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Determinants of profitability performance of beer companies in Ethiopia

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Abstract

This paper aim was to examine the factors that determine the profitability performance of selected beer companies in Ethiopia. The study employed explanatory research design to assess the relationship between profitability and its determinant factors. Purposive sampling method was used to select sample beer companies. Balanced panel data was analyzed by using descriptive statistics and correlation analysis. OLS method in the form of multiple regressions analysis was applied to analyze the annual data generated from the annual statements of the selected beer companies and annual reports of National Bank of Ethiopia covering a period of 1999 to 2013 G.C. In this study ROE was used as the measure of profitability performance. The paper includes total asset, operating expense, credit function, borrowing, and age of a company as internal independent variables and inflation and GDP as external independent factors that determine the profitability of beer brewery companies in Ethiopia. The researcher found that from the company specific variables total asset, operating expense and credit function have significant impact on profitability performance of beer companies. Total asset and credit function have positive impact on profitability performance. However, operating expense has a negative significant impact on profitability performance. Borrowing and age are not determinants of profitability. From macroeconomic variables GDP has a positive significant impact on profitability. Whereas, inflation has no impact on profitability performance of beer companies in Ethiopia.

Keywords; 1. Profitability 2. Determinant factors 3. Beer brewery companies

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Introduction:

Profitability plays an important role in the structure and development of firm because it measures the performance and success of a firm. It also enhances the reputation of a firm. Maximizing the profits of firm is one of the main objectives of managers. Profitability is vitally important to corporate performance, especially in competition environments. The profitability of a firm is thus a key concern, as is the ability to better with- stand negative shocks and contribute to the stability of the system. It also maximizes stakeholder value and investor value (Nousheen, T. 2013).

Much concern has been given to profitability in many finance and accounting literatures. Profitability is one of the most important objectives of financial management since one goal of financial management is to maximize the owners' wealth, and profitability is very important determinant of performance. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Hence, the ultimate goal of a business entity is to earn profit in order to make sure the sustainability of the business in prevailing market conditions (Hifza Malik, 2011). Similarly, Yazdanfar (2013) stated that a firm's profitability is generally regarded as an important precondition for long term firm survival and success and also affects its economic growth, employment, innovation and technological change.

A number of factors affect the profitability of an enterprise. Their influence varies in the short term, as well as in the long term. Recognizing these factors will be very helpful in managing a business entity. These determinants can be of a positive or negative nature (Agnieszka P. 2011). Based on chenying lee (2014) internal factors of profitability performance focus on firm's specific characteristic which can be controlled and managed by the management of a company and the external factors concern both industry features and macroeconomic variables which are beyond the control of management of the company.

As long as it is impossible for a business to stay in a market without making profit, it is an indispensable option to study factors determining profitability on a regular basis. In time, the beer industry in Ethiopia became one of the thrust and promising sectors of the country's economy. The technologically developed brewing sector plays a vital role to the economy through contribution to the government's revenue and holds a substantial place in the economy in terms of its job offers for thousands. Therefore, the main aim of this study was to examine the impact of company specific (internal) and macroeconomic (external) factors on profitability performance of Ethiopian beer companies.

The beer market in Ethiopia has been growing steadily since the year 2000. Nowadays, it amounts to 4.5 million hectoliters per year compared to 900,000 hectoliters ten years ago. BGI Ethiopia has the total production capacity of over two million hectoliters per annum from its breweries in Addis Ababa, Kombolcha and Hawassa. It bottles popular brands such as St George, Castel, Bati and Amber which are available in both draft and bottles. Meta of Diago located at Sebeta which is 30 km away from Addis Abeba bottles two brands Meta and Meta Premium**.** Bedele Brewery located in Bedele which is 483 km away from AA has three brands; Bedele, Bedele Special and Bedele Choice, with an annual production capacity of 300,000hl. Heineken's other acquisition, Harar Brewery planted in the city of Harer, has a capacity of 450,000hl a year, under three brands; Harar, Hakim Stout and HararSofi (malt).In 2014, Heineken opened a new brewing plant around AkakiKaliti District. Dashen brewery, next to its first plant in Gondar town, is already constructing its second plant in Debre Birhan which is expected to produce 500,000 hectoliters of beer per year with the Dashen and Royal brands. Heineken has introduced a new brand beer named Walya which The conceptual framework on the analysis of factors determining profitability of Ethiopian beer brewery firms interlinks independent and dependant variables focused by the researcher for the purpose of this study. Profitability [ROE return on equity] is dependent variable and total assets, operating expenses, borrowings, age, credit function gross domestic production and inflations are independent variables in this study.

Statement of the problem: The major reasons which initiated the researcher to conduct the study are first, the prevalence of few empirical studies both on global and very importantly on national level on determinants factors of profitability performance of manufacturing business particularly for beer companies. The study conducted on determinant factors of profitability performance of Ethiopian beer companies is very limited. Dejene Tulu (2011) studied the impact of ISO 9001 Certification on Performance of Ethiopian Brewery Companies. The current study would like to examine the impact of company specific (internal) factors (such as total asset, operating expense, credit function, borrowing and age) and macroeconomic (external) factors (such as inflation and GDP) which were not assessed by him and other former researchers**.** Second, the volatile nature of profitability demands regular investigation of its determinant factors. Third, given the important contributions of the brewery sector to the economy, it is reasonably necessary to examine the determinant factors which are affecting the profitability performance of brewery companies in the country in order for them to be more profitable. Thus, this paper aims at examining company specific and macroeconomic determinant factors of profitability performance of beer companies in Ethiopia.

Objective of the study: The main objective of the study was to examine the determinant factors of profitability performance of selected Ethiopian beer brewery companies and the specific objectives of the study one is to examine the impact of internal factors on

profitability performance and second is to assess the effect of external factors on profitability performance.

Scope of the Study: The study assessed the factors that determine profitability performance of only selected Ethiopian beer brewery companies. Only two beer brewery companies were used as sample units while undertaking the study. Namely; BGI Ethiopia and Dashen beer companies. The study examined only the impact of total asset, operating expense, credit function, borrowing, age, market share, inflation and the control variable, GDP, on profitability measure ROE. Fifteen years panel data from 1999 to 2013 used for analysis purpose.

Limitations of the study: The study has the following limitations. First, since this study was based on quantitative data, there are other explanatory variables such as employees' motivation, management talent, customer satisfaction and other variables which were not modeled in the study because of their qualitative nature. Therefore the econometrics model used in the study has not fully explained the variability in the profitability performance of beer brewery companies by modeled independent variable in the study and the study might fail to measure the actual effect of the internal and external determinant factors of profitability performance of beer companies. Second, ever since the research employed quantitative research approach, the qualitative aspects of profitability performance of beer brewery companies are not modeled. Third, the sample units of the study are companies which were privatized before 15 years. Those which are privatized lately are not included in the sample.

Methodology:

Research design: This study employed explanatory research design since the main aim of the study was to examine the determinant factors of profitability performance of beer brewery companies by assessing the relationship between dependant variable (profitability), and independent variables (such as level total assets, operating expenses, borrowing, credit function, age, market share inflation and GDP).

Data type and source: This study used quantitative data type and secondary data source such as for company specific variables, audited annual financial statements collected from the each sample companies and for macroeconomic variables, annual reports were collected from National Bank of Ethiopia.

Sampling and sampling techniques: Target population of the study was all beer companies of Ethiopia. The total number of beer companies in Ethiopia is five. The beer companies which are actively involved in the current beer market of the country were

included in the sample frame. Purposive sampling technique was used to select sample of two beer companies (BGI Ethiopia and Dashen) as sample units among the active beer companies based on the issue of privatization and considering the beer companies privatized after 2011, assessing the determinants of profitability performance for only three years duration is unlikely to identify and examine which factors affects their profitability.

Data analysis and procedure: Analysis of data was undertaken to describe data nature, important relationship between variables, impact of independent variables on dependent variables and draw inferences from the data in the study. This was realized by employing statistical tools such as descriptive analysis, unit root and correlation analyses.

Data analysis:

Descriptive statistic of the data: The descriptive statistics (such as mean of distribution, median of distribution, minimum/maximum of the range of distribution and standard deviation of the distribution) were employed to investigate and present an overview of both dependent (ROE) and independent variables (total asset, operating expense, credit function, borrowing, age, inflation and gross domestic product) used in the study. Table 3.1 shows the descriptive statistics output of all variables.

Descriptive statistics output of all variables.

Variables			**Mean**	**Maximum**	**Minimum**	**Standard deviation**	**Observations**
Dependent Variable		**ROE**	0.28339	3.36281	-1.5781	0.897671	30
Independent variables	**Company specific (internal) variables**	**TA**	19.8241	21.9873	18.283	1.094794	30
		OE	0.34552	0.8942	0.14998	0.197669	30
		CF	0.13855	0.37682	0.02159	0.107813	30
		BR	0.93025	2.8906	0	0.292509	30
		AGE	46.5	91	2	38.39348	30

	Macroeconomic (external)	**INF**	14.1727	44.3	-19.136	16.79632	30
	variables	**GDP**	12.1946	13.6701	11.0958	0.939366	30

Source: Output of Eview-6

Table 3.1 shows the descriptive statistical results of corresponding 30 total observations of each variable in the study. It also describes the overall nature of variables employed in the study and their interpretation is presented as follows.

The mean distribution of the dependent variable (ROE) of the study is 0.28339, which shows the balancing point of ROE distribution for the last fifteen years. The maximum/highest return on equity earned over the last fifteen years is 3.362807 which indicates that investors of the most profitable beer company has earned almost 3.36 birr of net return for each birr they have invested and the minimum/lowest return on equity is -1.57807 which indicates that investors of least profitable beer company has incurred loss of almost 1.58 for each birr they have invested. The standard deviation statistics for ROE was 0.8976708, which shows that how individual values of ROE in a data set vary from the mean of ROE over the last fifteen years. The figure also shows that the beer companies' profitability variation around its mean was moderate as compared with the dispersion of age data set over its mean value.

The average value of total asset is 19.5425 which is the center of the distribution of asset value of beer companies over the last fifteen years. The maximum value of total asset was 21.98731where as the minimum value of total asset was 18.28301. The standard deviation of total asset was 1.0947939 which shows the extent to which individual values of total asset in a data set is away from the mean 19.5425 over the last fifteen years. This indicates that total asset has a moderate dispersion around the mean as compared with the variation in age.

The mean distribution of operating expense variable over the last fifteen years was 0.34552. It shows that during the last fifteen years for selected beer companies an average of 35 cents were expensed for one birr revenue. The above extreme value of operating expense is 0.894195, which indicates the highest ratio of operating expenses to total sales for sample beer companies for the last fifteen years which means 89 cents were expenses from every one birr sales. The lower extreme value of operating expense to total sales was 0.149975 which indicates the lowest ratio of operating expense to total sales for sample beer companies for the last fifteen years is 14.99% which means almost 15 cents were expenses from every birr sales. The standard deviation of operating expenses 0.1976689 which indicates that the prevalence of relatively low variation of ratio of operating expense

to total sales beer companies as compared to the variation in age variable. The principal objective of the beer companies is maximizing shareholders' wealth which can be achieved through earning profit.

The mean value of credit function was 0.13855, which shows that the sample beer companies have made 13.85% of their sales on credit. The maximum value of credit function variable was 0.376815 which indicates highest ratio of account receivables to total sales for sample beer companies for the last fifteen years is 37% which means from every one birr of sales, 37 cents sales were made on credit. The minimum value of credit function was 0.021586 which shows that the lowest credit sales which has been made out of the total sales by one of the sample beer company was almost 2%. The variation of credit sales made as a percentage of total sales measured by standard deviation was 0.1078131 which is the lower when compared to standard deviation of age. It can be understood that the beer companies have an option to increase their level of sales because, the maximum level of credit sales to total sales over the last fifteen years was 37.8% which is by far greater than the average credit sales made by beer companies.

The average value of borrowing variable over the last fifteen years was 0.93025. It indicates that for the sample beer companies an average of 93% of cost of goods sold was purchased on credit basis over the last fifteen years. The above extreme value of borrowing is 2.890595, which shows the highest ratio of accounts payable to cost of goods sold for sample beer companies for the last fifteen years. The lower extreme value of accounts payable to cost of goods sold was 0 which indicates that at least one of the beer companies' all cost of goods sold were purchased on cash in one or more years within the last 15 years. The standard deviation of borrowing 0.2925093 which indicates that the prevalence of relatively low variation of ratio of accounts payable to cost of goods sold of beer companies as compared to the variation in age variable.

On average, the value of age was 46.5. The maximum value of age was 91 which indicates that among the selected beer companies the old beer company is 91 years of age and the minimum value of age was 2. The variation of each individual data of age variable to the mean during the last fifteen years represented by the standard deviation of 16.796324 was the greatest comparing with the standard deviation of rest of the variables under the study.

The average value of inflation (food inflation) over the last fifteen years was 14.1727 the maximum value of inflation variable was 44.3 and the minimum value of inflation during the last fifteen years was -19.13634. The variation of each individual data of inflation variable to the mean during the last fifteen years which is represented by the standard deviation was 16.796324.

The mean and other descriptive outputs of GDP variable were computed as a natural logarithm of gross domestic product at current market prices in order to make more

linearity. The mean value of GDP over the last fifteen years was 12.1946 the maximum value of inflation variable was 13.67011 and the minimum value of inflation during the last fifteen years was 11.09582 and the standard deviation of inflation 0.9393656. This shows the existence of low variation of each individual data of GDP to the mean during the last fifteen years comparing with the standard deviation of inflation variable.

Regarding to the company specific (internal) variables, credit function variable (a ratio of accounts receivable to total sales) has the least mean value which is 0.13855 and age has the highest mean value which is 46.5. At the same time, credit function is the least volatile variable which has a standard deviation of 0.1078131 and age is the highest volatile variable which has a standard deviation of 38.39348. It indicates that there is a great age difference between selected beer companies. Pertaining to the microeconomic variables, GDP has a least mean value which is 12.1946 and inflation has the highest mean value which is 14.1727. Similarly, GDP is the least volatile variable which has a standard deviation of 0.9393656 and inflation is the highest volatile variable which has a standard deviation of 16.796324. This shows that among the macroeconomic variables inflation changes greatly over time. All in all, the mean value of all variables ranges from a minimum value of 0.13855 for credit function and a maximum value of 46.5 for age. Whereas the standard deviation of all variables ranges from a minimum value of 0.1078131 for credit function (which shows that credit function is the least volatile variable) to a maximum value of 38.39348 for age (which indicates that age is the most volatile variable). This minimum variation of credit function shows that the selected beer companies have not been changing their credit policy considerably during the last fifteen years. The maximum value of standard deviation for age comparing with all other variables indicates that the selected beer companies are both of aged and young companies.

Unit root tests, correlation analysis and discussions. [ROE with Independent variable]

Test for unit roots	**Methods**	**ROE**		**TA**	
		ADF - Fisher Chi-square Stat	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**
	With intercept	17.215	-2.95	16.492	-2.96
	Prob.	0.002	0.002	0.002	0.001
	With intercept & trend	13.981	-2.44	15.922	-2.81
Level	**Prob.**	0.007	0.007	0.003	0.002
First	**With intercept**	20.368	-3.51	42.827	-5.77

difference	**Prob.**	0	0	0	0
	With intercept & trend	13.901	-2.61	37.19	-5.28
	Prob.	0.008	0.004	0	0

Source: Output of Eview-6

Unit root tests, correlation analysis and discussions. [ROE with dependent variable]

OE		**CF**		**BR**		**AGE**		**INF**		**GDP**	
ADF - Fisher Chi-square Stat	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**	**ADF - Fisher Chi-square Stat**	**ADF Choi Z-stat**
3.131	0.227	1.928	0.431	2.47	0.65	26.082	-4.19	9.166	-1.78	1.605	0.552
0.536	0.59	0.749	0.667	0.149	0.559	0	0	0.057	0.037	0.564	0.457
1.391	0.786	1.251	0.898	1.658	0.859	4.842	0.043	5.526	-0.94	1.855	0.702
0.846	0.784	0.87	0.815	0.798	0.805	0.304	0.517	0.237	0.172	0.762	0.759
11.876	-2.28	10.919	-2.11	8.77	-1.68	10.739	-1.82	11.832	-2.29	12.264	-2.37
0.018	0.011	0.027	0.017	0.067	0.046	0.03	0.034	0.019	0.011	0.015	0.009
9.854	-1.78	7.01	-1.27	4.958	-0.75	38.191	-5.37	7.06	-1.33	8.277	-1.58
0.043	0.037	0.135	0.101	0.292	0.226	0	0	0.133	0.092	0.082	0.057

Source: Output of Eview-6

The unit root tests for all variables such as dependent variable (ROE) and independent variables (total asset, operating expense, credit function, borrowing, age, inflation and gross domestic product) at level and first difference on individual intercepts and individual intercepts with trend were employed to present an overview of the variables and select the appropriate model to run the regression model. Table 3.2 shows the unit root test output of all variables.

As shown on the above table, The ADF (augmented Dickey- Fuller) fisher chi square (statistics) which is the t-statistics 17.214650 for ROE is greater than the absolute value of ADF (augmented Dickey- Fuller) Choi – z statistics value 2.9529101 at level and individual intercept. Similarly The ADF fisher chi square which is the t-statistics 16.49162 for total asset is greater than the value of ADF Choi – z statistics 2.9529101 at level and individual intercept. For the remaining of both internal and external variables (operating expense, credit function, borrowing, age, inflation and GDP) ADF fisher chi square which is the t-statistics is greater than the absolute value of their ADF Choi – z statistics at level and individual intercept. This shows that all variables both dependent and independent

variables are not unit roots at level and individual intercepts. Therefore, it is reasonable to use ordinary least square as appropriate model to run the regression.

Correlation analysis and its discussion.

Correlation analysis is a statistical tool which is used to measure the strength or degree of linear association between two variables. The correlation coefficient, which always lays between -1 and +1, was used to measure the strength and magnitude or degree of linear association between two series. A correlation coefficient of +1 shows a strong and positive linear relationship between two variables. On the contrary, a correlation coefficient of -1 indicates a strong and negative linear association between two series. A correlation coefficient of 0 shows that there is little or no linear relationship between two variables.

The correlation table below shows that five of variables such as total asset, credit function, age, inflation and GDP were positively correlated with ROE. And the remaining variables such as operating expense and borrowing were negatively correlated to ROE. The result of correlation analysis is discussed in detail as follows:

Correlation matrix between variables

	ROE	TA	OE	CF	BR	AGE	INF	GDP
ROE	1							
TA	0.17272	1						
OE	-0.5486	-0.4089	1					
CF	0.24074	-0.1096	0.26029	1				
BR	-0.3759	-0.3928	0.86841	0.35782	1			
AGE	-0.0641	0.11128	-0.3535	-0.711	-0.4525	1		
INF	0.36364	0.36928	-0.4759	0.00548	-0.3998	0.11306	1	
GDP	0.32069	0.84653	-0.7323	-0.0495	-0.6694	0.23442	0.50713	1

Source: Output of Eview-6

Correlation analysis results discussion between ROE and each company specific (internal) variables.

The coefficient of correlation between ROE and total asset was 0.17271. It shows that there is weak and positive relationship between them and also it means that when total asset increases by 100%, ROE of beer companies increases by 17.3%. Another company specific (internal) variable employed in the study was operating expense. The coefficient of correlation between ROE and total asset was -0.54859, which indicates that there is high

negative correlation between ROE and operating expense. It further shows that if operating expense is increase by 100%, ROE will be decreased by 54.8%. The coefficient of correlation between ROE and credit function was 0.24074. This figure reveals that there is weak and positive relationship between ROE and credit function over the last fifteen years. It further indicates that when credit function is increased by 100%, ROE will be increased by 24%. The coefficient of correlation between ROE and borrowing was -0.37589. This shows that weak and negative relationship between credit function and ROE. ROE is decreased by 37.5% when borrowing is increased by 100%. The relationship between borrowing and ROE is a bit greater than the relationship between credit function and ROE and total asset ROE. The last company specific (internal) variable used in this study was age. The coefficient of correlation between ROE and age was -0.064119, which shows that the relation between ROE and age very week and negative over the last fifteen years. This figure reveals that an increase of age by 100% will result in increase of ROE by 6.4%.

Correlation analysis results discussion between ROE and each macroeconomic (external) variables.

The coefficient of correlation between ROE and inflation was 0.36364. The figure shows that that if inflation is increased by 100%, ROE will increase by 36.4%. The coefficient of correlation between ROE and GDP was 0.22088. This shows the relationship between ROE and GDP is weak and positive it is also a bit weaker positive relationship as compared with the relationship between inflation and ROE. The figure indicates that an increase of GDP by 100% will result in an increase of ROE by 22.1%.

Correlation analysis results discussion between two independent variables

Total asset variable was positively correlated to age, inflation and GDP with correlation coefficient of 0.111284, 0.369278 and 0.846534 respectively. On the contrary, it was negatively correlated with operating expense, credit function and borrowing by having correlation coefficient of -0.408875, -0.109620and -0.392771respectively. Operating expense was positively correlated with credit function and borrowing with correlation coefficient of 0.260289and 0.868408respectively. Whereas it was negatively correlated with age, inflation and GDP with correlation coefficient of -0.353492, -0.475892and -0.732270respectively.

The credit function variable was positively correlated to borrowing and inflation with correlation coefficient of 0.357815 and 0.005476respectively. On the contrary, it was negatively correlated with age and GDP by having correlation coefficient of -0.710994 and -0.049513respectively. Borrowing was negatively correlated with age, inflation and GDP with correlation coefficient of -0.452520, -0.399763 and -0.669376 respectively. Age was positively correlated with inflation and GDP with a correlation coefficient of 0.113060 and

0.234422 respectively. Inflation was positively correlated with GDP with a correlation coefficient of 0.507128.

In general, ROE was not positively correlated with any of the variables with a correlation coefficient of 0.5 and greater. Whereas, it was negatively correlated with more than half with operating expense variable and their correlation coefficient was -54.8%. Total asset, credit function, inflation and GDP were positively correlated less than half with ROE with 0.17271, 0.24074, 0.36364, and 0.22088correlation coefficients respectively. However, borrowing and age were negatively correlated with ROE with correlation coefficient of -0.375890and -0.064119. The highest correlation coefficient is 86.8% which was between operating expense and borrowing. However, the lowest correlation coefficient is 0.054% which was between credit function and inflation.

Conclusion and recommendations:

The study aimed to investigate determinant factors on the profitability performance of selected beer companies in Ethiopia. Panel data regression model via fixed-effect method was used to analyze 15 years data which is from 1999 to 2013. In this study, ROE was selected as the dependent variable. The purpose was to measure the impact of five company specific (internal) variables (total asset, operating expense, credit function, borrowing and age) and two macroeconomic (external) variable (inflation and gross domestic product) on profitability performance in the framework of seven separate hypotheses. Thus, the independent variables were regressed against ROE so as to examine the impact each variables on the profitability performance of the selected beer companies in Ethiopia.

The descriptive statistics shows that pertaining to company specific (internal) variable, age has the highest mean value which is 46.5 and credit function has the least mean value which is 0.13855. Age is the highest volatile variable which has the standard deviation of 38.39348 and credit function is the lowest volatile variable which has the standard deviation of 0.1078131. Regarding to the macroeconomic variables, inflation has the highest mean value which is 14.1727 and GDP has the least mean value which is 12.1946. Inflation is the highest volatile variable which has the standard deviation of 16.796324 and GDP is the least volatile variable which has the standard deviation of is 0.9393656. Generally the mean values of all variables ranges from the least value of 0.13855 for credit function variable to the highest mean value of 46.5 of age variable. Whereas the standard deviation of all variables ranges from the least value of 0.1078131 for credit function (which shows credit function is the least volatile variable) to the highest value of 38.39348 for age which indicates age is the highest volatile variable).

Correlation analysis indicates that ROE was not positively correlated with any of the independent variables with a coefficient greater than 0.5 whereas it was correlated

negatively with more than half with operating expense variable and their correlation coefficient is -0.548594. Total asset, credit function, inflation and GDP were positively correlated less than half with ROE with 0.17271, 0.24074, 0.36364, and 0.22088 correlation coefficients respectively. However, borrowing and age were negatively correlated with ROE with correlation coefficient of -0.375890 and -0.064119. The highest correlation coefficient is 86.8% which was between operating expense and borrowing. However, the lowest correlation coefficient is 0.054% which was between credit function and inflation.

Recommendation

Based on the conclusion of the study, the following possible recommendations were forwarded by the researcher.

Total asset and credit function have positive and significant impact on profitability performance. The positive sign of total asset shows that increasing in this variable will lead to the higher profitability performance. Thus, the study suggests that the beer companies should increase their level of assets and thereby increase the size of the companies since they have an advantage of scale of economies which enable them to be more efficient in production and provide them more competitive power. The positive sign of credit function shows that an increase in this variable will make the beer companies more profitable. Therefore the study recommends that the beer companies should increase their credit sales by following a relaxed or liberal credit policy which increase their level of sales and thereby increase their profitability performance. When doing so, management should take care of the risk associated with un collectability of receivables.

Operating expense has negative and significant impact on profitability performance. This negative sign of operating expense shows that increasing in this variable will lead to the lower profitability performance of beer companies. Thus, the study suggests that the beer companies should to reduce selling and general administrative expense to the minimum since the higher operating expenses results inefficiency and lead to a lower profit. The beer companies should reduce expenses and improved their efficiency and hence raise their profitability.

The other company specific factors, borrowing and age, are statistically insignificant therefore they are not determinant of profitability performance of the selected beer companies. But the positive sign of borrowing shows that there is a demand to raise borrowing (short term liabilities) than retained earnings and the beer companies are encouraged to focus on increasing their short term liabilities instead of using retained earnings. The negative sign of age indicates organizational rigidities and inertia. The beer companies should give due attention to the cementation of organizational rigidities and

diffusion of rent-seeking behavior inside the companies and should actively manage capillary and suffocating conditions resulting from aging.

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