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The Effect Of Employee Wages And Discipline In Improving Organizational Performance Through Motivation Variables In PT. Geo Services

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ABSTRACT: *This study aims to identify and analyze the effect of wages, discipline and motivation to organizational performance, identify and analyze the effects of wages and discipline to organizational performance through motivation variable.*
The study was conducted at PT Geo-Services by taking a sample of 89 employees in all parts of the organization. Analysis of data using path analysis.
Based on the results of data analysis found that the variable wages, discipline and motivation affect the performance of the organization. Wages and discipline influence on organizational performance through motivation greater than the direct effect so that it can be said that work motivation is able to mediate between variable wages and discipline to organizational performance.
KEYWORDS: *wages, discipline, motivation, organizational performance*

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I. INTRODUCTION

In general, every company has a policy regarding wages and discipline, especially attendance. Be it a private company or the government. Wages become substantial because of wages in the form of an important stimulus for the employees in a company. While the presence or absence call it becomes the main principle of the company. Although even today the system works can be done with a mobile system that does not have to be in the office by the presence of the world of technology the conventional system is still in use. Due to the presence of a major assessment of the employees by the company. Every organization has a human resource (HR) and be an important asset to achieve the goal for an organization.

Without good human resources, the organization will not run as it should. Human resource is the only resource that can not be imitated. Intellect feelings, desires, abilities, skills, knowledge and work. All the human resource potential effect on organizational performance efforts in achieving the goals. Human resources in question are the ones who provide energy, thoughts, talents, creativity and in his own efforts on the organization, with the hope that sometime in the future, organizational will experience developments that rapidly in the body of work of the organization and improve management performance both in the field of work. Performance management is an issue that is always warm and there is no end to the discussion. Problems related to performance is also a strategic issue for companies that reprogrammed human resource issues. Many aspects of the internal and external support creation of effective performance and efficient management in a company. Especially when it comes to issues of globalization that hit today whose impacts we feel. One of the indicators that influence in an effort to improve the performance of an effective and efficient management of the reward. Wages are one of the important stimuli for the employees in a company. This does not mean that the level of wages which is the main driving force, the wage level is only a major boost to the rate at which wages are not sufficient lives of the employees accordingly.

Wages are one of the conditions employment agreements are regulated by employers and workers or employees and the government. "Wages are the overall amount set as a substitute for services that have been incurred by the employee include time or under certain conditions." The Research Council of the National Wage provides a definition of remuneration as follows: "The wages is an acceptance of work to serve as a guarantee of the continuity of a decent life for humanity and production is expressed by an approval act and regulations and paid on the basis of an employment agreement between the employer and the recipient of the work. There are several systems used to distribute wages, formulated four systems can generally be classified as follows:

1. The wage system with the amount of production.

Wages according to the amount of production is given to encourage employees to work harder and produce more. Dihasilakan production can be rewarded with the calculation of the fare.

2. The wage system according to a length of service.

This kind of reward system will push for a more faithful and loyal to the company and employment agencies.

3. The wage system according to the duration of employment.

Wages according to the length of work called also wages by time, for example monthly. This system is based on the assumption that the performance of the same work for the same time, other reasons are the cause of peace because this system can already be a calculated wage, regardless of the slowness of material to work, equipment failures, pain and so on.

4. The wage system according to the needs.

Wages are given according to the magnitude of the needs of employees and their families called wage according to requirement.

In addition to discussing wage while researchers will discuss the discipline. Discipline is a specific situation where people who are members of the organization are subject to the existing regulations with a sense of pleasure. Discipline is an action manager to encourage member organizations to meet the demands of various provisions. In other words, an employee discipline is a form of training that seeks to improve and establish the knowledge, attitude and behavior of employees so that these employees to voluntarily seek to work cooperatively with other employees and improve working achievement. Discipline is the awareness and willingness to obey all company rules and social norms in force.

Factors affecting the work discipline that is of interest and ability, exemplary leadership, justice is real and most effective action to realize the discipline employees. Bosses should active and directly supervise the conduct, morale and job performance subordinates. This means that the employer must always be present in the workplace in order to oversee and provide guidance if any of his subordinates who are having difficulty, penal sanctions and firmness.

Meanwhile, according to Martoyo (2000) motivation is basically the process of trying to influence a person to do what we want, in other words, is a push from outside against a person to want to do what we want to someone to carry something. With the encouragement meant a natural urge to satisfy the necessities of life and tendency to sustain life. The most important key to it is nothing but a deep understanding of human beings. A motivated person, that is, those who carry out substantial efforts in order to support the purposes of the production of its unity, and the organization where he works. Someone who is not motivated, spotted and give the minimum effort in terms of work. Thus the motivation or motivation means giver motive, evocation motive or anything else that become impulse or circumstances that impetus. It can also be said that motivation is a factor that drives people to act a certain way. The effect motivation of management performance showed the same results, that the relationship between motivation and performance management showed a positive and significant relationship.

Performance is an important part that must be considered in the management company. The Successful manager should havethe ability to improve the performance and productivity of employees. Both are a very important role in determining the sustainability of entrepreneurial activity. One of the things that can improve the performance of management is providing motivation, the motivation of the employees is very important to do and this should be immediately addressed by the leader/manager on how to provide motivation for the employee to directly sense to do the job.

The company's success is basically supported by an effective supervisor where supervisors can influence subordinates to raise the motivation of their work to excel and improve performance for the employees themselves.

Basically, the performance of the things that are the results of his work. Each individual will have a different level of satisfaction different in accordance with the prevailing value system in itself. This is due to the differences in each individual. The more aspects of the work in accordance with the wishes of the individual, the higher the level of performance. One that can be obtained in the improved performance is the increase in wages, discipline, motivation, work, effectiveness and efficiency in the work, success in performing job duties thoroughly, commonly called the instinct of expertise.

The problems that arise regarding the performance, an indication that the management role as human resource management is required. This is a way of improving management performance. Sometimes the progress of a company may not be offset by good resource too. This resulted in inaccurate between desire and reality exist. Performance management can be decreased due to the existence of unfair competition, social jealousy among its members. Lack of understanding in mindset will lead to deterioration of the progress of the improvement of the company.

II. LITERATURE REVIEW

Wages

Wages or compensation according to Hasibuan (2005) is: "All income in the form of money, goods directly or indirectly received by employees as a reward for services rendered to the company". While understanding the compensation according to Simamora (2001) is: "What is accepted by the employees in exchange for their contributions to the organization. Arita (2005) states compensation is all the income in the form of money or goods directly or indirectly received by employees in exchange for services provided to the agency.

Notoatmodjo (2009) states that compensation is everything received by employees as remuneration for their work or devotion. Factors that affect the compensation is productivity, ability to wages, willingness to wages, the supply and demand for labor, employee organizations and the rules and regulations. According to Indriyatni (2009) compensation has three components as follows:

a. Direct wagesin the form of salary, and intensive or bonus/commission.
b. Indirect wages in the form of benefits and insurance.
c. Non-financial rewards such as flexible working hours and a prestigious office.

According to Mangkunegara (2011: 85-86) compensation generally can be divided into two forms, namely:

1) Direct compensation, the compensation that is directly perceived by the recipient, in the form of salary, benefits, and incentives are employee rights and obligations of the company to wages for it.

a. Salary is the remuneration paid periodically to permanent employees as well as having a definite assurance.
b. The allowance is compensation given by the company to its employees because employees are considered to have participated well in achieving corporate goals.
c. Incentives are compensation granted to certain employees, because of the success of his performance over the standard or target.

2) Indirect compensation cannot be felt directly by the employee, the benefits and services (support services). Benefits and services are given additional compensation based on the company's policy to all employees in an effort to improve their welfare. As pension money, sports and excursions (family gathering).

There are several things that can be used as an indicator of compensation, according to Simamora (2001), these indicators are:

1) Wages and Salaries

Wages and salaries are different things. Wages are paid a base which is often used for production workers and maintenance or for daily workers who are not employees or full-time employees. Wages are usually is daily, weekly or monthly in accordance with an agreement between the employee and the employer. Salaries generally applicable to the fare paid weekly, monthly, or yearly given regularly.

2) Incentives

Is an additional incentive compensation above or beyond the salary or wages provided by the organization. Incentives are usually provided by the company on the basis of their job performance or productivity of employees. Achievement or productivity of employees with good work it will receive incentives from the company.

3) Allowance

Allowances are wagesments or services provided by the company as a protector or a complement to the basic salary. Examples of benefits are health and life insurance, vacation is borne by the company, pension programs, and other benefits related to the employment relationship.

4) Facility

Compensation in the form of facilities provided by the company to accelerate and simplify and motivate employees or employees in work. Examples are a pleasure facility/facilities such as a company car, club memberships, special parking places, or internet access, work uniforms, and so on.

Discipline

According to Fathoni (2006: 172) describes the sense of discipline viewed from the perspective of human resource management, are:

Discipline is the sixth operative functions of Human Resource Management. Discipline is the operative functions of Human Resource Management is most important because the better the discipline of employees, the higher the performance it achieves.

Fathoni said discipline is an important operative function for the higher discipline of an employee, the higher also his performance. While Mangkunegera (2011: 129) argues that "discipline is management action to enforce the standards organization," meaning the work discipline can be defined as the implementation of management to reinforce the organization's guidelines.

Furthermore, Sedarmayanti (2011: 381) argues discipline civil servants, are:

Discipline is a condition for correcting or punishing employees who violate the provisions or procedures established the organization. A discipline is a form of control that the implementation of employee jobs are always in the corridor regulations and legislation in force.

According to Mangkunegara (2011: 129), The second type of disciplinarian described in the preventive and corrective are:

1) preventive discipline

Attempts to move the employees to follow and adhere to the guidelines, the rules that have been outlined by the company.

2) Corrective discipline

An effort to move employees to unite and direct rule to remain in compliance with the regulations in accordance with the guidelines applicable to the company

In essence, the discipline is obedience to rules or orders established by the organization. In this case, the discipline is a process used to deal a problem of performance; This process involves managers in identifying and communicating problems to the employee's performance. Synthesis work discipline is the organization's efforts to move the employees in accordance with the applicable rules of the organization with the purpose of their adherence to employee well.

Motivation

Motivation is defined as a force that drives the power source and controls human behavior. Motivation as an effort to encourage a person to take the desired action, while the motif as a propulsive force someone to do. The term motivation comes from the Latin is movere which means moving or moving. Because a person's behavior tends to be goal-oriented and driven by the desire to achieve a particular goal.

Motivation is the willingness of individuals to issue a high effort to achieve organizational goals (Robbins, 2001). In a work context, motivation is one important factor in encouraging an employee to work. There are three key elements in the motivation that effort, the organization's goals and needs.

Therefore, it takes the intensity and quality of those efforts and focused on organizational goals. The effort is a measure of intensity. When someone motivated then he will strive mightily to achieve the goals, but not necessarily a high effort will produce high employee performance. Necessity is the internal conditions conducive to the stimulation, wherein unsatisfied needs will cause a voltage that stimulates the urge from within the individual.

Employees with high achievement motivation love a challenge, risk-taking, able to take over responsibility, love to work hard. This push will lead to achievement needs employees who distinguish from others because they always want to do things better. Based experience and anticipation of good results and if the feat previously considered good, then the employees are more likely to engage in behaviors achievement. Conversely, if the employee has been convicted of failure, the fear of the failure to grow and cause an urge to avoid failure.

Organizational Performance

The term performance can be interpreted as a vote to determine the final goal to be achieved by individuals, groups and organizations. In this sense performance is a tool that can be used to measure the level of achievement or group and individual policies. Some opinions about the performance were also expressed by some experts as follows:

Mangkunegara (2011: 67) that the term of performance is derived from the actual job performance or the performance to be achieved. According to Keban (2004) performance is the translation of performance that is often interpreted as "appearance", "protest" or "achievement". According to Keban (2004: 183), the achievement of results (performance) can be judged by the actors, namely:

1. Individual performance that illustrates how far a person has been carrying out a duty that can give results that have been set by the group or agency.
2. Performance groups, which illustrates how far someone carrying out a duty that can give results that have been set by the group or agency.
3. Performance of the organization, which illustrates how far the group has carried out all the basic activities so as to achieve the vision and mission of the institution.
4. Program performance, namely with regard to how far the activities in the program that has been implemented so as to achieve the objectives of the program.

Performance is an overview of the level of achievement of the implementation of an activity/ program/policy in achieving the goals, objectives, mission, and vision of the organization as stated in the strategic planning of an organization (Mahsun, 2006: 25). Performance is a set of outputs (outcomes) generated by the execution of a particular function for a certain period (Tangkilisan, 2003: 109).

Based on some opinions on the above, it can be said that the concept of performance is an overview of the accomplishments of the employees or groups within an organization in the implementation of activities, programs, policies in order to realize the vision, mission, and goals of the organization that has been designated. It is also explained that the concept of performance is closely linked to the concept of the organization.

There are three indicators of organizational performance (Bastian, 2001: 335-336) as follows:

1. Effectiveness is the relationship between inputs and outputs where the use of goods and services purchased by the organization to achieve a certain output.
2. Effectiveness is the relation between output and goal, where effectiveness is measured by how far the level of output, policies and procedures of the organization achieve its intended purpose.
3. Economical is the relationship between markets and inputs, in which the purchase of goods and services carried out at the desired quality and the best price possible.

III. RESEARCH METHODS

Draft Hypothesis Testing

In an effort to analyze the issue presented and tested to 6 hypothesis, in general, will be analyzed through qualitative approaches and analytical narrative. However, to analyze and examine the relationship between independent variables and the effect of the endogenous or exogenous variables or dependent variables.

Then to observe the significance of each model, the probe will be done through the t test, and F count. Model predictions are used to address the problems and prove the hypothesis, in which the variables studied were each given the following notations:

$\hat{Y}$ = Organizational Performance
X1 = Wage
X2= Discipline
X3 = Motivation

To clarify the description above, in more models. The test chart design presented in display relationships between variables can be described in terms of the path analysis diagram as follows:

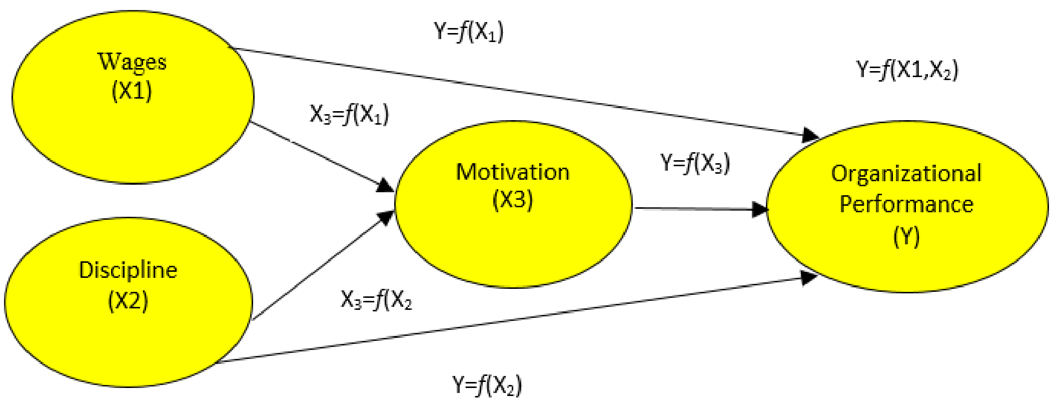

Figure 1. Design Research

Population and Sample

The population is a generalization region consisting of the objects/subjects that have a certain quantity and characteristics defined by the researchers to learn and then drawn conclusions (Sugiyono, 2007). Samples were towing the majority of the population to represent the entire population (Surakhmad, 1990).

The total number of employees 89 people. The number is the total number of employees. The sampling technique is also called the sampling methods saturated. This sampling in the whole population was included in the sampling.

Quality Test Data

The questionnaire will be used in research, to produce a valid and reliable instrument first tested the validity and reliability of the instrument. According to Sugiyono (2007: 219) "Validity is a statement that describes the level of the relevant instruments able to measure what should be measured". While reliability is a value indicating a measure of consistency in measuring the same symptoms (Riduwan, 2003: 86). By using a valid and reliable instrument, it is expected that the results will be valid and reliable.

IV. RESULTS AND DISCUSSION

Analysis of Variable Wage

Variable salary includes 5 questions compiled from the numbers 1 to 5. The question is then submitted to 89 employees. Before further analyzed the results of the questionnaire seen its validity and reliability. The validity of the test results can be seen in the following table.

Table 1. Questions Validity Wages

Item-Total Statistics

Variable	Scale means if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
X1	16.4494	10.137	, 997	, 917
X2	15.4045	6.880	, 791	, 429
X3	15.4494	6.818	, 765	, 434
X4	15.8539	9.376	, 738	, 633
X5	15.4045	6.880	, 791	, 429

Based on the above table it is known that the correlation between multiple items with a total greater than the value of 0.60. This means that all items are valid questions that can be used for further analysis.

Additional testing needs to be done to look at the quality of data is to perform reliability testing. The test is performed by comparing the value of Cronbach's alpha with a value of 0.6. If the Cronbach alpha values greater than 0.6, it can be said that the question to be reliable. Calculating Cronbach's alpha using SPSS version 21 with the following results.

Table 2. Results of The Reliability Question Wages

Reliability Statistics

Cronbach's Alpha	N of Items
, 653	5

based on the above data it is known that Cronbach alpha value of 0.653. The value of greater than 0.6 so that it can be said that the question on wage variables are reliable.

Analysis of Variable Discipline

Variable discipline includes seven questions drawn from number 6 to 12. The question is then submitted to 89 employees. Before further analyzed the results of the questionnaire seen its validity and reliability. The validity of the test results can be seen in the following table.

Table 3. Variable Validity Question On Discipline

Item-Total Statistics

Variable	Scale means if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
X6	18.0899	29.355	, 772	, 842
X7	19.5955	41.789	, 777	, 813
X8	19.8427	47.702	, 873	, 899
X9	19.5281	42.502	, 870	, 821
X10	19.5393	42.615	, 853	, 824
X11	19.8989	47.478	, 898	, 895
X12	19.5506	43.909	, 894	, 844

Based on the above table it is known that the correlation between the items with a total greater than the value of 0.60. This means that all items are valid questions that can be used for further analysis.

Additional testing needs to be done to look at the quality of data is to perform reliability testing. The test is performed by comparing the value of Cronbach's alpha with a value of 0.6. If the Cronbach alpha values greater than 0.6, it can be said that the question to be reliable. Calculating Cronbach's alpha using SPSS version 21 with the following results.

Table 4. Calculation Results Cronbach Alpha Variable Discipline

Reliability Statistics

Cronbach's Alpha	N of Items
, 828	7

Based on the above data it is known that Cronbach Alpha value of 0.828. the value is greater than 0, 6 so that it can be said that the question on disciplinary variables is reliable.

Analysis of Variable Motivation

Motivational variables included 12 questions drawn from number 13 to 24. The question is then submitted to 89 employees. Before further analyzed the results of the questionnaire seen its validity and reliability. The validity of the test results can be seen in the following table.

Table 5. Results of Validity Question On Variable Motivation

Item-Total Statistics

Variable	Scale means if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
X13	38.9213	57.596	and 789	, 886
X14	38.6067	27.491	, 785	, 840
X15	39.7416	50.217	, 762	, 891
X16	39.9101	61.037	, 775	, 848
X17	38.9213	57.596	and 789	, 886
X18	39.3034	59.396	, 706	, 702
x19	39.9438	52.190	, 703	726
X20	40.1461	54.853	, 721	, 755
X21	38.9213	57.596	and 789	, 786
X22	40.0674	55.291	, 794	, 761
Y23	39.6629	56.590	, 796	, 781
Y24	39.4719	63.888	, 729	, 650

Based on the above table it is known that the correlation between the items with a total greater than the value 0,0,60. This means that all items are valid questions that can be used for further analysis.

Additional testing needs to be done to look at the quality of data is to perform reliability testing. The test is performed by comparing the value of Cronbach's alpha with a value of 0.6. If the Cronbach alpha values greater than 0.6, it can be said that the question to be reliable. Calculating Cronbach's alpha using SPSS version 21 with the following results.

Table 6. Results of The Calculation of Cronbach Alpha Motivation Variable

Reliability Statistics

Cronbach's Alpha	N of Items
, 610	12

Based on the above data it is known that Cronbach Alpha value of 0.610. The value of greater than 0.6 so that it can be said that the question on the variable motivation variables is reliable.

Analysis of Organizational Performance Variables

Organizational performance variables included 12 questions drawn from number 25 to 36. The question is then submitted to 93 employees. Before further analyzed the results of the questionnaire seen its validity and reliability. The validity of the test results can be seen in the following table.

Table 7. Results of The Validity of Questions on Organizational Performance Variables

Item-Total Statistics

Variable	Scale means if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
Y25	41.4944	109.821	, 760	, 860
Y26	40.7191	110.659	, 717	, 817
Y27	39.0225	24.886	, 788	, 888
Y28	41.2921	108.868	, 732	, 832
Y29	41.1348	101.482	726	, 826
Y30	42.2135	104.352	, 773	, 873
Y31	41.7528	103.120	, 705	, 805
Y32	41.7191	96.795	, 767	, 867
y33	40.9101	106.287	, 704	, 804
Y34	41.5843	103.359	, 705	, 805
Y35	41.2360	106.205	, 720	, 620
Y36	41.1798	99.354	, 729	, 629

Based on the above table it is known that the correlation between the items with a total greater than the value of 0.60. This means that all items are valid questions that can be used for further analysis.

Additional testing needs to be done to look at the quality of data is to perform reliability testing. The test is performed by comparing the value of Cronbach's alpha with a value of 0.6. If the Cronbach alpha values greater than 0.6, it can be said that the question to be reliable. Calculating Cronbach's alpha using SPSS version 21 with the following results.

Table 8. Calculation Results Cronbach Alpha Variable Organizational Performance

Reliability Statistics

Cronbach's Alpha	N of Items
, 748	12

Based on the above data it is known that Cronbach alpha value of 0.748. The value of greater than 0.6 so that it can be said that the question on organizational performance variables is reliable.

Discussion

1. Effect of Wages and Discipline on Organizational Performance

Linear analysis model can be based on calculations using SPSS program as follows.

Table 9. Results of the analysis of the first equation

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	beta		
1(Constant)	17.618	2.572		6,850	, 000
WAGES	, 670	, 115	, 415	5.837	, 000
DISCIPLINE	, 548	, 066	, 592	8.322	, 000

a. Dependent Variable: PERFORMANCE

Based on the table above, the structural equation: Y = 0,415X1 + 0,592X2

F count can be obtained from the following table.

Table 10. Calculate The F Value Equations Simultaneously

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1504.160	2	752.080	56.838	, 000b
	Residual	1137.952	86	13.232		
	Total	2642.112	88			

a. Dependent Variable: PERFORMANCE

b. Predictors: (Constant), DISCIPLINE, WAGES

Based on the above table it is known that the calculated F value of 56.838 and significance of 0.00. This value is less than 0.05. This means that the variable wages and disciplinary effect on organizational performance simultaneously. The magnitude of the effect of the independent variable on the dependent variable can be seen from the following values of r squared.

Table 11. Value-r Squared Regression Model First

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	, 755a	, 569	, 559	3.63758	1.239

a. Predictors: (Constant), DISCIPLINE, WAGES

b. Dependent Variable: PERFORMANCE

On mutually in the above table, it is known that the value of r squared 56.9% wages and discipline means variables affect the organizational performance while the remaining 56.9% influenced by other variables that are not incorporated into the model equations.

2. Influence Analysis of Wageson Organizational Performance

The analysis results wageson the organizational performance of partial can be seen in the following table.

Table 12. Results of The Analysis of The Second Regression Equation

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	beta		
1	(Constant)	27.589	3.040		9.074	, 000
	WAGES	, 761	, 153	, 472	4.990	, 000

a. Dependent Variable: PERFORMANCE

Structural equation: Y = 0,472X1

Based on the chart above analysis it is known that the coefficient of wages amounting to 0.472. T value of 4.990. The significant value of 0.00. The significance value smaller than 0.05. This means that the wage variables affect the performance of an organization partially. The magnitude of the effect of wages on the organization's performance can be seen in the following table.

Table 13. Value-r Squared Second Equation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	, 472a	, 222	214	4.85923

a. Predictors: (Constant), WAGES

Based on the above table it can be seen r squared value of 0.222. This means that the effect wageon the organization's performance of the variable by 22.2% and the rest influenced by other variables not included in the model equations.

3. Influence Analysis of Disciplineon Organizational Performance

The analysis resultsdiscipline on the organizational performance of partial can be seen in the following table.

Table 14. Results of The Analysis of The Third Regression Equation

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	beta		
1	(Constant)	29.981	1,715		17.486	, 000
	DISCIPLINE	, 585	, 077	, 631	7.595	, 000

a. Dependent Variable: PERFORMANCE

Structural equation: Y = 0,631X2

Based on the chart above analysis discipline is known that the coefficient of 0.631. T value of 7.595. The significant value of 0.00. The significance value smaller than 0.05. This means that the discipline of variables affects the performance of an organization partially. The amount of discipline influence on organizational performance can be seen in the following table.

Table 15. Value Quadratic Equation R Third

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	, 631a	399	, 392	4.27343

a. Predictors: (Constant), DISCIPLINE

Based on the above table it can be seen r squared value of 0.399. This means discipline variables influence on organizational performance at 39.9% and the rest influenced by other variables not included in the model equations.

4. Analysis of Effect of Motivation on Organizational Performance

The results of the analysis of the effect of motivation on organizational performance can be partially seen in the following table.

Table 16. Results of The Fourth Regression Equation Analysis

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	beta		
1	(Constant)	10.180	2,171		4.689	, 000
	MOTIVATION	, 774	, 051	, 850	15.057	, 000

a. Dependent Variable: PERFORMANCE

Structural equation: Y = 0,850X3

Based on the chart above analysis it is known that motivation coefficient of 0.850. T value of 15.057. The significant value of 0.00. The significance value smaller than 0.05. This means that the motivation variable influence on organizational performance partially. The magnitude of the effect of motivation on the performance of the organization can be seen in the following table.

Table 17. Value-r squared fourth equation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	, 850a	, 723	, 719	2.90214

a. Predictors: (Constant), PERFORMANCE

Based on the above table it can be seen r squared value of 0.723. This means discipline variables influence on the organizational performance of 72.3% and the rest influenced by other variables not included in the model equations.

5. Analysis of Effect of Wages on Organizational Performance through Motivation

Wage coefficient influence on work motivation can be seen in the following table.

Table 18. The Effect of Wages on Organizational Performance through Motivation

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	beta		
1	(Constant)	20.810	3.021		6.889	, 000
	WAGES	1,070	, 152	, 603	7.057	, 000

a. Dependent Variable: MOTIVATION

Based on the previous table it can be seen that the effect of wages on organizational performance is .472. The influence of wages on organizational performance through motivation is 0.630 x 0.850 = 0.536. In this case, the indirect effect is greater than the direct effect so that it can be said that the work motivation as an intervening variable.

6. Analysis of Effect of Discipline on Organizational Performance through Motivation

The coefficient of discipline on work motivation can be seen in the following table.

Table 19. The Effect of Discipline on Organizational Performance through Motivation

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	beta		
1	(Constant)	24.892	1.536		16.204	, 000
	DISCIPLINE	, 788	, 069	, 775	11.426	, 000

a. Dependent Variable: MOTIVATION

Based on the previous table it can be seen that the direct effect of discipline on organizational performance is 0.631. While the influence of discipline on the performance of the organization through motivation is 0.775 x 0.850 = 0.659. In this case smaller than the direct influence of indirect influence so that it can be said that the work motivation as an intervening variable.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Variable wages and disciplinary effect on organizational performance simultaneously. F value calculated at 56.838 and significance of 0.00. This value is less than 0.05. R squared value of 56.9% means that variable wages and disciplinary effect on organizational performance while the remaining 56.9% influenced by other variables that are not incorporated into the model equations.

Variable wages affect the performance of an organization partially. T value of 4.990. The significant value of 0.00. The significance value smaller than 0.05. R squared value of 0.222. This means that the effect of variable wages to the performance of 22.2% and the rest influenced by other variables not included in the model equations.

Discipline variables affect the performance of an organization partially. T value of 7.595. The significant value of 0.00. The significance value smaller than 0.05. R squared value of 0.398. This means discipline variables influence on the organizational performance of 39.8% and the rest influenced by other variables not included in the model equations.

Motivation variable influence on organizational performance partially. T value of 15.057. The significant value of 0.00. The significance value smaller than 0.05. R squared value of 0.719. This means that the motivation variable influence on organizational performance and the remaining 71.9% is influenced by other variables that are not incorporated into the model equations.

The influence of wages on organizational performance is .472. The influence of wages on organizational performance through motivation is 0,630x0,850 = 0.536. In this case, the indirect effect is greater than the direct effect so that it can be said that the variables of motivation as an intervening variable.

The direct effect of discipline on organizational performance is .631. While the discipline influence on organizational performance through motivation is 0,775x0,850 = 0.659. In this case smaller than the direct influence indirect influence so we can say that the variables of work organization citizenship behavior as an intervening variable.

RECOMMENDATIONS

Organizational performance needs to be improved by increasing wages and improving employee discipline. Wages represent employee compensation to employees already serve or work at the company. Wages need to be improved with regard to the value given nominal wages and salaries that are non-financial.

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Challenges in Healthcare Sector- A Medico Leadership Perspective

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ABSTRACT: *Healthcare specialists, by virtue of their extensive proficiency in the field of medical sciences play a momentous position in our every stage of life. Their service to mankind in not only saving and extending lives, but also to control epidemics is exceptionally commendable and far beyond comparison.*
Respect for autonomy of patients to choose or deny the course of treatment, beneficence -to act considering the best interest of the patient, not to cause harm at all times and to distribute the scarce health resource to the needy are the four important guiding principles of medical ethics.Yet,ethical controversies in this sector have not become uncommon in the recent years.
This research paper aims toexplorecertain consumer complaints of reportedmedical malpractice andits aftermath on overall reputation of the hospitals.
The study also extends to find out the ethical leadership choices taken by key leadership in hospitals during such crisis situations to not only defend the repute of the hospitals but also to proposeprotectiveactions to elude such destitutions in the long run.

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I. INTRODUCTION

Healthcare sector demands utmost efficiency and clarity in identification of the nature of illness through a systematic analysis of the patients medical history, illness reported , examination of signs and symptoms in deciding the best course of treatment to cure the patient.

Such a noble profession weights clinicians and specialists to create an optimum treatment plan with paramount care and justice and thusthe school of medical science suggest every qualified and certified physician to necessarily take “Hippocratic Oath”, a swear upon a number of healing Gods to set standards and abide by the same for the best course of treatment with utmost fair and justice to the mankind.

The crux of Hippocratic Oath pronounces*Primum non nocere,* meaning first “do no harm” and another equivalent phrase was found in the book of Epidemics which states medical student to “either help or not harm the patient”.

Despite itemized professional code of ethics, medical malpractices occur when appropriate treatment is neglected at the right moment, omission of appropriate action or wilfully administering substandard treatment that cause harm, injury or death of the patient.

II. OBJECTIVE

The main objective of this paper can be expressed as follows:
1. To list out certain medical malpractice exposed in hospitals.
2. To analyse the repercussions of such malpractice towards the reputation of both the hospital and the key medical specialist.
3. To understand the initiatives taken by top leadership as a response to this adverse situations to evade such impending casualties.

III. LITERATURE REVIEW

Thomas Percival, dating back to 1803, published the requirements of medical professionals and code of ethics for the field of medicine was adapted in the year 1847 and from then medical ethics was practiced worldwide as a more self-conscious discourse.

Jeffrey Berlant, being a critic to Percival’s code for physicians’ ethics as he considered them as anti-competitive, guild-like nature of the physician community.

Apothecaries Act, passed by the Parliament of United Kingdom initiated compulsory apprenticeship and formal qualifications for the apothecaries which was the beginning of the medical profession in UK.

A study of Patient Safety Incidents (PSIs) by HealthGrades found that "Failure to Rescue", meaning failure to diagnose and treat in time, was the most common cause of a patient safety incident, with a rate of 155 per 1,000 hospitalized patients. Unfortunately, the study did not further break down statistics into the types of misdiagnosis, delayed diagnosis or other factors. [1]

According to the Medical Malpractice Centre, in the United States, there are between 15,000 and 19,000 medical malpractice suits against doctors every year.

The National Patient Safety Foundation (NPSF) commissioned a phone survey in 1997 to review patient opinions about medical mistakes. Of the people reporting a medical mistake (42%), 40% reported a "misdiagnosis or treatment error", but did not separate misdiagnosis from treatment errors. Respondents also reported that their doctor failed to make an adequate diagnosis in 9% of cases, and 8% of people cited misdiagnosis as a primary causal factor in the medical mistake. Loosely interpreting these facts gives a range of 8% to 42% rate for misdiagnoses.

Misdiagnosis rates in the ICU or Emergency Department have been studied, with rates ranging from 20% to 40%. These misdiagnosis rates are likely to be higher than the overall health care misdiagnosis rate because of the time-critical and serious nature of the diagnosis under these crisis conditions.

Davenport (2000) lists the top five malpractice-risk conditions in order of prevalence as myocardial infarction, breast cancer, appendicitis, lung cancer and colon cancer, and notes that almost all suits are cases of misdiagnosis or mismanaged diagnostic tests leading to delayed treatment. Myocardial infarction and appendicitis are likely to be related to emergency department visits, whereas the three litigation-prone types of cancers are more common in general physician work.

The rates of **misdiagnosis in the emergency department** or ICU have been studied. A study found a rate of 20% of misdiagnosis in the ICU. For example, non-typical presentations such as a young person or a woman having a heart attack are less likely to be correctly diagnosed. Furthermore, an ECG test does not rule out a heart attack even if it is normal, and some physicians rely too heavily on this test.

Appendicitis is another common and serious misdiagnosis in the ED. Initial misdiagnosis rates of appendicitis in children are high, ranging from 28% to 57% under 12s to almost 100% misdiagnosis for appendicitis in infants (Roth rock et al, 2000).

Johns Hopkins Hospital in Baltimore found a 1.4% error rate in pathology tests in patients referred for cancer treatment. Of the 86 total misdiagnoses, 20 had benign tumours misdiagnosed as malignant and presumably received unnecessary cancer treatment. An earlier Johns Hopkins study of prostate cancer biopsies found an error that ruled out cancer in six out of 535 cases.

Few Medical mishaps

Delay in treatment:

Medical practioneers of a renowned north based hospital were convicted following their delay to administer proper treatment to a 51 year old woman who was suffering from a cardiac arrest. Following this the chief cardiologist was arrested and questioned but later the court released him on bail.

Wrong diagnosis and Faulty Treatment:

An FIR was registered against another doctor who was indicted of overbilling and negligence in treatment for a seven year old child who was later diagnosed to dengue. The child was not administered anti-platelets. After an extensive investigation, the court declared it as a bailable offence and hence the doctor involved was rescued without any major damage.

Over Billing:

In another bicycle accident, the poor guy though fortunate enough to survive from minimum injuries was taken to hospital by ambulance and was advised an unwanted CT scan and was kept in emergency room for one hour and later discharged with a hefty bill of $31,613.

The above is not exhaustive list and includes few others like billing for services not rendered, extended stay in hospital as the patient insurance, unnecessary prolonged treatment etc.

Recommendations and Suggestions

Doctors being in noble profession are accountable to public for any misguidance rendered during the course of treatment. The top leadership in the hospital plays a vital role during such crisis situations as they need to safeguard not only the repute of the hospital but also to ensure a cordial relationship. The below listed are few such initiatives taken by the key leadership:

- Lack of proper communication and co-ordination was found to be a missing factor and hence a team of trained professionals with more determined effort to be set to communicate and ease the patient with utmost transparency in both the treatment process and cost aspects.

- Setting up public grievance redressal cell consisting of medical experts and specialist to handle complaint
- Preferable a person with sound medical knowledge to be designated in the top position in order to clearly understand the intricacy of the issue else the management becomes completely dependent upon the treating doctor to respond to patient queries.
- To set the right tone for the expectation of the patient as seldom patient misunderstands the outcome of the treatment due to improper doctor-patient relationship.
- Adequate support staff nurses and house keeping with suitable expertise to optimise hospitality and patient comfortness.

IV. CONCLUSION

Healthcare is the only field where we do not have the option but to accept what our healthcare specialist dictates on treatment plans.Irrespective of our affordability, we surrender to the clinician. Hence it is very important for each and every doctor to be patient, transparent and communicate all the possible outcome of the treatment along with the tariff. This will definitely pave way to eradicate misunderstanding of communication between the provider and the receiver.

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Managers Need to be Familiar and Deal with Occupational Safety and Health (OSH) Law in Bangladesh.

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ABSTRACT: *Ensuring the physical well-being of employees in the workplace is the primary goal of the safety and health management process. In recent years the human resource management has emphasized on occupational health and safety and human resources department has taken on greater and greater responsibility in this area. Bangladesh is facing with occupational health and safety hazards in its industries. A large number of workers lose their valuable lives and are injured because of poor occupational safety and health conditions. The objective of this study is to provide knowledge of Bangladesh labor laws-2006 amended in 2013 regarding occupational health and safety for the Bangladeshi managers. Secondary data has been collected from books, journals, records, papers, documents, reports, websites, etc. This study focuses on Major Industrial accidents of Bangladesh in Recent Years, Labor Law Regarding Safety, Health and Hygiene in Bangladesh, spatial provisions relating to health, hygiene and safety.*

KEYWORDS: *Occupational health and safety; Labor Law Regarding Safety, Health and Hygiene in Bangladesh; Industrial accidents; Workplace hazards and risks; ILO Convension-155.*

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I. INTRODUCTION

Today, safety and health management is a complex activity requiring the expertise of specialists from many disciplines; such as industrial hygiene, occupational medicine, ecology, psychology, and safety engineering, to name only a few. Moreover, concerns in safety and health management now reach beyond physical conditions in the workplace to embrace a regard for workers' mental and emotional well-being and a commitment to protecting the surrounding community from pollution and exposure to toxic substances. A sense of social responsibility grows out of the recognition that business and industrial organizations do more than seek profits. Organizational activities affect workers as people and society as whole, and these effects should be considered in the planning and management of all day-to-day operations. The establishment of safe, healthful, and environmentally sound working conditions is a priority in any socially responsible organization. Various labor laws refer to worker health and safety. Organizations have extensive legal obligations with regard to health and safety. Bangladeshi managers need to be familiar with occupational health and safety laws and compliance with those because reducing the incidence of occupational injury, illness, death and unhealthy environment; the costs to an organization of accidents, injuries and occupational diseases are both tangible and intangible. The tangible costs are the measurable financial expenses. The intangible costs include lowered employee morale, less favorable public relations and weakened ability to recruit and retain employees.

II. OBJECTIVES

The main purpose of this article is to provide basic knowledge of Bangladesh labor laws regarding occupational health and safety for the Bangladeshi managers. Other objectives are aware about tangible and intangible effects on health and safety and to reducing the incidence of occupational injury, illness, death and unhealthy environment.

III. METHODOLOGY

Type of Research

This article is a descriptive research on both qualitative and quantitative data, based on national and international laws on occupational health and safety.

Data Collection Methods

Researcher has collected secondary data from books, journals, records, papers, documents, reports, websites, etc.

IV. RATIONAL OF THE STUDY

Safe work is one of the fundamental rights of the workers. Occupational safety and health is an important component of decent work agenda. It means the condition of workplace where workers work is free from all kinds of hazards and risks. Safe work environment ensures safety and health for everyone at work preventing hazards and risks. Risk comes in many forms—repetitive tasks, long hours of work, exposure to harmful substances like gas and fumes, noise, insufficient lighting, damage to equipment, and psychological and physical oppression. Weak implementation of the regulatory provisions regarding OSH, the standards of workforce and industries are often not enforced. In spite of having enormous problems, hazards, accidents, and complaints relating to OSH condition of the country, getting a complete and comprehensive picture of OSH in Bangladesh is not an easy task since the information on this issue is locating at various sources, and even there is dearth of necessary information. Due to change of time and change in nature of OSH problems and hazards, the existing OSH profile developed in 2002 has become less capable to meet the information needed in this regard. Thus, developing a new profile, which will ultimately update the existing one, on OSH condition of the country is long overdue. It is estimated that globally around 160 million people are affected by avoidable occupational diseases and more than two million workers die from work related accidents each year. The suffering caused by such accidents and illnesses to workers and their families is incalculable. In economic terms, the ILO has estimated that 4 percent of the world's annual GDP is lost as a consequence of occupational diseases and accidents. Besides, employers face costly early retirements, loss of skilled staff, absenteeism, and high insurance premiums due to work-related accidents and diseases. As a fast growing developing country, Bangladesh is gradually flourishing in its commerce and industry; and, at the same time, the number of workers is also increasing in industries and factories. Though there is no government source of data on how many workers suffer from occupational diseases and accidents in Bangladesh each year, according to the Bangladesh Institute of Labor Studies (BILS) newspaper based survey, a total of 5909 workers died and 14413 workers were injured in different occupational accidents during last ten years (2002-2012). Also in this survey it is too observed that 708 workers died in the year of 2012 due to different workplace accident around the country; among them 554 were male workers and 154 were female. Now –a- days, occupational health and safety conditions of RMG sector in Bangladesh is facing many questions in between practices and international and national laws at home and abroad, because RMG workers of Bangladesh are facing many problems on occupational health and safety with others problems of this industry. Many local and foreign stakeholders have raised questions on health and safety systems of RMG and other industries because many workers had died and injured for insufficient health and safety conditions. That's why the study has focused on the knowing of occupational health and safety law for Bangladeshi managers.

V. MAJOR INDUSTRIAL ACCIDENTS OF BANGLADESH IN RECENT YEARS

Source:DHAKA (Reuters)

Here are some of the Bangladesh's worst industrial accidents in the last decade:

January 2005 – A fire at a garment factory outside the capital Dhaka killed 22 people and injured more than 50.

April 2005 – At least 64 people were killed and about 100 injured when a garment factory building collapsed in Dhaka.

February 2006 – Twenty one workers were killed and dozens injured when the Spectrum garment factory building collapsed in Dhaka.

February 2006 – A fire ripped through a textile factory in the port city of Chittagong, killing 65 workers and injuring dozens.

February 2010 - A fire at a garment factory in a Dhaka suburb killed 21 workers and injured about 50.

December 2010 – A fire at the Sportswear factory supplying global retailers killed at least 26 people and injured about 100 just outside Dhaka.

November 2012 - A fire at the Tazreen Fashions factory in Dhaka supplying global brands killed 112 workers and injured more than 150. The blaze, believed to have been caused by a short circuit, was the deadliest factory fire in Bangladesh's history.

April 2013 - At least 1,136 people were killed and hundreds injured when an eight-storey building housing five garment factories supplying global brands collapsed on the outskirts of Dhaka. The Rana Plaza tragedy was the worst industrial accident in Bangladesh and the world's most deadly industrial accident since the 1984 Bhopal disaster in India.

January 2015 – A fire at a plastics factory on the outskirts Dhaka killed 13 people and injured dozens.

August 2016 - More than 100 people fell ill in Bangladesh after inhaling gas that leaked from a fertilizer factory in Chittagong.

September 2016- A fire on Sept. 10 at Tampaco Foils, a food and cigarette packaging factory in Dhaka, killed at least 39 people and injured dozens more.

VI. HAZARD INCIDENTS IN JULY 2018

Source: NDRCC Reports and National Dailies, July 2018
Source: NDRCC Reports and National Dailies, July 2018

In the month of July 2018, eight hazards have been occurred with the total frequency of 54 among which 3 types were manmade (fire, boat-capsize, building collapse) and 5 were natural (lightning, heavy rainfall, flood, flash flood, and landslide). These hazard incidents took lives of 26 persons and injured about 19 people.

One of the most devastating hazards was flood which occurred in 12 districts of northern, north-eastern and south-eastern part of the country with huge damage of assets and marooned thousands of people. Another devastating hazard was landslide which took 9 lives as highest death caused by this hazard. Also, lightening caused death of 7 people with 5 incidents in 4 districts.

Fire was also remarkable in terms of frequency of 8 incidents in 6 districts. Fire incident injured 2 persons in the foam industry in Gazipur. Another frequently occurred hazard was heavy rainfall at 6 times in Chattogram, Dhaka, Kurigram and Lalmonirhat which caused waterlogging in Chattogram and Dhaka.

Along with these, the incidents of flash flood took place in 3 districts with the disruption of daily life but no death was reported so far. Also, four incidents of building collapse in two districts caused death of 4 persons and injured 9 persons; and boat capsize occurred twice in this month with the death of 6 persons and 5 injured.

VII. ILO-C155 - OCCUPATIONAL SAFETY AND HEALTH CONVENTION, 1981 (No. 155)

Convention concerning Occupational Safety and Health and the Working Environment (Entry into force: 11 Aug 1983)Adoption: Geneva, 67th ILC session (22 Jun 1981) - Status: Up-to-date instrument (Technical Convention).Convention may be denounced: 11 Aug 2023 - 11 Aug 2024. Researcher includes here the main article-1 to article-21of this convention, which are given below:

Preamble The General Conference of the International Labour Organisation, Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Sixty-seventh Session on 3 June 1981, and Having decided upon the adoption of certain proposals with regard to safety and health and the working environment, which is the sixth item on the agenda of the session, and Having determined that these proposals shall take the form of an international Convention, adopts this twenty-second day of June of the year one thousand nine hundred and eighty-one the following Convention, which may be cited as the Occupational Safety and Health Convention, 1981:

PART -1. Scope and Definitions

Article 1

1. This Convention applies to all branches of economic activity.
2. A Member ratifying this Convention may, after consultation at the earliest possible stage with the representative organisations of employers and workers concerned, exclude from its application, in part or in whole, particular branches of economic activity, such as maritime shipping or fishing, in respect of which special problems of a substantial nature arise.
3. Each Member which ratifies this Convention shall list, in the first report on the application of the Convention submitted under Article 22 of the Constitution of the International Labour Organisation, any branches which may have been excluded in pursuance of paragraph 2 of this Article, giving the reasons for such exclusion and describing the measures taken to give adequate protection to workers in excluded branches, and shall indicate in subsequent reports any progress towards wider application.

Article 2

1. This Convention applies to all workers in the branches of economic activity covered.
2. A Member ratifying this Convention may, after consultation at the earliest possible stage with the representative organisations of employers and workers concerned, exclude from its application, in part or in whole, limited categories of workers in respect of which there are particular difficulties.
3. Each Member which ratifies this Convention shall list, in the first report on the application of the Convention submitted under Article 22 of the Constitution of the International Labour Organisation, any limited categories of workers which may have been excluded in pursuance of paragraph 2 of this Article, giving the reasons for such exclusion, and shall indicate in subsequent reports any progress towards wider application.

Article 3
For the purpose of this Convention--
a) the term ***branches of economic activity*** covers all branches in which workers are employed, including the public service;
b) the term ***workers*** covers all employed persons, including public employees;
c) the term ***workplace*** covers all places where workers need to be or to go by reason of their work and which are under the direct or indirect control of the employer;
d) the term ***regulations*** covers all provisions given force of law by the competent authority or authorities;
e) the term ***health*** , in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work.

PART -2. Principles of National Policy
Article 4
1) Each Member shall, in the light of national conditions and practice, and in consultation with the most representative organisations of employers and workers, formulate, implement and periodically review a coherent national policy on occupational safety, occupational health and the working environment.
2) The aim of the policy shall be to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

Article 5
The policy referred to in Article 4 of this Convention shall take account of the following main spheres of action in so far as they affect occupational safety and health and the working environment:
a) design, testing, choice, substitution, installation, arrangement, use and maintenance of the material elements of work (workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents, work processes);
b) relationships between the material elements of work and the persons who carry out or supervise the work, and adaptation of machinery, equipment, working time, organisation of work and work processes to the physical and mental capacities of the workers;
c) training, including necessary further training, qualifications and motivations of persons involved, in one capacity or another, in the achievement of adequate levels of safety and health;
d) communication and co-operation at the levels of the working group and the undertaking and at all other appropriate levels up to and including the national level;
e) the protection of workers and their representatives from disciplinary measures as a result of actions properly taken by them in conformity with the policy referred to in Article 4 of this Convention.

Article 6
The formulation of the policy referred to in Article 4 of this Convention shall indicate the respective functions and responsibilities in respect of occupational safety and health and the working environment of public authorities, employers, workers and others, taking account both of the complementary character of such responsibilities and of national conditions and practice.

Article 7
The situation regarding occupational safety and health and the working environment shall be reviewed at appropriate intervals, either over-all or in respect of particular areas, with a view to identifying major problems, evolving effective methods for dealing with them and priorities of action, and evaluating results.

PART -3. Action at the National Level
Article 8
Each Member shall, by laws or regulations or any other method consistent with national conditions and practice and in consultation with the representative organisations of employers and workers concerned, take such steps as may be necessary to give effect to Article 4 of this Convention.

Article 9
1. The enforcement of laws and regulations concerning occupational safety and health and the working environment shall be secured by an adequate and appropriate system of inspection.
2. The enforcement system shall provide for adequate penalties for violations of the laws and regulations.

Article 10

Measures shall be taken to provide guidance to employers and workers so as to help them to comply with legal obligations.

Article 11

To give effect to the policy referred to in Article 4 of this Convention, the competent authority or authorities shall ensure that the following functions are progressively carried out:

a) the determination, where the nature and degree of hazards so require, of conditions governing the design, construction and layout of undertakings, the commencement of their operations, major alterations affecting them and changes in their purposes, the safety of technical equipment used at work, as well as the application of procedures defined by the competent authorities;
b) the determination of work processes and of substances and agents the exposure to which is to be prohibited, limited or made subject to authorisation or control by the competent authority or authorities; health hazards due to the simultaneous exposure to several substances or agents shall be taken into consideration;
c) the establishment and application of procedures for the notification of occupational accidents and diseases, by employers and, when appropriate, insurance institutions and others directly concerned, and the production of annual statistics on occupational accidents and diseases;
d) the holding of inquiries, where cases of occupational accidents, occupational diseases or any other injuries to health which arise in the course of or in connection with work appear to reflect situations which are serious;
e) the publication, annually, of information on measures taken in pursuance of the policy referred to in Article 4 of this Convention and on occupational accidents, occupational diseases and other injuries to health which arise in the course of or in connection with work;
f) the introduction or extension of systems, taking into account national conditions and possibilities, to examine chemical, physical and biological agents in respect of the risk to the health of workers.

Article 12

Measures shall be taken, in accordance with national law and practice, with a view to ensuring that those who design, manufacture, import, provide or transfer machinery, equipment or substances for occupational use--

a) satisfy themselves that, so far as is reasonably practicable, the machinery, equipment or substance does not entail dangers for the safety and health of those using it correctly;
b) make available information concerning the correct installation and use of machinery and equipment and the correct use of substances, and information on hazards of machinery and equipment and dangerous properties of chemical substances and physical and biological agents or products, as well as instructions on how known hazards are to be avoided;
c) undertake studies and research or otherwise keep abreast of the scientific and technical knowledge necessary to comply with subparagraphs (a) and (b) of this Article.

Article 13

A worker who has removed himself from a work situation which he has reasonable justification to believe presents an imminent and serious danger to his life or health shall be protected from undue consequences in accordance with national conditions and practice.

Article 14

Measures shall be taken with a view to promoting in a manner appropriate to national conditions and practice, the inclusion of questions of occupational safety and health and the working environment at all levels of education and training, including higher technical, medical and professional education, in a manner meeting the training needs of all workers.

Article 15

1. With a view to ensuring the coherence of the policy referred to in Article 4 of this Convention and of measures for its application, each Member shall, after consultation at the earliest possible stage with the most representative organisations of employers and workers, and with other bodies as appropriate, make arrangements appropriate to national conditions and practice to ensure the necessary co-ordination between various authorities and bodies called upon to give effect to Parts II and III of this Convention.
2. Whenever circumstances so require and national conditions and practice permit, these arrangements shall include the establishment of a central body.

PART -4. Action at the Level of the Undertaking
Article 16

1. Employers shall be required to ensure that, so far as is reasonably practicable, the workplaces, machinery, equipment and processes under their control are safe and without risk to health.
2. Employers shall be required to ensure that, so far as is reasonably practicable, the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.
3. Employers shall be required to provide, where necessary, adequate protective clothing and protective equipment to prevent, so far as is reasonably practicable, risk of accidents or of adverse effects on health.

Article 17

Whenever two or more undertakings engage in activities simultaneously at one workplace, they shall collaborate in applying the requirements of this Convention.

Article 18

Employers shall be required to provide, where necessary, for measures to deal with emergencies and accidents, including adequate first-aid arrangements.

Article 19
There shall be arrangements at the level of the undertaking under which--

a) workers, in the course of performing their work, co-operate in the fulfilment by their employer of the obligations placed upon him;
b) representatives of workers in the undertaking co-operate with the employer in the field of occupational safety and health;
c) representatives of workers in an undertaking are given adequate information on measures taken by the employer to secure occupational safety and health and may consult their representative organisations about such information provided they do not disclose commercial secrets;
d) workers and their representatives in the undertaking are given appropriate training in occupational safety and health;
e) workers or their representatives and, as the case may be, their representative organisations in an undertaking, in accordance with national law and practice, are enabled to enquire into, and are consulted by the employer on, all aspects of occupational safety and health associated with their work; for this purpose technical advisers may, by mutual agreement, be brought in from outside the undertaking;
f) a worker reports forthwith to his immediate supervisor any situation which he has reasonable justification to believe presents an imminent and serious danger to his life or health; until the employer has taken remedial action, if necessary, the employer cannot require workers to return to a work situation where there is continuing imminent and serious danger to life or health.

Article 20

Co-operation between management and workers and/or their representatives within the undertaking shall be an essential element of organisational and other measures taken in pursuance of Articles 16 to 19 of this Convention.

Article 21
Occupational safety and health measures shall not involve any expenditure for the workers.

VIII. LABOR LAW REGARDING SAFETY, HEALTH AND HYGIENE IN BANGLADESH

Bangladesh Labor Law-2006, amended 2010&2013 which is familiar with Bangladesh Labor Act. Health, hygiene and safety in workplace have been focused from 51 to 88 sections, which are given below:

51. **Cleanliness**
Every establishment shall be kept clean and free from effluvia arising from any drain, privy or any other nuisance, and in particular-
(a) the dirt and refuge shall be removed daily by sweeping in a suitable manner from the floors, work-rooms, staircases and passages of the establishment;
(b) the floor of every work-room shall be washed at least once in every week and, if necessary, disinfectant shall be used in washing;

(c) where any floor becomes wet in the course of any manufacturing process to such an extent that drainage is required thereof, effective means of drainage shall be provided and maintained;
(d) all inside walls, partitions, ceilings, staircases, passages shall-

(i) if they are painted or varnished, be repainted or re-varnished at least once in every 3 (three) years,
(ii) if they are painted or varnished and have smooth imperious surface, be cleaned at least once in every 14 (fourteen) months, by such methods as may be prescribed by rules,
(iii) in other cases, be white-washed or colour-washed at least once in every 14(fourteen)months, ; and
(e) the dates of completing works mentioned in clause (d) shall be entered in the register prescribed by rules.

52. **Ventilation and temperature**
(1) Arrangements for adequate ventilation shall be made for securing and maintaining circulation of fresh air in every work-room of every establishment.
(2) Suitable measures shall be taken to keep the temperature in every such room in such a condition that may secure to workers therein reasonable conditions of comfort, and prevent injury to health of the workers.
(3) For the purpose of sub-section (2), the wall and roof of a room shall be so designed that such temperature does not rise, and remains low as far as possible.
(4) Where the nature of the work in an establishment is such that it likely to produce excessive high temperature, the suitable measures, as far as possible shall be taken to separate the source of producing such excessive temperature or the hot part of it by insulating such source or part or by any other means from the workroom of the workers.
(5) If it appears to the Government that excessively high temperature in any establishment may be reduced by white-washing, spraying or insulating or screening outside walls, roofs or windows, or by raising the level of the roof, or by other special methods, it may direct to adopt any of the suitable measures mentioned above in such establishment.

53. **Dust and fume**
(1) If in any establishment, by reason of any manufacturing process carried on, there is given off any dust or fume or other impurity of such a nature and to such an extent as is likely to be injurious to the health of, or offensive to, the workers employed therein, the effective measures shall be taken to prevent its accumulation in any work-room and its inhalation by workers, and if any exhaust appliance is necessary for this purpose, it shall be applied as near as possible to the
point of origin of the dust, fume or other impurity, and such point shall be enclosed as far as possible.
(2) In any establishment no internal combustion engine shall be operated unless the exhaust is conducted into open air, and no internal combustion engine shall be operated in any work-room unless effective measures are taken to prevent such accumulation of fumes therein as are likely to be injurious to the health of the workers employed in the work-room.

54. **Disposal of wastes and effluents**
Effective arrangements shall be taken in every establishment for disposal of wastes and effluents due to manufacturing process carried on therein.

55. **Artificial humidification**
(1) If the humidity of air is artificially increased in any establishment, the water used for the purpose shall be taken from a public water supply system or other source of drinking water, or shall be effectively purified before it is so used.
(2) If it appears to the Inspector that the water used for such purpose is not effectively purified as required under sub-section (1), he may serve on the employer an order in writing to adopt measures specified therein in that order the time specified therein.

56. **Overcrowding**
(1) No work-room in any establishment shall be overcrowded to an extent injurious to the health of the workers employed therein.
(2) Without prejudice to the generality of the above provisions at least 9.5 cubic metres of space shall be provided for every worker employed in a work-room.
Explanation
For the purpose of this sub-section, if the height of any room is more than 4.25 metres above the floor level it shall not be taken into account.

(3) If the Chief Inspector by order in writing requests any employer, a notice shall be posted in each work-room of the establishment specifying the maximum
number of workers who may, in compliance with the provisions of this section, be employed in that room.
(4) The Chief Inspector may, by order in writing, exempt any work-room from the provision of this section if he is satisfied that compliance therewith in respect of such room is not necessary for the purpose of health of the workers employed therein.

57. **Lighting**
(1) Sufficient and suitable lighting, natural or artificial, or both, shall be provided in every part of an establishment where workers are working or passing.
(2) In every establishment, all glass windows and skylights used for the lighting of the work-room shall be kept clean on both surfaces, and free from obstruction as far as possible.
(3) In every establishment, effective measures shall be taken for the prevention of
(a) glare either directly from any surface of light or by reflection from anypolished surface, or
(b) the formation of shadows to such an extent as to cause eye strain or risk of accident to any worker.

58. **Potable water**
(1) In every establishment, arrangements shall be made at a suitable point to supply sufficient purified potable water for all workers employed therein.
(2) All water supply points shall be legibly marked with "Potable water" in Bangla.
(3) Where two hundred fifty or more workers are ordinarily employed in an establishment, provision shall be made for cooling the potable water during the summer.
(4) Where dehydration occurs in the body of workers due to work near machineries creating excessive heat, oral re-hydration therapy shall be provided to those workers.

59. 1[**Toilets and washrooms]**
In every establishment,
(a) sufficient number of 2[sanitary toilets and washrooms] of the type
prescribed by rules shall be provided at the suitable places so that the
workers employed therein at the time of work may use easily;
(b) such 3[toilets and washrooms] shall be provided separately for male
and female workers;
(c) 4[toilets and washrooms] shall be adequately lighted and ventilated
and water shall be provided at all times; and
(d) such 5[toilets and washrooms] shall be maintained in a clean and
sanitary condition at all times with suitable detergents and
disinfectants 6[at employer's cost.]
1The words "toilets and washrooms" were substituted for the words "Latrines and urinals" by section 21(a) of the Bangladesh Labour (Amendment)
Act, 2013.
2The words "sanitary toilets and washrooms" were substituted for the word "latrines and urinals" by section 21(b) of the Bangladesh Labour
(Amendment) Act, 2013.
3The words "toilets and washrooms" were substituted for the word "latrines and urinals" by section 21(c) of the Bangladesh Labour (Amendment) Act, 2013.
4The words "toilets and washrooms" were substituted for the word "latrines and urinals" by section 21(d) of the Bangladesh Labour (Amendment) Act, 2013.
5The words "toilets and washrooms" were substituted for the word "latrines and urinals" by section 21(e) of the Bangladesh Labour (Amendment) Act, 2013.
6The words "at employer's cost" were added by section 21(e) of the Bangladesh Labour (Amendment) Act, 2013.

60. **Dustbin and spittoon**
(1) Sufficient number of dustbins and spittoons shall be provided in every establishment at convenient places and these shall be maintained in a clean and hygienic condition.
(2) No person shall throw any dirt or spit within the premises of an establishment except in such dustbins and spittoons.
(3) A notice containing this provision and the fact that contravention thereof is a punishable offence shall be posted at different suitable places of every establishment so that it may easily comes to the notice of all.

SAFETY

61. **Safety of building and machinery**

(1) When it appears to an Inspector that any building, or any part thereof, or any road, machinery or plant 1[or internal electrical system of a building] an establishment is in a condition which is dangerous to human life or safety, he may, by an order in writing, direct the
employer to take such measures as, in his opinion, are required to be taken, within such time as may be specified in the said order.
(2) When it appears to an Inspector that the use of any building, or any part thereof or any road, machinery or plant 2[or internal electrical system of a building] an establishment is in imminent danger to human life or safety, he may, by an order in writing, address to the employer, prohibit its use until it is properly repaired or altered.

62. **Precaution as to fire.**

(1) Every establishment shall be provided with such means of exit including at least one alternative staircase connecting with every floor at the time of fire and 3[requisite number of] fire fighting equipments [in every floor] as may be prescribed by rules.
(2) If it appears to an Inspector that no means of exit has been provided according to the rules mentioned in sub-section (1) 4[or no requisite number of fire fighting equipments have been placed according to the licence given by the Fire Service Department], he may, by serving an order in writing upon the employer, inform him of the measures which in his opinion are required to be taken within the time specified in that order.
(3) In every establishment the door affording exit from any room shall not be locked or fastened so that the person working in the room may easily and immediately open it from inside and all such doors, unless they are of the sliding type, shall be constructed to open outwards, or where the door is between two rooms, in the direction of the nearest exit from the building and no such door shall be locked or obstructed while work is being carried on in the room.

1 The words "or internal electrical system of a building" were inserted by section 22 of the Bangladesh Labour (Amendment) Act, 2013.
2 The words "or internal electrical system of a building" were inserted by section 22 of the Bangladesh Labour (Amendment) Act, 2013.
3 The words "requisite number of" and the words "in every floor" were inserted by section 23(a) of the Bangladesh Labour (Amendment) Act, 2013.
4 Inserted by section 23(b) of the Bangladesh Labour (Amendment) Act, 2013.

1[(3a) In every establishment, while work is going on, no exit of a room shall be kept locked or fastened and no exit shall be hindered or no barrier shall be put on the way.
(3b) All doors shall be made in such a way that they may be opened at once from inside of a working room to outwards.
(3c) If there is any door between 2 (two) rooms, it shall be made in such a way that it may be opened near to the nearest exist of the building and no such door shall be kept locked or hindered while work is going on.]
(4) In every establishment, except the exit for ordinary use, every window,door or other exit affording means of escape in case of fire shall be distinctively marked in Bangla letters by red colour or marked by other clearly understood sign.
(5) In every establishment, the clearly audible whistle shall be provided to alarm every worker employed therein in case of fire or danger.
(6) A free passage-way giving access to each way of exit in case of fire shall be provided for the use of the workers in every room of the establishment.
(7) In every establishment where 10 (ten) or more workers are ordinarily employed in any place above the ground floor, or explosive or highly inflammable materials are used, or stored, effective measures shall be taken to ensure that all workers may be familiar with the means of escape in case of fire and are adequately trained in the routine work to be followed in such cases.
(8) In factories and establishments wherein 50 (fifty) or more workers/ employees are employed, at least once in every 2[6 (six) months] a mock firefighting shall be arranged and a book of records in this regards shall be maintained in the prescribed manner by the employer.

63. **Fencing of machinery**

(1) In every establishment the following machinery, while in motion or in use, shall be securely fenced by the safeguards of substantial construction, namely:
(a) every moving part of a prime mover, and every fly wheel connected therewith;
(b) both face of every water wheel and water turbine;

(c) every part of a stock-bar which projects beyond the head stock of a lathe; and
(d) unless the following machinery are in such position or of such construction as to be safe to every person employed in the establishment as they would be if they were securely fenced
(i) every part of an electric generator, a motor or rotary converter,
(ii) every part of transmission machinery,
1 Sub-sections (3a), (3b) and 3(c) were inserted by section 23(c) of the Bangladesh Labour (Amendment) Act, 2013.
2The words "six months" were substituted for the words "year" by section 23(d) of the Bangladesh Labour (Amendment) Act, 2010.
(iii) every dangerous part of any machinery: Provided that for the purpose of determining whether any part of machinery is safe as aforesaid, any occasion of examination or operation made or carried out in accordance with the provisions of section 64 shall not be taken into account.
(2) Without prejudice to any other provision of this Act relating to the fencing of machinery, every revolving shaft, spindle wheel or every set screw, bolt and key on any pinion and all spur, worm and other toothed or friction gearing in motion with which any worker generally comes into contact such appliances shall be securely fenced to prevent such contact.

64. **Work on or near machinery in motion**
(1) Where, in any establishment, it becomes necessary to examine any part of machinery while in motion under section
63, or as a result of such examination to carry out any mounting or shipping of belts, lubrication or other adjusting operation while the machinery is in motion, such examination or operation shall be carried out by a specially trained male worker, and the tight-fitting cloths shall be worn by that worker, and his name shall be recorded in the register prescribed in this behalf, and while such worker is engaged in such works, he shall not handle a belt at a moving pulley, unless the belt is less than 15 (fifteen) centimetres in a width and its joint is tightened with flush and lace.
(2) The Government may, by notification in the official Gazette, prohibit cleaning, lubricating, adjusting of any specified moving part of any machinery in any specified establishment.

65. **Striking gear and devices for cutting off power supply**
(1) In every Establishment
(a) the suitable striking gear and other efficient mechanical appliance which shall be used to move driving belts to and from fast and loose pulleys of the transmission machinery shall be maintained, and such gear or appliances shall be so constructed, placed and maintained as
to prevent the belt from cropping back on the first pulleys;
(b) when any driving belt is not in use, it shall not be allowed to rest upon any shaft in motion.
(2) Suitable devices for cutting off power in emergencies from running machinery shall be provided in every work-room of every establishment.

66. **Automatic machines**
Where any moving part of an automatic machine and any material carried thereon in an establishment is in a space over which any person is liable to pass either for the purpose of duty or for any other reason, it shall not be allowed to move outward or in ward between 45 (forty-five) centimeters from any fixed structure which is not a part of such machine: Provided that the Chief Inspector may permit, on such conditions for ensuring safety as he thinks fit, the continued use of a machine installed before the commencement of this Act which does not comply with the requirements of this section.

67. **Casing of new machinery**
After the commencement of this Act, in every power driven machinery installed in an establishment
(a) every set screw, belt or key, or any revolving shaft, spindle wheel or pinion shall be so sunk, encased or otherwise effectively guarded so as to prevent danger;
(b) all spur, worm and other toothed gearing, which does not require frequent adjustment while in motion, shall be completely encased, unless it is so situated as to be safe if it were completely encased.

68. **Cranes and other lifting machinery**
In an establishment, the following provisions shall apply to all cranes and other lifting machinery, except hoist and lift namely:
(a) the fixed or movable working gear, ropes, chains and anchoring or fixing appliances and every part thereof shall be-

(i) of good construction with sound material and adequate strength,
(ii) properly maintained,
(iii) thoroughly examined by a competent person at least once in every 12 (twelve) months and a register shall be maintained containing particulars prescribed by rules, of every suchexamination;
(b) no such machinery shall be loaded beyond the working load marked thereon;
(c) while any person is working on the wheel-tract of a traveling crane in any place, where he is likely to be struck by the crane, effective measures shall be taken to ensure that the crane does not approach within 6 (six) metres of that place.

69. **Hoists and lifts**
(1) Every hoist and lift in every establishment shall Be
(a) of good construction with sound material and adequate strength;
(b) properly maintained;
(c) thoroughly examined by a competent person at least once in every 6 (six) months, and a register shall be maintained containing such particulars, of every examination as may be prescribed by the rules.
(2) Every hoist way and lift way shall be sufficiently protected by an enclosure fitted with gates and the hoist or lift and every such enclosure shall be so constructed as to prevent any person or thing from being trapped between any part of the hoist or lift and any fixed structure or moving part.
(3) In every establishment, the capacity of safe working load shall be clearly written down on every hoist or lift and no load beyond such load shall be carried thereon.
(4) In every establishment, the cage of every hoist or lift used for carrying persons shall be fitted with a gate on both sides for riding and landing. The highest capacity of every hoist and lift shall be written legibly in Bangla.
(5) Every gate referred to in sub-sections (2) and (4) shall be fitted with interlocking or other efficient device to secure that the gate shall not be opened until the cage is landed, and that the cage shall not be moved until the gate is closed.
(6) The following additional requirements shall be applied to hoists and lifts installed or reconstructed in an establishment after the commencement of this Act,
namely:
(a) where the cage is dependent on rope or chain, there shall be at least 2 (two) ropes or chains separately connected with the cage and shall maintain its balance, and every rope and chain shall be such that it may carry the cage together with its maximum load;
(b) efficient devices shall be provided to support the cage together with its maximum load in the event of breakage of the ropes and chains;
(c) proper automatic devices shall be provided to control the excessive speed of the cage.
(7) The Chief Inspector may, upon such conditions for ensuring safety as he may think fit, permit to continue the use of a hoist or lift which was installed in an establishment before the commencement of this Act without complying with the provisions of sub-sections (1), (2), (3), (4) and (5).

70. **Revolving machinery**
(1) In every room in an establishment in which the process of grinding is carried on, there shall be permanently affixed to or placed near, each machine in use a notice indicating the following matters, namely:
(a) maximum safe working peripheral speed of every grind stone or abrasive wheel;
(b) the speed of the shaft or spindle upon which the wheel is mounted;
(c) the diameter of the pulley upon such shaft or spindle necessary to secure such safe working peripheral speed.
(2) The speeds indicated in the notice shall not be exceeded.
(3) Effective measures shall be taken in respect of every revolving vessel, cage, basket, fly-wheel, pulley disk or similar appliances driven by power so that their prescribed speed may not be exceeded.

71. **Pressure plant**
Where in any establishment any part of the plant or machinery used in manufacturing process is operated at a pressure above the atmospheric pressure, effective measures shall be taken to ensure that the safe working pressure of such part is not exceeded.

72. **Floors, stairs and passages**
In every establishment,

(a) all floors, stairs, passages shall be of sound construction and properly maintained and where necessary strong railing shall be provided to ensure their safety, 1[and the passages and stairs shall be kept opened for easy movement during continuance of work.]
(b) there shall, in so far as reasonably practicable, be provided with safe means of access to every place where any person is, at any time, required to work;
(c) 2[****] passages and stairways shall be clean, wide and clear of all obstructions3[;] and
4[(d) an employer may, for overall safety of the factory and workers, bring the passages of movements, stairs, gates, godowns and common utility area of the place of work under close circuit camera.]

73. **Pits, sumps, tunnel mouths, etc**
 Where in an establishment any fixed vessel, sump, tank, pit or tunnel in such that, by reason of its depth, situation, construction or contents, it may be a source of danger, it shall be either securely covered or fenced.

74. **Excessive weights**
No worker shall be allowed in any establishment to lift, carry or move any load so heavy as to be likely to cause his injury.

75. **Protection of eyes**
The Government may, in respect of any establishment where manufacturing process is carried on, by rules, require that suitable goggles or eye screens shall be provided for the protection of eyes of the persons employed therein, if any of the following risks involves in such process, namely:
(a) risk of injury to the eyes from particles or fragments thrown off in the course of the process;
(b) risk to the eyes by reason of exposure to excessive light or heat.
1The words “and the passages and stairs shall be kept opened for easy movement during continuance of work” were inserted by section 24(a) of the Bangladesh Labour (Amendment) Act, 2013.
2The words and comma “all floors,” were omitted by section 24(a) of the Bangladesh Labour (Amendment) Act, 2010.
3The semi-colon “:” was substituted for full stop “.”by section 24(b) of the Bangladesh Labour (Amendment) Act, 2010.
4Clause (d) was added by section 24(c) of the Bangladesh Labour (Amendment) Act, 2010.

76. **Power to ascertain defective parts to test their stability**
If it appears to an Inspector that any building, or any part thereof, or any passage, machinery
or plant, of an establishment is in a condition which is dangerous to human life or safety, he may, by order in writing, to be served on the employer of the establishment, require him to do the following works within the time specified therein, namely:
(a) to supply necessary drawings and other information or particulars to determine whether such building, passage, machinery or plant may be used with safety;
(b) to carry out necessary tests to determine the strength or quality of any specific part and to inform the Inspector of the result thereof.

77. **Precautionary measures against dangerous fumes**
(1) No person shall enter or be permitted to enter any room, vessel, hole, pipe, flue or other confined space of any establishment, where the dangerous fumes are likely to exist to such extent as to involve risks to any person, unless it is provided with a manhole of such size, as may be prescribed by rules or other effective means of exit.
(2) No portable electric light of a voltage of exceeding 24 (twenty-four) volts shall be permitted to use inside any confined space referred to in sub-section (1) and where fumes are likely to be flamed, no light other than the light made of flame misstating metal shall be allowed to use in such place.
(3) No person shall enter or be permitted to enter any such confined space of any establishment until all practicable means are taken to remove fumes from there or prevent access thereto, and unless any of the following measures are taken
(a) a certificate is given by a competent person after carrying out test that the space is free from dangerous fumes and fit for entering thereto; or
(b) the concerned worker is wearing a suitable breathing apparatus and a rope is securely attached to a belt the free end of which is held by a person standing outside such space.
(4) In every establishment, the suitable breathing apparatus, reviving apparatus, belts and ropes shall be kept ready for instant use beside any such space and such apparatus shall be periodically examined by a competent person, and shall be certified by him that it is fit for use, and a sufficient number of persons employed in every

establishment shall be trained and practiced in the use of all such apparatus and the method of restoring respiration.
(5) In any establishment no person shall be permitted to enter into any boiler, furnace, flue chamber, tank, pipe or other confined space for the purpose of working or making any examination therein until it is sufficiently cooled by ventilation or otherwise made it fir for human entry.

78. **Explosive or inflammable gas, dust, etc**
(1) Where, in any establishment gas, fume, dust or vapour produced due to any manufacturing process is of such character or to such extent which is likely to be exploded or ignited, all practicable measures shall be taken to prevent any such explosion by any of the following ways,
namely:
(a) by effectively enclosing plant or machinery while it is in use;
(b) by removing or preventing accumulation of such dust, gas, fume or vapour;
(c) by effectively enclosing all possible sources of ignition.
(2) Where in any establishment the plant or machinery used in a process is not so constructed as to withstand the probable pressure which is produced in the case of such explosion, all practicable measures shall be taken to restrict the spread and effects of the explosion by the provision of chokes, baffles, vents or any other effective apparatus in the plant or machinery.
(3) Where any part of the plant or machinery in an establishment contains any explosive or inflammable gas or vapour under pressure greater than atmospheric pressure, that part shall not be opened except in accordance with the following provisions, namely:
(a) before fastening of any joint of any pipe connected with the part of the fastening of the cover of any opening into the part is loosened, any flow of the gas or vapour into the part or any such pipe shall be effectively stopped by a stop-valve or other means;
(b) all practicable measures shall be taken before removing any such fastening or to reduce pressure of the gas or vapour to atmospheric pressure;
(c) where any such fastening is loosened or removed, effective measures shall be taken to prevent any explosive or inflammable gas or vapour from entering the part or pipe until the fastening is secured and securely replaced:
Provided that the provisions of this sub-section shall not apply where any plant or machinery is installed in the open field.
(4) Where in any establishment any plant, tank or vessel contains or contained at any time any explosive or inflammable substance, no welding or cutting shall be carried out by using heat, unless adequate measures are first taken to remove such substance or fumes or to render them un-flammable or un-explosive and such substance shall not be allowed to enter such plant, tank or vessel after any such works until the metal is cooled down sufficiently to prevent any risk of igniting the substance.

1[78A. **Requirements to use personal safety equipments**
(1) No authority shall engage any worker in work without providing him with personal safety equipments and ensuring uses thereof and a record book shall be maintained in this behalf by the employer in the prescribed manner.
(2) If any personal safety equipment is supplied but not used, the worker concerned shall be liable.
(3) Every worker shall be made aware of the hazards of work through training in order to ensure the protection and safety of his professional health in the place of
work.]

IX. SPECIAL PROVISIONS RELATING TO HEALTH, HYGIENE AND SAFETY

79. **Dangerous operation**
Where the Government is satisfied that any operation carried on in an establishment exposes any person employed in it to a serious risk of bodily injury, poisoning or disease, it may, by rules, make the following provisions for such establishment, namely:
(a) to declare which operations are hazardous;
(b) to prohibit the employment of women, adolescents or children in such operation;
(c) to provide for regular medical examination of persons employed in such operation and to prohibit the employment of persons not certified to be fit for such employment;
(d) to provide for protection of all persons employed in the operation or in the vicinity of such places and to use any specified materials or processes in connection with the operation; and
(e) to give notice of any corrosive chemicals and of precautions to be taken in their use.

80. **Notice to be given of any accident**
(1) When any accident occurs in an establishment causing loss of life or bodily injury, or an accidental explosion, ignition, outbreak of fire or irruption of water or fumes occurs, the employer shall give notice of the occurrence to the Inspector within following 2 (two) working
days2[:] 1Section 78A was inserted by section 25 of the Bangladesh Labour (Amendment) Act, 2013(Act No. XXX of 2013). 2The colon ":" was substituted for full stop "." by section 26 of the Bangladesh Labour (Amendment) Act, 2013(Act No. XXX of 2013).
1[Provided that the factory authority shall, immediately after the occurrence of such incident, inform the matter to the Government, Fire Service, Directorate of Inspection of Factories and Establishments, Police Station, and if required, the nearby hospital or government-private medical service establishment, through telephone, mobile phone, SMS or fax, in order to take immediate necessary action to minimize potential damages or bring the situation under control.]
(2) Where an accident mentioned in sub-section (1) causes bodily injury resulting in the compulsory absence from work of the person injured for a period exceeding 48 (forty-eight) hours, it shall be entered in a register prescribed by rules.
(3) The employer shall send to the Chief Inspector a copy of the entries in the register referred to in sub-section (2) within 15 (fifteen) days following the 30^{th} day of June and the 31st day of December in each year.

81. **Notice of certain dangerous occurrences**
Where in an establishment, any dangerous occurrence of a nature prescribed by rules occurs, whether causing any bodily injury or not, the employer shall inform the Inspector by notice within the following three working days.

82. **Notice of certain diseases**
(1) Where in an establishment any worker contacts any disease specified in the Second Schedule, the employer or the concerned worker or any person specified by him in this behalf shall inform the Inspector by a notice in such form and within such time as may be prescribed by
rules.
(2) If any registered medical practitioner, while giving treatment to an existing or previous worker of an establishment, finds that he is suffering or suspects to be suffering from any disease specified in the Second Schedule, the said medical practitioner shall forthwith inform by a report in writing, the Inspector of the following matters, namely:
(a) the name and mailing address of the patient;
(b) the name of the disease from which the patient is suffering or is suspected to be suffering;
(c) the name and address of the establishment in which the patient is or was last employed.
2[(2a) The employer determined by the Chief Inspector shall arrange for treatment of the worker suffered, or incurred losses, from such professional disease.]
(3) The Government may, by notification in the official Gazette, add to, or omit from, the Second Schedule any disease.
1The proviso was added by section by section 27 of the Bangladesh Labour (Amendment) Act, 2013(Act No. XXX of 2013).
2Sub-section (2a) was inserted by section 27 of the Bangladesh Labour (Amendment) Act, 2013(Act No. XXX of 2013).

83. **Power to direct for enquiry into cases of accident or disease**
(1)When any accidental explosion, ignition, outbreak of fire or irruption of water or any other accident occurs in an establishment, or when any disease specified in the Second Schedule breaks out or is suspected to be broken out, and if the Government thinks that a formal enquiry into the causes of, and the circumstances appearing in, the accident or disease is necessary, it may appoint a competent person to hold such enquiry, and may appoint any person who has special knowledge in law or concerned matter as an assessor during enquiry.
(2) The person holding enquiry shall have all the powers of a Civil Court under the Code of Civil Procedure for the purpose of enforcing the attendance of witnesses and compelling the production of documents and other things, and if any person is required by him to furnish any information for the purpose of enquiry, he shall be deemed to be legally bound to do so within the meaning of section 176 of the Penal Code.
(3) The person holding enquiry may exercise any of the powers of an Inspector under this Act, as he may think necessary to exercise, for the purposes of the enquiry.
(4) The person holding the enquiry shall submit a report to the Government and shall record in that report the causes of the accident and the circumstances relating thereto, and shall state any observation that he or the assessor, may have.

(5) The Government shall publish the report at such time and in such manner as may be prescribed by it.

84. **Power to take samples**

(1) An Inspector may, at any time during the normal working hours of an establishment, by giving information to the employer, take in the manner hereinafter describing, a sample of any substance used or brought for use in the establishment, if it appears to him that such substance is
being used in contravention of the provisions of this Act or the rules, or is likely to cause bodily injury or harm to the workers of the establishment.
(2) Where any Inspector takes such sample, he shall, in the presence of the employer, unless he willfully absents himself, divide the sample into 3 (three) portions and effectively seal and properly mark every portion of it, and shall also permit the employer to add his own seal and mark thereon.
(3) The employer shall, if the Inspector so requires, provide the appliances for dividing and sealing and marking the sample.
(4) The Inspector shall give one portion of the sample to the employer forthwith, send the second portion to a Government analyst for analysis and to give report thereon, and keep the third portion to himself for production to the Court, if any criminal proceedings is instituted in respect of the substance of the sample.
(5) Any report, on any sample of a substance made by any government analyst under this section, may be used as evidence in any proceedings instituted in respect of such substance.

85. **Powers of Inspector in case of certain dangers**

(1) If, in respect of any matter for which no express provision is made in this Act, it appears to an Inspector that any establishment or any part thereof or any matter or practice therein or connected therewith or controlled thereby is dangerous to human life or safety, or is so defective as likely to cause bodily injury to the people, he may, by a notice in writing, inform the employer relating thereto and order to remove those things which are dangerous or injurious or defective, within such time and in such manner as may be specified in the notice.
(2) Without prejudice to the provisions of sub-section (1), the Inspector may, by order in writing, direct the employer of any establishment not to extract or reduce any pillar of his establishment or of any part thereof, if in his opinion, such operation is likely to cause the crushing of any other pillar or the premature collapse of any part of the establishment or endanger the establishment.
(3) If the Inspector is of opinion that there is imminent danger to the life or safety of any person employed in any establishment, he may, by an order in writing to the employer concerned stating the grounds of his opinion, prohibit the employment of any person in the establishment or any part thereof, until he is satisfied that the danger is removed, but this order shall not apply to the person who is employed to remove such danger.
(4) Any employer aggrieved by an order under sub-section (3) may prefer an appeal against such order to the Chief Inspector within 10 (ten) days of the receipt of the order, who may confirm, modify or cancel the order.
(5) The Inspector shall, in respect of each order made under sub-sections (1) and (3), report forthwith to the Government, and shall inform the employer concerned of the report so furnished.
(6) The Chief Inspector shall report forthwith to the Government any order, except the order of cancellation made by him under sub-section (4), and shall also inform the employer concerned of the report so furnished.
(7) Any employer who has any objection against any order made under subsection (1), (3) or (4) shall within 20 (twenty) days of receipt of such order, inform the Government in writing, stating the objection and reasons therefore, and the Government shall send it to a committee for decision.
(8) The employer shall comply with the order against which objection has been made until the decision of the committee is received: Provided that on an application of the employer, the committee may suspend the order passed under sub-section (1) pending the decision of the committee.

86. **Providing information about dangerous building and machinery**

(1)Where any worker of an establishment finds that any building or machinery thereof, which is ordinarily used by the workers, is in such a dangerous condition that it is likely to cause bodily injury to any worker at any time, he shall immediately inform the employer of it in writing.
(2) If, on the receipt of such information, the employer fails to take appropriate measures on this matter within 3 (three) days and any worker is injured due to use of such building or machinery, he shall be liable to pay compensation to the worker so injured at the rate of double of the compensation payable for such injury under Chapter VII.

87. **Restriction of employment of women in certain work**

The provisions of sections 39, 40 and 42 shall apply to a woman worker as they apply to an adolescent worker.

88. **Power to make rules to supplement the Chapter**

The Government may, by rules,

(a) give direction to make further provisions and to take further measures for securing the safety of the workers employed in any establishment;

(b) prohibit the running of any manufacturing process using power in any building until a certificate of strength of such building by a person having such qualification and in such form, as may be prescribed by rules, is reached to the Chief Inspector.

X. CONCLUSION

Safety and accident prevention concern managers for several reasons, one of which is the staggering number of workplace accidents in Bangladesh, in the recent years. Injuries are not just a problem in dangerous industries, workers are suffering various diseases for the lack of knowledge of related laws and costs benefits. The Bangladesh government has developed policy, rules & regulations on safety, health and environment at the workplace, with the aim to build a culture of safe and productive workplace. This article has provided the accidents scenario of Bangladesh, ILO Convention, labor laws. Managers still are callous to know laws and benefits on occupational health and safety in Bangladesh, that's why hazards have come in the industries and others sectors.

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Effects Of Current Ratio And Debt-To-Equity Ratio On Return On Asset And Return On Equity

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ABSTRACT *:The purpose of a company is to gain profits. The purpose of the present study was to examine the effects of current ratio and debt-to-equity ratio on return on asset and return on equity for companies of the food and noodle sub-sector. A total of 10 companies listed on the Indonesia Stock Exchange (ISX) was sampled from 2014 to 2017. Data were processed using the multiple linear regression analysis with SPSS 24. Results showed that current ratio and debt-to-equity ratio had a significant effect on return on equity and return on asset. Results of the regression coefficient analysis showed that current ratio and debt-to-equity ratio accounted for 14.9% of ROA, while the remaining 85.1% was explained by other variables, as indicated by the coefficient determinants. The regression coefficient analysis for ROE showed that 61.4% was explained by other variables not studied in this research. Results of the F-test showed a significance value of 0.019 < 0.05 for ROA and 0.000 < 0.05 for ROE, meaning that both the current ratio and debt-to-equity ratio had a significant effect on ROA and ROE in food and beverage industry companies listed in Indonesia Stock Exchange.*

Keywords: *Current Ratio, Debt-To-Equity Ratio, Return On Assets, Return On Equity*

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I. INTRODUCTION

Businesses are in fierce competition and growing rapidly. Investors eager to invest their money will take a good financial performance into account. The success or failure of a company in managing finance depends on how their managers manage the companies' finance well. Financial statements are prepared for internal and external parties for different purposes. For suppliers, it serves to reveal the performance of the company and the company's ability to pay its debts.

For creditors, it serves to determine the performance of the company in paying the principal and interest thereon. For investors, it serves to ascertain whether the capital they have been invested is either growing or decreased or how it is used.

For potential investors, it provides information in connection with the decision to invest in the company or not. For the government, it serves to determine economic growth, both regionally and nationally, and monitor tax payment (Sumarsan, 2017).

In the preparation of financial statements, there are accounting assumptions and principles, including:

- One entity, meaning that a company should be a unity and there is a separation between personal property and company property;
- Going concern, meaning that an established company should be able to continue its business for an indefinite period of time;
- Comparability, meaning that financial statements should be comparable to the financial statements of different periods and to those of other similar companies;
- Consistent, meaning that all the accounting methods used to prepare the financial statements should be consistent, so as to give an idea of the earnings to be analyzed.
- Timeliness, meaning that the financial statements should be completed timely. Delayed preparation of financial statements cannot add value to its users to make strategic decisions (Sumarsan, 2017).

According to brealey et al., (2007) the composition of the company's working capital range from 40% of total assets and debts of smooth 25% of total funding company, 60% of the time even owned a financial manager is used to manage current assets. A reason is current assets in short-term investments that quickly turned into another asset type (and Lawrence Gitman, 2009) Based on the results of the above research, current assets need to be managed in disappear play an important role from the overall corporate strategy in order to improve the company's performance (Dong and Su 2010). The company tried to make the right financial decisions with the aim to improve the performance of the company. The problem that arises is the increase in the company's profit may immolate liquidity aspects of the company. In line with Sigh and Pandey (2008) current assets investment played an important role in funding decisions mainly concerned with the liquidity aspects of the company. According to Ching et al, (2011) the efficient management of current assets allows companies react quickly to the changes that occur and there is a belief that has an impact on the company's performance.

The present study selected the food and beverage sub-sector, with the following considerations:
(1) in 2017, the food and beverage sub-sector was the largest labor-employing sub-sector, as shown by the table 1:

Table 1. Largest contributor to workforce

Year	Number
2015	3,529,630
2016	4,091,682
2017	3,731,054

Source: Data processed by the authors.

(2) The domestic investment (PMDN) in the food and beverage sub-sector increased by 38.540.
(3) The food and beverage sub-sector had a large growth of non-oil and gas processing industry:

Table 2. Industry Growth

Year	Growth Percentage
2015	7.54%
2016	8.33%
2017	9.23%

Source: Data processed by the authors.

(4) The food and beverage sub-sector had the highest growth in its role with regard to the national GDP.

Table 3. Role with regard to national GDP

Year	Percentage
2015	5.61%
2016	5.97%
2017	6.14%

Source: Data processed by the authors.

(5) The food and beverage sub-sector had the biggest exports, despite the 2016 drop, as shown by the table 4:

Table 4. Largest Exports

Year	US$
2015	US$ 26.45 million
2016	US$ 26.28 million
2017	US$ 31.27 million

Surce: Data processed by the authors.

The present study was a quantitative research, with a sample of 10 companies, 4 years of observation from 2014 to 2017. The companies under study are shown in Table 5:

Table 5. Company Names

Code	Name
ADES	Akasha Wira Internasional
CEKA	Cahaya Kalbar
DLTA	Delta Djakarta
ICBP	Indofood CBP Sukses Makmur
INDF	Indofood Sukses Makmur
MLBI	Multi Bintang Indonesia
MYOR	Mayora Indah
PSDN	Prashida Aneka Niaga
ROTI	Nippon Indosari Corporindo
ULTJ	Ultrajaya Milk Industry

Source: Data processed by the authors.

This study was conducted due to the inconsistent results of previous studies. Borhan et al. (2014) demonstrated that current ratio had a significant positive effect on the financial performance of a company, while debt-to-equity ratio had a negative effect on the financial performance of a company. The present study was supported by Afrifa and Padachi (2016) who showed that liquidity had an effect on ROA and ROE, but leverage had a significant effect on ROE and no significant effect on ROA.

Chandra and Sari (2017) demonstrated that the current ratio and debt-to-equity ratio had no significant effect on profitability.

A study by Sari et al. (2018) showed that current ratio had a significant positive effect on return on assets, and so did Saragih, et al. (2015), Sofie, et al. (2015), Suyono and Gani (2017) and Qurays et al. (2018). On the contrary, Supardi et al. (2016) showed that current ratio had no effect on return on assets, so did Hersandy, et al. (2017), Ambarwati, et al. (2015).

D'Mello, et al. (2018) showed that shareholders perceive view increasing debt to have a negative impact on their wealth. Suyono and Gani (2017) demonstrated that debt-to-equity ratio had no effect on return on assets. Kamar (2017) indicated that debt-to-equity ratio had no significant effect on stock prices. Similarly, Maskun (2012) showed that current ratio had no effect on stock prices.

Fadilah et al. (2017) showed that debt-to-equity ratio had no effect on profitability, as proxied by return on assets. Azad et al. (2018) demonstrated that current ratio had a positive effect on return on equity. Qurays et al. (2017) demonstrated that debt-to-equity ratio had an effect on profitability, as proxied by return on equity. A study by Utami (2016) showed that debt-to-equity ratio had a significant positive effect on return on assets.

Argananta and Hidayat (2017) demonstrated that current ratio and debt-to-equity ratio partially had no significant effect on return on assets at a negative direction; but current ratio, debt-to-equity ratio and total asset turnover had an effect on ROE. While Sari and Budiarsih (2014) show that debt-to-equity ratio had no significant effect on Return on Equity.

II. LITERATURE REVIEW

2.1. Financial statements

Financial statements are reports addressing what happened to assets, profits and dividends, over the last few periods (Brigham and Joel, 2010). Financial statements are the end results of an accounting cycle, which describe the financial condition of a company periodically (Sumarsan, 2017). Financial statements contain the figures of a company's performance and financial condition in the past (historical).

According to Kashmir (2010), the purposes of preparing financial statements are:

(1) to present information on the types and amounts of assets owned by the company at the time;
(2) to inform the types and amounts of liabilities and capital obtained by the company;
(3) to inform the types and amounts of revenue earned in a given period;
(4) to inform the amount and types of expenses incurred by the company in a given period;
(5) to inform the performance of the company's management;
(6) to inform the company's ratio of assets, liabilities and capital;
(7) to inform notes to financial statements.

2.2. Financial Ratios

Financial ratios are a technique of analyzing percentages in the financial statements in order to identify, review, and summarize the significant relationships of the company's financial data. The types of financial ratios are, among others, liquidity ratios, solvency ratio, ability ratios, activity ratios and profitability ratios.

Liquidity ratios can be the current ratio, quick ratio and cash ratio. This ratio is generally the first attention from financial analysts, because this ratio indicates the company's ability of fulfilling the obligation will be due. Rasio smooth (current ratio) is a comparison between the aktiva well with smooth, smooth debt rasio of the most common measurement is used to determine willingness meet short-term obligation. A low current ratio indicates the occurrence of problems in liquidity. The fluency ratio of companies contrast too high also less good, because it shows the abundance of idle funds that ultimately could reduce profit the company an ideal Ratio prescribed by rule of thumb (General provisions) and consider several factors such as the type of industry and credit habits. Wise investors analyzing the current ratio in more depth by asking questions such as: what is credit available that soon could be taken, whether fixed assets could soon be sold and whether earnings can be expected in the the upcoming. The quick ratio is the ratio between current assets minus inventories with fluency debt. The inventory is current assets liquidity levels are low and often experience fluctuations in price and often result in losses in the event of liquidation. The cash ratio is the ratio between Cash plus short-term securities investments with debt fluency.

Solvency ratio can be the debt ratio and debt-to-total equity ratio (DER). Ability ratio is the interest coverage ratio (ICR). Activity ratios include receivable turnover ratio, inventory turnover and total asset turnover. Debt ratio shows the proportion between the liability which is owned by the entire estate. The higher the precentage, the results tend to be the more robust risk for creditors and investors. This ratio describes the comparison DER, debt and private equity in the funding of the company and shows the ability of private equity firms to meet all obligations. Interest Coverage Ratio (ICR), this ratio is called the closing ratio (Coverage ratio) measures the ability of the fulfillment of the obligation of annual interest with operating profit (EBIT), the extent to which operating profit can be dropped without causing failures in the fulfilment of the obligation to pay interest loans.

Profitability ratios include gross profit margin, operating margin, net margin, earnings per share, dividend payout ratio, return on assets and return on equity.

The present study used current ratio (CRA) and debt-to-equity ratio (DER) as the independent variables. The dependent variables were return on assets (ROA) and return on equity (ROE).

Gross profit margin this ratio measures the efficiency of its production cost control, indicates the company's ability to produce efficiently. In evaluating can be seen the margin per unit of the product, when it is low then the company is sensitive to its competitors. Operating profit margin this ratio measures earnings before interest and taxes Margin against sales net profit ratio measures the net profit after taxes against Income sales per share is the ratio between the net profit after tax by the amount of shares in circulation, if the number is so large indicates that investors increased prosperity dividend payout Ratio, this ratio indicates the magnitude of profit distributed as dividends. Return on Assets. This ratio indicates the company's ability to generate operating profit compared with the total assets invested, the greater the number the ratio indicates that the company is more efficient. Return on Equity his ratio indicates the company's ability to generate net profit after tax compared to the capital itself, the larger the number the ratio indicates that the company is more efficient use of capital itself

Based on the Foundation of theory of research above, the hypothesis of this research is:
H1 = Current Ratio effect significantly to Return On assets
H2 = Debt to Equity Ratio effect significantly to Return On Asset
H3 = Current Ratio effect Return On Equity significantly
H4 = Debt to Equity Ratio effect significantly to Return On Equity

III. METHODS

The present study was a quantitative research using the multiple linear regression analysis. A total of 10 companies was sampled, observed for a period of 4 years from 2010 to 2014. Data were taken from the Indonesia Stock Exchange. This study used the purposive sampling method with the following sample selection criteria:

Number of food and beverage sub-sector companies listed in the ISX	=	15
Companies inconsistently issuing annual reports	=	5
Number of samples	=	10

3.1. Operational Definition of Variables

Dependent Variables

Variables in the research: the research is Return On Assets and Return On Equity.

Return on assets (ROA) measures net income using total assets. It can be formulated as: (Earning Before Taxes: total assets) x 100%

Return on equity (ROE) is a ratio to measure a company’s ability to use its resources to generate return on equity. The formula is: (Earning After Taxes: Total Equity) x 100%

Independent Variabel

The independent variable in this study is the Current Ratio and Debt to Equity Ratio.

Current Ratio (CRA) measures a company's ability to meet short-term obligations. Can be formulated: (current assets divided Current Liabilities) times 100%. Debt to Equity Ratio (DER) is the ratio between the total debt against the total equity. Can be formulated: (Total Debt divided the amount of equity) times 100%.

3.2. Goodness-of-Fit Test of the Model

The F-test was used to test the goodness of fit of the research model, aimed at determining whether or not the model was good.

3.3. Classic Assumption Test

A normality test is to test the normality of data. The present study used multicolinearity test and heteroscedasticity test.

3.4. Hypothesis Testing

CRA and DER were tested against the companies' profitability as proxied by return on asset and return on equity using the multiple linear regression analysis, with 5% significance level. The linear equations are:

$ROA = a_1 + b_1\ CRA + b_2\ DER + e$ .... (equation 1)

$ROE = a_2 + b_3\ CRA + b_4\ DER + e$ .... (equation 2)

where: a = Constant
CRA = Current ratio
DER = Debt-to-equity ratio
ROA = Return on assets
ROE = Return on equity
E = Error

3.5. Coefficient of Determination (R^2)

Coefficient of determination (R^2) was used to determine to what extent the model explains the dependent variables. A small value of R^2 indicates the very low ability of independent variables to explain the dependent variables (Ghozali, 2016).

The model of the present study is:

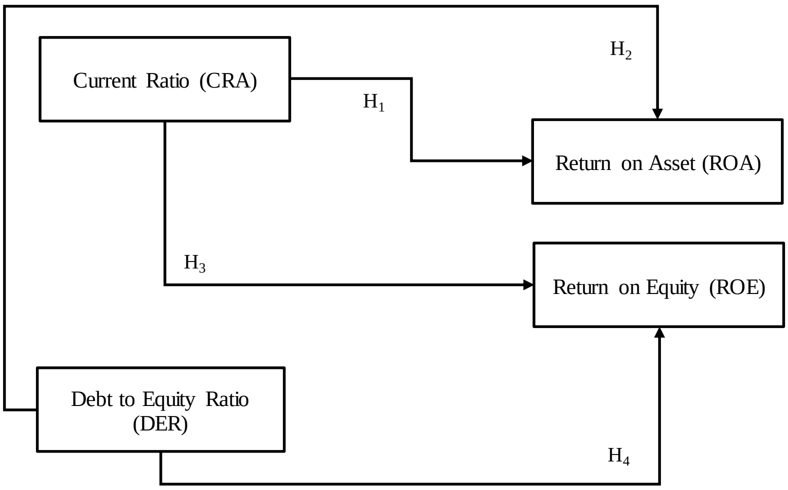

Figure 1 Conceptual Framework

IV. RESULTS

4.1 Model Goodness-of-fit Test (F-test)

Results of the F-test of ROA are shown by the ANOVA table 6:

Table 6. Goodness-of-fit test (F-test) of the model

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	0,096	2	0,048	4,423	0,019[b]
	Residual	0,402	37	0,011		
	Total	0,498	39			

[a] Dependent Variable: ROA
[b] Predictors: (Constant), DER, CRA
Source: Authors' data processing

Results of the F-test of ROE are shown in Table 7:

Table 7. Goodness-of-fit test (F-test) of the model

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	1,656	2	0,828	13,285	0,000[b]

Residual	2,306	37	0,062
Total	3,962	39	

[a] Dependent Variable: ROE
[b] Predictors: (Constant), DER, CRA
Source: Authors' data processing

3.6. Classic Assumption Test

4.2.1 Data Normality Test

Normality test use Normal P-P Plot Regression shows that data spread around and along the diagonal line, meaning data are normally distributed; thus, the present study satisfies the assumption of normality, for ROA.

For ROE shows that data spread around and along the diagonal line, meaning data are normally distributed; thus, the present study satisfies the assumption of normality.

4.2.2 **Multicollinearity Test**

Results of the multicollinearity test of ROA are shown in Table 8:

Table 8. Results of regression analysis

	Unstrandardized coefficients			Colinearity statistics	
Model	B	t	Sig	Tol	VIF
1					
(Constant)	–0.063	–0.955	0.346		
CRA	0.033	2.567	0.014	0.529	1.890
DER	0.117	2.854	0.007	0.529	1.890
[a] Dependent Variable: ROA					
Source: Authors' data processing					

Table 8 shows that the Toll value is > 0.10 and VIF is < 10, indicating no multicollinearity in this study.

Result of the multicollinearity test of ROE are shown in table 9:

Table 9. Results of regression analysis

	Unstrandardized coefficients			Colinearity statistics	
Model	B	t	Sig	Tol	VIF
1					
(Constant)	–0.360	–2.293	0.0280		
CRA	0.069	2.255	0.0300	0.529	1.890
DER	0.484	4.919	0.0000	0.529	1.890

[a] Dependent Variable: ROE
Source: Authors' data processing

Table 9 shows a tolerance value of > 0.1 and VIF <10; thus, there is no multicollinearity in the study.

4.2.3 Heteroscedasticity Test

Results of the heteroscedasticity test of ROA are shown that the dots spread randomly above and below zero on the Y-axis and do not show any particular pattern. Therefore, there is no heteroscedasticity in the regression model. Thus, the regression model is good for use to see determine the effects of the independent variables on the dependent variables of the study.

Results of the heteroscedasticity test of ROE are shown that the dots spread randomly above and below zero on the Y-axis. Thus, there is no heteroscedasticity in the study. The regression model can be used to determine the effects of the independent variables on the dependent variable (ROE).

4.3 Hypothesis Testing

As shown in Table 8, the multiple regression equation of independendt variables (CRA and DER) against the dependent variable (ROA) is :

ROA = -0.063 + 0.033 CRA + 0.117 DER + e

From Table 9, the multiple regression equation of independent variables (CRA and DER) against the dependent variable (ROE) is :

ROE = -0.360 + 0.069 CRA + 0.484 DER + e

4.4 Coefficient Determinants

Tabel 10. Model Summary

Model	R	R Square	Adjusted R Square
1	0,439	0,193	0,149

a. Predictors (Constant) : DER, CRA
b. Dependent Variabel : ROA

Source: Author's data processing

As shown in Table 10, adjusted R square of 0.149, meaning that the effects of the independent variable (CRA and DER) on ROA were 14.9 %, while the remaining 85.1 % were affected by other variables not included in the model of the study.

Tabel 11. Model Summary

Model	R	R Square	Adjusted R Square
1	0,646	0,418	0,386

a. Predictors (Constant) : DER, CRA
b. Dependent Variabel : ROE

Source: Author's data processing

While in Table 11, adjusted R square of 0.386 meaning that the effects of the independent variable (CRA and DER) on ROE were 38.6 %, while the remaining 61.4 % were affected by other variables not included in the model of the study.

V. DISCUSSION

5.1 Effects of Current Ratio on Return on Assets

Table 8 shows that CRA has a significance level of 0.014, meaning that CRA has a positive effect on ROA of 0.033. data show that any 1% increase in current assets will cause ROA to increase by 3.3%. Thus, H_1 stating that current ratio has an effect on ROA is accepted.

Results of the present study are consistent with those of previous study conducted by Borhan et al. (2014), indicating that current ratio has a significant effect on financial performance. Afrifa and Padachi (2016) showed that liquidity has an effect on the small- and medium-sized enterprises' profitability as proxied by return on assets.

The present study is in line with that of Saragih, et al. (2015), Sofie, et al. (2015), Suyono and Gani (2017) and Sari et al. (2018), indicating that current ratio has a significant positive effect on return on assets.

5.2 Effects of Debt-to-Equity Ratio on Return on Assets

Table 8 shows that DER has a significance level of 0.007, meaning that DER has a positive effect on ROA of 0.117. Data show that any 1% increase in debt-to-equity ratio will cause ROA to increase by 11.7%. Thus, H_2 stating that debt-to-equity ratio has an effect on ROA is accepted.

The present study is consistent with that of Ardiatmi (2014) which showed that debt-to-equity ratio had a positive effect on profitability. Wibowo and Winarno (2012) showed that debt-to-equity ratio had a negative effect on profitability.

5.3 Effects of Current Ratio on Return on Equity

Table 9 shows that CRA has a significance level of 0.0300, meaning that CRA has a positive effect on ROE of 0.069. Data indicates that any 1% increase in current assets will cause ROE to increase by 6.9%. Thus, H_3 stating that current ratio has an effect on ROE is accepted.

The present study is consistent with that of Borhan et al. (2014) indicating that current ratio has a significant effect on financial performance. In their study of SMEs, Afrifa and Padachi (2016) showed that liquidity had a significant effect on ROE. Similarly, a study by Azad et al. (2018) of registered companies in Pakistan showed that current ratio had a positive effect on return on equity.

5.4 Effects of Debt-to-Equity Ratio on Return on Equity

Table 9 shows that DER has a significance level of 0.0000, meaning that DER has a positive effect on ROE of 0.484. Data show that any 1% increase in debt-to-equity ratio will cause ROE to increase by 48.4%. Thus, H_4 stating that debt-to-equity ratio has an effect on ROE is accepted.

These results are consistent with those of Utami (2016) that showed that debt-to-equity ratio had a significant positive effect on return on equity. Qurays et al. (2018) showed that debt-to-equity ratio had a significant effect on profitability of a company.

VI. CONCLUSION

Table 6 shows that the model fits for accounting for the effects of current ratio and debt-to-equity ratio on ROA, with a significance level of 0.019 < 0.05.

Table 7 shows that the model also fits for accounting for the effects of current ratio and debt-to-equity ratio on ROE, with a significance level of 0.000 < 0.05.

The foregoing analysis shows that current ratio and debt-to-equity ratio have a positive effect on ROA at a significance level of 0.019, less than than 0.05. Furthermore, current ratio and debt-to-equity ratio also have a positive effect on ROE at a significance level of 0.000, less than 0.05.

Results of the correlation coefficient test show an adjusted R-squared of 0.149 for ROA. This shows that current ratio and debt-to-equity ratio have a weak effect of only 14.9% on ROA, while the remaining 85.1% are affected by other variables not included in the study, such as cash ratio, account receivable turnover, quick ratio, debt-to-asset ratio, total asset turnover, fixed asset turnover, gross profit margin, net profit margin, and other variables of financial ratios.

Results of the regression coefficient test show an adjusted R-squared 0.386 for ROE. This shows that current ratio and debt-to-equity ratio have a marginally strong effect of only 38.6% on ROE, while the remaining 61.4% are affected by other variables not studied, such as working capital turnover, long-term debt-to-equity ratio, total asset turnover, fixed asset turnover, inventory turnover, net profit margin, and other variables with long-term benefits.

This study has limitations in terms of the period under study and data available on the Indonesia Stock Exchange. Further studies are recommended to include variables related to solvency ratio and activity ratios. Additionally, the macro factors, such as inflation rate, should be included rate in order for more measurability.

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Determinants Of Liquidity Levels Of Commercial Banks Listed On Nairobi Securities Exchange In Kenya

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ABSTRACT:*Liquidity level in the financial sector is key to financial intermediation, economic growth and economic sustainability and key to all nations in the world. This is evident in the development of guidelines and policies on liquidity management.The CBK has set the liquidity ratio at 20%. Despite this commercial banks listed in the NSE posted averages of 37%, 41.9% and 38.6% in 2011,2012 and 2013 respectively according to CBK begging the question of what else determines this liquidity levels other than this statutory requirement. This study purposed toinvestigate the factors that determine the liquidity levels of commercial banks listed on NSE. The study specifically sought to: evaluate the influence of investment strategies, management policies and structure of loans on the liquidity levels of commercial banks listed at NSE. The anchor theory is the Keynesian theory on liquidty preference. A cross sectional approach and correlational research design was used. The target population for the study comprissed of 254 divisional and departmental managers where a sample of 64 was selected using stratified random sampling techique. Data was collected using a questionnaire which was pre-tested to identify errors. Pretest data using test-retest method had a correlation of 0.782 indicating high levels of reliability. Analysis of data was done using descriptive and regression analysis.The regression model indicated that there was correlation between the independent and dependent variables with an R of 0.247 at p >0.05. The results show that with a one unit change in the investment strategies of the bank the liquidity levels will increase by approximately 0.595 at p> 0.08. Secondly with a one unit change in loan structure of the banks it alters liquidity levels by approximately 1.480 at p<0.009. Lastly with one unit change in management policy the liquitity levels change by -1.754 at p>0.006. The study concluded that all the independent variables affected liquidity levels but at varying extents. However structure of loans was established to have more positive effect on liquidity levels .Although management policy had a negative effect it had the highest correlation with liquidity levels. The research recomends that banks must undertake due diligence on their investments options , further classify the loan structures to include very short term and very long term classes and that managerial decision be made based on factual information and data rather than intuition to ensure profitability and a better managed level of liquidity.*

Key Words: *Assets, Commercial Bank, Liabilities, Liquidities*

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INTRODUCTION

Globally in recent years, the world economy has experienced a number of financial crises. Often, at the center of these crises are issues of liquidity in the banking sector and financial markets.Ideally, commercial banks that hold cash reserves below a regulatory minimum set by the regulator of commercial banks are deemed to have violated their license requirements and face the risk of losing their trading licenses. The seeds of a financial crisis may also be sown during times of excessive liquidityfor example, when crises are likely to occur, banks seem less willing to lend and therefore hold more liquidity.

For commercial banks, liquidity entails their ability to meet customers demand for cash, both at the banking halls, clearing house and Automated Teller Machines (ATM) withdrawals, meet daily loan disbursement demands and thirdly meet their operational expenses without incurring unacceptable losses in so doing. This is closely tied to the liquidity management policies which involve the techniques used by banks management to ensure the bank has cash to meet the above obligations. Therefore, liquidity management would include the strategy that a bank adopts to balance the available cash to show how much the bank will need for payments to its customers and suppliers (Acharya, Shin &Yorulmazer, 2011). Liquidity management is an important determinant of the financial stability of financial institutions. The objective of liquidity management is to ensure that banks are able to meet in full all their financial obligations as they fall due (Ashcraft, 2006).

The main objective of asset liability management in Banks is not to eradicate or eliminate risk, but to manage it in a way that the volatility of net interest income is minimized in the short run and economic value of the bank is protected in the long run (Berger et al., 2010).Liquidity is a prime concern in a banking environment and a shortage of liquidity has often been a trigger for bank failures. Holding assets in a highly liquid form tends to reduce the income from that asset (cash, for example, is the most liquid asset of all but pays no interest) so banks will try to reduce liquid assets as far as possible(Acharya &Naqvi, 2010).

However, a bank without sufficient liquidity to meet the demands of their depositors risks experiencing a bank run. The result is that most banks now try to forecast their liquidity requirements and maintain emergency standby credit lines at other banks (Blundell-Wignall& Atkinson, 2010).Studies done in various world markets depict that liquidity levels of commercial banks attracts a lot of attention from scholars and practitioners. . In the United States of America (USA) it has been established that commercial banks will continue to hold significant liquidity into the foreseeable future but there is an opportunity for banks to reduce their liquid assets by more than $100 Billion through improved management of contingent liquidity needs and liquidity forecasting (Buehler, Noteboom& Williams, 2013). In the United Kingdom (UK), the prudential liquidity guidance regime is designed such thatLiquid Asset Buffers (LAB) can be drawn down in the event of aliquidity stress and used for the duration of the period ofstress; and indeed certain banks have used their bufferswhen needed. All of their buffer can be used in a stress and they will be given reasonable time to rebuild their bufferssubsequently (Bank of England, 2013).Judit& Major (2001) studied the liquidity management operations at the National Bank of Hungary and established that the rise of monetarist theories and negative experiences with high inflation have been responsible in the past decadefor the growing acceptance of the view thatdeliveringpricestabilityand thus ensuring predictable economic environmentshould be thefinal goalof monetary policy.

In India, Mayank and Mishra (2012) hold the view that banks should have a formal contingency plan of policies and procedures to use as a blueprint in the event the bank is unable to fund some or all of its activities in a timely manner and at a reasonable cost.The financial sector in Kenya has seen a total of 50 banks collapse due to a myriad of reasons, liquidity being one of them. The commercial banks that have collapsed due to liquidity related issues include Bullion Bank, Trust Bank and Euro Bank. The survival of commercial banks depends greatly on how liquid they are since illiquidity being a sign of imminent distress can easily erode the confidence of the public in the banking sector and results to deposit (Gatev et al., 2009).There are two categories of bank liquidity: Precautionary and transactional liquidities. Precautionary liquidity is the ratio of total cash, demand deposit at central bank, and demand deposit at other banks, to total asset while transactional liquidity is the ratio of total traded securities of central bank, government, and others, to total asset (Acharya and Naqvi, 2010).

Adequate liquidity enables a bank to meet three risks namely: funding risk (the ability to replace net out flows of funds either through withdrawals of retail deposits or non-renewal of wholesale funds), time risk (the ability to compensate for non receipt inflows of funds if the borrower fails to meet their commitment at a specific time) and lending risk (ability to meet requests for funds from important customers) (Olagunju, Adeyanju & Olabode, 2013). For a corporation with a published balance sheet there are various ratios used to calculate a measure of liquidity. These include the current ratio which is the simplest measure and calculated by dividing the total current assets by the total current liabilities. A value of over 100% is normal in a non-banking corporation. However, some current assets are more difficult to sell at full value in a hurry. Secondly, the quick ratio is calculated by deducting inventories and prepayments from current assets and then dividing by current liabilities, giving a measure of the ability to meet current liabilities from assets that can be readily sold. However, a better way for a trading corporation to meet liabilities is from cash flows, rather than through asset sales. Therefore, a third ratio; operating cash flow ratio, can be calculated by dividing the operating cash flow by current liabilities. This indicates the ability to service current debt from current income, rather than through asset sales (Distinguin, Roulet&Tarazi, 2013).

The regulator of commercial banks in Kenya, Central Bank of Kenya (CBK) stipulates the minimum holding of liquid assets held by commercial banks with the current ratio being 20% of the total deposits held by the commercial bank. The minimum holding of liquid assets also acts as a buffer to ensure that commercial banks can meet their current financial obligations if there is a freeze in funding markets. This regulation is aimed at maintaining liquidity and preventing market crashesstemming from shortages of liquidity. This required buffer is different from thebank's excess buffer. The excess buffer is considered to be the holding of liquid assetsin excess of requirements. This helps banks ensure that the liquidity demands of theircustomers can be met in times of increased liquidity pressure(Acharya, et al. 2011).

The purpose of the regulation among others is to; ensure that each institution meets the minimum liquidity requirements, guide institutions in the formulation of liquidity risk management strategies, policies, procedures, management information systems, internal controls and contingency plans for unexpected distress situations, protect deposit funds, promote a stable and efficient banking system, and endear confidence in the financial sector. The CBK supervisory department continues to adopt and implement effective and sound supervisory methods in order to minimize the risk inherent in the banking system in Kenya by ensuring that the funding gap for commercial banks is managed through a stable funding base along with detailed forecasting. Under section 19 of the Banking Act in Kenya, an institution shall maintain a minimum holding of liquid assets as the Central Bank of Kenya may determine from time to time. For instance, the current liquidity ratio stands at 20% of the total liabilities (CBK, 2014).

Although the Central Bank of Kenya has set the liquidity ratio at 20%, many banks in Kenya are still operating way above this ratio such as averages of 37%, 41.9% and 38.6% in 2011,2012 and 2013 respectively according to CBK Statistics begging the question of what else determines this liquidity while some have been reported to have gone below this ratio (CBK, 2014) leading to their downfall.Holding assets in highly liquid form tend to reduce the income from that asset.Hence, bank liquidity management is important for both bank managers and policymakers in safeguarding overall financial stability (Acharya &Naqvi, 2010). Therefore, there still exists a need for a study to identify the other factors, apart from monetary policy of CBK, which influence the general liquidity levels of commercial banks in Kenya and despite the ramifications of high liquidity.

Statement of the Research Problem

Although the Central Bank of Kenya has set the liquidity ratio at 20%, many banks in Kenya are still operating way above this ratio such as averages of 37%, 41.9% and 38.6% in 2011,2012 and 2013 respectively according to CBK Statistics while some have been reported to have gone below this ratio (CBK, 2014) leading to their downfall. Findings from previous studies indicate that profitability of commercial banks is determined by the liquidity management framework of the banks while poor liquidity management is the main reason for failure of commercial banks. It had also been established that high interest rates result in low loan uptake by clients and thus increase the liquidity levels of commercial banks.. However, these studieshad a limited scope of the factors influencing liquidity levels of commercial banks with their focus being on commercial banks within a given locality.In addition, the main determinants of liquidity levels among commercial banks had been categorized into internal and external factors.Holding assets in highly liquid form tend to reduce the income from that asset.Hence, bank liquidity management is important for both bank managers and policymakers in safeguarding overall financial stability and ensure profitabilty from normal operations.Arguably then, why is it that banks have consistently posted liquidity ratios higher than the CBK guideline? Therefore, there still exists a need for a study to identify the other factors, which influence the general liquidity levels of commercial banks in Kenya other than the CBK guideline and despite the ramifications of high liquidity.

Objectives of the Study

The general objective of the study was to investigate the factorsthat determine the liquidity levels of commercial banks listed on NSE.The specific objectives that guided the study were;

1. To evaluate the influence of investment strategies on the liquidity levels of commercial banks listed on Nairobi Securities Exchange.
2. To establish theinfluence of management policies on the liquidity levels of commercial banks listed at Nairobi Securities Exchange.
3. To determine the influence of structure of loans on the liquidity levels of commercial banks listed at Nairobi Securities Exchange.

Research Hypothesis

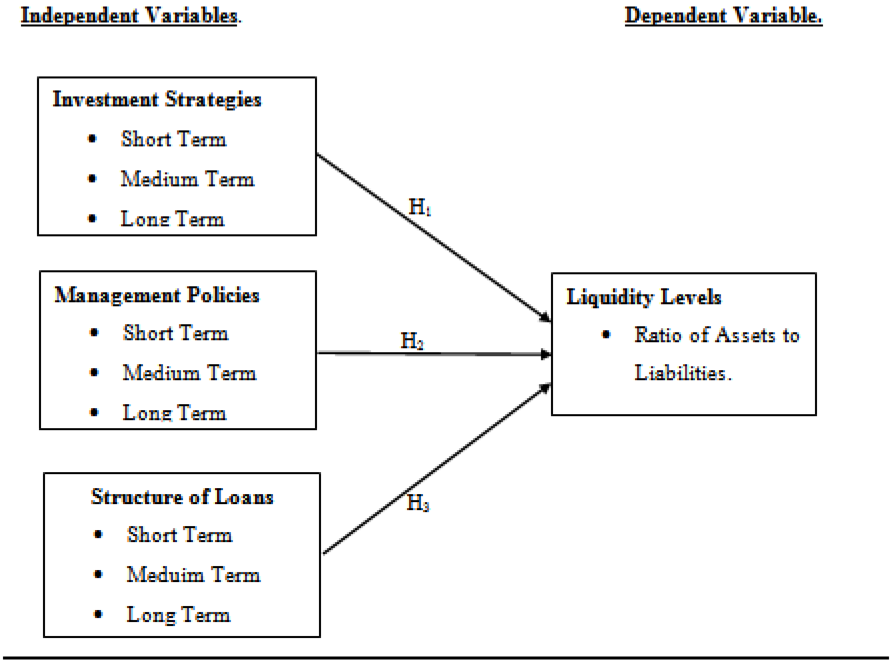
Based on the study objectives the following null hypothesis were formulated.

HO_1 Investment strategies do not influence the liquidity levels of commercial banks listed at Nairobi Securities Exchange?

HO_2 Management policies do not influence the liquidity levels of commercial banks listed at Nairobi Securities Exchange?

HO_3 Structure of loans do not influence the liquidity levels of commercial banks listed at Nairobi Securities Exchange?

Conceptual Framework



Source: (Self Conceptualization, 2014)

Figure 1.1 Conceptual Framework of the relationship between determinants of liquidity levels and liquidity level

The conceptual framework shows that the independent variables (Investment strategies, management policies, and structure of loans) influence the dependent variable (ratio of assets to liabilities (liquidity level) of commercial banks). The context of the study was the commercial banks listed at Nairobi Securities Exchange.

LITERATURE REVIEW

2.1 Theoretical Perspective

Thestudy has been anchoredon the Keynesiantheory of liquidity preference encompassing the transactionary, speculative and precautionary motives that explain the basis upon which financial institutions determine the amount of liquid assets to hold at any one particular time. The other theories include Keynesian the credit market theory and the loanable funds theory:

Keynesian Theory

The Keynesian theory states that in liquidity preference of a household or firm is determined by three main motives: Transactionary motive, speculative motive and precautionary motive. Therefore, the amount of money held by commercial banks depends on the extent to which these three motives are competing with each other. For instance, if the commercial bank intends to invest in infrastructural development like a new banking system; it would need to hold large volumes of liquid assets so as to finance the project. This might affect the size of assets and liabilities that the bank would hold. Secondly, if there is a public initial offering in the offing and the commercial banks intends to buy a large issue, then it might hold more cash for speculative purpose and therefore affect its assets and liabilities portfolios. Lastly, if there is a pending case in court that might result in huge financial implications, then the commercial bank would also hold a considerable amount of liquid assets in anticipation of the court verdict and thereby affect the liquidity levels of the bank(Fofack, 2005).Consequently, the keynesian theory could be used to explain liquidity management choices in commercial banks.However, the specific motives of level of liquidity differ from bank to bank depending on factors which we seek to investigate.

Credit Market Theory

This theory postulates that the current prices in the credit market affects the liquidity levels of lending institutions. For instance, if collateral and other restrictions remain constant, the interest rate is the only price mechanism. However, if there is an increasing demand for credit then the commercial banks will avail more credit to the customers. On the other hand, if the interest rate rises and there is low demand for credit, then the commercial banks will divert the liquid assets to other investments in order to sustain their profitability. In practice, if commercial banks want to control the supply side of the credit market, they would increase their

interest rates thereby making credit more expensive and vice versa (Fofack, 2005). Based on the interest rate variable, the credit market theory can be used the liquidity management choices adopted by Commercial Banks. i.e. Interest rates influence the liquidity management options for commercial banks.
Therefore if credit prices affcet the level of liquidity in the market, what determines the rates which in turn influnce liquidity levels?

2.2.3 Loanable Funds Theory

The loanable funds theory contends that the demand of loanable funds originates from domestic business, consumers, governments and foreign borrowers while the supply of loanable funds is generated by domestic savings, dispersion of money balances and money creation in the banking system and foreign lending. The theory holds that equilibrium will be reached only when the demand and supply factors reach equilibrium. Therefore, this theory suggests that the liquidity levels of commercial banks would be a function of the demand or supply side factors of the loanable funds. If the supply side is more than the demand side, then the liquidity levels will be higher and vice versa (Altunbas et al. 2009).
Apart from the demnd and supply side of the laonable fund theory, we seek to fnd out how the the structure of the loans so demanded or supplied affect the level of liquidity in the said commercial banks.

2.2Empirical Literature Review

Various empirical studies have been carried out to investigate the extent to which management policies, investment strategies, interest rates and structure of loans influence the liquidity levels of lending institutions including commercial banks.

2.2.1 Investment Strategies

A few studies have been conducted to establish the effects of investment strategies on the liquidity of organizations. Munchil (2010) conducted a survey of the determinants of liquidity of companies listed at Nairobi Securities Exchange. The findings indicated that, in order to promote effective diversification of investments, companies should regularly gauge their capacity to raise funds quickly from each of their investments. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid. An organization should also establish a funding strategy that provides effective diversification in the sources and tenor of funding and maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers. However, the study only concentrated on the effects of assets management practices on the liquidity of organizations and did not focus on the liability management practices.

Kithinji (2010) assessed the effect of credit risk management on the profitability of commercial banks in Kenya. The findings revealed that the percentage of the profits of commercial banks originating from commissions and fees was higher than the percentage of profit earned from loans and advances. The findings indicated that, a commercial bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems. There is also need for the bank to actively manage its collateral positions, differentiating between encumbered and unencumbered assets and monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner. The findings indicated that there is need for organizations, including commercial banks, to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a the organization's established liquidity risk tolerance. For instance, a commercial bank should use stress test outcomes to adjust its liquidity risk management strategies, investment policies, and positions and to develop effective contingency plans. A bank should have a formal Contingency Funding Plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust(Gorton & Winton, 2000). A bank should also maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding (Ndichu et al. 2013). These studies were anchored on the assumption that doubtful debts and bad debts were the reason for instability in the liquidity levels of commercial banks in Kenya. Other contributors to the liquidity level of commercial banks including investment strategies, management policies and structure of loans were not investigated.

Odongo (2008) investigated the effects of liquidity levels on the stock returns of companies listed at Nairobi Securities Exchange. The findings indicated that liquidity levels of companies had a double effect on the stock returns. For instance, high liquidity levels was identified as a mechanism through which companies would take advantage of fluctuations in share prices by buying huge issues during a bullish season and making huge capital gains in the short term. However, during seasons of low share prices, high liquidity levels was identified as the main source of opportunity costs of missed opportunities like real estate and offshore investments. In conclusion, the findings indicated that liquidity levels of companies affected the stock returns in various ways depending on the prevailing market conditions. The findings indicated that a bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its role in the financial system. The study focused on how commercial banks would enhance their liquidity through earnings from trading in stock of listed companies, real estate and offshore investments but did not consider the effects that other factors like structure of loans and management policies would have on the liquidity levels of listed companies.

Masuku (2014) conducted a study of the determinants of excess liquidity in the listed banks in Kenya. The findings indicated that the nature of investment options in the capital market and money market affected liquidity levels of commercial banks. For instance, the availability of a bullish securities exchange would attract more buyers of equities who will access their bank deposits to execute the purchases thus reducing the liquidity levels of commercial banks. On the other hand, in times of a bearish market, the rush to sell off equities would lead to more bank deposits which would increase the liquidity level of commercial banks. Other investment options that were identified to be determinants of liquidity levels of commercial banks included investment opportunities in real estate, government securities treasury bills, treasury bonds and infrastructure bonds) and corporate securities including commercial papers, corporate bonds and debentures. This study focused on the effects of investment options on excess liquidity of commercial banks in Kenya but did not expose the role of investment options on the fluctuations in liquidity levels of commercial banks. In addition, the study did not explore the effects of other factors like management policies and structure of loans on the liquidity levels of commercial banks.

In summary therefore, the above mentioned empirical studies established that the main preoccupation of commercial banks in the management of liquidity levels is the maintenance of their capacity to raise funds quickly from each of their investments. The studies also investigated the effects of investment strategies on the management of credit risk, profitability and contingency plans of commercial banks. However, the studies did not establish the specific effects of investment strategies on the level of assets and liabilities held by commercial banks at any one particular time. In addition, the studies did not determine the effects of management policies and structure of loans on the liquidity levels of commercial banks listed on NSE.

2.2.2 Management Policies

In many jurisdictions across the world, banking legislation normally contains specific liquidity requirements that must be met. These regulations that ensure proper management of financial resources are generally referred to as prudential guidelines. The prudential guidelines should not be viewed as the primary method of managing risk but should be a minimum guide to the basic controls to be established by financial institutions in the management of risks. The prudential guidelines are also aimed at enhancing management of liquidity of the financial institutions and guiding the day to day fund management (Altunbas et al.,2009).

A savings institution should have a formal liquidity policy that wasdeveloped and written by the officials with the assistance of management.The policy should be reviewed and revised as needed, no lessthan annually. The policy should be flexible, so that managers mayreact quickly to any unforeseen events. A liquidity policy shouldspecifically state:Who is responsible for liquidity management, what is the general methodology of liquidity management, how will liquidity be monitored or, in other words, whatliquidity management tools will be used,what are the timeframes to be used in cash flow analysis, the level of detail,and the intervals at which the cash flow tools used are to beupdated (Cooperman, Mills, & Gardner, 2000).

Chisoko and Pierre (2012) sought to establish how Zimbabwe commercial banks managed liquidity risk in a hyperinflationary environment. The findings showed thatliquidity risk management during the hyperinflation was a challenge because the instruments used by theReserve Bank of Zimbabwe to fight inflation had negative effect on commercial banks asset and liabilitymanagement. In line with this, the monetary authorities were recommended to put in place measureswhich took into consideration the impact of their policies on bank liquidity risk management when thereare problems of high inflation. The study also recommends commercial banks to take proactivemanagement measures and long term views to operations, in other words beyond the currentchallenges posed by inflation by creating new demand for their products.However, the focus of the study was management of risk in a hyperinflationary environment and not in the day-to-day operations of commercial banks.

Ashcraft(2006) recommends three mechanisms that banks can use to insure against liquidity crises: Holding buffer of liquid assets on the asset side of the balance sheet. A large enough buffer of assets such as cash, balances with central banks and other banks, debt securities issued by governments and similar securities or reverse repo trades reduce the probability that liquidity demands threaten the viability of the bank. Second mechanism is connected with the liability side of the balance sheet where banks can rely on the interbank market where they borrow from other banks in case of liquidity demand. Third mechanismconcerns the liability side of the balance sheet, as well where the central bank typically acts as a lender of last resort to provide emergency liquidity assistance to particular illiquid institutions and to provide aggregate liquidity in case of a system-wide shortage. However, the three mechanisms guards against liquidity crises but are not a solution to maintenance of adequate levels of liquidity on a day to day basis.

Mayank and Mishra (2012) in their study of the emerging trend of changing liquidity and liquidity risk management in Indian banking industry recommended that banks shouldhave a formal contingency plan of policies and proceduresto use as a blueprint in the event the bank is unable to fundsome or all of its activities in a timely manner and at areasonable cost. Indeed, industry experts generally agree that thesecrises tend to develop very rapidly. The researchers held that comprehensivecontingency funding plan can provide a useful frameworkfor meeting both temporary and long-range liquidity disruptions of commercial banks. However, this study confirmed the importance of contingency plans in liquidity management but did not explore other forms of management policies that would also contribute to attainment of adequate liquidity levels among the commercial banks listed on NSE.

Loo (2007) conducted a survey of the effects of liquidity management approaches on the profitability of commercial banks in Kenya. The findings indicated that there existed various liquidity management approaches ranging from authorized sources of liquid assets, authorized channels of investment, limits of loans, limits of borrowings and general controls on liquid assets of commercial banks in Kenya. This study suggested that the flexibility, inclusivity and communication of the management approaches have effects on profitability of commercial banks. The findings indicated that the policy should establish minimums and maximums for totalcash assets and for the amount to be kept on-site and how often decisions about liquidity should be reviewed,including: assumptions used to develop the cash flow budget,the minimum cash requirement as described in daily cashforecasting, and any of the established ratio targets. This study was preoccupied with delivery of targeted profits through proper liquidity management. In addition, liquidity decisions need to be made rapidly to avoid acrisis; therefore the liquidity manager should have someauthority. This authority should have limits; for example,another signature should be required for unusually largetransactions. If liquid funds are not invested in anotherfinancial institution or other type of investment, then thereshould be very specific policies on how excess funds are to behandled, such as who has access to them and where they areto be kept(Cooperman, Mills, & Gardner, 2000).

The management policies should also address the question of which assets are considered to be liquid and the established limits for the maximum amount to be investedin any one bank, to limit exposure to a bank failure.Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. They should also continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. In other words, a bank's board of directors should review and approve the strategy; policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively. Lastly, the policy should stipulate who may access or establish a line of credit for short-termliquidity needs and what are acceptable reasons or scenarios for accessing theline of credit(Gorton & Winton, 2000).However, the study identified the liquidity management approaches that would assure commercial banks of the targeted profits but did not explore other mechanisms like appropriate investment decisions and a balanced portfolio of loans.

In summary therefore, the empirical studies indicated that management policies ranged from authorized sources of liquid assets, limits of loans, limits of borrowings and general controls on liquid assets. The policies were evaluated in relation to their effects on managing crises like hyperinflation and their contributions to profitability levels. However, the studies did not evaluate the specific effects of management policies on the liquidity levels of commercial banks.

2.2.3 Structure of Loans

The structure of loans refers to whether loans are short, medium or long term. A substantial proportion of liquidity is required when a higher portion of the loans are long term loans (Mervyn, 2010). Aikaeli (2006) investigated the determinants of excess liquidity in Tanzanian commercial banks. The findings indicated that high cost of funds, credit risks, volatility of deposit holders' cash preference, and the rate of required reserves perpetuated accumulation of excess liquidity in commercial banks in Tanzania. The main determinant of excess liquidity in Tanzania commercial banks was identified as the high interest on loans which made potential investors to shy away from borrowing from the commercial banks. Indeed, these empirical findings and conclusions had important policy implications on price stability, risks minimization, proper supervision and optimal liquidity management by the commercial banks in Tanzania.

Berger and Udell (2006)explored how bank characteristics and the institutional environment influence the composition of banks' loan portfolios. In this study, the researchers sought to establish the determinants of the composition of banks' loan portfolios for 220 banks in 20 transition countries. The study revealed that bank ownership, bank size, and legal creditor protection were important determinants of the composition of banks' loan portfolios. In addition, commercial banks that perceived pledge and mortgage laws to be of high quality chose to focus more on mortgage lending. The study recommended that prudent risk selection is vital to maintaining favorable loan quality. In addition, the findings proposed that management must have established the following tostrengthen the management of loans portfolios: Short and long-term minimum capital or equity to total assets goal ratios, the maximum percentage of assets to be held by any oneclient, in different types of loans and investments, in fixedrateinvestments and loans with a maturity greater than oneyear, and invested in fixed assets. Other minimum standards in management of loans include: Thedesired diversification of savings and deposits to eliminate potential concentration risk (having too much in anyone type of deposit or with any one client) and the maximum maturities for all types of loans, investments, anddeposits(Berger & Udell, 2006).This study emphasized the need to guard against bad debts in the creation of loan portfolios as a means of attaining adequate liquidity levels. However, the study did not provide an insight on the effects of each type of loan on the overall liquidity of commercial banks.

Akeyo (2010) investigated the relationship between interest rates and liquidity of companies listed at Nairobi Securities Exchange. This study confirmed the earlier findings of Kinyu (2009) and Muchil (2010); that the liquidity of companies was determined by management policies, investment plans, and nature of business operations, nature of industry, types of financial obligations and the background of managers employed by the corporate entity. However, the findings indicated that the main determinant was not the prevailing economic conditions as held by Muchil (2009). Instead, Akeyo (2010) observed that the main determinant of liquidity levels of organizations was the investment strategy of the firm.The findings supported the need to establish fixed or variable interest rate loans and deposits as a pricing strategy for loans and savings products that arebased on what it actually costs to offer the products andwhat the local market will bear. However, the study did not explore the role played by the structure of loans in determining the liquidity of companies listed on NSE.

In summary therefore, the above mentioned empirical studies established that the loan structure decisions of commercial banks affected the size of loan portfolios, the desired diversification of savings and deposits and the maximum maturities for all types of loans, investments anddeposits. However, the findings did not investigate the specific effects of the size and nature of loan portfolios to the liquidity levels of commercial banks.

2.2.4 Monetary Policy

Monetary policy refers to the actions of the Central Bank to regulate the money supply which could be through discretional monetary policy instruments such as the open market operation (OMO), discount rate, reserve requirement, moral suasion, direct control of banking system credit, and direct regulation of interest rate. Monetary policy is one of the principal economic management tools that governments use to shape economic performance (Loayza, and Schmidt-hebbel, 2002).

Amidu (2006) assessed the link between monetary policy and bank lending behaviour in Ghana and established that for monetary policy to operate through a credit channel, not only must there be bank dependent borrowers, but monetary policy must also directly affect banks‘willingness to lend. Kimani (2013) assessed the effects of monetary policy on lending behaviour of commercial banks in Kenya. She established that monetary policy objectives are concerned with the management of multiple monetary targets among them price stability, promotion of growth, achieving full employment, smoothing the business cycle, preventing financial crises, stabilizing long-term interest rates and the real exchange rate. She also found out that in Kenya, emphasis of monetary policy is usually on maintaining price stability or ensuring low inflation rates. She also concluded that the effectiveness of monetary policy on the real economy is still an issue under intense debate particularly related to the efficacy of the transmission. The above mentioned studies show that the effect of monetary policy on liquidity of a commercial bank is dependent on the nature of the monetary policy and theresponse that commercial banks exhibit in terms of their investment strategies, management policies and structure of loans.

RESEARCH METHODOLOGY

This chapter focuses on the research design, the study area, target population, sample size and sampling procedure, data types and data collection methods, validity and reliability checks, data analysis and data presentation methods and closes with the contributions of the study.

3.1 Research Design

This study employed a cross-sectional survey design and correlational design. Orodho (2003) points out that the cross-sectional survey design can be used when collecting information about peoples' attitudes, opinions, habits or any of the variety of education and social issues. Orodho (2005) holds that the cross sectional survey design describes the state of affairs as it exists by use of statistical figures and it isused when collecting information about the relationship of values of two related variables (Kombo & Tromp, 2006). The defining feature of a cross-sectional study is that it can compare different population groups at a single point in time. The benefit of a cross-sectional study design is that it allows researchers to compare many different cases at the same time. In this study the ten banks listed on the NSE were all used. By the virtue of assessing relationship between the variables; independent variables (investment strategies, management policies and structure of loans) on the dependent variable (liquidity levels) correlational was also adopted.

3.2 Study Area

The ideal setting for any study is one where a researcher has interest in, one which is easily accessible and one that allows the researcher's immediate rapport with the respondents (Kombo & Tromp, 2006). The study was carried out in Nairobi County, Kenya where the commercial banks had their administrative headquarters and the head offices for the assets and liabilities departments that dealt with the liquidity management activities. Spefically, the study was conducted within three major locations: the Nairobi Central Business District, the Upperhill Area and Westlands where all banks had their headquarters.

3.3 Target Population

This study targeted the Divisional and Departmental managers who deal with liquidity management. They were 254 managers of the 10 commercial banks listed in the NSEas the respondents. The listed commercial banks wereStandard Chartered Bank, CFC Stanbic Bank, Cooperative Bank of Kenya,Diamond Trust Bank, Kenya Commercial Bank, NIC Bank, Equity Bank, Barclays Bank, I & M Holdingsand National Bank of Kenya.

3.4 Sampling Technique and Sample Size

The study employed stratified random sampling technique to select respondents from the10 commercial banks listed on Nairobi Securities Exchange.In order to select a wide representation of the managers from the listed commercial banks, the sample size was made up of at least a third of each category of the population stratum. Mugenda & Mugenda (1999) holds that a sample size of at least 10% is an adequate representation of the target population.

3.5 Data Collection

3.5.1 Sources and Type of Data

The study used primary and secondary data. The research permit was sought from the heads of Corporate Affairs of the respective commercial banks. Primary data was collected by use of a semi-structured research questionnaire (Appendix III) while secondary data was collected from published audited financial statements and websites commercial banks and Central Bank of Kenya.

3.5.2 Data Collection Procedure

Due to the nature of the respondents, the questionnaires were dropped to the respondents by the researcher. This ensured that the respondents were informed of the purpose of the study and assured of the confidentiality involved in the study. In order to increase the response rate, the respondents were reminded to complete the questionnaires via telephone calls and physical visits were made to pick the questionnaires.

3.5.3 Instrument for Data Collection

The instrument for data collection was questionnaires for primary data. The questionnaire was used because it provides reliable, valid and theoretically satisfactory results in cases where the respondents have first-hand information on a phenomenon (Orodho, 2006). Secondary data was collected from websites, publications and audited financial reports.

3.5.4 Reliability Test for Data Collection Instrument

The reliability test of the research instrument was done by use of the Test-retest method. Mugenda & Mugenda (1999) hold that the test-retest method is the simplest way of testing the stability and reliability of a research instrument over time. The test-retest coefficient was a measure of how consistent the results of the the test and those of the retest were correlated. Of the 74 respondnets,10 respondnets were used for pretesing and thus were not used in the final sample.A correlation factor of 0.9 and greater was considered excellent reliability, between 0.9 and 0.8 was considered good reliability while a correlation of between 0.8 and 0.7 was acceptable reliability. Test retest method had a correlation factor of 0.782 which was considered acceptable.

3.5.5 Validity Test for Data Collection Instrument

Validity is the degree to which results obtained from the analysis of the data actually represents the phenomena under study(Mugenda & Mugenda, 1999). The researcher checked the face validity of the research instrument by evaluating the logical sequence of the questions. Content validity was tested by ascertaining the representativeness of the questions in relation to the universe of questions that could have been asked on the variables of the study.

3.6 Data Analysis

Simple descriptive statistics including the mean and standard deviation was used to summarize the findings from the questionnaires. Multiple regression analysis was used to establish relationships between the independent variables and the dependent variable of the study. In order to establish the relationship between the dependent and independent variables, the following multiple regression model was used:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \quad (3.1)$$

Where:Y =Liquidity differential (Bank liquidity ratio – statutory liquidity ratio); β0 = Constant Term; β1, β2and β3= Beta coefficients; X1= Average Score on Investment Strategies; X2= Average Score on Management Policies; X3= Average Score on Structure of Loans; ε = Error term

RESULTS AND DISCUSSIONS

Regression Analysis

The study sought to develop a linear model using regression analysis to establish the effect of investment strategies, structure of loans and management policies on liquidity in listed commercial banks. The model was in the form of:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \varepsilon \quad (4.1)$$

Where: Y = liquidity ratio differential (Bank liquidity – statutory liquidity) $\beta 0$ = is a constant $\beta 1, \beta 2, B3, B4$ = Beta Coefficients X1 = Investment strategies, X2 = Management policies, X3 = Structure of loans and ε represents an error term

4.7.1 Model Summary

Table 4.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.247[a]	0.061	-0.017	3.21728

Source: Survey Data (2015)

From the model summary on Table 4.26 presents the relationship between the variables in the study. The R represents the correlation between the dependent and independent variables in the study. The correlation coefficients (0.247) indicates that there was a significant relationship between the independent variables and dependent variable. The findings show that a significant relationship exists between the managerial policy, structure of loans, investment strategies and the liquidity ratios in the commercial banks.

The R- Squared indicates the independent variables (managerial policy, structure of loans, investment strategies) account for 0.061 (6.1%) of the variation in the dependent variable (Liquidity levels) in the commericail banks. 0.0931 (93.1%) is accounted for by other factors that are attributed to monetary policy.

4.1.2 Analysis of variance

Table 4.2: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.242	4	8.060	.779	.005[b]
	Residual	496.844	48	10.351		
	Total	529.086	52			

Source: Survey Data (2015)

The analysis of variance in table 4.27 indicates the F- statistics of 0.779 with the P-value of 0.005.The results indicate the model is significant thus stable at both 1% and 5%.

4.7.3 Coefficients of variations

Table 4.3: Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	16.377	2.622		6.245	0
	Investment Strategies	0.595	2.433	0.081	0.244	0.008
	Management Policy	-1.754	0.336	-0.33	-5.22	0.006
	Structure of Loans	1.48	0.541	0.27	2.737	0.009

Source: Survey Data (2015)

From table 4.28,the coefficients of the model were positive for investment strategies (0.595) and loan structure (1.480) and significant at 0.05 significance levels. On the other hand, the coefficients for management policy was negative (-1.754) and significant at 0.05 significance levels. The findings show that all the variables had a significant effect on liquidity levels in commercial banks. The results show that with a one unit change in the investment strategies of the bank the liquidity levels will increase by approximately 0.595. Secondly with a one unit change in loan structure of the banks it alters liquidity levels by approximately 1.480. Lastly with one unit change in mamagement policy the liquitity levels change by -1.754. This indicates that management policy has a negative influence on the liquidity levels in the commercial banks.

The model liquidity model is :

$$Y = 16.377 + 0.595X_1 - 1.754X_2 + 1.480X_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ \text{P=0.005}$$

Where: Y = Liquidity ratio
X1 = Investment strategies
X2 = Management Policy
X3 = Structure of Loans

ThefindingsinTable 4.28indicatedthat liquidity ratio wouldbeat16.377holdingbest investment strategies, management policy and strcutre of loan atzero.Thestudy established thateffortby thecommercial banks to enhance their investment strategies would increase liquidity ration by(β_1=.595, p=0.008<0.05).This implies that a unit increase in investment strategies by the commercial banks would lead to an icrease in liquidity ratios of the banks.

The findings are in tandem with the findings of Kithinji (2010) who assessed the effect of credit risk management on the profitability of commercial banks in Kenya and found that that the percentage of the profits of commercial banks originating from commissions and fees was higher than the percentage of profit earned from loans and advances.

The findings are also in line the findings of Masuku (2014) who conducted a study of the determinants of excess liquidity in the listed banks in Kenya and established that the nature of investment options in the capital market and money market affected liquidity levels of commercial banks.

Thestudymoreover foundthatmanagement policy would significantlydecrease liquidity ratios (β_2=-1.754, p=0.006<0.05). Thisclearly indicated that with increase in investment strategies and structure of loans the banks would redure their liquidity ratios however an more stringent management policies would reduce their liquidity ratios.

These findings lend credence to the findings by Loo (2007) who conducted a survey of the effects of liquidity management approaches on the profitability of commercial banks in Kenya and found that there existed various liquidity management approaches ranging from authorized sources of liquid assets, authorized channels of investment, limits of loans, limits of borrowings and general controls on liquid assets of commercial banks in Kenya.

The findings also corroborates with the assertions of Mayank and Mishra (2012) who in their study of the emerging trend of changing liquidity and liquidity risk management in Indian banking industry asserted that comprehensivecontingency funding plan can provide a useful frameworkfor meeting both temporary and long-range liquidity disruptions of commercial banks. However, this study confirmed the importance of contingency plans in liquidity management but did not explore other forms of management policies that would also contribute to attainment of adequate liquidity levels among the commercial banks listed on NSE.Thestudy further established thateffortby the comercial banks to improve their structure of loans would increase liquidity ratios by(β_3=1.4805, p=0.009<0.05).

The findings support the findings by Berger and Udell (2006) who explored how bank characteristics and the institutional environment influence the composition of banks' loan portfolios. In this study, the researchers sought to establish the determinants of the composition of banks' loan portfolios for 220 banks in 20 transition countries. Their study revealed that bank ownership, bank size, and legal creditor protection were important determinants of the composition of banks' loan portfolios. In addition, commercial banks that perceived pledge and mortgage laws to be of high quality chose to focus more on mortgage lending.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings

The study sought to investigate the determinants of liquidity levels amongst listed commercial banks Kenya. The study specifically investigated the influence of investment strategies on liquidity levels, examined the influence of management policies on liquidity levels and analyzed the influence of loan structures on liquidity levels of commercial banks in Kenya.

The study sought to evaluate the influence of investment strategies on the liquidity levels of commercial banks listed on Nairobi Securities Exchange. The study established that investment strategies had a positive effect on the liquidity levels of commercial banks. The results show that with a one unit change in the investment strategies of the bank the liquidity levels will increase. In addition, the study found that most banks listed in the NSE undertook liabilities and assets matching for their investment strategies. This meant that long term investment strategies were primarily financed or matched with long term liabilities while short term investment strategies were financed or matched to short term liabilities. A similar approach was used for mid-term investment strategies which were matched to medium term liabilities.

The study also established that managerial policies overall had a negative influence on liquidity levels in listed commercial banks. The findings are validated by the findings that the all the managerial policies such as internal liquidity buffer policy, contingency plan policy and loan deposit ratio policy had an influence on all deposits and liabilities of the commercial banks. Nevertheless, the managerial policies were also focused on specific assets and liabilities as a liquidity management plan i.e. short term deposits and liabilities were influenced by internal liquidity buffer policy, medium term deposits and liabilities were managed using a contingency plan policy while long term loans and deposits were managed using the loan deposit ratio policy.

The study further determine the influence of structure of loans on the liquidity levels of commercial banks listed at Nairobi Securities Exchange and found that there was a positive effect of the structure of loan effect on liquidity levels of commercial banks listed in the NSE. From the findings it was revealed that short term loans had an effect on the most liquid assets e.g. discounting of invoices and had the highest influence on short term liabilities. Similarly, medium term loans had the highest effect on medium term liabilities and deposits of commercial banks while long term loans had the highest effect on long term loans and deposits. This implies that most banks matched their liabilities to assets with their structure i.e. Length of the assets and liabilities.

5.2Conclusions

From the summary of the findings the study concludes that the independent variable factors investment strategies and structure of loans all affect liquidity levels positively but at varying extents.However structure of loans was established to have more positive effect on liquidity levels. The study therefore concludes that most banks matched their liabilities to assets with their structure i.e. Length of the assets and liabilities. Therefore liabilities with similar structures were matched with assets of the commercial banks with similar structures.

From the study Managerial policy had an overall negative effect on liquidity levels in listed commercial banks in Kenya. Banks utilized a variety of managerial policies to manage different liabilities and assets of the commercial bank in an effort to manage liquidity. Although manegement policy had a negative effect it had the highest correlation with liquidity levels.

5.3Recommendations

Based on the summary of the findings and conclusions, the study recomends:

i. The bank managers make investment decisions based on risk and return. This is because though liquidity management is an objective for most banks it should go hand in hand with the profitability objective of the commercial bank. Consequently, banks must undertake due diligence on their investments options to ensure that though matching is done for liquidity management, risk and returns on the investments are also taken into consideration.
ii. Managerial decision making must be made based on factual information and data rather than intuition. Banks must strengthen their data collection systems and strategies to aid in decision making especially in relation to liquidity management. This is because is because managerial policies have the highest effect on liquidity management in commercial banks. Banks must invest substantial amounts of time, resources and human capital on data collection for effective decision making on liquidity management.
iii. Banks should diversify their loan structures from merely short term, medium term and long term classes. The banks can further classify the loan structures to include very short term and very long term classes. This will enhance in better decision making and liquidity management. For example: rather than classify all deposits of loans of less than 1 year as short term, there can be classes for immediate assets (0 – 3 months) and short term assets (4 – 12 months). A similar approach should be used for deposits in the banks.

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The Influence Of Intellectual Capital On Profitability And Company Value In Banking Industries Registered In Indonesia Stock Exchange (IDX)

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ABSTRACT: *This study was to analyze (1) the influence of intellectual capital toward profitability (2) the influence of intellectual capital toward company's value (3) the influence of profitability toward company's value; and (4) the influence of intellectual capital toward company's value through profitability. The study was conducted on companies listed in the Indonesia Stock Exchange. was 40 companies. Data were analyzed by using SEM (Structural Equation Modeling) with program of Analysis Moment of Structure (AMOS) version 22. Results of the study showed that (1) intellectual capital had positive and significant effect toward profitability; (2) intellectual capital had positive and significant effect toward company's value; (3) profitability had positive and significant effect toward company's value; and (4) intellectual capital had positive and significant effect toward company's value through profitability*.

KEYWORDS:*Intellectual capital, profitability, company's value.*

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I. INTRODUCTION

The existence of economic changes characterized by a knowledge-based economy with the application of knowledge management, the progress of a company will depend on a creation of transformation and capitalization of knowledge itself.Intellectual capital is the source of the creation of intangible values related to employee capabilities, organizational resources, and operating systems and relationships with stakeholders that are important in creating a sustainable competitive advantage of the company (Chen, et al; 2005).

In Indonesia the intellectual capital phenomenon began to develop. In general, companies in Indonesia tend to use conventional based in building their business, so the products they produce are still poor in technology (Abidin, 2000: 46). In addition, these companies have not given more attention to Human Capital, structural capital, and customer capital. Though all of these are elements of the development of the company's intellectual capital (Sawarjuwono, 2003: 36).

So far, the distinction between intangible assets and intellectual capital has been disguised in the intangible sense, both of which are referred to as goodwill (APB, 1970: ASB, 1997: IASB, 2004). This can be traced back to the early 1980s when the general record and understanding of intangible values, usually given the name goodwill, began to appear in business practices and accounting (IFA, 1998). In tracing the intangible recording practices, Guthrie and Parker (1999) and IFA (1998) found that traditional accounting cannot provide information about the identification and measurement of intangibles in organizations, specifically knowledge-based organizations. New intangible types such as employee competency, customer relations, simulation models, administrative and computer systems are not recognized in traditional financial and management reporting models. Even in practice, some traditional intangibles, such as brand owners, patents and goodwill, are still rarely reported in financial statements (IFA, 1998: IASB, 2004). In fact, IAS 38 concerning asset intangibles prohibits the recognition of internally created brands, logos (mastheads), publication titles, and customer lists (IASB, 2004).

Furthermore, Abidin (2000: 46) states that companies in Indonesia will be able to compete if they use the competitive advantage gained through creative innovations produced by the company's intellectual capital. This will encourage the creation of products that are increasingly favorable in the eyes of consumers. Intellectual capital has become a very valuable asset in the world of modern business. This poses a challenge for accountants to identify, measure and develop it in financial statements. In addition, research on intellectual capital can help Bapepam and the Indonesian Institute of Accountants create better standards in disclosing intellectual capital. Traditional financial reports have failed to be able to present this important information. Companies whose assets are mostly in the form of intellectual capital such as the Public Accounting Firm, do not disclose this information in financial statements will be misleading because it can affect company policy. Likewise, there are no companies that have gone public or money that have not gone public that incorporate intellectual capital into the company's financial statements, this phenomenon that needs to be researched is the cause of the inclusion of capital intellectuals in the Bank's financial statements. Therefore, financial statements must be able to reflect the existence of intangible assets and amounts that can be recognized. The existence of large differences between market values and reported values will make financial statements useless for decision making.

In general, the company's goal is to maximize the company's profits on increasing stock market prices, the company always wants a profit growth for the company, on the other hand investors want adequate dividend payments, but both things are always in competition, companies are more interested in holding back profits obtained by the company rather than distributing in the form of dividends.

To obtain the growth rate of corporate earnings in the form of increasing profitability, while measuring and knowing the company's financial performance running its operations, this can be seen from Return on Assets (ROA), Return on Equity (ROE), and Nett Interest Margin (NIM), third this is an important measure for assessing whether or not a company can influence investors to make profits from their desire to invest in a company, the higher the profitability produced by a company means the higher the performance achieved by the company. If profitability is achieved by a high company, it means that the results of stock returns are getting better.

The company's financial performance is seen from the level of profitability achieved by the company as measured by Return On Asset which shows the measurement of how much net profit is obtained from the existing asset value in the company, Return On Equity shows the measurement of income achieved for the company owner, while Nett Interest Margin shows the measurement of how much the bank's ability to generate income from its operations.

The measure of profitability in the Banking Industry used, in general, is Return On Equity (ROE), Return On Assets (ROA) focuses on the company's ability to obtain earnings in its operations, while Return On Equity (ROE) only measures returns obtained from investment in company owners the business (Siamat 2002).

The purpose of the company to register shares in the capital market is to increase the value of the company as reflected in its stock price (Fama and French, 1998 in Abd.Rasyid (2015; 4) stock prices are used as proxy for company value, because stock prices are prices willing to be paid by prospective buyers if investors want to have proof of ownership of a company also reflected in Earning Per Share, Price Earning Ratio and Price to Book Value.The higher the value of the company describes the more prosperous the owner, optimization of company value which is the company's goals can be achieved through implementation financial management function, where one financial decision taken will influence other decisions and affect the value of the company.

Based on the description in the form of phenomena, the theories and studies of previous conflicting studies supported by data are the basis for researchers to conduct research on the intended phenomenon and research differences so that researchers chose the title of this Research: The Effect of Intellectual Capital on Profitability and Firm Value in the Banking Industry Registered in Indonesia stock exchange.

Problem Formulation

Based on this background, the formulation of the problems in this discussion are as follows:

1. Does intellectual capital affect the profitability of companies in banking industry companies listed on the Indonesian stock exchange?
2. Does Intellectual Capital affect the value of the company in the banking industry companies listed on the Indonesian stock exchange?
3. Does profitability affect the value of the company in the banking industry companies listed on the Indonesian stock exchange?
4. Does intellectual capital affect the value of the company through profitability in the banking industry companies listed on the Indonesian stock exchange?

Research Objectives

Based on the background and formulation of the problem, the purpose of this review is as follows:

1. To analyze the influence of intellectual capital on the profitability of companies in banking industry companies listed on the Indonesian stock exchange.
2. To analyze the influence of intellectual capital on firm value in banking industry companies listed on the Indonesian stock exchange.
3. To analyze the effect of profitability on firm value on banking industry companies listed on the Indonesian stock exchange.
4. To analyze the influence of intellectual capital on the value of the company through profitability in banking industry companies listed on the Indonesian stock exchange.

Benefits of Research

The benefits of this study are intended as follows:

1. Benefits for scientific development
   This research was conducted to be able to obtain or be able to know the benefits and contributions in the development of financial management studies, especially those concerning intellectual capital, profitability and corporate value in the banking industry.
2. Practical Benefits
   In general, the results of this study are expected to be used as input for the preparation of business plans or business planning for the banking industry in general and specifically for banks listed on the Indonesian stock exchange so that optimal bank performance will be achieved so that the level of bank performance will be maintained.

II. LITERATURE REVIEW

A. Agency Theory (Agency Theory)

The perspective of agency relations is the basis used to understand the creation of banking business health. According to Jensen and Meckling (1976) in Budiadriani (2014), Agency Theory discusses the relationship between members in the company, principals and agents as the main actors. The Principal is the party that gives the agent mandate to act on behalf of the principal, while the agent is the party given the mandate by the principal to run the company. Agents are obliged to account for what the principal has mandated. The existence of different positions and functions, interests and interests behind the principal and agent, but mutual need often creates conflict. Problems arise if there are differences in interests between the agent and the principal (Emirzon, 2007: 76). One of the causes of agency problems is information asimentation, which arises because of the unequal distribution of information between principals and agents. Principal often faces difficulties when exercising control over agent actions. Jensen and Meckling in Emirzon (2007) state that there are two conditions that can occur in a public company caused by information asiment:

1. Moral Hazard, which is a problem that arises if the agent does not implement the things agreed upon in the employment contract.
2. Adverse selection, which is a condition where the principal cannot know whether a decision taken by an agent is really based on information that has been obtained, or occurs as an omission.

B. Intellectual Capital

The term intellectual capital was first put forward by Galbraith in 1969, who wrote a letter to his friend, Michael Kalecki, Galbraith wrote, "I wonder if you realize how much of the word you have provided you have provided over the last decades "(Bontis, 2001). Then the idea or idea of intellectual capital began to be developed in the mid-1980s which was indicated by the emergence of a shift from production based to service to a knowledge-based economy.

Some authors provide different definitions of intellectual capital, Stewart (1997) defines intellectual capital as intellectual material, namely knowledge, information, intellectual property, experience used to create welfare, He argues that knowledge has become an important factor of production and therefore Intellectual assets must be managed by the company. Mouritsen (1998) defines intellectual capital as a technology management process that specializes in calculating future company prospects. Whereas according to Reilly (1992) the category of intangible assets is something related to technology, consumers, contracts, data processes, personal capital, marketing, location, and goodwill. This definition is still broad and covers almost all dimensions of intangible assets.

Intellectual capital consists of 2 (two) elements, namely Human Capital and structure capital as intangible assets, and added with tangible assets incorporated in the Capital Employed or company assets that are used for company operations.

Human capital, structural capital, and consumer capital are fundamental things that are produced through the ease of knowledge flow through the company and transforming knowledge into corporate values in the three dimensions of intellectual capital.

C. Profitability

Profitability is the end result of a number of company management policies and decisions (Brigham and Houston, 2009: 95), this means that company profitability is the company's ability to generate net income from activities carried out in the accounting period. Companies that have a high level of profitability every year have a tendency to use their own capital compared to using debt (Kusuma, 2011), another assumption states that high Return On Assets, which means that the company's net income is high. Therefore, if the company uses a large debt, it will not affect the capital structure, because the company's ability to pay interest also remains high.

Profitability ratio is a ratio to assess a company's ability to seek profits (Kasmir, 2012: 196), this ratio also provides a measure of the effectiveness of a company's management. This is intended by profits generated from sales and investment income, the point is that the use of this ratio shows the efficiency of the company. The use of profitability ratios can be done by using comparisons between the various components that exist in financial statements, especially the balance sheet financial statements and income statement. decrease or increase, while looking for the causes of these changes. Therefore this profitability ratio is often referred to as one measure of management performance. Based on the results of the research conducted by Shinta D. Manurung et al (2014) and Abd Rasyid (2015), it shows that profitability has a positive and significant influence on Company Value.

D. Company Value

The main objective of the company according to the theory of the firm is to maximize the value of the firm (Salvatore, 2005: 48, in Abdul Rasyid 2015: 25), maximizing the value of the company is very important for a company, because by maximizing the value the company also means maximizing shareholder prosperity which is the company's main goal. According to Husna (2008; 64) the value of the company is the price that the prospective buyer is willing to pay if the company is sold. Whereas according to Keown (2004; 103) company value is the market value of outstanding debt and equity securities of the company.

Company value is a certain condition that has been achieved by a company as an illustration of public trust in the company after going through an activity process for several years, that is, since the company was established until now. Increasing the value of the company is an achievement in accordance with the wishes of its owners, because with the increase in the value of the company, the welfare of the owners will also increase.

III. CONCEPTUAL AND HYPOTHESIS FRAMEWORK

The rationale for the need for a conceptual framework of this research begins to examine the various variables that cause changes in the value of banking service companies listed on the Indonesia Stock Exchange, this study includes the variable Intellectual Capital, profitability as a variable that is thought to affect the value of the company either directly or through intervening variables.

This study uses 3 (three) variables, namely 1 (one) independent variable, 1 (one) intermediate variable and 1 (one) dependent variable, Independent Variable namely intellectual capital, while the intermediate variable is profitability and the dependent variable is the value of the company.

The conceptual framework in this study is as follows:

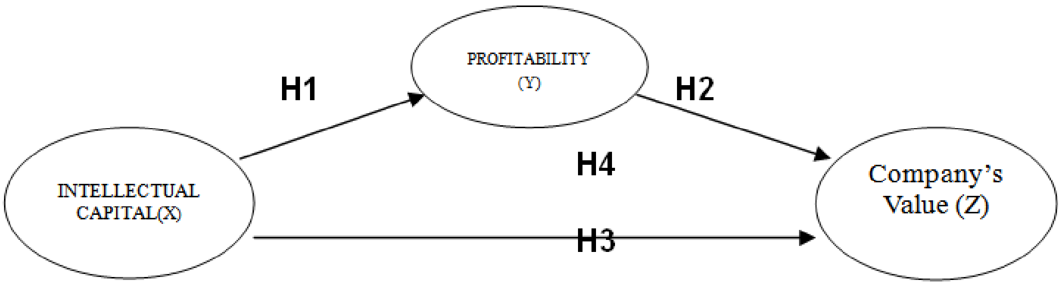

Figure 1 : Research Conceptual Framework.

Hypothesis

Based on the formulation of the problem, the purpose of the study, the literature review, and the conceptual framework of the study, the hypothesis proposed in this study are:

H1: Intellectual Capital has a positive and significant effect on company profitability.
H2: Intellectual Capital has a positive and significant effect on Firm Value
H3: Profitability has a positive and significant effect on firm value.
H4: Intellectual Capital has a positive and significant effect on company value through profitability.

IV. RESEARCH METHODS

This study uses two approaches, namely descriptive approach (descriptive research) and explanatory research. This research will be conducted at financial services companies listed on the IDX. The data used in this study are secondary data. The population and sample in this study are all industries. The analytical method used in an effort to explain the problem in this study is descriptive analysis techniques and inferential statistical analysis. The population in this study are all Banking industry companies listed on the IDX. The number of charge companies listed on the IDX is 40 companies.

The analytical method used is in an effort to explain the problem in this study are inferential analysis techniques and inferential statistical analysis. To analyze the data used The Structure Equation Modeling (SEM). Model structural equation SEM is a set of statistical techniques that allow a series of relations to be relatively "complicated" simultaneously (Ferdinand, 2014). To facilitate the analysis process, a statistical application program is used, AMOS which is a package in the SEM (Structural Equation Modeling) program. Based on the conceptual framework and research model, then to see the effect of independent variables on the dependent variable, the equation is as follows:

a) Measuring the structure of Intellectual Capital to Profitability, as for the equation;
   $Y = \alpha + \beta 1.X1 + €$
b) Effect of Intellectual Capital on company value, the equation:
   $Z = \alpha + \beta 1.X1 + \beta 4.Y + €$

V. OPERATIONAL DEFINITION AND MEASUREMENT

1. Intellectual Capital (X), is intellectual capital whose components are Value Added created by Value Added Capital Employed (VACE), Value Added Human Capital (VAHC) and Value Added structural capital (VASC). The combination of the three Value Added is symbolized by the name VAIC developed by Pulic (1998,1999,2000), this concept has been tested and adopted by Firer and Williams (2003), Mavridis (2004), Chen, et, al (2005), Kamath (2007), Tan et al (2007), and Omid Amri and Mohamadreza Abdoli (2012). The indicators of intellectual capital are:
   a. Value Added Capital Employed (VACE), is to show the contribution made by each capital employed (CE) unit to the company's Value Added (VA), or the comparison between Value Added (VA) and Capital Employed (CE) with the formulation:
      VACE = VA / CE
   b. Value Added Human Capital (VAHC), is to show how much VA can be generated with funds spent on labor. This ratio shows the contribution made by each rupiah invested in Human Capital (HC) to the company's Value Added with formulations:
      VAHC = VA / HC.
   c. Value Added Structural Capital (VASC) is a ratio used to measure the amount of structural capital (SC) needed to produce 1 rupiah VA and is an indication of how successful SC is in value creation, with formulation:
      VASC = SC / VA.
2. Profitability (Y), intended is the level of the bank's ability to generate profits and the level of business efficiency in an effort to generate profits. Profitability variables are proxied by:
   a. Return On Assets (ROA), which is a ratio that shows how much net profit the company gets when measured from the value of assets, by formulation:
      ROA = 〖(Net profit) / Asset X 100%〗
   b. Return On Equity is the ratio of measurement to income achieved for the owner of the company for the capital invested in the company. ROE is measured by dividing net profit after tax with total own capital with the formulation;
      ROE = 〖(Net Profit)/(Total Equity) X 100%〗
   c. Nett Interest Margin is a ratio used to measure a bank's ability to generate net income from its principal operational activities:
      NIM = 〖(Net Income) / (Operating Income) X 100%〗
3. Company Value (Z) is a value that shows a reflection of the equity and book value of a company, both in the form of equity market value, book value of total debt and book value of total equity. The value of the company in this study is measured by the market to book ratio M / B ratio, calculated by dividing the market value of the company's shares with the book value of equity. Market value is the number of shares outstanding times the stock price at the end of the year. While the book value of equity is the book value of shareholders' equity. This variable is proxied by:
   a. Price to Book Value (PBV) is an indicator used to assess a company as a comparison of the market price of a stock with the value of its book, with permulation:
      PBV = Comparison between stock market prices and book value per share.
   b. Price Earning Ratio (PER) is a description of market appreciation for a company's ability to generate profits, with formulations:
      PER = (Stock Closing Price) / (Profit of Outstanding Shares)
   c. Earning Per Share or income per sheet is a form of giving profits given to shareholders of each share owned, with formulation;
      EPS = (After-Tax Profit) / (Number of Circular Shares).

VI. RESEARCH FINDINGS

Laoding Factors

The results of the calculation of laoding factors from the indicators of Intellectual capital variables, profitability and company value can be seen in Table 1 as follows:

Table 1: Loading Factor and Critical Ratio of Intellectual Capital Variable Indicators, Profitability and firm value.

Indikator Variabel	**Loading Factor (λ)**	**Critical Ratio**	**Probability (p)**	Information
Intellectual Capital				
VACE	1000	FIX	0,000	Significant
VAHC	0,941	7,830	0,000	Significant
VASC	0,118	7,705	0,000	Significant
Profitability				
ROA	0,895	21,440	0,000	Significant
ROE	0,995	Fix	0,000	Significant
NIM	0,127	2,161	0,033	Significant
Company Value				
PBV	0,067	2,222	0,028	Significant
PER	0,718	3,953	0,000	Significant
EPS	0,444	Fix	0,000	Significant

Source: processed data 2018

From the evaluation model shows that there are five criteria for goodness of fit indices that meet the temporary criteria of AGFI, which are close to critical values, so it can be concluded that the overall model can be said to be in accordance with the data and can be further analyzed.

Hypothesis Testing

Based on the empirical model proposed in this study, testing of the hypothesis proposed through testing path coefficients in structural equation models can be tested. Table 4 is testing the hypothesis by looking at the value of p value, if the value of p value is smaller than 0.05 then the relationship between the variables is significant. The test results are presented in the following table:

Table 4: Hypothesis Testing Results

HIP	**Variable Independent**	**Variable Dependent**	**Direct Effect**			
			Standardize	**CR**	***p-value***	**Information**
H1	Modal Intelektual	Profitabilitas	0,282	2,425	0,015	Significant
H2	Modal Intelektual	Nilai Perusahaan	0,293	3,566	0,000	Significant
H3	Profitabilitas	Nilai Perusahaan	0,342	3,409	0,000	Significant
Indirect Effect						
Variabel Independen		**Variabel Dependen**	**Variabel Intervening**	**Standardize**	**P-Value**	**information**
Modal Intelektual		Nilai Perusahaan	Profitabilitas	0,096	0,050	Significant

Information ; P-Value is obtained by the Sobel Test

Source: processed data 2018

a. Effect of Intellectual Capital on Profitability

Test the hypothesis (H1) which states: intellectual capital has a significant positive effect on profitability. Table 4 shows that intellectual capital has a significant effect on profitability with a path coefficient of 0.282 and (p-value) of 0.015 <0.05. This result is in accordance with the hypothesis (H1) that intellectual capital has a significant effect on profitability. This means that the better intellectual capital, the profitability will increase. Thus the hypothesis (H1) which states that intellectual capital has a significant effect on profitability can be accepted or supported by facts.

b. Effect of Intellectual Capital on Company Values

Test the hypothesis (H2) which states: intellectual capital has a significant positive effect on firm value. Table 4 shows that intellectual capital has a significant effect on firm value with a path coefficient of 0.293 and (p-value) of 0.000 <0.05. These results are in accordance with the hypothesis (H2) that intellectual capital has a significant positive effect on firm value. This means that the better the intellectual capital valued by the company will increase. Thus the hypothesis (H2) which states that intellectual capital has a significant effect on firm value can be accepted or supported by facts.

c. Effect of Profitability on Company Values.

Test the hypothesis (H3) which states: profitability has a significant effect on firm value. Table 4 shows that profitability has a significant effect on firm value with a path coefficient of 0.342 and (p-value) of 0.000 <0.05. This result corresponds to the hypothesis (H3) that profitability has a significant effect on firm value. This means that the greater the profitability, the better the value of the company. Thus the hypothesis (H3) which states profitability has a significant effect on the value of the company can be accepted or supported by facts.

d. Effect of Profitability on Company Values.

Test the hypothesis (H4) which states: intellectual capital has a significant positive effect on profitability. Table 4 shows that intellectual capital has a significant effect on profitability with a path coefficient of 0.096 and (p-value) of 0.050 <0.05. This result is in accordance with the hypothesis (H4) that intellectual capital has a significant effect on profitability. This means that the better intellectual capital, the profitability will increase. Thus the hypothesis (H4) which states that intellectual capital has a significant effect on profitability can be accepted or supported by facts.

Research

Based on the results of the tests stated earlier, the findings of this study are as follows:
Intellectual Capital: which consists of Value Added Capital Employed, Value Added Human Capital and Value Added Structural Capital has a positive and significant effect on profitability and has a positive and significant influence on corporate value, this means that the market response to a company, especially in companies the banking industry that is listed on the Indonesia Stock Exchange, is not only based on the physical appearance of the bank company, but in addition to this also the appreciation of human intellectual resources in the bank company. In general, it can be said that intellectual capital in the financial statements of companies listed on the Indonesia Stock Exchange has attracted the attention of investors to invest their capital in the banking business.

VII.CONCLUSION

Based on the results of the previous analysis and discussion, this research can be summarized as follows;

1. Intellectual capital consisting of value added capital employed, and value added human capital and value added structural capital have a positive and significant effect on the profitability of the banking industry companies listed on the Indonesia Stock Exchange.
2. Intellectual capital which consists of value added capital employed, value added human capital and value added structural capital has a positive and significant effect on firm value in banking industry companies listed on the Indonesia Stock Exchange.
3. Profitability consisting of return to assets, return to equity, net interest margin, has a positive and significant effect on the firm's value in the banking industry companies listed on the Indonesia Stock Exchange
4. Intellectual capital which consists of value added capital employed, value added human capital and value added structural capital has a positive and significant effect on firm value in banking industry companies listed on the Indonesia Stock Exchange.

SUGGESTION

Noting the conclusions stated earlier, it is suggested as follows;

1. Efficient Intellectual Capital has a positive impact and has a strong competitiveness to encourage companies to develop continuously, so that companies listed on the Indonesia Stock Exchange are very important to have efficient intellectual capital if they want to increase profitability and the value of their company.
2. The company companies listed on the Indonesia Stock Exchange should, as far as possible, continue to increase investor confidence in banking companies by presenting financial statements that continually pay attention to intangible values derived from intellectual capital.

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The Influence Of Corporate Governance On Dividend Policy And Company Value In Manufacturing Companies In Idx

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ABSTRACT: *Analyze the effect of Corporate Governance Structure on dividend policy and its impact on the compony value. The population in this research is manufacturing companies listed in Indonesia Stock Exchange as many as 148 companies. The research sample as many as 58 companies. Sampling technique used is purposive sampling. The data analysis technique used is the structural equation model and software Amos. The results showed that (1) Corporate governance have a positive and significant effect on dividend policy; (2) Coroporate governance is a negative and significant effect on Company value. (3) Dividend policy have is positive and significant effect on Campany value; and (4) Corporate governance has a negative and insignificant effect on company value as a mediated dividend policy.*
KEYWORDS - *corporate governance, dividend policy and company value*

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I. INTRODUCTRION

Maximizing company value is one of the company goals that must be achieved. The effort that can be made by the owner or shareholder to maximize the value of the company is to hand over the management of the company to experts or professionals called managers. However, in an effort to increase the value of the company there will be a conflict of interest between the agent (manager) and the principal (shareholder) called the agency conflict. Agency theory explains the problems that arise when shareholders rely on managers to provide services in their name (Jensen and Meckling, 1976). The manager (agent), with his authority can act for his personal interests and sacrifice the interests of the shareholders (Trisnantari, 2010). The emergence of differences in interests between principals and agents is the background to the need for good corporate management.

Dividend policy is a very important decision in the company. This policy will involve two parties who have different interests, namely the first party, shareholders and second parties, the management of the company itself. The management of the company has two alternative treatments for earnings after tax. The two alternatives are shared with shareholders in the form of dividends and reinvested into the company as retained earnings. In companies in general, some EAT is distributed in the form of dividends and some are reinvested, meaning that management must make a dividend policy regarding the use of profits that are the rights of shareholders by determining the amount of EAT divided as dividends and the amount of EAT held (Ratih, 2010 : 210).

The amount of dividends distributed by companies can affect stock prices because investors prefer returns derived from dividends compared to capital gains or in other words investors prefer profits in the form of dividends rather than expected benefits from the increase in capital values. Bird in the hand theory states that shareholders prefer high dividends because they have high certainty compared to capital gains (Hermuningsih and Dewi, 2009.

In capital market activities, investors have expectations of the investment they make, in the form of capital gains and dividends (Marlina and Danica, 2009). Shareholders who do not like risk will prefer to receive dividends rather than capital gains. The current dividend has a higher value than the capital gain that will be received in the future. This is as expressed by Gordon and Linter (1962), namely The Bird in the Hand Theory. Thus shareholders who are afraid of the risk will be better off liking to receive dividends rather than capital gains.

Based on the results of previous studies, it was found that there were inconsistencies in the results of the study, thus encouraging researchers to reexamine the influence of corporate governance on firm value. This research was conducted to gain an understanding that the presence of corporate governance in the company can function as a tool to monitor management performance and can reduce agency conflict.

Based on the background described above, the formulation of the research problem is as follows:

1. Does corporate governance affect dividend policy?
2. Does corporate governance affect the value of the company?

3. Does the dividend policy affect the value of the company?
4. Does corporate governance affect the value of the company through dividend policy?

II. LITERATURE REVIEW AND HYPOTHESIS

2.1 Securities Analysis Theory

Investment (investment) is a study that studies the investment process. The investment process is a sequence of actions that should be carried out by investors who invest in financial assets. Shares are one form of financial assets that can be traded on the capital market. Characteristics of shares are securities that provide non-fixed returns. The yield component that can be obtained by shareholders is dividend or dividend yield and changes in stock prices or capital gain yield.

2.2 Corporate governance (CG)

Corporate governance (CG) in general is a set of mechanisms that balance each other between actions and manager's choices with the interests of shareholders. TheCG mechanism consists of an internal mechanism and an external mechanism. Internal mechanism is a way of controlling a company by using internal structures and processes including general meeting of shareholders (GMS), composition of the board of directors and board of commissioners, meeting of board of directors (Barnhart and Rosentein, 1998 in Sutaryo and Wibawa, 2011), managerial ownership, executive compensation and audit committee (Prajitno and Christiawan, 2013) while external mechanisms include market control, debt financing levels, and external auditors (Barnhart and Rosentein, 1998 in Sutaryo and Wibawa, 2011). External mechanisms are a way to influence companies other than by using internal mechanisms such as the quality of external audits (Barnhart and Rosentein, 1998 in Sutaryo and Wibawa, 2011), government regulations (investor ownership protection), monitoring debtholder, and ownership of external parties such as institutional ownership (Prajitno and Christiawan, 2013).

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2.3 Dividend Policy

Dividend policy is basically determining the size of the portion of the profits to be given to shareholders. The policy of dividend payment is an important matter concerning whether the cash flow will be paid to investors or will be held for reinvestment by the company. In this study, dividend policy was measured using the Dividend Payout Ratio (DPR).According to Modigliani and Miller (2001), the value of a company is not determined by the size of the DPR, but is determined by pre-tax net income (EBIT) and the company's risk class. So according to MM, dividends are irrelevant.

2.4 . Company Value

According to Brigham and Hosuton (2010: 150) there are several approaches to ratio analysis in market value assessment, consisting of the approach of price earnings ratio (PER), price book value ratio (PBVR), market book ratio (MBR), dividend yield ratio and dividend payout ratio (DPR). Corporate values are commonly indicated by PBV. A high PBV makes the market believe in the company's prospects going forward. A high PBV reflects a high share price compared to a book value of shares, the higher the stock price the more successful the company creates value for shareholders, the success of the company creates value for shareholders the success of the company creates value, certainly gives hope to shareholders in the form of greater profits also (Sartono, 2001 in Rasyid 2015: 205). While Martono and Harjito (2010: 13) argue that "maximizing the value of the company is called maximizing shareholder prosperity (stakeholder wealt maximation) which can also be interpreted as maximizing the price of ordinary shares of the company (maximizing the price of the firm's common stock)".

2.5 Previous Research

Research Gultom and Syarif (2009) entitled "The Influence of Leverage Policy, Dividend Policy and Earning Per Share on Company Values in Manufacturing Companies Listed on the IDX". The result is leverage policy has a very significant effect on firm value, the results of this study support the trade off theory and are consistent with the findings of Modigliani and Miller which states that increasing debt will be able to increase the value of the company, because interest payments can be deductable. While dividend and EPS policies do not have a significant effect on firm value.

Susanti's research (2010) entitled "Analysis of Factors that Influence Company Values, Case Study on Go Public Companies Listed in 2005-2008", the result is profitability has a positive and significant effect on firm value, leverage has a negative and significant effect on value company. Dividends have a positive and not significant effect on firm value.

Sofyaningsih and Hardiningsih (2011) research entitled "Capital Structure, Dividend Policy, Debt Policy and Company Value" the result is dividend policy does not affect the value of the company, debt policy does not affect the value of the company. Helen Short, et. al. (2001), conducted research on the relationship of dividend policy and institutional ownership. The sample was 211 companies listed on the London Stock Exchange in the 1988-1992 period. The research variables are dividend policy, earnings, managerial ownership and institutional ownership variables. The analytical model used is multiple linear regression.

Research on Knowaleski et al. (2007) took samples of non-listed companies in the Warsaw Stock Exchange in 1998-2004 in Poland. This study uses CG as an independent variable with the indicators of Transparency and Disclosure Index (TDI) and cash dividends as the dependent variable. This study includes the control variables of firm size, debt level, and profitability. These variables are suspected.

Samy Ben Naceur et.al (2002), conducted a study of the relationship between dividend policy, financial structure, profitability and firm value. The purpose of the study was to determine the relationship of dividend policy, financial structure, profitability and company value. Research sample of 28 companies registered in Tunisia Stock Exchange, research year 1990-19997. Research variables are dividend policy (DPR), financial policy (DER), profitability (ROE) and company value. The results of the analysis show that the value of the company has a significant and positive relationship with profitability (ROE). DER has a significant and positive influence on firm value, while dividend policy (DPR) has a significant and negative effect on firm value.

GCG as a necessity, not just compliance with existing regulations, (2) company management is interested in the long-term benefits of implementing GCG, (3) increasing share ownership by management and institutional investors causes greater pressure on companies to implement GCG, (4) the existence of the board of commissioners and audit committee in the company can monitor the company in implementing GCG, (5) the cultural elements that develop in the national business environment strongly support the development of GCG implementation. In addition, the large variation in the implementation of the corporate governance mechanism resulting in corporate governance is a factor that has a significant impact on increasing the market value of shares of the company (Black, Jang, and Kim, 2003). The higher GCG Score indicates that the better the implementation of GCG in the company is followed by an increase in the company's stock price.

From some of the descriptions above, the conceptual framework of the research can be described as a give.

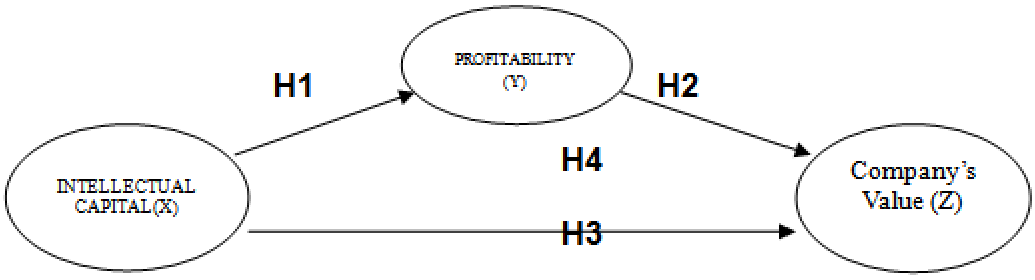

Figure 1. Conceptual Framework

2.6 Hypothesis

Based on the above conceptual framework, the following hypotheses can be stated:

H1 The corporate governance structure has a positive and significant effect on dividend policy.

H2 The corporate governance structure has a positive and significant effect on firm value.

H3 Dividend policy has a positive and significant effect on firm value.

H4 Coporate governance structure that has a positive and significant effect on firm value through dividend policy.

III. RESEARCH METHODS

This study uses two approaches, namely descriptive approach (descriptive research) and explanatory research. The location of this research was carried out at manufacturing companies listed on the Indonesia Stock Exchange (IDX). The type of data used in this study came from quantitative secondary data. The data used in this study is secondary data obtained from the IDX and ICMD website 2015-2017, the population is all companies in the category of manufacturing industries listed on the Indonesia Stock Exchange. The number of manufacturing companies listed on the Indonesia Stock Exchange as of December 2015 was 148 manufacturing industry companies. The sampling technique used in this study was purposive sampling. The data analysis method used in an effort to explain the problem or phenomenon in this study was using descriptive analysis techniques and inferential analysis. To facilitate the analysis process, a statistical application program, AMOS (Moment of Structure Analysis) was used. which is a package in SEM (Structure Equation Modeling).

Structural Model Analysis

Structural model testing is used after the overall fit model is obtained which aims to test the hypotheses of the causal relationship between constructs (Hair et, al. 1992), the statistical test used is the t test which is based on critical value. The t value calculated in the AMOS program is indicated by the critical ratio (CR). The significance of the relationship can be determined based on the CR value or probability value (P) in the AMOS program. The level of significance in this study was used 5%, so the relationship was said to be significant if the P value was <0.05.

Based on the conceptual framework and research model, then to see the effect of independent variables on the dependent variable, the equation is as follows:

a. Measurement of Profitability, Corporate Governance Structure, Against Dividend Policy. The equation:

$Y = \alpha + \beta 1.X1 + \beta 2.X2 + €$

Y = Company Value

X1 = Profitability

X2 = Structure of Corporate Governance

Z = Dividend Policy

α = constant

$\beta 1.X2$ = Regression coefficient X1 - X2

€ = Residual (error)

b. Effect of Profitability, Structure of Corporate Governance, Dividend Policy Against Company Values. The equation:

$Y = \alpha + \beta 1.X1 + \beta 2.X2 + \beta 3.Y + €$

Y = Company Value

X1 = Profitability

X2 = Structure of Corporate Governance

Z = Dividend Policy

α = constant

$\beta 1.X3$ = Regression coefficient

€ = Residual (error).

IV. RESEARCH RESULTS AND DISCUSSION

The variables used in this study are corporate governance, dividend policy, and company value. Each variable is measured based on several indicators. To produce a factor score from these variables, confirmatory factor analysis was carried out, which is to find out a significant indicator as a measure of each of these variables. The results of the complete confirmatory factor analysis are contained in the results of the analysis with the Amos 22 program.

2.1 Loading Factor

Tabel 1. Loading Factor Indicator of Corporate Governance, devidend Policy, company value Variables

Indicator	**Loading Factor (p value)**	Information
Corporate Governance		
TA	2,776 (0,000)	Significant
IOW	1,216 (0,000)	Significant
KI	1,000 (Fix)	Significant
Devidend Policy		
EPS	3,290 (0,000)	Significant
DPR	5,030 (0,000)	Significant
DY	1,000 (Fix)	Significant
Company value		
PER	1,000 (Fix)	Significant
PBV	2,580 (0,000)	Significant

Source: Amos 22 SEM Data Processing

4.2 . Test the Hypothesis

Based on the empirical model used in this study, namely by SEM analysis of AMOS 21 software. This hypothesis was tested by testing path coefficients in structural equation models. Table 14, is a hypothesis testing by looking at the p value. If the p value is smaller than 0.05, then the relationship or influence between variables is significant. In addition, direct effects are also explained, which means there is a direct positive effect between variables, and indirect effects, which means there is an indirect positive effect between variables, as well as total effect, namely accumulation of direct and indirect effects of each variable analyzed.

1. The hypothesis that the structure of corporate governance has a positive and significant effect on dividend policy is accepted. This is evidenced by the regression coefficient which is positive which is equal to 0.023 and the significant value is equal to 0.036 or smaller than 0.05. It can be concluded that the better the structure of corporate governance, the better the dividend policy that the company does.
2. The hypothesis that the structure of corporate governance has a negative and significant effect on firm value is not accepted (not supported by research results). This is evidenced by the regression coefficient which is negative which is equal to (0.177) and the significant value is equal to 0.012 or smaller than 0.05. It can be concluded that corporate governance does not guarantee an increase in corporate value.
3. The hypothesis that dividend policy has a positive and significant effect on firm value is accepted. This is evidenced by the positive regression coefficient ang which is equal to 0.837 and the significant value is equal to 0,000 or less than 0.05. It can be concluded that the better the dividend policy, the higher the value of the company.
4. The hypothesis that corporate governance through dividend policy has a negative and not significant effect on firm value is rejected. This is evidenced by the regression coefficient which is negative which is equal to (0.177) and the significant value is equal to 0.977 or greater than 0.05. It can be concluded that the lower corporate governance if through dividend policy does not guarantee the increasing value of the company

4.3 Discussion

This discussion focuses on decisions that result from hypothesis testing, in an effort to answer the formulation of research problems. Furthermore, to explain these results, a combination of empirical findings from research results that have been statistically tested with theories and empirical findings from previous research results will be elaborated, so that the verification of new theoretical constructs or the development of existing theories is obtained. The results of the analysis of hypothesis testing are outlined as follows:

1. Effect of Corporate Governance Structure on Dividend Policy.

Based on the results of statistical analysis in this study, it was found that the hypothesis (H1) was accepted and it can be concluded that the structure of corporate governance has a positive and significant effect on dividend policy, the results of the study illustrate that the better the structure of corporate. corporate governance the more dividend policy increases.Research is in line with Blair's theory (1995: 111) which states that shareholders have an influence on managers. Although they do not directly run the company, they have the authority to select and appoint a board of directors. Whereas the board of directors can employ or dismiss a manager. So, shareholders have control over managers, one of which is in determining the company's dividend policy.

Furthermore, this study is also supported by the results of the Kowaleski et al. (2007) stated that CG is an important factor in determining dividend policy in Poland. Companies that have strong CG will pay high dividends, whereas companies that have weak CG will pay lower dividends.

The results of this study indicate that manufacturing companies with a strong CG are characterized by a large level of institutional ownership, will pay higher dividends than companies that have weak CG, so that information on large dividend payment policies is a signal for investors to invest their capital in order get dividends.

2.Effect of Corporate Governance Structure on Corporate Values.

Based on the results of statistical analysis in this study, it was found that the hypothesis (H2) was rejected and it can be concluded that the structure of corporate governance has a significant negative effect on firm value, the results of the study illustrate that corporate governance structures do not guarantee an increase in firm value. This research is in line with agency theory by Jensen and Meckling (1976), stating that the interests of agents (managers) must be aligned with principals (investors) to solve agency problems, so that in implementation raises the concerns of various parties about the reliability of financial reporting and the efficiency of existing monitoring mechanisms in the company. .

Furthermore, the results of this study are in line with Wicaksono's (2002) research, stating that where public share ownership has a negative effect on firm value. This means that the higher the level of institutional ownership, the lower the value of the company.

The results of this study indicate that corporate governance does not always guarantee an increase in corporate value or vice versa, this shows that with a high proportion of institutional ownership (IOW) in a company, there is increasing pressure and desire from various institutional investors. Institutional ownership also only focuses on current profits, so that if current profits do not provide good profits by institutional parties, the institutional party will withdraw its shares from the company and result in a decrease in the value of the company. As a result, the stock market reacts negatively in the form of falling stock trading volume and stock prices.

3. Effect of Dividend Policy on Company Values

Based on the results of statistical analysis in this study, it was found that the fifth hypothesis (H3) was accepted and it can be concluded that dividend policy has a positive and significant effect on firm value as indicated by the high dividend payout ratio. The results of this study are in line with the bird-in-the-hand theory proposed by Myron Gordon and John Lintner (1959) in Brigham (2001: 67), which states that firm value will be maximized by a high dividend payout ratio, because investors assume that the risk dividends are not as large as the increase in the cost of capital, so investors prefer profits in the form of dividends rather than the expected benefits of increasing the value of capital.

Furthermore, the results of this study are also supported by the results of Susanti's research (2010), Perdana (2012), which states that dividend policy has a significant and positive effect on firm value. By paying dividends naturally, the company can help attract investors to look for dividends, this can help maintain company value.

The results of this study indicate that the better the dividend policy is shown by the higher dividend payout ratio (DPR), the higher the value of the company. The increase in dividend payments is seen as a signal that the company has good prospects. in fact a decrease in dividend payments will be seen as a bad prospect for the company.

4. Effect of Corporate Governance Structure on Corporate Values Through Dividend Policy.

Based on the results of statistical analysis in this study, it was found that the seventh hypothesis (H4) is not accepted and it can be concluded that corporate governance has a negative and not significant effect on firm value.

This research is in line with the theories of Franco Modigliane and Merton Miller (1961: 411) who argue that firm value is only determined by the basic ability to determine profit and business risk. In other words, MM argues that the value of a company will depend on the profit generated by its assets, not on how the profit will be divided between dividends and retained earnings.

Furthermore, this research is supported by the results of the research of Bhagat and Black (2000), which states that the Board of Commissioners does not have an impact on company performance because independent commissioners do not have conflicts with the company.

The results of this study indicate that corporate governance mechanisms are not supported by research results on company value if through dividend policy. This shows that the existence of corporate governance shown in institutional ownership and independent commissioners (KI) does not indicate its effectiveness if through dividend policy, KI relatively ignores companies because of their busy activities and limited incentives in terms of monitoring.

4.4. Research Findings

1. Corporate governance, which consists of total assets, institutional ownership, and independent commissioners has a positive and significant influence on dividend policy. The results of this study indicate that corporate governance does not always guarantee an increase in corporate value or vice versa, this shows with the proportion of institutional ownership (IOW) that is high in a company makes more pressure and desire from various institutional investors. Institutional ownership also only focuses on current profits, so that if the current profit does not provide good profits by the IOW, the institutional party will withdraw its shares from the company and result in a decrease in the value of the company. As a result, the stock market reacts negatively in the form of falling stock trading volume and stock prices.

The results of this study indicate that corporate governance mechanisms do not have an influence on company value if through dividend policy. This shows that the existence of corporate governance shows that independent commissioners do not show effectiveness if through dividend policy, KI relatively ignores the company because of its busy schedule and limited incentives in terms of monitoring.

2. Dividend policy, which consists of EPS, DPR, DY has a positive and significant influence. The results of this study indicate that the better the dividend policy is shown by the higher dividend payout ratio (DPR), the higher the value of the company. The increase in dividend payments is seen as a signal that the company has good prospects. actually a decrease in dividend payments will be seen as a bad prospect for the company.

4.5 Research Limitations

Like most other studies, this study has limitations, namely:

1. Research or observation data used only in manufacturing companies, so that it cannot yet represent all companies listed on the IDX.
2. There are still a number of other variables that have not been used while those variables have a contribution in influencing the value of the company.

3. There is a research model that is not significant, namely in the model through dividend policy on firm value. This is due to the limited data used and the conditions that are occurring in the span of the research period.

4.6 Conclusion

Based on the results of the analysis and discussion, the research conclusions are as follows:

1. Corporate Governance, which consists of TA, IOW, KI, has a positive and significant effect on direct (direct) relationship to dividend policy and company value. The results of this study indicate that manufacturing companies with a strong CG are characterized by a large level of institutional ownership, will pay higher dividends than companies that have weak CG, so that information on large dividend payment policies is a signal for investors to invest their capital in order get dividends.
2. Dividend policy, which consists of EPS, DPR, DY has a positive and significant effect. The results of this study indicate that the better the dividend policy is shown by the higher dividend payout ratio (DPR), the higher the value of the company.The increase in dividend payments is seen as a signal that the company has good prospects. otherwise a decrease in dividend payments will be seen as a bad prospect for the company.

4.7 Suggestion

Paying attention to the conclusions stated earlier, it is suggested as follows:

1. For issuers companies should increase the value of the company so that it can attract investors to invest in their companies, and the issuer companies should also be able to increase the profitability of their companies so that financial performance is good in the eyes of investors.
2. For investors and / or potential investors, in providing an assessment of a company, it should also pay attention to other factors that influence the value of a company, such as leverage, company growth, company uniqueness, tax savings, exchange rate fluctuations and capital market conditions.
3. For further research:

a. Adding company categories that are used as research samples, for example all companies listed on the IDX.
b. Adding other variables that are thought to affect company value, such as: company growth, company uniqueness, asset value, leverage, tax savings, exchange rate fluctuations and capital market conditions.

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A Study on Changing Rhythm of Retailing in India

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ABSTRACT: *This paper provides information about the growth of retailing industry in India. It examines the growing awareness and brand consciousness among people and focus on growth of retail sector in India, strategies, strength and opportunities of retail stores, retail format in India and recent trends. Growth of Retail Companies in India exhibits the boom in the retail industry in India over the years. The increases in the purchasing power of the Indian middle classes and the influx of the foreign investments have been encouraging in the Growth of Retail Companies in India. We examined whether corporate retailing has already harmed small retail businesses in India (and to what extent if so) and how much damage might occur in the future. We discuss how corporate retailing might benefit small retailers and consumers and consider how small and large retailers might coexist in a country where, in the next twenty years, 40% of the population and 70% of gross domestic product may be concentrated in urban areas. We consider problems that may arise if organized retailing grows and suggest ways in which such problems could be addressed by policymakers. Domestic and multinational corporations have begun to enter retailing in India, raising concerns that they will destroy the millions of small stores and street vendor businesses that presently dominate retailing in the country. Policymakers know that corporate retailers can improve the efficiency and productivity of retailing and distribution in India, but they are also concerned about possible harm to small businesses and loss of jobs among those who might not have the skills and training needed to find alternative employment.*
KEY WORDS: *- Organized retailing, Retailing, Retail growth,*

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I. INTRODUCTION

Whether FDI in multi-brand retailing is allowed in India will depend on several considerations. Joseph et al. (2008) observed that it is necessary to meet growing consumer demand and bring needed investment to the supply chain infrastructure. They reported that an expansion of corporate retailers has a limited, short-term effect on small stores. In addition, they suggest that new and better jobs in small-scale manufacturing, food processing, and distribution are likely to more than make up for any loss in jobs due to the growth of organized retailing. Still, a report by the Parliamentary Standing Committee on Commerce (2009) expressed reservations about the effects of organized retailing on jobs in informal retailing and about the potential for predatory pricing and monopolistic practices by corporate retailers. This paper examines key issues related to the development of organized retailing in India. Section 2 reviews the recent performance of India's retailing sector. Despite bold projections, it turns out that organized retailing has been only moderately successful. Large retailers have struggled for profitability while small retailers, including those selling food, have prospered and grown. Section 3 discusses possible reasons for the modest success of large retailers. Section 4 outlines short- and long-term prospects for retailing in India.

Types of retail businesses in India are commonly categorized as either formal or informal and as organized or unorganized. To understand the Indian retail climate, we must define these distinctions. According to the Ministry of Labor and Employment, the informal sector consists of unincorporated businesses that are owned and run by individuals or households. These businesses are not legally distinct from their owners, who raise capital at their own risk and have unlimited personal liability for debts and obligations. Informal businesses typically employ family members and casual labor without formal contracts. Formal businesses are corporations limited companies, and businesses run by or on behalf of cooperative societies and trusts. The organized sector comprises incorporated businesses. Information about this sector is available from company budgets and reports. Importantly, partnerships, private and limited companies, and businesses run by cooperative societies and trusts are not considered to be organized businesses in India. Instead, they are classified as part of the unorganized sector, which also includes all businesses in the informal sector.

II. OBJECTIVES

The retail companies are found to be rising in India at a remarkable speed with the years and this has brought a revolutionary change in the shopping attitude of the Indian customers. Objectives of the research paper are: -

1. To understand the growth of purchasing power and its impact on retail expenditure.
2. To study the retail industry in India and its growth pattern.
3. To understand the effect of globalization at different scales.

III. REVIEW OF ARTICLES

Retail employment grew at a slower rate than overall employment in India between 2005 and 2006. More recently, the two have grown at about the same rate because retail employment rates have risen and overall employment rates have fallen. Between 1999-2000 and 2004-05, employment in retailing grew by more than 30% in rural areas and by less than 3% in urban areas. Thus, the major growth in employment during this period was in rural areas. The Parliamentary Standing Committee on Commerce (2009) has noted that there is still no systematic, large-scale study examining how corporate retailing affects small stores. Limited evidence is provided by Joseph et al. (2008), who use the results of a survey to conclude that the entry of an organized retailer leads to the annual closure of about 1.7% small stores in its neighborhood. The authors note that by changing the mix of the merchandise and offering more services to consumers, small retailers were able to regain sales and profits that they initially lost when a corporate retailer entered their neighborhood. First, total retail sales increased by approximately 70% between 2004 and 2009, from $294 billion to $496 billion. Second, sales grew over this period by about 43% for retailers in the formal sector and about 97% for retailers in the informal sector. The annual average rate of sales growth was about 11% for all retailing, 7.5% for organized retailing, and 14.5% for informal retailing. Thus, from 2004 to 2009, retail sales grew almost twice as fast in the informal sector as in the formal sector and at a substantially faster rate than India's GDP, which grew at about 8.5% over the period. Third, in 2007, total retail sales in the informal sector surpassed those of the formal sector. By 2009, the informal sector held about 56% of retail sales, 8% higher than its 48% share in 2004. These data suggest that informal retailing is more than surviving; it is flourishing. At present growth rates, the gap between formal and informal retailing will continue to widen — family-owned stores and street vendors will take a larger share of retail sales. There may be several reasons why sales in formal unorganized retailing grew more slowly than organized retailing and informal retailing. First, it is likely that large corporate retailers compete most directly with other retailers in the formal sector and less directly with retailers in the informal sector. For example, hypermarkets and department stores might take disproportionately more sales from mass merchandise stores and specialty stores than from kirana stores and street vendors. Second, to take advantage of growth opportunities, some formal unorganized retailers might have incorporated and registered and now are reclassified as organized businesses. For example, a privately owned appliance store might grow into a store selling a full range of durable goods, which have seen substantial demand in the last five years. It might then be reclassified as an organized retailer after it develops into a larger organization and registers as a corporation. The factors for growth in Indian organized retail sector are many and that the reason behind its massive growth. But for this to continue both the Indian retailers and the government will have to work together. Growth of Retail Companies in India is still not yet in a matured stage with great potentials within this sector still to be explored. Apart from the retail company like Nilgiri's of Bangalore, most of the retail companies are sections of other industries that have stepped in the retail sector for a better business. The Growth of Retail Companies in India is most pronounced in the metro cities of India, however the smaller towns are also not lagging behind in this. The retail companies are not only targeting the four metros in India but also is considering the second graded upcoming cities like Ahmedabad, Baroda, Chandigarh, Coimbatore, Cochin, Ludhiana, Pune, Trivandrum, Simla, Gurgaon, and others. The South Indian zone have adopted the process of shopping in the supermarkets for their daily requirements and this has also been influencing other cities as well where many hypermarkets are coming up day to day.

The preceding discussion about the benefits of improving the distribution system would be worthwhile even if India was not expected to change in any significant way in the next twenty years. But the need for a more modern distribution system becomes urgent when we consider the ways in which the country is expected to change. The most significant changes from the perspective of retailing are (1) the magnitude of the expected increase in demand over the next twenty years, and (2) the rapid and ongoing urbanization of the country. Regarding long-term demand, if India's GDP grows at an average annual rate of even 7% per annum for the next twenty years, it will multiply by a factor of about four by 2030. If retailing accounts for even 30% of GDP, the increase in retail sales between 2010 and 2030 will exceed a trillion dollars. This is far too large to be accommodated entirely by unorganized retailers or to be left alone with no significant effort to improve the productivity and efficiency of the distribution and retailing system in India. According to census reports, the number of people living in Indian cities grew from 290 million in 2001 to 340 million in 2008. India has the second largest number of urban dwellers in the world. Furthermore, only 20% of the population increase in cities is due to migration; the rest comes from the expansion of city boundaries or the reclassification of rural areas. From 2001 through 2008, India's urban population grew 58% faster than the population of the country as a whole. A study by the McKinsey Global Institute (2010) predicts that by the year 2030 India will have a population of 1.47 billion and 40% of the population will live in urban areas.

Strategies

India has a population density of 937 people per square mile. By contrast, China and the United States have population densities of 360 and 82 people per square mile, respectively. Japan, which has 873 people per square mile, is similar to India in terms of population density, and small stores have continued to prosper in Japan. The population densities of Indian cities, and of certain neighborhoods within cities, are remarkably higher than the population density of the country. For example, Delhi has a population density of 24,197 people per square mile (comparable to New York, which has 27,532 people per square mile); Seemapuri, the densest neighborhood in Delhi, has 76,342 people per square mile. But Delhi and Seemapuri pale in comparison with Mumbai and Dharavi. Mumbai has 57,000 people per square mile and Dharavi, its densest neighborhood, is eleven times as dense as the city and has about 600,000 residents per square mile.

High population density offers other advantages to small stores. Consumers tend to make smaller, more frequent purchases in denser areas because they have smaller homes and cannot stock up on necessities. Large stores in urban areas in India can seldom attract large numbers of distant consumers because only those with cars typically travel to a distant store. These customers are likely to make the trip to a large store infrequently because of the time and inconvenience of negotiating traffic and finding parking. In contrast, small retailers serve consumers within a small radius and, unlike closely located organized stores, take phone orders and can offer personalized services at low cost. For example, they can afford to make home deliveries because it is relatively inexpensive to send a delivery boy to ten homes that are close by. This is also why small stores can afford to make home deliveries in New York, where unskilled labor is far more expensive than it is in Indian cities.

Right Positioning - The effectiveness of the mall developer's communication of the offering to the target customers determines how well the mall gets positioned in their minds. At this stage, the communication has to be more of relative nature. This implies that the message conveyed to the target customers must be effective enough in differentiating the mall's offering from that of its competitors without even naming them. The message should also clearly convey to the target audience that the mall offers them exactly what they call the complete shopping-cum-entertainment point that meets all their expectations. The core purpose is to inform the target customers about the offering of the mall, persuade them to visit the mall and remind them about the mall. The mall developer can create awareness about the offering among the target customers in a number of ways. Various communication tools available to the mall developer for this purpose may include advertising, buzz marketing (WoM), and celebrity endorsement, use of print media, press releases and viral marketing.

Effective Visual Communication - Retailer has to give more emphasis on display visual merchandising, lighting, signage and specialized props. The visual communication strategy might be planned and also be brand positioned. Theme or lifestyle displays using stylized mannequins and props, which are based on a season or an event, are used to promote collections and have to change to keep touch with the trend.

Strong Supply Chain - Critical components of supply chain planning applications can help manufacturers meet retailers' service levels and maintain profit margins. Retailer has to develop innovative solution for managing the supply chain problems. Innovative solutions like performance management, frequent sales operation management, demand planning, inventory planning, production planning, lean systems and staff should help retailers to get advantage over competitors. Retailers benefit only if consumers perceive their store brands to have consistent and comparable quality and availability in relation to branded products. Retailer has to provide more assortments for private level brands to compete with supplier's brand. New product development, aggressive retail mix as well as everyday low pricing strategy can be the strategy to get edge over supplier's brand.

Growth Pattern

Analysis by the consulting firm Goldman Sachs (2009) suggests that household consumption declines as a share of GDP until per capita GDP rises to the $1,500–$2,000 range. Once per capita GDP exceeds that range, household consumption increases (see the panel on the left side of Figure 2). Figure 3 shows that the share of GDP due to household consumption has slowly increased over the last several decades in developed countries like France, Germany, the United Kingdom, the United States, and Japan, but has steadily decreased in countries like India, Brazil, and China. In particular, household consumption in India has steadily declined from about 80% of GDP in the early 1970s to about 55% of GDP in 2009. We might expect it to further decline in the near future and then to begin increasing once per capita GDP passes the noted range.

Path Ahead

The Indian government has allowed 51% foreign direct investment (FDI) in the India retail sector to one brand shops only. This has made the entry of global retail giants to organized retail sector in India difficult. This is a challenge being faced by the Indian organized retail sector. But the global retail giants like Tesco, Wal-Mart, and Metro AG are entering the organized retail sector in India indirectly through franchisee agreement and cash and carry wholesale trading. Many Indian companies are also entering the Indian organized retail sector like Reliance Industries Limited, Pantaloons, and Bharti Telecoms. But they are facing stiff competition from these global retail giants. As a result discounting is becoming an accepted practice. This too brings down the profit of the Indian retailers. All these are posing as challenges facing the Indian organized retail sector. The challenges facing the Indian organized retail sector are there but it will have to be dealt with and only then this sector can prosper. There is a need to limit the extent to which corporate retailers can obtain special privileges, such as access to desired locations to set up stores. Corporate retailers are making some of the largest and most expensive deals in metropolitan centers. However, there is no ceiling on the size or number of commercial outlets that may be started in a given commercial zone once they comply with some basic criteria of breadth of road. The central government has no control over this matter, and state governments have yet to devise policies related to these issues. Concern has also arisen about enforcement of existing regulations governing operation issues such as opening and closing hours. Some large stores remain open for ten or eleven hours a day, including Sundays.

As always, policymaking must be based on a balanced assessment of the present and future needs of different groups in society. In the short run, small retailing as a whole is not surviving but thriving, and large corporate retailers are finding it difficult to become profitable. In the long run, large corporate retailers can survive if they improve system wide efficiency and productivity in the distribution chain, something that the country needs and that can benefit small retailers as long as appropriate incentives and regulations are provided. The economic growth of rural areas will become a bigger concern, and policymakers should find ways to direct investments by corporate retailers to benefit the rural economy and citizens. There are several issues associated with potential misuse of power that will require careful consideration by policymakers to keep both consumer markets and distribution systems competitive and open. Lessons learned from developed markets should be used in formulating domestic policy in India.

IV. CONCLUSION

In summary, we expect three broad trends in retail sales. First, overall sales will grow at a slower rate than GDP. Second, food sales are presently the largest category across all retail products but are likely to grow at a slower rate than overall sales. Food retailing is likely to become more competitive and more efficient; retailers in the informal sector may continue to enjoy the advantages already noted. Third, retailing for durable goods, automobiles, restaurants, hotels, and recreation will grow faster than it will for food and basic commodities. These businesses require large investments and are likely to further increase the presence of organized retailing in India. As the panel on the left side of Figure 6 shows, retailers of durable goods have only modestly penetrated the Indian market and can be profitably expanded for some time. The retail sector has played a phenomenal role throughout the world in increasing productivity of consumer goods and services. It is also the second largest industry in US in terms of numbers of employees and establishments. The India Retail Industry is the largest among all the industries, accounting for over 10 per cent of the country's GDP and around 8 per cent of the employment. The Retail Industry in India has come forth as one of the most dynamic and fast paced industries with several players entering the market. But all of them have not yet tasted success because of the heavy initial investments that are required to break even with other companies and compete with them. The India Retail Industry is gradually inching its way towards becoming the next boom industry. The future of the India Retail Industry looks promising with the growing of the market, with the government policies becoming more favorable and the emerging technologies facilitating operations.

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