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## **Do the effective board and the audit committee influence the earnings management?**

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### **Abstract**

*This study investigates whether the corporate governance mechanism has a relationship with earnings management of the listed firms in Sri Lanka. In particular, board size, board independence, CEO duality, audit committee size and audit committee independence represent the corporate governance mechanisms. In addition, three control variables have been employed in this study; firm size, firm growth and financial leverage. Data were obtained using content analysis on the annual reports of top 60 non-financial firms listed in the Colombo Stock Exchange. The earnings management is measured by the discretionary accruals based on the Modified Jones Model. The result of this study reveals that the CEO duality is the only one variable which has a significant negative relationship with earnings management. Therefore, the findings show that the CEO duality can provide effective monitoring on earnings management in Sri Lanka. But board size, board independence, and audit committee size and audit committee independence have insignificant relationship with earnings management in Sri Lankan firms. However, there is significant relationship between earnings management and leverage and firm growth. According to these findings, improving good governance and CEO Duality is important to avoid earnings management in Sri Lankan firms.*

**Keywords:** *Audit committee, Board size, Corporate governance, Earnings management*

### **1. Introduction**

In current business structure, it is necessary to separate ownership from management and any effective supervisory mechanism on management. Therefore, such organizations increase probability of inefficient allocation of resource, expand organization problems, lead to issue misleading financial reports and lead managers to manipulate earnings in

order to maximize their own interest. Therefore, there has been a movement towards developing and implementing some mechanisms to struggle against the opportunistic behaviors that provide reliable financial information. In accounting and financial practices, the manipulation is called earning management. Nature of earnings management provides the opportunity to managers to manipulate the financial information of the firm in order to get their own benefit and to protect the rights of the stakeholders. Therefore, organizations have to develop an effective mechanism to control the asymmetry of financial information. In recent years, the wide consideration given to corporate governance issues suggests that stronger governance mechanisms would reduce opportunistic management behaviors, thus improving the quality and reliability of earnings management. Corporate governance is also likely to improve investors' perception of the reliability of firm's performance as measured by the earnings, in situation of earnings management. Therefore, the corporate governance value is relevant when earnings management exists.

### **1.1 Background of the study**

Financial reports are the most important output of an accounting system. The objective of financial reporting is to provide the information to interested parties to get their business decisions. The financial information is the first source of independent and true communication about the performance of company managers (Sloan, 2001). The integrity of financial reporting is highly dependent on the performance and conduct of those involved in the financial reporting systems, particularly directors, management and auditors (Mohd, Rahaman & Mahenthiran, 2008). The most significant accounting item presented in financial reports is the earnings which are considered as a key factor in determining the dividend policy, a guideline for investment and decision making, a core measure of a firm's performance, an effective criterion in the stock pricing and eventually an instrument utilized to make predictions (Mohammady, 2012).

Earning management can be defined as the adjustment of a firm's reported performance either to mislead some stakeholders or to influence contractual outcomes. On the other hand the act of managing earnings does not necessarily reflect the true performance of the organization, a situation that may contribute to shareholders and investors making inaccurate judgments about the company. Earnings management is more informative and trustworthy if they are followed by a good governing system.

Corporate governance is defined as the system by which corporations are directed and controlled (Cadbury, 1992). The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation such as the board, auditors, manager, shareholders and other stakeholders and includes the rules and procedures for making decision on corporate affairs. One of the most important of these devices is board of directors and audit committee. In fact, the board of directors and auditors are an important internal control mechanism designed to monitor the action of top management and monitoring the quality of the information contained in financial reports.

Specifically, the primary purpose of this study is to review the result of empirical studies of relationship between effective board and audit committee in respect of constraining earnings management. It has been argued that the firms with effective board and audit committee increase the credibility of the financial reports, the firm's value and are able to safeguard them from damaging their reputations and legal exposure, all of which promotes the shareholders' interests (Carcello & Neal, 2002). When market participants lack the ability to directly observe the reported earnings, they may expect the managers of the company in a powerful monitoring environment to engage less in earnings management. Therefore, the present study further argues that the firms that have strong monitoring mechanisms through effective board of directors and audit committee have a greater ability to constrain opportunistic earnings, hence reducing uncertainty in the reported earnings. The major focus of the study is to get an understanding that the presence of corporate governance mechanism is effective in controlling the earnings management nature in the Sri Lanka listed companies.

The most significant accounting item presented in financial reports is the earnings which are considered as a key factor in determining the dividend policy, a guideline for investment and decision making, a core measure of a firm's performance, an effective criterion in the stock pricing and eventually an instrument utilized to make predictions.

By the evolution of today's modern business, many of the corporations have become owned and controlled by the management which involves delegating some decision making authority. Shareholders willingly entrust their resources with managers on the assurance that the managers will exercise their rights appropriately to increase shareholders' wealth and not misappropriate the shareholders assets. However, managerial discretion can also be used to engage in earnings management to hide poor performance or to overdraw good performance for their own benefits. In consequence, a strong corporate governance mechanism is employed to reduce the agency cost. The role of corporate governance is to reduce the divergence of interests between shareholders and managers (Solabomi & Uwuigbe, 2013). It is one of the most important determinants in ensuring the quality of the financial reporting process. The board of directors and audit committee are the two important and fundamental elements in corporate governance mechanism to enhance the quality of the financial statement and leads to restriction of the different practices of the earnings management phenomenon.

Board of directors is selected by common shareholders to manage the firm on behalf of these shareholders. In other words, the board represents all shareholders in managing the firm. It sets the strategies, policies, plans, and procedures, which are supposed to ensure the best possible manner of management, to manage the earnings of the corporation.

Therefore, there is some relationship between board and audit committee characteristics and earnings management. When considering the Sri Lankan context no researches can be seen in relation to the earnings management practices in Sri Lanka. To fulfill that research gap, this research is based on "Board and audit committee characteristics and earnings management". The problem statement to be analyzed in this study is, "Do the effective board and the audit committee influence the earnings management?"

## **1.2 Research questions**

- To what extent does board size affect earnings management?
- Does the number of independent directors have any relationship with earning management?
- What impact does CEO duality have on earnings management?
- What is the relationship between audit committee size and earnings management?
- Is there any relationship between audit committee independence and earnings management?

## **1.3 Research objectives**

The main objective of this research is to investigate the influence of board and audit committee characteristics on earnings management.

Sub objectives are;

- To examine the relationship between independent directors and earnings management.
- To examine the impact of CEO duality on earnings management.
- To investigate the relationship between board size and earnings management.
- To investigate the relationship between audit committee size and earnings management.
- To examine the impact of audit committee independence on earnings management.

## **2. Literature review and hypotheses**

Prior research in accounting literatures has looked at the relationship between different corporate governance variables and earnings management, the vast majority of these prior literatures have basically focused on the board of directors' characteristics and audit committee characteristics as proxy for corporate governance variables. These variables are: size of the board, board independence, CEO duality, audit committee size and audit committee independence.

Different scholars have concluded different ideas regarding board size and earnings management as they have used different kind of samples to test. And also different kinds of tools are used to measure their variables. Basically previous researchers have identified negative relationship between board size and earnings management (Mohamed & Aiman, 2013; Xie, Davidson & DaDalt, 2003) and others positive relationship between earnings management and board size (Leila & Naser, 2011). Therefore, it can be hypothesized that;

Hypothesis 01: There is a significant relationship between board size and earnings management.

Previous studies show conflicting result of relationship between board independence and earnings management. Hashim and Devi (2008) find out positive significant relationship between board independence and earnings management. Peasnell, Pope and Young (2000) find evidence of a significant negative relationship between earnings management and the proportion of non-executive board members. Then, it can be hypothesized that:

Hypothesis 02: There is a significant relationship between earnings management and board independence.

Further, another important characteristic of board is CEO Duality. Gulzer and Wang (2011) state that, "in CEO duality, the CEO of the firm wears two hats, a chairperson of the board of director hat and a CEO hat." Klein (2002) conducted a research and indicates that discretionary accrual is positively related to the CEO duality. Murhadi (2009) investigated the role of good corporate governance in reducing earnings management. His findings indicate that a higher rate of duality is associated with high earnings management practices. Core, Holthausen and Larcker (1999) find out that CEO compensation is lower when the CEO and board chair positions are separate. Thus, Hypothesis is developed as follows:

Hypothesis 03: There is a significant relationship between earnings management and role duality.

The size of audit committee is referred to as the number of directors appointed to be members in the audit committee, in this regard there could be small, medium and large audit committees. Yang and Krishnan (2005) found that quarterly earnings management is lower for the firms that have large size of audit committee. A negative significant relationship was found between the size of audit committee and earnings management practices for banking companies in Indonesia and positive relationship was found in China according to the findings of Euphrasia and Dini (2013). Thus the following hypothesis is proposed:

Hypothesis 04: There is a significant relationship between audit committee size and earnings management.

It is generally believed that an independent audit committee provides effective monitoring of the financial discretion of management and in ensuring the credibility of the financial statements. Klein (2002) has found a negative link between discretionary accruals and the audit committee independence. According to Piot and Janin (2007), through this empirical evidence, a significant negative association between independence audit committee and earnings management can be predicted. Therefore:

Hypothesis 05: There is a significant relationship between the independent audit committee and earnings management.

### **3. Research methodology**

The population of this study comprises only non-financial firms listed on the CSE due to difference of governance mechanism in the banking and insurance sector other than the

non-financial sector. After excluding companies from finance industries and companies in which information was insufficient, the final sample was selected of top 60 non-financial public listed companies in Sri Lanka based on their market capitalization. Financial year 2016/2017 was selected as the sample period for this study. Because these annual reports were the latest and available and also corporate governance practices were recently effective in those years, since the corporate governance code was introduced in year 2013.

Based on the prior literature, it was observed that most powerful and frequently used model for evaluating accruals is modified Jones's model (Jones, 1991; Dechow *et al.* 1995). In this model discretionary accruals (abnormal accruals) were used as proxy for earnings management. Therefore, this study also used this model to measure the earnings management. Discretionary accruals in this study have computed by using the following procedures. First of all total accruals should be calculated.

$$TA_{it} = NI_{it} - CFO_{it}$$

Where:

$TA_{it}$  is total accruals for company  $i$  in year  $t$

$NI_{it}$  is Net Income or Earnings before extraordinary items for company  $i$  in year  $t$

$CFO_{it}$  is Cash Flow from Operating activities for company  $i$  in year  $t$

Then total accruals ( $TA_{it}$ ) are regressed against its components (i.e. change in revenue and receivable and property, plant and equipment) using the modified Jones model to obtain parameter estimates. It can be calculated using the following model.

$$\frac{TA_{it}}{A_{t-1}} = \beta_1 \left( \frac{1}{A_{t-1}} \right) + \beta_2 \left( \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \beta_3 \left( \frac{PPE_t}{A_{t-1}} \right) + \epsilon_{it}$$

Thirdly, Non-discretionary accruals should be calculated. Coefficient estimates of  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  obtained from the above regression model are then used to calculate Non-discretionary accruals. The residual which represents the firm specific discretionary accruals portion of total accruals in above equation. Non-discretionary accruals reflect the non-manipulated accounting accrual items because they are out of managers' control. It can be calculated using the following equation.

$$NDA_{it} = \beta_1 \left( \frac{1}{A_{t-1}} \right) + \beta_2 \left( \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \beta_3 \left( \frac{PPE_t}{A_{t-1}} \right)$$

Where:

$NDA_{it}$  is Non-Discretionary Accruals

$A_{t-1}$  is Total Assets at the end of year  $t-1$

$\Delta REV_t$  is Revenues in year  $t$  less revenue in year  $t-1$

$\Delta REC_t$  is Net receivables in year  $t$  less net receivable in year  $t-1$

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$PPE_t$  is Gross property plant and equipment at the end of year  $t$

$\beta_1, \beta_2, \beta_3$  is Firm specific parameters

Finally discretionary accruals have been calculated as a proxy for earnings management. It can be calculated using the following equation.

$$DA_t = TA_t - NDA_t$$

Where:

$DA_t$  is Discretionary accruals in year  $t$

The following table shows the summary of operationalization of each variable.

Table 1

Summary of the operationalization of variables

Test Variable	Abbreviation	Measurement
<b>Dependent Variable</b>		
Discretionary Accrual	DA	Discretionary Accruals are calculated by the Modified Jones Model
<b>Independent Variables</b>		
Board Size	BSIZ	Measured as total number of directors in the board
Board Independence	BIND	Measured by % of non-executive directors in the board
CEO Duality	DUA	Coded 1 if the firm has a CEO who is also serving as the chairman, 0 otherwise.
Audit Committee Size	ACS	Measured by % of non-executive directors in the board
Audit Committee Independence	ACI	Measured by % of audit committee members
<b>Control Variables</b>		
Return on Assets	ROA	Ratio of total debt to total assets
Leverage	LEV	Net Income before Extraordinary Items scaled by lagged total assets
Firm Size	FS	Natural Logarithm of Total Assets

#### 4. Results and discussion

A summary of the descriptive statistics is presented in Table 2.

Table 2  
Descriptive statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
DA	-.1878	.5376	.007760	.1089867
BSIZ	5	14	8.18	1.882
BIND	.25	1.00	.6429	.21640
DUA	0	1	.17	.376
ACS	.25	1.00	.6392	.22091
ACI	.33	1.00	.7847	.19840
ROA	-.11	.56	.1072	.12598
LEV	.00	4.97	.2190	.64536
FS	13.21	18.55	16.1512	.91923
Valid N = 60				

The magnitude of the discretionary accruals of the companies in the sample has a mean value of 0.007760 of total assets with the minimum value of -0.1878 and maximum value of 0.5376. It means that managers of firms tend to manage firm's earnings. Table 2 also indicates that the mean size of board in Sri Lankan firms is between eight and nine members with a minimum value of 5 to a maximum value of 14. In addition, the proportion of independent members on board is 64 percent of average of non-executive directors included in the board. So, selected sample firms in Sri Lanka tend to include more independent directors in their board. CEO duality is 17 percent of chairman of the board and general manager is the same person in the 60 sample companies. The mean size of the audit committee in Sri Lankan firms is 0.63 with minimum value 0.25 to maximum value of 1.00. It indicates that the proportion of audit committee members is 63 percent of non-executive directors. In addition, the proportion of independent members in audit committee is 78 percent of directors included in the audit committee. So, firms tend to include more independent directors in their audit committee.

Table 3 shows the multiple regression model results and model summary in order to measure the explanatory power of corporate governance variables (independent variables) against discretionary accruals (dependent variable).

Based on the findings,  $R^2$  is 0.399 which reveals that about 39 percent of the variance in absolute Discretionary Accruals (DA), a measure of earnings management, has been significantly explained by the independent variables of BSIZ, BIND, DUA, ACS and ACI and also control variable of ROA, LEV and FS in the model. Thereby, it can be noted that the fitness of built model is relatively good. The remaining 61 percent of  $R^2$  indicate there may be other corporate governance variables that are important in effecting earnings management that have not been considered in the study.

Table 3 shows the results of the regression analysis such as coefficients and p values of BSIZ, BIND, DUA, ACS, ACI, ROA, LEV and FS in model.

Table 3  
Coefficients of the regression analysis & model summary

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
DA	.257	.238		1.080	.285
BSIZ	.004	.007	.065	.555	.581
BIND	.076	.078	.151	.979	.332
DUA	-.069	.033	-.239	-2.132	.038
ACS	-.008	.072	-.016	-.108	.914
ACI	-.069	.064	-.126	-1.088	.282
ROA	.461	.108	.533	4.267	.000
LEV	-.080	.020	-.472	-3.979	.000
FS	-.018	.014	-.152	-1.290	.203
Model summary					
	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.63 <sup>a</sup>	.399	.304	.0908951	

a. Predictors: (Constant), FS, ACS, ACI, DUA, LEV, BSIZ, ROA, BIND

Table 3 shows that there is a significant negative relationship between CEO duality and the DA because there is a negative beta value (-.239) with significant p value of 038. And also this model shows a significant positive relationship between ROA and DA. This indicates that sample firms with strong performance are more likely to manage discretionary accruals. In the context of this study it has been found out there is negative highly significant relationship between leverage and discretionary accruals. It is obtained that highly leverage companies are less involved in earnings management.

## 5. Conclusion

This study investigates whether corporate governance mechanisms have an impact on the magnitude of earnings management among Sri Lankan firms. In particular, the study focuses on the size of the board, the proportion of independent directors in the board and CEO duality as the board characteristics, while audit committee size and audit committee independence represent the audit committee characteristics and attempt to assess whether these factors affect the earnings management practices in Sri Lankan context.

Earnings management of Sri Lankan listed companies is insignificant positively correlated to board size, that is, a smaller board is more efficient, because communication and coordination between board members is more convenient and more effective to influence on earnings management.

Earnings management of Sri Lankan firms has a positive relationship with board independence but insignificant. The more independent directors are in the board, the higher the earnings management is, because the independent directors are more inefficient in their functions. So the independent director in the board of Sri Lanka has not been effective in monitoring earnings management.

Earnings management has a significant negative relationship with the CEO Duality. It indicates that the CEO duality will reduce the level of earnings management of Sri Lankan listed firms because chairman is selected by all of shareholders to monitor the firm on behalf of them. In here the chairman is also the CEO who can effectively monitor the firm to ensure the interest of shareholders. Therefore, the higher CEO duality reduces the earnings management.

The initial findings of this study showed an insignificant negative relationship between earnings management and both audit committee size and audit committee independence.

In Sri Lankan firm size has negative impact on earnings management. It indicates that large firms have attracted directors with superior expertise and experience to manage the firm. Therefore, their level of earnings management is lower than small firms. There is a significant positive relationship between firm growth and earnings management in Sri Lankan firms. It indicates that high growth companies have more incentives for earnings management. Firm leverage is significantly negatively associated with earnings management, meaning that high leveraged firms do not lead managers to manage earnings. Therefore, the leverage and growth of firms are important significant determinants of earnings management in Sri Lankan firms.

This study is however limited to the sample and covers only one year data from the Colombo Stock Exchange. Also, only five corporate governance variables were considered in this study. However, future research could consider other corporate governance variables which are not considered in this study such as board ownership, board remuneration and audit committee meeting to enhance evidence on the association between the corporate governance mechanism and the earnings management.

Finally, future research can analyze the effect of corporate governance characteristics on earnings management and its relationship with firm value. It is important for potential investor to know the significant determinants of earnings management and their consequences on firm value.

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## **An assessment of accounting knowledge of undergraduates of management faculties in Sri Lankan universities**

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### **Abstract**

*This paper investigates the level of accounting knowledge of under graduate students of management faculties. In this study accounting knowledge refers accounting principles, accounting concepts, accounting standards, accounting methods, accounting practices, and accounting practice usage. Company Act no 07 of 2007 requires the legitimate requirement of the accounting function for the business in Sri Lanka. Data were collected from 597 undergraduates studying in five management faculties of newly established universities in Sri Lanka namely Rajarata University of Sri Lanka, Sabaragamuwa University of Sri Lanka, South Eastern University of Sri Lanka, Uwa Wellassa University and Wayamba University of Sri Lanka. Stratified sampling technique was adopted so that 45 percent from first year, 30 percent from second year and 25 percent from third year students are represented in the sample. Results indicate that the academic performances of the undergraduates have significant positive relationship with all the aspect of accounting knowledge. This indicates that Sri Lankan students graduated from management faculties are armed with accounting knowledge which is highly demanded by the field of management. Further, the results seem to suggest that accounting knowledge may be a factor in explaining the student academic performances in management faculties.*

**Keywords:** *Accounting knowledge, Accounting standard, Business function, Company Act, Graduates*

### **1. Introduction**

Few empirical researches exist regarding the accounting knowledge in management students. Accounting is a very important term to our modern society. It is a basic need of every business. None of the business organizations can operate without it. They are there somewhere in every business. Accounting information allows business owners and other interested parties to assess the efficiency and effectiveness of their business operations.

Prepared financial statements can be compared to industry requirements or to a leading competitor to determine how the business is conducted. However, the manager who is in complex economies and does not have the accounting knowledge could not be able give value addition to the business. Business owners and interested parties may also use financial accounting statements to assess trends for analyzing and forecasting future sales. When considering above factors it is easy to understand the importance of accounting knowledge to the business field (Perks, 1993). Therefore, as the resource persons who are going to step in to the business field, the students of management faculties should have a reasonable knowledge in accounting. Accounting knowledge in the field of management has included the theoretical or practical understanding of accounting principles (AP), accounting concepts (AC), accounting standards (AS), accounting methods (AM), Accounting Practices (AR), and Accounting Usage (AU). This sets the context for this study, by using above six concepts; it provides evidences of the effects of accounting knowledge on student performance in management faculties. The results found in the study reveal that the student with high accounting knowledge shows higher academic performance. This proves that management graduate in Sri Lanka is suitable enough with the business requirements and provides evidences that a graduate with accounting knowledge is essential for the success of businesses.

### **1.1. Problem and objectives**

Accounting plays an important role in today's competitive business world. It has become an essential function in a business. Students of management studies are willing to start their careers in the business field. Therefore, main research question in this study is what is the level of accounting knowledge of management graduates? In addition, following secondary questions are addressed. Do envisioned accounting knowledge show differences between various academic departments functioning under management faculties? Do students' accounting knowledge influence change on student overall performance? How are students' accounting knowledge differ across individual performance?

In designing this study, goal of the researcher was to identify the sub dimensions of fit and determines which of these have the most significant impact on student performance with the accounting knowledge. Further, it was examined whether particular fit dimension could be grouped in logical fashion.

## **2. Review of literature**

Initially, accounting existed in terms of relatively primitive recording and control devices which were used to satisfy the needs of unsophisticated trades and estate owners who were more concerned with keeping of what was owned and owed than with measuring income. Indeed without considerable modification, the ancient accounting systems would not have been capable of use in decision making. Nevertheless, when social and economic conditions were appropriate for the development of a system of accounting which provided not only for totals of what was owned and owed but also for calculating income and potential income, it was developed out of merchants' double entry bookkeeping. The

changed social and economic conditions engendered by the Industrial Revolution 1750 (Alan et al., 2007). The developments of modern accounting systems together with the greater opportunities for accountants in many different fields led eventually to aspirations to professional status (Heffer, 2009). Student those who follow the management course have just a basic accounting knowledge and skills to perform their complex tasks in turbulent business context. Therefore, they should gain a good knowledge in accounting principles, accounting concepts, accounting standards, accounting methods accounting practices and practical usage of accounting knowledge. The following section discusses those five accounting knowledge related dimensions.

**Accounting principles;** Accounting principles are set of rules, conventions, standards and procedures which are extremely accepted for reporting financial information. Among the accounting discipline accounting principles play a vital role. Without sufficient basic knowledge of accounting principles, students are unable to understand accounting subject. The first accounting principle is economic entity assumption for the accounting purpose, the business and the owner are considered as separate two parties. All the personal transactions of the owner should be kept separately from the business transactions. But for the legal purpose owner and the business is considered to be one entity. The second and important principle is going concern principle describes that a company will not liquidate in the foreseeable future and will have a perpetual existence. This accounting principle allows the company to defer some of its prepaid expenses until future accounting periods (Oldroyd, 1995).

**Accounting concepts;** Accounting concepts are a set of broad conventions that have been devised to provide a basic framework for financial reporting. As financial reporting involves significant professional judgments by accountants, these accounting concepts ensure that the users of financial information are not misled by the adoption of accounting policies and practices that go against the spirit of the accountancy profession. Accountants must therefore actively consider whether the accounting treatments adopted are consistent with the accounting concepts. In order to ensure application of the accounting concepts, major accounting standard-setting bodies have incorporated them into their reporting frameworks such as the International Accounting Standard setting Board (IASB) framework. One of the important concept is realization concept in accounting; this concept is also known as revenue recognition principle refers to the application of accrual concept towards the recognition of revenue. Under this concept, revenue is recognized by the seller when it is earned irrespective of whether cash from the transaction has been received or not. Concept of accounting is matching concept. It requires that expenses incurred by an organization must be charged to the income statement in the accounting period in which the revenue, to which those expenses relate, is earned. Prior to the application of the matching principle, expenses were charged to the income statement in the accounting period in which they were paid irrespective of whether they relate to the revenue earned during that period. Money measurement concept in accounting is important and this concept is called major concept in the field of accounting. This is also known as measurability concept and means that only transactions and events

that are capable of being measured in monetary terms are recognized in the financial statements. Deprived of this concept basic accounting is anxiety among the management discipline.

**Accounting standards;** Accounting standards work to improve the quality of the accountant works' and unify accounting information. Further, International Accounting Standards Board (IASB) identifies the four objectives such as to develop in the public interest a set of high quality, understandable and enforceable accounting standards that require high quality, transparent and comparable information in financial statements and other financial reporting to help users of the information to make economic decisions. To promote the use and rigorous application of those standards, to take account of, as appropriate, the special needs of small and medium-sized entities, and to bring about convergence of Sri Lanka Accounting Standards (LKAS) and International Financial Reporting Standards (IFRSs) to produce high quality solutions. Sri Lanka Accounting and Auditing Standards Act, No. 15 of 1995 authorises the IAS to issue Sri Lanka Accounting Standards and requires "specified business enterprises" to prepare and present their financial statements in compliance with LKAS.

**Accounting method;** Accounting methods refer to the basic rules and guidelines under which businesses keep their financial records and prepare their final financial reports. Accounting methods refers two types which show how the company's transactions are recorded in the firm's accounting books such as cash-basis accounting and accrual accounting. The main difference between the two types is how the company records cash inflows into and outflows of the business. In fact, many of the major corporations involved in financial scandals have contracted in trouble because they played games with the nuts and bolts of their accounting method. The results of these two methods are totally different. Hence, benefits of interest parties are differed.

**Accounting practices and usage;** Accounting practices; the routine manner in which the day-to-day financial activities of a business entity are gathered summarized, recorded, analysis, and interpreted. A firm's accounting practice refers to the method by which its accounting policies are implemented and adhered to on a routine basis, typically by an accountant and/or auditor or a team of accounting professionals. In the business context, accounting practice is the system of controls and procedures and that an accounting department in a business unit uses to create and record business transactions. Accounting practice should ideally be extremely consistent, since there are a large number of business transactions that must be dealt with in exactly the same manner in order to produce consistently reliable financial statements. Auditors rely upon consistent accounting practice when examining a company's financial statements. The following benefits are reached to good accounting practices; maintain the proper process flow, ability to devise a system correction to an error, ability to ensure that the change is properly implemented in process on a go forward basis. Accounting is social life subject hence every person can use accounting practice as day to day life. Only few differences what they need and how information is collected.

### 3. Research methods and Analysis

The research instrument was a structured questionnaire which was administered in-class. Students were assured of confidentiality in their responses, and that their responses would have no bias. Five-point Likert scale was used in the questionnaire with the options ranging from strongly agree to strongly disagree in order to measure accounting knowledge and academic performance. The sample size was 597 whereas the population is 3680 which represent four departments in management faculties of selected five national universities in Sri Lanka. Moreover, the year-wise distribution of the sample is 45 percent 30 percent, and 25 percent respectively for first year, second year, and third year.

The first step of analysis is to test the validity and reliability and the Cronbach's alpha test was executed while confirming the internal consistency of the measurement scale.

Table 1

Reliability statistics for the variables

Variable Name	No. of Items	Cronbach's Alpha
Accounting Principles (AP)	2	0.950
Accounting Concepts(AC)	3	0.819
Accounting Standards(AS)	5	0.908
Accounting Practice(AR)	2	0.900
Accounting Methods(AM)	4	0.486
Practical Usage of Accounting(PU)	4	0.903

Table 2

Descriptive statistics

	GPA	AP	AC	AS	AM	AR	PU
Mean	1.980	2.420	2.550	2.330	1.519	2.400	1.515
Std. Dev.	0.570	0.940	0.420	0.630	1.132	0.517	0.892

The average GPA value is close to 2 which is not acceptable in an academic program. Highest mean value is accounting knowledge of concept and lowest is practical usage that is very clear during studentship they may not concerned about practical usage of accounting. Highest standard deviation represents the accounting method and lowest is accounting concept. University undergraduate course mainly designed to study the accounting concept and it is not much varies between the individuals. There is no unique understand about the accounting principles. Table 3 exhibits the correlation matrix of the concepts studied.

Table 3  
Correlation matrix

Variable	GPA	AP	AC	AS	AM	AR	PU
GPA							
AP	0.477**						
AC	0.406**	0.902**					
AS	0.406**	0.902**	1.000**				
AM	0.480**	<b>0.983**</b>	0.835**	0.835**			
AR	0.466**	0.991**	0.951**	0.951**	0.959**		
PU	0.396**	0.317**	0.484**	0.484**	0.320**	0.375**	

All correlation coefficients are statistically positively significant and among the variables accounting concepts and standards exhibits highest positive value, theoretically this implication is valid hence most of the concepts practically represent the standard and, therefore, the students those who are perfect in their accounting concept demonstrated better accounting standard understanding.

#### *Models*

The study developed a system of model to simultaneously test the association between student performances (GPA) to build an accounting knowledge related skills related student who study in the faculty of management studies. Table 4 exhibits, results in the proportion of Student GPA lead to a negative and significant impact ( $b_1=-3.043$  and  $b_2=-0.808$ ,  $p<0.05$ ) on changes in knowledge of accounting concept (AC), and accounting method (AM) respectively. The accounting principle, accounting standard and practical usage has positive and significant impact on student GPA ( $b_3=3.3658$ ,  $b_4=0.9947$ ,  $b_5=0.3437$ ). Moreover, the impact to change accounting principle on GPA is substantially higher positive coefficient exists. In relation to the accounting subject and university education system course of the curriculum mainly focuses to enhance the theoretical aspect hence, student performance mainly depend on the theoretical aspect of the subject.

Table 4  
Multiple regressions

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AC	-3.0430	0.6322	-4.8132	0.0000
AM	-0.8086	0.1467	-5.5096	0.0000
AP	3.3658	0.4445	7.5707	0.0000
AS	0.9947	0.3276	3.0363	0.0025
PU	0.3437	0.0303	11.320	0.0000
R-squared	0.368	Mean dependent var		1.9798
Adjusted R-squared	0.364	S.D. dependent var		0.5701
S.E. of regression	0.454	Akaike info criterion		1.2700
Sum squared resid	122.40	Schwarz criterion		1.3067
Log likelihood	-374.09	Durbin-Watson stat		1.0094

The representative value of the model fitness  $R^2$  is 36.4 percent indicates that 36 percent of the variance of the dependent variable can be explained by independent variables concerned. The regression model equation is expressed as follows.

$$\text{GPA} = -3.0430*\text{AC} - 0.8086*\text{AM} + 3.3658*\text{AP} + 0.9947*\text{AS} + 0.3437*\text{PU}$$

The model shows that the most influencing factors are accounting concept and accounting principles effect on two directions to the student GPA.

#### 4. Conclusion

The results of the analysis show that students of management faculties have a good knowledge at accounting, except accounting methods. Therefore, accounting methods should be more focused and the scope on accounting methods should be improved. Finally, it can describe that second year students have better accounting knowledge than first year students. A study should be performed to identify the reasons for the lack of accounting knowledge of first year students as they should have proper basic accounting knowledge. Moreover, this study provides some ideas regarding the influence of student's accounting knowledge within the management faculties' connections among the component of subject and all the aspect of that important to overall student performance. Further studies should be needed to derive more generalize conclusions.

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## **Relationship between job satisfaction and job performance of nursing officers in government hospitals in Anuradhapura District**

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### **Abstract**

*The purpose of this study was to examine relationship between the nursing officers' job satisfaction and their job performance in government hospitals in Anuradhapura District. This study selected a sample of 90 nurses from three hospitals. Data were collected using a structured questionnaire and analyzed using the univariate, bivariate and multivariate analysis. According to the literature six dimensions were identified as important to measure job satisfaction which explain by promotion opportunities, supervision, pay, working conditions, work itself and the coworker relationship. Thus, six hypotheses were developed. According to the correlation analysis it was found that there was a weak positive significant correlation between promotion and coworkers to job performance. Supervision, work condition and pay dimension had the moderate positive significant correlation to job performance. Out of the six variables, work itself had the strongest significant effect on the job performance of nursing officers. According to the simple regression analysis, job performance are explained by promotion, supervision, work condition, pay, work itself and coworkers respectively. Multiple regression analysis indicated that, 34.1 percent of the variation in job performance is explained by the six dimension of job satisfaction in this study. According to correlation results and simple regression results, six hypotheses were accepted.*

**Keywords:** Coworker, Job performance, Pay, Promotion, Supervision, Working conditions, Work itself

### **1. Introduction**

Employees are the most essential part of the organization because without the contributions of those employees, organizations cannot achieve their goals and objectives. Earn much profit is the main objective of many organizations. Job satisfaction is more focused on the employees' response to the job or to specific characteristics of the job, such as pay, supervision, and working conditions. In recent

past, several trade union actions have been taken by the nurses' unions regarding their salaries, promotions and working conditions. These protests, strikes and token strikes disturb to the smooth operation of the hospitals and reduce the patient care totally. As well as there is an increasing trend of nurses leaving the country for better opportunities and there is a severe dearth of nurses within Sri Lankan context. According to their review, the relationship between job satisfaction and job performance can vary and it is difficult to explain the relationship between job satisfactions with job performance in terms of whether job satisfaction causes job performance or job performance causes job satisfaction. Moreover, the link of job satisfaction and job performance can occur in various ways such as: 1) Job satisfaction causes job performance 2) Job performance causes job satisfaction 3) Job satisfaction and job performance are reciprocally related 4) The relationship between job satisfaction and job performance is spurious 5) The relationship between job satisfaction and job performance is moderated by other variables 6) There is no relationship between job satisfaction and job performance 7) Alternative conceptualizations of job satisfaction and/or job performance. Moreover, Cook (2008) examined job satisfaction and job performance to identify whether the relationship is spurious or not and results showed that the satisfaction-performance relationship is partly spurious. Above analysis shows that the link between job satisfaction and job performance vary and therefore the relationship between the job satisfaction and job performance is still open for discussion.

Whether job satisfaction is positively or negatively related to job performance or even no relationship occur in between it is still left in an ambiguous state. Some previous research showed that there is no relationship between job satisfaction and job performance (Petty, McGee, & Cavender, 1984; Crossman & Bassem Abou-Zaki, 2003). Moreover, Ahmad et al. (2010) examined the interdependency between job satisfaction and performance. Results indicated a very weak relation between job satisfaction and performance and there was no significant relation between job satisfaction and performance. As well as Berghe and Hyung (2011) explored the link of job satisfaction-job performance and determined the impact of job satisfaction on job performance. The result of the study showed that there was a moderate to weak correlation between job satisfaction and job performance and the causal direction was not found. However, other researchers showed that there is a positive relationship between job satisfaction and job performance (Hira & Waqas, 2012; Hussin, 2011; Pushpakumari, 2008; Abdullah et al., 2011; Nimalathan & Brabete, 2010).

There is an inconsistency of the dimensions of job satisfaction used for previous studies. Weis et al. (2002) have identified twenty dimensions of job satisfaction: ability utilization, achievement, activity, advancement, authority, company policies and practices, compensation, creativity, coworkers, moral value, recognition, responsibility, security, social services, social states, supervision- human relations, supervision-technical variety and working conditions (Uthayakumar, 2003). Rose (2001) viewed job satisfaction as a bi-dimensional concept consisting of intrinsic and extrinsic satisfaction

dimensions (Funmilola et al., 2013). Moreover Jayathilaka (2014) indicated that the extrinsic factors conducive to job satisfaction include company policy and administration, supervision, interpersonal relationship, working condition, job security, pay and reward, and status whereas intrinsic factors conducive to job satisfaction include achievement, recognition, work itself, responsibility, advancement, and growth. Other researchers categorized job satisfaction into the dimensions namely: Pay, Promotion, Supervision, Fringe benefit, Contingent rewards, and Operating procedures, Co-workers, Nature of work as well as Communication (Khan et al., 2012; Funmilola et al., 2013; Yvonne et al., 2014).

Previously there had been many studies conducted on job satisfaction and job performance in foreign countries (Yvonne et al., 2014; Hussin, 2011; Funmilola et al., 2013). As well as in Sri Lanka, there are studies conducted on job satisfaction and job performance for various sectors other than the health sector (Perera et al., 2014; Nimalathasan and Brabete, 2010; Edirisooriya, 2014 ; Pushpakumari, 2008). Moreover, There are studies that conducted on health sector nurses' job satisfaction on job performance in foreign countries (Al-Ahmadi, 2009; Khan et al., 2012). Though there are previous studies conducted on relationship between nursing officers job satisfaction and their job performance in foreign countries, researcher has found that there is a lack of study or relatively little research conducted on investigating the relationship between job satisfaction components ( which are promotion, , supervision, work condition, pay, work itself and coworkers) towards health sector employees job performance in Sri Lankan context. Moreover, until present, there is no study has been conducted to investigate the relationship between job satisfaction towards job performance of nursing officers in government hospitals in Anuradhapura district.

Therefore, these contradictions on relationship between job satisfaction and job performance lead to the identification of a research problem that is worth to study. Hence, objective of the study is to investigate the relationship between nursing officer's job satisfaction (promotion, supervision, work condition, pay, work itself and coworkers) and their job performance in government hospitals in Anuradhapura district.

## **2. Review of Literature**

**Job satisfaction** - Locke (1976) defined job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Pushpakumari, 2008). According to Armstrong (2006) the term job satisfaction refers to the attitude and feelings people have about their work. Positive and favorable attitudes towards the job indicate job satisfaction. Negative and unfavorable attitudes towards the job indicate job dissatisfaction (Aziri, 2011). Rocca and Kostanki (2001) suggested that job satisfaction is the level to which workers like their work and it is the difference between what employees expect and what they receive. It is a general attitude toward the job; the difference between the amount of rewards employees receive and the amount they believe they should receive (Sattar et al., 2012).

**Job performance** - Murphy (1989) defined job performance as the set of behaviors that are relevant to the goals of the organization or the organizational unit in which a person works (Boon et al., 2012). Performance behavior should focus on behaviors rather than outcomes (Murphy, 1989), because a focus on outcomes could lead employee to find the easiest way to achieve the desired results, which is likely to be detrimental to the organization because other important behaviors will not be performed (Hussin, 2011). Robbins (2001) indicated that when an employee feels happy about work related tasks then his/her performance is increased and he/she performs tasks in a better way (Ahmed et al., 2014).

**Relationship between Job satisfaction and Job performance** - Brayfield and Crockett (1955) concluded that no appreciable relationship existed between job satisfaction and job performance (Timar, 2015). Locke (1976) conducted an extensive review of the satisfaction literature and concluded that job satisfaction has no direct effect on productivity. Job satisfaction is a pleasurable or positive emotional state that arises when people appraise their job or job experiences (Uthayakumar, 2003). In the beginning, researchers attempted to show that satisfaction caused productivity. But later the opposite relationship was suggested that good performance causes satisfaction (Locke, 1970; Porter & Lawler, 1968; Aziri, 2011). Some research showed that there is a weak correlation between job satisfaction and job performance. Ahmad et al. (2010) examined the interdependency between job satisfaction and performance and results indicated a very weak relation between job satisfaction and performance and there was no significant relation between job satisfaction and performance. Berghe and Hyung (2011) explored the job satisfaction-job performance link and determined the impact of job satisfaction on job performance. The result of the study showed that there was a modest to weak correlation between job satisfaction and job performance and the causal direction was not found. Yvonne et al. (2014) concluded that there is a significant weak positive relationship between job satisfaction and job performance. However, other researchers showed that there is a positive relationship between job satisfaction and job performance. Hettiararchchi and Jayarathna (2014) did a research on effect of work related attitudes on employee job performance and concluded that there was a positive relationship between job satisfaction and job performance.

**Relationship between pay and job performance** - Pay can be considered as the amount of money that is paid to an employee for the work that employee has executed (Yvonne et al., 2014). Hussin (2011) defined pay as employee pay which is adequate for their normal expenses. The employee is satisfied with the pay and pay is paid according to the working experience and equal to the work. Pay refers to the amount of financial compensation that an individual receives as well as the extent to which such compensation is perceived to be equitable (Funmilola et al., 2013). Pay is one of the most significant variables in explaining job performance and satisfaction (Funmilola et al., 2013). Some researchers concluded that there is a positive relationship between equity based compensation and performance. It was further concluded that compensation plays vital role in human capital intensive firms to attract and retain expert workforce (Khan et al., 2012). Du and Zhao (2010) concluded that the pay was weak significant to the job

performance (Ahmad et al., 2014). Qamar et al. (2011) found that there is a negative relationship between pay and performance (Ahmad et al., 2014). Hence these research evidences proving that there is positive relationship between pay and job performance. Therefore it supported to formulate a hypothesis as follows:

Hypothesis 1: There is a positive relationship between pay and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

***Relationship between work conditions on job performance*** - Luthans, (1998) noted that working conditions has a moderate impact on the employee's job satisfaction and performance and further viewed that if working conditions are good, for instance clean, and attractive surroundings, employees will find it easier to carry out their jobs. On the other hand, if the working conditions are poor like hot and noisy surroundings, employees will find it difficult to get their work done and thereby experience dissatisfaction (Funmilola et al., 2013). Work conditions refer to as those factors involve the physical surroundings of the job, and whether there are good or poor facilities (Alshmemri, 2012). Job satisfaction is adversely affected by the factors such as lack of promotion, working conditions, low job security and low level of autonomy. Working conditions have effect on the satisfaction of employees. These include comfortable proper work and office spaces, temperature, lighting, ventilation, etc. (Guest, 2004; Silla et al., 2005). Hence these research evidence proving that there is positive relationship between Working Conditions and Job Performance. Therefore it supported to formulate a hypothesis as follows:

Hypothesis 2: There is a positive relationship between working conditions and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

***Relationship between promotion and job performance*** - Hussin (2011) defined Promotion as the fair chances of the employee to get promoted and promotion in the organization is good, fixed, and frequent and promotion is depending on the length of service of the employee. Lazear and Edward (1986) defined promotion as the movement of an employee upward in the hierarchy of the organization, typically that leads to enhancement of responsibility and rank and an improved compensation package (Malik et al., 2012). Teseema and Soeters (2006) concluded that there is positive relationship between promotion practices and perceived performance of employee cited by Khan et al. (2012). Edwards et al. (2008) concluded that there was significant relationship between promotion and job performance. In that study, they conducted that satisfaction with work itself and promotion was significantly related to employees' performance cited by Ahmad, Ing and Bujang (2014). The finding of Sajuyigbe et al. (2013) agreed with other researchers that many people experience satisfaction when they believe that their future prospects are good cited by Funmilola et al. (2013). Nimalathan and Brabete, (2010); Malik et al, (2012); Ahmad et al. (2014) also agreed that there is a positive relationship between promotion and job performance. Hence these research evidences proving that

there is positive relationship between promotion and job performance. Therefore it supported to formulate a hypothesis as follows:

Hypothesis 3: There is a positive relationship between promotion and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

***Relationship between work itself and job performance*** - Robbins et al. (2005) refer the work itself as the extent to which the job provides the individual with stimulating tasks, opportunities for learning and personal growth, and the chance to be responsible and accountable for results. Al-Ahmadi (2009) conducted a study about the factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia and the result showed that there was a positive relationship between work itself and job performance, which indicated that satisfaction with the amount of variety and challenge, could influence the nurses' job performance. Hence, job satisfaction is related with job performance because it can realize an individual's competence cited by Ahmad et al. (2014). Edwards et al. (2008) investigated a study of relationship between facets of job satisfaction and task and contextual performance and result showed that there was positive relationship between work itself and the job performance (Ahmad et al., 2014). Hence these research evidences proving that there is positive relationship between work itself and Job Performance. Therefore it supported to formulate a hypothesis as follows:

Hypothesis 4: There is a positive relationship between work itself and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

***Relationship between supervision and job performance*** - Supervision can be defined as how the supervisor treat the employee in terms of praises, the employee good work, seeking the advice from the employee, understanding the nature of the employee's work as well as giving the employee enough supervision and at the same time portraying good example to the workers (Hussin, 2011). Ahmad et al. (2014) found that there was a significant moderate positive relationship between the supervision and job performance. Further, stated that the employees could perform better and be more satisfied with their tasks when they received clear guidance from their supervisor. According to Heery and Noon (2001) supervisor is a front-line manager who is responsible for the supervision of employees (Yvonne, 2014). Roelen et al. (2008) had a contrary view, that they concluded that supervision has not a significant impact on job satisfaction and performance cited by Funmilola et al. (2013). Hence these research evidences proving that there is positive relationship between supervision and Job Performance. Therefore it supported to formulate a hypothesis as follows:

Hypothesis 5: There is a positive relationship between supervision and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

***Relationship between coworkers and job performance*** - Hussin (2011) defined coworkers as someone who is sympathetic, understanding and concerned to the employees; sometimes they give helpful information, advice and give practical assistance. Cobb (2004) defined co-workers satisfaction as the satisfaction level of the employees with their colleagues regarding work related interaction. Satisfaction in terms of co-workers refers to the degree to which the employees like their colleagues in the company and how great is the relationship formed between them (Yvonne et al., 2014). Al-Ahmadi (2009) conducted a study about the factors affecting performance of hospital nurses and found that there was a relationship between co-workers and job performance. Moreover, Arham et al. (2011) found out that there was strong significant relationship between co – workers and job performance. Lambert et al. (2001) noted that the level of salary, promotion, appraisal system, climate management, and relation with co-workers are the vital factors (Khan et al., 2012). Ahmad et al. (2014) indicated that employees, who are concerned about other employees’ feelings, feel happy when their co – workers accept them and willing to interact with people with different personality could increase their satisfaction on their tasks and increase their job performance. Therefore, employers should create a working environment that can give their employees an opportunity for interpersonal relationship with their colleagues in the organization. Hence these research evidence proving that there is positive relationship between coworkers and Job Performance. Therefore it supported to formulate a hypothesis as follows

**Hypothesis 6:** There is a positive relationship between coworkers and perceived job performance of the nursing officers in government hospitals in Anuradhapura district.

### **3. Research Methodology**

#### **3.1. The Research design**

This research study was focused on identifying the relationship between job satisfaction and job performance of nursing officers in government hospital in Anuradhapura district. Six dimensions of independent variable were considered as important for measuring job satisfaction of nursing officers. Perceived job performance of nursing officers was identified as dependent variable in this research study. This study establishes the relationship between independent and dependent variables. Therefore the type of investigation of this study was correlation rather than casual. In a correlation study, the research is conducted in the natural environment of the hospitals minimizing the researcher influence in the natural flow of events (Sekaran, 2003). Since this research study was geographically limited to the Anuradhapura district, three hospitals, namely Anuradhapura Teaching Hospital, Mihintale Divisional Hospital and Rambewewa Divisional Hospital situated in the district were selected for the survey. The unit of analysis was at individual level.

#### **3.2. Population & Sampling**

The size of the sample selected for this research was 90. The sample was selected using simple random sampling technique among the population of nursing officers attached to

the government hospitals and total population is 901, the sample was selected randomly among these population distributions while the 10 percent represents the total population.

### 3.3. Measures

Nursing officers’ job performance was the dependent variable and their job satisfaction was the independent variable of this study. These variables were measured using standard instruments. The questionnaire was separated into three sections. For demographic data, five questions were included to collect demographic and job-related data. To measure the job satisfaction 35 items were used which measured six aspects of job satisfaction of nursing officers. The questionnaire for measuring job performance contained 21 statements to measure various aspects of the perceived job performance of nurses. A set of Likert scales was used to measure pertinent constructs. Each item of a construct was answered using the following five-point scale: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1) for positive and negative questions.

Table 1  
Population distribution of nursing officers

Hospital	Total	Sample
Anuradhapura teaching hospital	875	77
Mihinthale divisional hospital	14	8
Rambewa divisional hospital	12	5
Total	901	90

### 3.4. Validity and reliability

Internal consistency of the constructs was examined with Cronbach’s Alpha test and Table 2 indicates the internal consistency of the items used in this study is good.

Table 2  
Results of the reliability analysis

Constructs	Cronbach’s Alpha
Perceived Job performance	0.754
Promotion	0.862
Supervision	0.757
Work condition	0.828
Pay	0.863
Work itself	0.822
Coworkers	0.811

### 3.5. Methods of data analysis

Data were analyzed using univariate, bivariate and multivariate analysis techniques and specially applied correlation coefficient and regression analysis to meet the study objective and hypotheses. SPSS data analyze package of 20<sup>th</sup> version was used to analyzed the data. The results of the univariate, correlation and regression are given in

Table 3, Table 4 and Table 5 respectively. According to the data given in Table 3, promotion recorded the highest mean value when compared with the other variables.

#### 4. Results

Table 3  
Results of univariate analysis

Variables	Mean	Median	Standard Deviation
Job Performance	3.3157	3.2857	0.3410
Promotion	3.6338	3.7500	0.8024
Supervision	3.3808	3.400	0.6317
Work condition	2.8434	2.7143	0.6663
Pay	2.5225	2.4286	0.6671
Work itself	3.5479	3.500	0.4744
coworkers	2.9897	3.0000	0.7654

Table 4  
Results of correlation analysis

Variables	Job Performance
Job Performance	1
Promotion	0.247**
Supervision	0.470*
Work condition	0.446*
Pay	0.470*
Work itself	0.489*
coworkers	0.234*

\*\*p < .01, \*p < .05

The results of the correlation coefficient between nursing officer's job satisfaction and their perceived job performance in government hospital are presented in Table 4. According to the results, the correlation between promotion and perceived job performance ( $r = 0.247$ ,  $p < 0.01$ ), supervision and perceived job performance ( $r = 0.470$ ,  $p < 0.05$ ), work condition and perceived job performance ( $r = 0.446$ ,  $p < 0.05$ ), pay and perceived job performance ( $r = 0.470$ ,  $p < 0.05$ ) work itself and perceived job performance ( $r = 0.489$ ,  $p < 0.05$ ) coworker and perceived job performance ( $r = 0.234$ ,  $p < 0.05$ ) were significant and positive. According to the analysis supervision, work condition, pay, and work itself recorded moderate positive relationship with perceived job performance but

promotion and coworker reported a weak positive relationship with perceived job performance.

Table 5  
Results of regression analysis

Variable		$\beta$	$R^2$	P Value	F Value	
Promotion		0.105	0.060	0.035	4.606	
Supervision		0.254	0.221	0.000	20.124	
Work condition		0.228	0.446	0.000	17.619	
Pay		0.240	0.221	0.000	20.123	
Work itself		0.352	0.489	0.000	22.331	
coworkers		0.104	0.055	0.000	4.124	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F value	sig.
1	0.584 <sup>a</sup>	0.341	0.281	0.28919	5.688	0.000 <sup>b</sup>

a. Predictors: (Constant), coworkers, promotion, work itself, pay, supervision, work condition

b. Dependent Variable: job performance

The result of the regression analysis is presented in Table 5. The relationship between promotion and perceived job performance ( $\beta = 0.105$ ,  $p < 0.01$ ), supervision and perceived job performance ( $\beta = 0.254$ ,  $p < 0.05$ ), work condition and perceived job performance ( $\beta = 0.228$ ,  $p < 0.05$ ), pay and perceived job performance ( $\beta = 0.240$ ,  $p < 0.05$ ) work itself and perceived job performance ( $\beta = 0.352$ ,  $p < 0.05$ ) coworker and perceived job performance ( $\beta = 0.104$ ,  $p < 0.05$ ) were significant and positive.

R Square is 0.341. It shows 34.1 percent of the variation in job performance is explained by the six independent variables jointly. The F value is 5.688 that is significant at 0.05 level ( $p = 0.000$ ) indicates that there is a model fit between dimension of job satisfaction and job performance and it suggests that the six independent variables have significantly explained 34.1 percent of the variation in the job performance.

#### 4. Discussion

Multiple regression analysis for promotion and job performance indicate, 6.1 percent of variance in job performance is explained by promotion ( $R^2 = 0.061$ ). F value of 4.606 that is significant at 0.05 level suggests that promotion has significantly explained 6.1 percent of variance of job performance. The findings of correlation and simple regression analysis are in consistent with (Ahmad et al., 2014; Funmilola et al., 2013; Khan et al., 2011). According to findings of Nimalathasan and Brabete (2010), correlation between promotion and job performance is moderately positive.

According to the correlation analysis between supervision and Job Performance, correlation between two variables was 0.470 indicating that the correlation is moderate and significant at 0.01 levels (1-tailed). However, multiple regression analysis showed 0.210 of beta value at sig  $t = 0.173$  indicating that supervision has no significant effect on job performance. The correlation and simple regression analysis are in line with (Ahmad et al., 2014; Arham et al., 2011; Yvonne et al., 2014) but contradict with Roelen et al.

(2008) who found that there is a negative relationship between supervision and job performance. Funmilola et al. (2014) found that the quality of the supervisor-subordinate relationship have a significant, positive influence on the employees job satisfaction and performance.

The findings gives that there is a moderate positive significant correlation between work condition and job performance due to  $r$  is 0.446. The correlation is significant at 0.01 levels (1-tailed). Simple regression analysis of work condition gives  $B$  value of 0.228. This finding is supported by the literature (Funmilola et al, 2014, sheik et al., 2013; Khan et al., 2012). According to Nimalathasan and Brabete (2010), correlation between work condition and job performance is highly positive.

The correlation between pay and Job Performance is 0.470 and significant at the 0.01 level (1-tailed). Therefore there is a moderate positive significant correlation between pay and job performance. But the multiple regression analysis indicates that pay has no significant effect on job performance (The beta value is 0.296 at sig.  $t=0.065$ ). These correlation findings are in accordance with Ahmad et al (2014), Nimalathasan and Brabet (2010), Hussin (2011) but contradict with Qamar and Baloch (2011). Funmilola et al. (2013) found that pay has significant impact on job satisfaction and performance. Especially, when employees seek pay systems that are perceived as just, unambiguous, and in line with their expectations.

A moderate positive significant correlation between work itself and job performance is the 0.489 that is significant at the 0.01 level (1-tailed). According to the simple regression analysis work itself has a positive impact on job performance with the  $B$  value of 0.352. The multiple regression analysis showed that work itself has significant effect on job performance (The beta value is 0.304 at sig.  $t=0.039$ ). Results of the study are in line with Al-Ahmadi (2009), Yvonne et al. (2014), Nimalathasan and Brabete (2010).

There is a weak positive significant correlation between coworkers and job performance due to the correlation between these two is 0.234 significant at 0.05 level (t-tailed). According to simple regression analysis coworkers has a positive impact on job performance with the  $B$  value of 0.104. Multiple regression analysis shows that coworkers have no significant impact on job performance (the beta value is 0.050 at sig.  $t=0.652$ ). The results of the study are in consistence with Hanan Al-Ahmadi (2009), Yvonne et al. (2014), Arham et al. (2011).

## **5. Conclusion**

The general objective of this study was to identify the relationship between job satisfaction and job performance of nursing officers in Anuradhapura district. The findings of this study showed that there is a significant positive relationship between job satisfaction and job performance. Findings of this study supported to the previous studies (Nimalathasan & Brabete, 2010; Prasanga & Gamage, 2012; Funmilola et al., 2013). According to the results of the descriptive analysis, the highest level of job satisfaction is taken by the promotion dimension follows by work itself, supervision, coworkers, work

condition. The respondents were least satisfied with the pay dimension. Based on the results of the current study, the perceived job performance level of nursing officers is high. The high level of performance may be due to the employees are satisfied with what they have gained from their jobs and the nurses job satisfaction level is high. This is in line with the study of Pushpakumari (2008) which, that study suggests employees who are satisfied with their jobs are more willing to put extra effort into their jobs and this contributes to their good job performance.

Then the specific objective of identifying the relationship between job satisfaction dimensions to job performance was achieved by conducting correlation analysis between dimensions of job satisfaction and job performance. Correlation analysis indicated that there is a weak positive and significant correlation between promotion, coworkers and job performance. Supervision, work condition, pay and work itself dimensions have shown moderate positive significant correlation with job performance. In order to identify the effect of job satisfaction dimensions to job performance the simple regression analysis and multivariate analysis were used. According to simple regression analysis job performance is explained by promotion, supervision, work condition, pay, work itself and coworkers.

The six hypotheses were accepted using correlation and simple regression analysis. Research showed that job satisfaction is positively affects job performance. Highly satisfied employees are motivated to work in the organization, do their work at optimum level and perform better than less satisfied workers. Therefore, results of this study showed that when the nurses are satisfied, they like to work effectively. Job dissatisfaction affects to the rate of absenteeism, turnover, intent to leave and migration. When concerning the nurses leaving the country and the strikes of nurses, it can be identified that when the nurses are not satisfied with their job, it affects to their job performance as well. In order to improve the job performance of nursing officers and the total quality of patient care, it should be considered as job satisfaction of nurses. Especially doctors and nurses performance issues are inextricably linked to patient safety.

According to the multivariate analysis, the six independent variables (promotion, supervision, work condition, pay, work itself and coworkers) were explained 34.1 percent of the variation in dependent variable (job performance).

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## **Microfinance services and growth of micro & small scale industries in Sri Lanka**

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### ***Abstract***

*This study investigates the impact of microfinance services and growth of micro and small scaled enterprises in Mathugama area in Kaluthara District. A sample of 120 firms was selected for the study using stratified random sampling method. Data were collected using a structured questionnaire which was tested for validity and reliability. Correlation and regression analysis were used as main methods of data analysis. The study found that micro credit facilities such as loan size, repayment period, installment mode, follow up procedures, and interest rates and training provided by micro finance institutions have significant influence on the growth of micro and small scale enterprises. This study suggests that the micro finance services and training provided by micro finance institutions are important factors to determining growth of micro and small scaled enterprises. Furthermore, this provides insights to micro finance institutions, potential investors and other stakeholders make their decision better.*

***Key words:*** *Micro credit, Microfinance, Micro and small scaled enterprises*

### **1. Introduction**

Micro finance is an effective mechanism to empower people who are excluded from the traditional banking system (Gamage, 2003). According to evolution of micro finance, it comes from 1976 with the development of the Grameen Bank concept introduced by Prof. Yunus in Bangladesh (Lutzenkirchen & Weistroffer, 2012). On the other hand someone has argued that it traced back to 1906 in Latin America since, there was evidence for Social banking, Group based lending, and Self-help group concepts (Gamage, 2003). Even though it is believed that origin of microfinance is in Bangladesh and all concepts are arranged to obtain small loans and advisory services to develop small scaled business who are excluded from traditional banking system (Christoper, 2011).

It is evident that; micro finance activities contribute more on enhance Micro and Small scaled Enterprises (MSEs). Recently Sri Lankan government has introduced varieties of loan facilities through Enterprise Sri Lanka concept to support the small scaled businesses. Businesses can be categorized as micro, small, medium and large scale enterprises (Gamage, 2003) and this sector comprises of agriculture, plantation, construction, manufacturing, trade and other service (Jayasekara & Thilakarathna, 2013). However, Gamage (2003) argues that there is no clear definition for MSEs in Sri Lanka. Based on the above background information it is essential to identify how these activities involve growth of MSEs in Sri Lanka as a developing country. Accordingly, this study is investigating the impact of microfinance service on the growth of MSEs in Mathugama area in Kaluthara District.

The MSE sector has become a high-powered segment and key section of private sector in developing countries like Sri Lanka (Jayasekara & Thilakarathna, 2013). At present, main job creation segment is MSEs' in Sri Lanka. Therefore, it is very important to accelerate the developing of MSEs for economic growth. On other hand, microfinance institutions is very important to development of MSEs since most of the MSEs are used microfinance services provided by microfinance institutions (Franca, 2013). Mainly they provide micro credit to MSEs. In addition to these financial services, they provide non-financial services like business training, financial and business management to improve the capacity of MSEs.

However, there is dearth of studies regarding Microfinance and MSEs in Sri Lanka and many researches have been conducted by eastern and western countries. Thus, it is important to conduct a study in this area and this can contribute to fulfill the existing awareness gap. Because in Sri Lanka lack of researches have been conducted in this area and for the current study researcher has selected Mathugama area in Kaluthara district since it is a recent developing city in Kaluthara district. Many MSEs in Mathugama are engage with micro finance services (Regional Development Bank project report, 2017). Thus most of them are excluded from traditional banking sector.

The general objective of the study is to investigate the impact of micro finance services on the growth of micro and small entrepreneurs in Mathugama area in Kaluthara District. The study specifically attempts to achieve the following specific objectives;

- To identify the impact of micro credit on growth of micro and small scale enterprise
- To identify the impact of training provided by micro finance institutions on growth of micro and small scale enterprise.

## **2. Review of literature**

Microfinance as an economic development method that involves providing many financial services to low-income clients, who are the people excluded by the traditional banking system, that services include credit saving and insurance services provided by the Microfinance Institutions (Wanambisi, 2013). Further, many microfinance institutions provide social intermediation services such as, organizational support,

training and education, health and skills according to their development objectives. On the other hand Pillai and Nadarajan (2010) refers microfinance as small savings, credit and insurance services extended to socially and economically poor segments of society. It is defined as provision of thrift, credit and other financial services and products of very small amounts distributed to the poor in rural and semi urban or urban areas, for enabling them to raise their income levels and improve living standards. The accessing credit is considered to be an important factor in increasing the development of micro & and small scale enterprises. It is thought that credit accretes income levels, competitiveness increase sales volume, and business development and there by more profits. It is believed that access to credit enables MSEs to overcome their liquidity constraints and undertake investment. The main objective of microfinance according to is to improve the welfare of the low income earners in rural area (Ngehnevu & Nembo, 2010).

Furthermore, Babajide (2012) found that micro-financing practiced in Nigeria microfinance banks do not enhance growth and expansion capacity of micro and small enterprise in Nigeria which implies that micro finance does not enhance the expansion capacity of small business in Nigeria. Further findings indicate that although the MFIs have performed below a set standard on average due to some industry wide challenges, they have had a significant impact in linking SMEs and the poor to sources of credit and contributed to their growth in terms of growth of business capital and stock accumulation. It is recommended that there is need for an institutionalized public-private partnership for creating favorable conditions for the operations of these enterprises (Khan, Naseem & Kasi, 2012)

On other hand, Ngehnevu and Nembo (2010) found that microfinance is only a portion of what is needed to boost an enterprise activity in the rural areas and who are incapable of getting the loan necessary assistance from a commercial bank. It develops new markets, increases income, creates and accumulates assets and promotes a culture of entrepreneurship. The Cameroon Corporative Credit Union League (CamCCUL) has a positive impact in the development of the members' businesses. CamCCUL provides its members with financial and social intermediation services to improve their businesses. Further, Wanambisi and Bwisa (2013) identified the amount of loan significantly positively related with performance of MSEs in Kitale Municipality and study indicated a strong positive significant relationship between the amount of loan and performance of MSE increase in income/sales. Babajide (2012) had used of characteristics of microfinance institution such as, asset loan size received from microfinance bank, asset loan duration, asset loan repayment, loan interest of his study and results of suggest size of assets loan on expansion capacity of the micro & small enterprise show that unit increase in size of assets loan will increase sales growth Nigeria. But the size of the loan is too small for any meaningful impact on small firms. Duration of assets loan shows a positive relation with sales growth for the entire sample, but not statistically significant for total sample and small firms, meaning that the duration of the asset loan is too short for any meaningful impact on micro & small enterprises growth. Further, repayment of asset loan, the results show a negative correlation with sales growth, which is in support of economic theory but negates micro finance theory because of the frequency of repayment. As well as it is not statically significant with sales growth of the Babajide

(2012) study. The result revealed that a unit increase in repayment period will cause annual sales growth to decrease. Further, the result for total sample and small firms sample are not statistically significant.

Koech (2011) conducted a study to find out the financial constraints that hinder growth of SMEs in Kenya. The researcher adapted the case study approach and targeted SMEs in Kamukunji District. The study used structured questionnaires as the main tool for data collection. Data was analyzed by exploratory factor analysis and descriptive analysis with the help of SPSS to obtain percentages and frequency distribution tables. The factors hindering growth of SMEs were identified as capital access, cost, capital market collateral requirements information access, capital management and cost of registration. The study recommended that business financiers through loans consider reducing collateral requirements to facilitate SMEs easy access to loans.

Accordingly, it summarized micro finance organizations provide more financial services to their clients such as savings and credit services to enhance the MSEs'. They provide access to capital on smaller scale and enable poor people to engage in productive economic activities and thus contribute to the development in low income population. Micro finance organizations also provide social intermediation services such as formation of groups, development of self-confidence and the training of members in that group on financial literacy and management. They also provide micro insurance services to SMEs to enable them manage their business risks.

### **3. Methodology**

Research approach is vital part of the study since it allows researcher to understand the problems to be examined in their research choose the appropriate research method. Further, the positivism paradigm is the approach that investigates studies with complex sets of facts and associations between those facts (Smith, 1998 as cited in Cooper and Schindler 2003). This paradigm is frequently associated with quantitative methods of analysis that examine the relationships between measurable variables (Bryman, 2008 as cited in Wanambisi & Bwisa 2013). The aim of such research is to reveal patterns within quantitative data that can be used to produce general laws and to predict future pattern of behavior (Ayuub, 2013). Accordingly current study attempts to identify the association between microfinance services on growth of MSE. Thus, it is more appropriate to use positivism research approach with quantitative research method. Further, Wanambisi and Bwisa (2013) use this approach to identify association.

The current study selects firms in agriculture, plantation, construction, manufacturing, trade and & other service according to (Gamage, 2003) and the population of the study consists of micro and small size enterprise in 24 Gramaniladari divisions in Mathugama area in Kaluthara District. The study used the definition for MSEs, which is an enterprise with less than 10 people and turnover below Rs.5 million per annum. A total number of 120 sample units were selected from stratified random sampling method and this study employed a structured questionnaire as a sole means of data collection from respondents and the questionnaire was adopted from Helms (2006) as cited George (2012) to elaborate

the growth of MSEs’ and Micro finance services. All questions of micro credits, training provided by MFIs and growth of MSEs’ was rated on five point Likert scale and questionnaire was divided into three sections. First section contained demographic questions and second on the microfinance services and next section was on growth of MSEs. Microfinance services divide into two as micro credit and training provided by MFIs. Further micro credit measures through loan size, repayment period, installment mode, follow up procedures, and interest rates.

The conceptual model that was used in this study was in the form of an econometric expression. It was in the form;

$$Y = \alpha + \beta X1 + \beta X2 + \infty$$

Where;

Y = Growth of MSE

$\alpha$  = Constant/the intercept point of the regression line and the y-axis

$\beta$  = The slope/gradient of the regression line

X1 = Microcredit

X2 = Training provided by MFIs

$\infty$  = Error Term

It is necessary to build up hypothesis to test the relationship between dependent variable and independent variables to see the validity of the assumptions.

H1: There is a significant impact of micro credits on growth of MSEs’

H2: There is a significant impact of Training provided by MFIs on growth of MSEs’

#### 4. Result and discussion

This section involves the result and discussion in relation to achieve the objectives.

Table 1  
Demographic information of the sample

Gender	%	Age	%	Education	%	Business Experience	%	Sales in “000”	%
Male	39.2	<18-25	12.5	Primary	21.7	<1 year	27.5	5-10	18.3
Female	60.8	<26-35	22.5	Secondary	55.8	<2 year	21.7	10-20	24.2
		<36-45	25.8	Diploma	19.2	<3 year	14.2	20-50	31.7
		<46-55	23.3	Graduate	1.7	<4 year	22.5	50-100	21.7
		>56	15.8	Other	1.7	>4 year	14.2	>100	4.2
Loan in “000”	%	Sector		%	Installment Period		%		
5-20	8.3	Manufacturing		22.5	1 week		45		
20-50	15.8	Service		29.2	2 week		45		
50-100	31.7	Whole Sale & Retail		48.3	3 week		6.7		
>100	44.2				1 year		2.5		
					Above 1 year		0.8		

According to above descriptive statistics the majority of females are engaged with the micro finance activities which is 60.8 percent and most of them are in between 26 to 45 years. Most of them have completed their secondary education 55.8 percent and their business experience is less than 2 years and some of them have 4 years' experience. The sales given in thousand rupees and commonly they earn Rs.20000 – Rs.50000 sales margin which is 31.7 percent compared to other sales breakup. The MFIs mostly given loans category in between more than Rs.100000 and it is 44.2 percent as well as using this loan most of them are involved with whole sale and retail business. Further as usually, MFIs grants loans for 1 week and 2 weeks.

Table 2  
Test of validity and reliability

Variables	Convergence validity			Reliability
	KMO Statistics	Bartlett's test stat. ( P value)	AVE to be > 0.5	Cronbach's Alpha
Micro credit	0.742	175.748 (<0.001)	0.5623	0.766
Training provided by MFIs	0.798	541.936 (<0.001)	0.5231	0.828
MSEG	0.823	589.519 (<0.001)	0.5842	0.903

According to the Table 2, KMO statics represented that this sample adequate. In fact, all the cases of this value is higher than 0.5 among all variable and it concluded the sample adequacy of each variables. Next Bartlett's test value tested P value of the survey data for measure the validity of sample. Same as KMO here in all the cases it ensure the validity of sample. Then again to measure the validity of questionnaire has been used AVE value and this value should be more than 0.50. Micro credit facilities show 0.5623 and training provided by MFIs indicates 0.5231 and growth of MSE shows 0.5842. The generally accepted minimum standard for internal consistency is 0.7. In this study Cronbach Alpha value was presented above 0.7 of all variables. Thus it is satisfied the internal consistency of the constructs.

Table 3  
Descriptive statistics

	MSEG	Micro credit	Training provided by MFIs
Mean	2.6458	2.9194	3.2861
Median	2.7500	2.8333	3.3333
Std. Deviation	.97020	.58181	.49773
Variance	.941	.339	.248

According to the data presented in Table 3, all the values are at a moderate level thus sample MSEs, have moderate perception on loan size, repayment period, installment mode, follow up procedures, interest rates and training provided by MFIs.

Table 4  
Correlation analysis

	MSEG	Micro credit	Training provided by MFIs
MSEG	1		
Micro Credit	.788**	1	
Training provided by MFIs	.685**	0.721*	1

According to Table 4, correlation analysis every variables are significant and positively correlated with growth of MSEs and less than 80 percent and it conclude there is no multi-collinearity.

Table 5  
Regression analysis

	MSEG	Micro credit	Training provided by MFIs
R – Square	0.685		
F – Value	46.824**		
Unstandardized Coefficient		0.658 (<0.001)	0.255 (<0.05)
Standardized Coefficient		0.636	0.111

According to Table 5, R – square represents the explanatory power of the study model and it has recorded as 68.5 percent. Thus, Micro credits and training provided by MFIs are 68.5 percent explained by growth of MSEs. As well as overall model significant at 1 percent level. On other hand, coefficient values of micro credit and training provided by MFIs are significant at 1 percent and 5 percent level respectively and all the hypotheses were accepted. Accordingly, there is a significant impact on growth of MSEs by micro credits as well as there is a significant impact on growth of MSEs by training provided by MFIs.

## 5. Conclusion

The present study investigated the impact of microfinance services and growth of MSEs in Mathugama area in Kaluthara District. This study adopted positivism research approach with quantitative research method to identify the association between microfinance activities on growth of MSEs in Mathugama area and research showed that financial credit services such as loan size, repayment period, installment mode, follow up procedures, interest rates and training provided by MFIs have positive significant impact on growth of MSEs in Mathugama area. The loan size is important factor to initiate or expand the business of MSEs’ since most of the cases they face problems when financing

capital to the organization. The next significant factor is repayment period and follow-up procedures. These are important in both parties such as MFIs and MSEs' since the main problem face by MFIs is increasing non-performing loan rate. So MFIs need to provide considerable period to repay the loan while reducing non-performing loan rate in the organization. Next interest rate of micro credit and this should be fair in two perspective since as per the MFIs, they grant loans to poor people who are excluded from traditional banking system so they need to consider default and market risk when deciding interest rate for micro credit facilities. Further, it provides insights for policy makers and other stakeholders of above significant variables when providing micro finance services as a means of growth of MSEs.

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