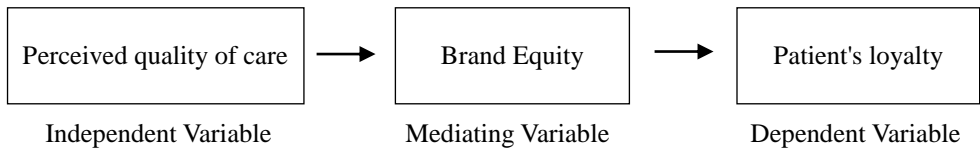


Fig-1: Conceptual Frame-work

METHODOLOGY

Study Design

A cross-sectional descriptive study was conducted between September and October 2016 in CSTH, Kalubowilla. Both qualitative and quantitative data was collected. The variables used in the study consist of brand equity, brand loyalty & perceived quality. Literature reveals that perceived quality includes phenomena such as responsiveness, tangibles, empathy & reliability which are mainly derived from the works of Parasuraman et al. (1985), Aaker (1991), Sohail (2003), Kim et al. (2003), and Thantry et al. (2006). To match the Sri Lankan scenario two dimensions – Patient safety and waiting time was included to get real out come of this study. From the perspective of service, brand loyalty is associated with service loyalty, purchase intention, which are the main components of brand loyalty drawn from the studies of Bloemer et al. (1999), Lassar et al. (1995), and Kim et al. (2003).

Population and Sample

The sample for this study was obtained from patients who are admitted to medical and surgical units of the CSTH during the study period. Patients were randomly selected from the admission register of patients during the study period. The study sample was selected from among all patients who were hospitalized as in-patients to Medical and Surgical units of the CSTH. 12 wards of the hospital were considered for investigation and the samples were divided among the 12 wards according to the casualty admissions.

Method of Data Collection

The interviewer-administrative questionnaires were delivered to selected patients by research assistants. The samples were selected randomly for each unit from the hospital admission register, and the questionnaires were given to them on the day of discharge. The aim of the study was explained to patients, and they were assured of the privacy of their information. The illiterate patients were interviewed by a trained interviewer. Patients who were transferred to NHSL and other tertiary care hospitals, patients who are critically ill and patients died after admissions were excluded due to ethical issues. The measurement of service quality used in this study was based upon a modification of the SERVQUAL instrument developed by Parasuraman et al. (1988). This cross-sectional study was conducted between August and September 2016 in CSTH, Kalubowilla.

Study Instrument

The research instrument used in the study was a questionnaire which composed of 2 parts: the first part includes questions relating to the socio- demographic data of the patient. In the second part, the SERVQUAL questionnaire [18], Sweeney and Soutar's

Scale, with some modifications that are suitable for hospital environment, was used for assessing the patients' expectations and perceptions of service quality.

DADA ANALYSIS AND FINDINGS

Below tables elaborate and describe the study data relevant to Independent, dependent and mediating variables and their sub domains and the dimensions of each sub domains. These descriptions mainly divided into three components- Perceived Quality of care, Patient Loyalty and Brand equity. Each of the tables was described relevant to the findings and interpretation was given whenever possible.

Table 1. Correlation among Variables

Parameters	Responsiveness	Empathy	Tangibility	Reliability	Patient safety	Waiting time	Patient loyalty	Brand equity
Responsive	1							
Empathy	.630**	1						
Tangibility	.232**	.294**	1					
Reliability	.375**	.472**	.362**	1				
Patients safety	.405**	.386**	.364**	.478**	1			
Waiting time	.243**	.260**	.176**	.310**	.351**	1		
Patient Loyalty	.325**	.383**	.265**	.297**	.294**	.278**	1	
Brand equity	.309**	.349**	.244**	.343**	.441**	.175**	.360**	1
Mean	4.26	4.19	3.21	4.26	4.11	4.04	3.86	4.14
Stand deviation	0.41	0.42	0.54	0.44	0.47	0.66	0.49	0.39

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

The above correlation matrix provides a summary of Independent, dependent and mediating variables relationship and significance of their relationship. It shows that all the variables are significantly correlated with each other because they are measuring the patient loyalty towards the hospital. All the variables in the perceived quality care have significant positive correlation among them as well as with the dependent and mediating variables.

Table 2- Result of Mediated Multiple Regression

Independent variable	Brand equity		Patient loyalty (dependent variable)			
	(Mediator)		Model - 1	Model - 2	Model - 3	Sobel test
			β -coefficient (p)	β -coefficient (p)	β -coefficient (p)	
			1 st equation	2 nd equation	3 rd equation	
Service quality	0.220 (<0.001) *	0.676 (<0.001) *	0.148 (<0.001)	6.42 (<0.001)		
Brand equity			0.457(<0.001)			

*Significant at <0.001 level

a = raw (unstandardized) regression coefficient for the association between service quality and mediator.

s_a = standard error of *a*.

b = raw coefficient for the association between the mediator and the dependent variable (when the service quality is also a predictor of the patient loyalty).

s_b = standard error of *b*.

The above table-3 shows the summary of statistical analysis of the third hypothesis and the relationship of the Independent, Mediating and Dependent variables. The test results revealed that the Sobel test is 6.42, with an associated *p*-value of *p*<0.001. The fact that the observed *p*-value fell below the established alpha level of .001 indicates that the association between the service quality and the patient loyalty is affected significantly by the inclusion of the mediator (in this case, brand equity) in the model. Table-3 shows that service quality beta value 0.220 declining to 0.148 after the effect of brand equity, reflecting the mediating effect of the brand equity. The Sobel test value of 6.42 indicates the effect of the service quality on the patient loyalty via the mediator variable. The beta value is reduced when the mediator variable [Brand Equity] affects the association between perceived quality care and the patient Loyalty. The beta value was reduced to 0.148 with perceived quality clearly showing the effect of the mediating role of the brand equity. So, it means that the conceptual frame work which was constructed is valid and factors which were taken into consideration are relevant to real hospital environment.

Table 3- Conclusion of the hypothesis in the Study.

Hypothesis	Relationship	F/ Sobel test value	p	Conclusion
H1	Service quality → brand equity	19.71	<0.001	Supported
H2	Brand equity → patient loyalty	55.61	<0.001	Supported
H3	Brand equity → service quality and patient loyalty	6.42	<0.001	Supported

Above table shows the summary of hypothesis and their relationship. Hypothesis 1 & 2 shows sobel test values of 19.71 & 55.61 respectively and third hypothesis showed the sobel test value of 6.42. All the hypothesis are having p value of <0.001 reflecting a significant relationship between the said variables. All the hypothesis tested were well supported by the statistical analysis of data and it shows that the hypothesis are true and their relationship is significant.

DISCUSSION

Service delivery is becoming increasingly a vital element of national economies, and it is crucial to appreciate the distinguishing qualities of services, as well as the resulting management implications, with specific focus on health care services. The recognition of the poor quality of healthcare delivery in developing countries (World Bank 2004) has led to the adoption of new effort to measure and monitor health care service quality.

Perceived Quality and its Dimensions

Perceived Quality attribute has six sub domains with 21 items. It consists of Responsiveness, Empathy, Tangibility, Reliability, Patient safety and Waiting time sub domains. Perceived Quality is a very subjective matter and it differs from one patient to another. It also depends on many Socio -Demographic factors because the aspirations of the patients differ with social levels and age levels. But in this study researcher observed that socio-demographic factors do not have a significant influence on the patients' visit and re-visit intention. One Interviewee told that "I came to this hospital because there is excellent surgeon [Name not mention here] one of the best ever I have found in this country and I want to get his service because he explained to me everything about the surgery and the consequence after the surgery several times, which is an excellent care in my opinion". This is a real example of patient's expression on perceived quality of care from CSTH. It may be person centered and sometimes centered around the hospital as a whole. According to the findings perceived quality mean value for overall quality is 3.97 which is almost near to 4 indicating that patients were feel good at the care they received by the CSTH.

According to Parasuraman et al. (1998), responsiveness is the employees' expressed willingness to help customers and provide quick service. In this study under the responsiveness 7 items were questioned and the average mean of 4.26 with SD of 0.41 is a very good response from respondents. Among the items lowest mean was recorded to the response time of the staff which is less than average mean but more than 4.00, which has to be investigated separately in future. According to Conway and Willcocks (2000), Rivers and Glover (2008), there is a growing acceptance that marketing principles, and more specifically the application of the marketing perspective is an accepted way to approach healthcare. This is supported by Kotler and Armstrong (2010). Hence, service providers can use atmospherics to increase the satisfaction, loyalty, image of the hospital and WOM recommendations to customers (Swan, Richardson & Hutton, 2003). According to Boshoff and Du Plessis (2009:248-249), study done in South African Public Hospitals physical environment in which the service is delivered such as building, internal environment, parking facilities, availability of equipments, cleanliness and staff attire are some factors which directly affect the patients' perception on the quality of the service of the hospital.

Patients' safety by definition is the prevention of errors and adverse effects to patients associated with Health care (WHO). Hospitals should be safe places for patients and most of the time due to error or a negligence of a staff member patients will suffer mentally and physically and which cause a huge negative impact on the health care institutions. Health care organizations should be highly reliable organisations (HRO). In this study 95 % respondents agreed with the questions that were directed to them and it has a mean of 4.26 with SD 0.44. Patients safety and reliability goes in hand in hand. Improving patient's safety in hospitals contribute to high reliability of the organization. Waiting time of a hospital is very important in patient's perspective. More is the waiting time, lower the level of satisfaction of the service. In this study researcher intended to measure the waiting time from the admission room to until the ward doctor examines the patients. This is a very subjective question and when the interviewer questioned the respondent regarding the waiting time patients had to recapitulate everything which would be not 100% accurate.

According to the above discussion and the facts were elaborated, in this study the main objective is to investigate the effect of perceived quality of care on patient's loyalty at CSTH, Kalubowilla. It clearly shows that perceived quality of care has a positive effect on patient's loyalty towards CSTH, Kalubowilla. It was proven statistically as well as through narratives as mentioned in this text. It also revealed that the perceptions of the patients seeking treatment from CSTH regarding the quality of service provided by the hospital and service quality perception of the CSTH patients has significant influence on the patient's loyalty towards the CSTH.

Brand Equity and its Effect on Patient's Loyalty and Perceived Quality of Care

Affective commitment is an emotional part of the Brand Equity. Advocacy in the form of word-of-mouth communication can be the most influential source of information for the purchase of some product or services because it is perceived as originating from a less biased, more trustworthy source, which lessen the patents anxiety (Herr et al.,1991). One patient who was admitted with fever went to septic shock and recovered fully after ICU care came to me and said "Dr, I want to give a donation to this hospital because the staff of the ward and ICU saved my life. I got the world best care during my hospital stay at CSTH and I am going to recommend all my relatives to come to this hospital in future". This patient now became an "evangelist" to CSTH, Kalubowilla and his positive WOM will be a positive endorsement for the hospital. Nearly 90% of the respondents agreed, that they were emotionally attached to this hospital and it will clearly reflect the patient's loyalty and which is one attribute of the research problem. Brand attitude of the respondents towards CSTH, Kalubowilla was measured by Likert scale & all four items were having an average mean of 4.22 with SD of 0.45. Patients who were interviewed by the researcher express his view as "I am sick of getting treatment from public hospitals because of the delays and attitudes of the staff, but one day I have to rush to the ETU of CSTH with a chest pain. What I can say is [CSTH, Kalubowilla] Hospital gave me an excellent care and saved my life. Now I will never ever go to a private hospital and I always come to this hospital as long as I live". After such experience, patient only had positive attitudes about hospital and he indicate that, if he needs immediate attention again he will select CSTH without any hesitation.

In this study researcher investigated the brand equity with reference to the public-sector hospital. This will be the first study of this nature. CSTH, Kalubowilla has its unique selling propositions and core competencies to be different from its competitors. That is the reason patients by pass other hospitals and come to this hospital to get treatment. In this regard brand awareness, plays a major role. There was consensus among the respondents that, the display of customer-oriented behavior by the employees of the hospital – from OPD staff to Ward Doctors, Nurses, Attendants, Laborer was an essential trust building factors of the CSTH, Kalubowilla. One respondent expressed it very clearly saying that “I do want someone able to administer Intra-venous drugs with minimal pain, if with a smile even better.” This expresses that patients expect both medication and care from the hospital staff.

The Brand prestige and brand trust go hand in hand. Patients attitude towards the hospital or Brand of CSTH, is a subjective assessment of quality, level of prestige imbued by the CSTH, customer-oriented behavior of the employees of the CSTH can all lead to build the trust in the patients towards CSTH, Kalubowilla. In this study, it clearly shows that patients have very good trust in the hospital, which explained by the mean value of 4.20 with SD 0.41. The above discussion revealed that the brand equity has a mediating effect on the association of the perceived quality and the patient's loyalty. Brand attitude and trust and affective commitment are the main factors that patients were seeking in relation to health care facilities from CSTH, Kalubowilla.

Patients loyalty and its Relationship with Brand Equity and Perceived Quality

Loyalty is a positive propensity for an organization or brand (Da Silva and Alwi,2008). In general, loyalty has been considered in various ways, such as positive WOM, repurchase intention and so on. Several studies used re-visit intention as a surrogate for patient loyalty in the health care environment (Boshoff and Gray,2004; Kim et al., 2008b). In this study patient loyalty was measured by seven items and total alpha scale is 0.806 which depicts the greater consistency of the patient loyalty dimensions and dimensions 4,5 & 6 mean value is less than 4. Lowest value is recorded in item 7, that is future visits and intention to switch to another hospital, which is 2.84 with a SD of 1.84. It is a very subjective question and respondents were not able to give a definitive answer at once, and they resort to the neutral position. Patients loyalty is greatly influenced by the perceived quality of care by the patients and the affective commitment, brand trust and attitude of brand equity play significant positive effect on patient's loyalty towards CSTH, Kalubowilla. Finally, health care is a very intimate and personalizes service experience. Narratives from individuals interviewed for this research underscore the importance of connecting with consumers and this can create strong brand relationships.

Managerial Implications

This study focuses on frame work of perceived service quality and its relationship with patients loyalty and mediating effect of the brand equity on the relationship of perceived quality and patients loyalty. The study findings revealed certain significant outcomes relating to patient loyalty and perceived quality. Patient loyalty is linked with the dimensions associated with positive perception. That is one reason to seek treatment from CSTH, Kalubowilla by passing other hospitals. High and positive perception towards hospital by the patient's points out their preference to avail same or different treatment from this hospital. Perceived service quality is the main attribute to

seek treatment from the Hospital. Overall quality alpha: 0.858 indicates that the factors which were assessed are reliable and significant. In perceived quality variable, reliability, tangibility and patient safety domains have low alpha value than 0.8, which indicates that hospital management should focus on strengthening those attributes in future. Findings reflect that brand equity has a mediating role, with mean 4.09 and SD of 0.31. The Sobel test value 6.42 indicates that the association of perceived quality and patient's loyalty significantly affected by the inclusion of mediator. All the hypothesis H1, H2 & H3 were well supported by the statistically and it means that they were true and the association is significant. Socio- Demographic factors were not significantly associated with the patient loyalty and it means that they come to the hospital due to the perceived quality of care and factors associated with brand equity.

The study concludes that Perceived quality of care and Brand Equity plays are two major components that contribute to the development of Patient Loyalty in Health Care Institutions. Finally, Consumer sensitivity and emotional response play a major role in healthcare where trust and caregiving must co-exist. Emotions are inherent in the type of buying decisions that individuals make for their family and themselves in the healthcare marketplace. Thus, effective marketing for health care organizations should consider consumer or patient's emotions. Emotions were very difficult to assess and after the assessment, quantification is very difficult especially in patients because they were not very strong mentally due to the illness. This study shows that the policy makers should address the issues pertaining to the emotional aspects of the patients while they were planning and soft skills of the staff is more important when we consider the emotional aspect of the patients, the manner the patients are being addressed, attending to their grievances and attitudes of the staff members were very important. The public hospitals should start programmes to develop soft skills of the staff and attitudinal changing programmes to think more positively to improve the service quality of the patients care services.

LIMITATIONS AND FUTURE RESEARCH

As with many studies, the research was conducted amidst with certain limitations. Due to the limitation in time and the scope of study, researcher analyzed only three components – perceived quality, brand equity and patient loyalty. There are other attributes which were linked with patient's loyalty such as brand image, customer value, customer satisfaction, corporate social responsibility and medical quality etc and should be analyzed more explicitly to assess total scenario of the patients loyalty. This study was conducted only in surgical and medical units due to time limitations and future research could be carried out in OPD, as well as in all the other wards to get the real picture of the patient's loyalty at CSTH, Kalubowilla. Admissions to the hospital vary with the time of the year due to several factors which were not discussed in this study, due to the fact that researcher adopted cross-sectional study, and the study was carried out in a short time period. To overcome this, future studies can be done as a longitudinal study to spread out the data collection throughout the year. The some of the sub domains discuss here can be the main subject area to future researches- e.g. Patients safety itself is a main factor with lot of contributing factors to it and directly related to the patient's disease outcome and patient's satisfaction outcome which has a direct impact on the Hospital brand equity and Brand Image.

Health care is a service that most consumers will have to enlist at some point in their lives. It is very personal service experience where relationship building is important. As the landscape for healthcare services undergoes significant changes in Sri Lanka, research opportunities abound for exploring effective marketing and branding strategies for public healthcare providers.

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ISSN 2513-2377

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