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Determinants of Gross Domestic Saving: An Evidence from Asian Countries

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Abstract

This paper investigates determinants of gross domestic saving of eighteen Asian countries. Eighteen Asian countries were selected, based on the availability of data from the year 1995-2016. Secondary panel data of the determinants of gross domestic saving were obtained from the official website of the World Bank. Different statistical techniques such as fixed effect model, descriptive statistics and correlation matrix were employed in this research study. The results of the secondary data revealed that gross domestic product, age dependency ratio, broad money and inflation have statistically significant effect on the gross domestic savings while Tax revenue have non-significant effect on gross domestic saving. Gross domestic product, broad money and tax revenue have positive effect on gross domestic saving while age dependency ratio and inflation have negative effect on gross domestic saving. It is recommended that government of selected countries should adopt proper policies for financial institutions in order to encourage saving behavior among the people of their countries.

Keywords: Gross domestic saving (GDS), gross domestic product (GDP), age dependency ratio (ADR), broad money (BM), Tax Revenue (TR) and inflation (CPI).

1. INTRODUCTION

Domestic savings are important for the economic growth of every country. Saving is an important factor which finance investment, creates job opportunities and mainly improve the level of productivity in developing countries. Therefore, it would be vital to look at the factors which affect the level of gross domestic saving and improve the economic growth of a country. Gross domestic saving offers an important association between past, present and future economic growth (Kazmi, 1993). Gross domestic saving is gross domestic product minus final consumption expenditure. The savings of public sector, private corporate sector and household sector in a country is called gross domestic saving. Domestic saving helps in maintaining high growth rates through its effect on the capital formation and investment. According to (Nga, 2007) domestic saving plays a vital and collective role for the sustainability and growth of an economy because it encourage investment eliminate poverty and create employment opportunities for the citizens. Mboweni (2008) has stated in his study that high rate of saving is a safeguard which save economies from bankruptcy, devaluation of currency and inflation. The high rate or percentage of domestic saving plays a pivotal role for the economic growth because high rate of saving and their channelization to investment not only ensures the growth of the economy but it also creates employment opportunities for the citizens and also attract foreign investors for investment (Mboweni, 2008). According to (Khan, 1993) high rate of saving is required for every country for the purpose to achieve sustainable growth, capital formation and mobilization of domestic resources. In case of achievement of investment and growth rates targets, appropriate domestic saving rate is an essential and important component (Kazmi, 1993).

According to Lucas (1988) high rate of saving and related growth in wealth or capital formation can affect economic growth of the country very positively. The domestic saving rates in many Asian countries have been weakened. However as per the economic concepts 22-25 % of domestic saving rate is essential for financial development of an economy. Solow (1956) concluded in his research work that growth of economy is influenced by the rate of saving because high rate of saving is important for the economic growth. The economic growth and capital formation is the main goal of every country because citizens of developed countries live with more comfortable and holding a better welfare than the citizens of developing countries. To reduce poverty, unemployment, inflation and to improve the level of per capita income are the main goals of every country.

This research study has focused the gross domestic saving of different countries i.e. China, Pakistan, Russia, Iran, Mongolia, Bangladesh, Thailand, Indonesia, Malaysia, Philippines, Georgia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka and Bhutan. This study has employed secondary data regarding determinants of gross domestic saving of the selected countries in the research. The data was collected for period of 1995-2016. Literature review related to dependent variable and all independent variables of study was compiled from published research papers and research reports of different research journals etc. The current research has focused gross domestic saving, gross domestic product, age dependency ratio, broad money, tax revenue and inflation.

Importance of this study arises due to significant role of gross domestic saving in growth of a nation's economy. Saving has provided important services for individuals of any state. The research study has examined the impact of key elements of gross domestic saving. The present research has used sufficient logical outline of gross domestic saving of China, Pakistan, Russia, Iran, Mongolia, Bangladesh, Thailand, Indonesia, Malaysia, Philippines, Georgia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka and Bhutan. This research work has examined the

independent variables as base in several other research studies of similar area of research. This study has provided comprehensive framework and published literature regarding factors affecting gross domestic saving. The current study has identified the effect of gross domestic product, age dependency ratio, broad money, tax revenue and inflation on gross domestic saving of the selected countries. This study has evaluated the factors which have provided a ground for further studies on the role of determinants in term of gross domestic saving. The importance of gross domestic saving and its awareness has been recognized on international as well as on national levels because it has played central role in decreasing inflation of a country. In this study, data regarding elements which affect the rate of domestic saving in the selected countries i.e. China, Pakistan, Malaysia, Philippines, Georgia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka, Russia, Iran, Mongolia, Bangladesh, Thailand, Indonesia and Bhutan was compiled from secondary sources (Websites of World Bank). The effect of independent variables on dependent variable (Gross domestic saving) was evaluated and analyzed.

Domestic saving has received importance and attention from economists (i.e. research community and academic) due to its important role in economic development. Previously research studies have been conducted by Jappelli et al. (1994); Blomstorm et al. (1996); Gavin et al. (1997). Sinha et al. (1998) and Weller et al. (2010) on this topic of research. However previous studies have emphasized on domestic saving of one country or countries chosen from other different regions of the world. Our research study is different from other research studies in term of geographical location, sample, and number of countries. The present study has considered a sample of eighteen Asian countries.

1.1. THEORETICAL BACKGROUND

The Life-Cycle Hypothesis (LCH)

This theory was developed by Franco Modigliani and his student in the year 1950. Richard Brumberg, developed a theory which was based on the observations that the consumption decision of many people mainly depend on their available assets over their lifetime, and on their current life stage. Brumberg and Modigliani observed that people make up different kinds of assets at the initial stages of their working lives and use it after their retirements.

Relative Income Hypothesis

The Theory of relative income hypothesis was developed by James Duesenberry. This theory states that the behavior saving and consumption behavior of the people depends on their income level in relation to others than by abstract standard of living. The percentage of resources consumed by a person mainly depends on his percentile position within the income or resources distribution.

The Permanent Income Hypothesis

It is an economics theory which explains that how an agent extends utilization of resources over his lifetime. This theory was developed by Milton Friedman, it supposes that a consumption of a person at a point in time is determined not just by their available resources but it also depends on their expected future permanent income.

2. LITERATURE REVIEW

It is known fact that one element may not affect the rate of domestic saving. However, different elements together such as gross domestic product & broad money growth rate of country, foreign direct investment, per capita income, inflation, age dependency ratio, macroeconomic certainty level, financial liberalization, and economic policy will influence the rate of domestic

saving. Published Literature is available on saving pattern; determinants of domestic saving of various countries of the world. Important published literature on domestic saving is summarized as under:

Paxson. (1997) reported negative relation between per capita income and saving. Basely et al. (1998) revealed that opposite income effect was dominated by positive alternatives causes and therefore savings rates has optimistic link or relationship with rate of interest. Narayan et al. (2005) reported basic components of Oman's national savings, from the year 1977-2003 by means of bound testing approach and ARDL model. Aggregate saving was dependent variable in his study while domestic credit, rate of population, rate of per capita income, money supply rate, current account deficit and urbanization rate were independent variables in his research study. The results showed that domestic credit, current account deficit and urbanization rate has encouraged influence on rate of saving while urban population rates, money supply and rates of per capita income has negatively affected the savings rate of Oman.

Narayan and Narayan (2006) reported saving activities in Fiji during 1968-2000 via ARDL method to co-integration rectification model. In this research study dependent variable was aggregate saving while rate of interest, deficit of current account, and dependency ratio of age were independent variables. This research proposed that both on long term and short term basis, 1% increase in growing rate of per capita income enhanced the saving rate by 0.05 and 0.07%. Which showed constructive effect on the rate of saving. Rate of real interest and rate of age dependency ratio revealed synthesis consequences with saving.

Vincelette (2006) studied the saving factors of Pakistan. The research has compiled data for the year 1973-2005. He employed the method of OLS regression. Rate of saving was considered as dependent variable while, income of financial development, rate of interest, financial policy and factors of demography as independent variables. The results illustrated that there was negative and important connection among development of financial sector and aggregate saving. Direct inverse connection among economic or monetary imbalances and saving on the other hand income and demographic factors have major effect on rate of saving.

Newman et al. (2008) conducted research study on causes of saving which emphasized that three different elements has affected domestic saving performance in Africa. In which one was the ability of a person or individual to save money as his disposable income. The 2nd was the tendency to save as influenced by socio-cultural and financial elements like domestic expenses to educate offspring. However to save and return on saving was the third opportunity. In addition to that size of family has controversial and negative influence on individual savings signifying that grand families have more sources constrained than little one's with disposable earnings and assuredly a worse level of savings.

Abbas and Bashir (2010) reported the factors of National Savings for short and long term in Pakistan. Time series data was applied by the author for the period or time from 1972-2008 by using vector error correction model (VECM) and Johansson Co integration method. The descriptive factors that influence the rates of National Savings in long term were price index, interest rate, exports, workers remittance, public loans, consumer and government spending. In long term public loans were inversely connected to rate of saving while interest rates, export, consumer price index, workers remittance and Government spending have vital and constructive or positive effect on rates of national savings. The interest rates and workers remittance was positively related with saving rates for short period.

Imran et al. (2010) reported consumer price inflation, public loans, interest rates, government consumption and remittances were as main factors of national saving. They revealed that these independent variables owns long run connection with dependent variable i.e. national savings,

somehow or other these variables are co-integrated. Weller and Rao (2010) conducted study on tax revenue and domestic savings. They reported direct relationship of tax revenue and domestic savings. Rehman et al. (2010) studied the causes of families saving and recognized that age has positive connection with rate of savings. Issahaku (2011) reported that age structure and properties does not have major influence on saving. Components which make families or domestic investment were expenditure and occupation.

Turner and Manturuk (2012) studied that how single, formal, and fundamental factors influence the procedures of decisions making which supported domestic savings in New York. The outcomes revealed the factors of single elements such as requirement of family, upbringing effect of individuals toward savings and their self-reliance in their capability to save. Formal elements allowances, disincentives, and structural values form households' trust in economic institutes and their readiness towards contributing in savings programs.

Girma et al. (2014) reported the causes of domestic savings in Oroomia region, Ethiopia. In this research study different nine important factors, explanatory variables of domestic savings were analyzed which contains family head's education status and level, profit, capital, income, access to credit services, training membership, contact with extension, forms of savings and saving objects. Samantaraya et al. (2014) used Autoregressive Distributive Lag (ARDL) techniques in their study in order to investigate those factors which influencing household savings in India during the year 1992 – 2012. Variables included in their study were age dependency ration, inflation, gross fiscal deficit-GDP, real GDP ratio, personal income tax to GDP ratio, share of agriculture in total GDP, and external terms of trade. They found the existence of a long run association between the variables. Income and age dependency showed a positive impact while interest rate and inflation were negative. The terms of trade and fiscal were insignificant in explaining household saving in India.

M.Imran Khan et al. (2017) investigated determinants of national saving in six south Asian countries including Sri Lanka, Nepal, Pakistan, Bangladesh, India and Bhutan. Panel data were used for econometrics analysis of the selected countries from the year 1989-2013. Results of their study indicates that inflation, tax and gross domestic product have statistically significant effect on the gross domestic savings while per capita income, interest, money supply growth and age dependency ratio have non-significant effect on gross domestic saving. Inflation, tax revenue and gross domestic product showed positive effect on gross domestic saving.

3. RESEARCH METHODOLOGY

Panel Data

Panel data were used for econometric analysis in order to examine the Determinants of gross domestic saving in China, Pakistan, Russia, Iran, Mongolia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka, Bangladesh, Thailand, Indonesia, Malaysia, Philippines, Georgia and Bhutan. With the features of heterogeneity, as compare to cross-sectional and time series regression, panel data technique has advantage over them. The method of panel data has furnished accurate information. The results obtained from panel data technique were more accurate and generalized because of less Co-linearity between the selected variables.

Fixed Effect Model

It is the kind of Panel data. In this research study fixed effects model has used for the robustness in the result because it shows vigorous average errors where Heteroskedasticity is available in data. According to Wooldridge (2001) fixed effect model furnish the imbalanced results in

regression model, generated due to omitted variables. Intercepts are different for people while coefficient's slopes are constant in fixed effects model Gujarati (2003); Baltagi (2008).

Random Effect Model

Random effect is the most important type of panel data analysis. In this model the mean of all intercepts of the cross sectional units is the value of intercepts. It was applied for robust errors, where Heteroskedasticity was found in data.

Chow Test

This test was applied to select among Fixed Effects Model and Pooled regression Model.

Breusch-Pagan Test

For selecting between pooled Model and Random Effects Model, Breusch-Pagan Test has been used in this research study.

Hausman Test:

In this research study Hausman test (1978) was applied to select among Fixed Effects Model and Random effect model.

Regression Model

Below is the model which was used for the assessment of present research study.

$$GDS_{i,t} = \alpha + \beta_1 GDP_{i,t} + \beta_2 ADR_{i,t} + \beta_3 BM_{i,t} + \beta_4 TR_{i,t} + \beta_5 INF_{i,t} + \epsilon_{i,t}$$

Where

i is for country.

t is for year

GDS: Growth of gross domestic saving

GDP: Gross Domestic Product

ADR: Age Dependency Ratio

BM: Broad Money

TR: Tax Revenue

INF: inflation rate

While, α : constant β_1 , β_2 , β_3 , β_4 and β_5 are called the regression coefficients, and ϵ is the random error terms.

Dependent Variable

Domestic Saving

Gross domestic saving is the dependent variable of this research study. The percentage or rate of gross domestic product (GDP) held by households in a country is called gross domestic saving (GDS). The overall private corporate and public saving in the form of liquid assets in a country is called domestic savings. An adequate domestic saving rate is an essential condition for attainment of investment or capital formation and growth rate target of a country. (Kazmi, 1993). Saving is a shield which protects economies from bankruptcy. (Mboweni, 2008).

Independent Variables

Gross Domestic Product

The value of all finished commodities or products and services produced in a state or country in a particular time (i.e. one year) is known as Gross Domestic Product. There is a positive and durable connection among growth and domestic saving. According to Maddison (1992) and Bosworth (1993) GDP has constructive relationship with the rate of saving and economic growth.

Age Dependency Ratio

Age dependency ratio is the percentage of dependents which includes from people younger than 15 or older than 64, to the working-age population (ages 15-64). According to previous relevant research studies it seems that demographics (size, age and structure of households) affect the rate of domestic saving of a country. According to Modigliani (1970) people save more and more money at the middle age as compare to young or old age. The proportion of the working age population to total population of a country is called the percentage of age dependency ratio. According to Masson et.al. (1998) countries with high percentage of working age population present high saving percentage rate as compared with other nations with minimum ratio of working age population.

Broad Money

Brookin (2001); Narayan and Siyabi (2005) reported in their researches that money supply (M2) have opposite and inverse connection or link with aggregate savings. As money supply will increase then aggregate savings will be decreased.

Tax Revenue

All type of Excise duty and custom duty plus Interests and Penalties collected by government itself depend on Provincial and Local Government to perform as its gathering facilitators. Weller and Rao (2010) conducted a study on tax revenue and domestic savings, the result showed that they have direct relationship among each other. The tax revenue has positive relationship with national savings.

Inflation (Cpi)

It can be defined as when prices of commodities increase and value of money decrease in an economy. When prices of commodities rises, individuals have to consume extra on purchasing which declines the amount of domestic saving which reveals negative trend. According to (Kazmi, 1993) that there exists a negative connection among inflation and domestic saving.

4. RESULTS AND DISCUSSION

Descriptive Statistics

VARIABLES	OBS	MEAN	S.D	MIN	MAX
GDS	396	25.11458	11.92634	-12.79198	51.25779
GDP	396	5.452594	3.553076	-13.12673	17.92582
ADR	396	56.91351	13.11578	35.59041	98.05256
BM	396	61.82837	38.35612	6.82303	208.3067
TR	396	12.42009	4.333958	4.994378	28.70997
INF	396	9.939888	17.32484	-18.10863	197.147

The above tables reveals descriptive statistics such as mean, standard deviation, minimum and maximum of gross domestics savings (GDS), gross domestic product, age dependency ratio,

broad money, tax revenue and inflation during the period from 1995 to 2016 of eighteen different Asian countries i.e China, Pakistan, Iran, Mongolia, Malaysia, Russia, Bangladesh, Thailand, Indonesia, Philippines, Georgia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka and Bhutan. According to the above table gross domestics saving has mean value of 25.11 % in gross domestic saving of the selected countries other variables such as gross domestic product, age dependency ratio, broad money, tax revenue and inflation 5.45, 56.9, 61.8, 12.4 and 9.93 respectively while the minimum values of gross domestics saving, gross domestic product, age dependency ratio, broad money, tax revenue and inflation are -12.79, -13.12, 35.5, 6.82, 4.99 and -18.1 respectively. The maximum values of gross domestics saving, gross domestic product, age dependency ratio, broad money, tax revenue and inflation are 51.25, 17.9, 98.5, 208.3, 28.7 and 197.1 respectively.

Correlation Matrix

Variables	GDS	GDP	ADR	BM	TR	INF
GDS	1.0000					
GDP	0.1304	1.0000				
ADR	-0.5254	-0.0318	1.0000			
BM	0.5869	0.1005	-0.4280	1.0000		
TR	-0.0175	-0.0217	-0.3407	0.1280	1.0000	
INF	-0.0831	-0.2368	-0.0039	-0.2726	-0.0400	1.0000

The above table reveals the correlation matrix of dependent and independent variables for China, Pakistan, Iran, Mongolia, Malaysia, Russia, Bangladesh, Thailand, Indonesia, Philippines, Georgia, Nepal, India, Vietnam, Turkey, Cambodia, Sri Lanka and Bhutan for the period from 1995 to 2016. Gross domestic savings have positive correlation with gross domestic product and broad money, but have negative correlation with age dependency ratio, Tax revenue and inflation.

Chow Test

S.No	Variables
1	GDP = 0
2	ADR = 0
3	BM = 0
4	TR = 0
5	INF = 0
Chi2 (5) = 84.47	
Prob> chi2= 0.0000	

The above table shows result of chow test. This table was used for the selection purpose of fixed effect model and Pooled OLS Model. P Value of chow test indicates that P value is less than 0.05 so we reject null hypothesis because fixed effects model is more suitable than pooled regression model.

Breusch And Pagan Lagrangian Multiplier Test

	Var	SD = sqrt (Var)
GDS	142.2375	11.92634
E	20.4322	4.5202
U	51.68923	7.189522
Var(u) =		0
Chibar ² (01) =		1404.47
Prob > Chibar ² =		0.0000

The above table indicates variation and standard deviation of gross domestic saving. The variation and SD of gross domestic saving (GDS) was 142.23 and 11.92 respectively. On the basis of p-value we reject null hypothesis which indicates that pooled OLS model is better than random effects model.

Hausman Test

Variables	Fixed Effect	Random Effect	Var(Diff.)	Prob.
GDP	0.272709	0.280152	0.000049	0.2876
ADR	-0.113456	-0.115012	0.000092	0.8712
B M	0.043232	0.055705	0.000045	0.0622
TR	0.063976	0.024447	0.000286	0.0195
INF	-0.030807	-0.029327	0.000001	0.1477

Test Summary	Chi-Sq Statistic	Chi-Sq. d.f	Prob.
Cross-section	16.874442	5	0.0047

The above table reveals the results of the Hausman specification test. This test was used for the purpose of selecting whether to use fixed effect model or random effect model. The p-value of chi² is .0047 which is less than .05. Under this assumption fixed effect model is more efficient than random effect model.

Fixed Effect Model

Dependent variable: GDS

	Coefficient	Std. Error	t-ratio	p-value
Const	26.92347	3.379058	7.967746	0.001
GDP	0.272709	0.074310	3.669874	0.003
ADR	-0.113456	0.038076	-2.979726	0.031
BM	0.043232	0.019286	2.241646	0.025
TR	0.063976	0.090891	0.703879	0.481
INF	-0.030807	0.015350	-2.006939	0.045
R-squared	0.864352	Adjusted R-squared		0.856352
F Statistic	108.0349	P-value (F)		0.00000

In the above table, results of the fixed effects model are presented. It can be observed that gross domestic product, age dependency ratio, broad money and inflation were statistically significant because the P value of these variables are less than 0.05 i.e. 0.003, 0.031, 0.025 and 0.045 respectively. The value of R-squared shows that independent variables explains 86 % of

the entire panel's variation. The coefficient of fixed effect model shows that gross domestic product, broad money and tax revenue have positive effect on gross domestic saving while age dependency ratio and inflation, have negative effect on gross domestic savings.

Gross domestic product is statistically significant and coefficient of gross domestic product shows positive effect on gross domestic savings. Results of gross domestic product are same to the results of the Mckinnon (1973) and Shaw (1973) they revealed that increase in the interest rate of savings boost up gross domestic product. Our results verify the results of Agarwal (2001), he analyzed the savings behavior of seven Asian countries. He concluded that most of the countries have shown significant impact of Gross Domestic Product on savings.

Age dependency ratio are statistically significant and coefficient of age dependency also show negative effect on gross domestic saving. Results of age dependency are same to the results of Masson *et.al*. Masson *et.al* (1998) concluded that the countries which have high ratio of working age population present high savings rate as compared to countries which have low ratio of working age population. As concluded from these studies countries like China are experiencing increasing savings rate as their young dependency population is increasing. They indicated positive and significant relationship among age dependency and saving in China.

Broad Money was statistically significant and have positive effect on gross domestic saving. Result of money supply was same to the results of of Joshi. Joshi (2007) conducted investigation on the domestic savings, capital account of the balance of payment. He used explanatory variables for the study of capital formation. The long run steady state relationship between various component of saving capital account balance and gross domestic capital formation was estimated. It was pointed out that money supply increase the capital formation and growth in economy and lead to saving. Joshi (2007) revealed significant relationship among saving and money supply.

Tax revenue have positive effect on gross domestic saving of the selected Asian countries. But the results of tax revenue has non-significant effect on gross domestic saving. Our study results are same with Rao (2010). He conducted a study on tax revenue and domestic savings, the result showed that they have direct relationship among each other. The tax revenue has positive relationship with National Savings.

Inflation has negative effect on gross domestic savings and having statistical significant value. Our result of inflation is similar with the results of Muradoglu *et al*. Muradoglu *et al* (1996) aimed at examining the differences in household savings behavior in developing and industrial countries from a cross-country perspective. The purpose of their study was to learn more about differences in nature of the household savings behavior in industrial versus developing countries. Income, wealth, rate of returns, inflation, foreign savings, and demographic variables were taken as the determinants of savings. Their results indicated that inflation has significant relationship with savings.

5. CONCLUSIONS & RECOMMENDATIONS

This research study “ determinants of gross domestic saving: an evidence from Asian countries ” was aimed to examine the important factors of domestic saving such as gross domestic product, age dependency ratio, broad money, tax revenue and inflation from 1995 to 2016. This research study was mainly based on secondary data compiled from “websites of World Bank”. Determinants of gross domestic saving such as gross domestic product, age dependency ratio, broad money and inflation were statistically significant. The coefficient of fixed effect model shows that gross domestic product, broad money and tax revenue have

positive effect on gross domestic saving while age dependency ratio and inflation, have negative effect on gross domestic savings.

Based on outcome of this study, the major recommendations are presented as under:

It is suggested that in future research scholars may use primary data for research studies on the topic of gross domestic saving because the primary data will depict accurate impact of the determinants on gross domestic saving in different Countries of the world. Maximum independent variables will generate more valuable and accurate reports which may improve understanding on the subject as well as quality of future research studies.

Proper policies may be framed and adopt for financial institutions by the selected countries in the study for the purpose to achieve main goal of economic growth, capital formation. On the other hand Policies of income effect and prices effect should be presented and adopted for constructive changes in behavior of saving.

Governments of these countries may also adopt different kinds of policies for stimulating investment, encourage saving and increase production in order to achieve the goal of economic growth.

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Bankers' Work-Life Balance and Organizational Commitment: Exploring the Dominant Factors to Move on Job-Family Life Balance

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Abstract

A widespread challenging issue for any employees is to maintain both the family life and the work life satisfactorily. As banking sector of Bangladesh is a wide money market for the job seekers, a controversy is always being found after getting job with the two integral parts i.e. family vs. work of their life. The aim of the study was designed as three steps process. In Step-1, a number of bank executives (n=300) were interviewed (convenient sampling method from unknown population size) through a separate 17 items of WLB contents & WLB policy and its impact on job under a structured questionnaire. In Step-2, based on the responses; an exploratory factor analysis was run by using SPSS (v, 22) to identify the dominant factors which supported the initial selected WLB contents. The alpha ($\alpha = .731$) testing revealed that the data are internally consistent and five factors were identified such as: Work to family Balance, Involvement Balance, Satisfaction Balance, Job Interest Balance and Communication Balance. In the final step (Step-3), the study tried to observe the impact on commitment (affective & normative) towards WLB contents and the result showed affective & normative commitment which are somewhat depended on WLB contents and the relationships are positively correlated as well as significant. The result was coherent with literatures; however, the relationship was not as strong as the supported literature.

Keywords: Work-Life Balance, Commitment, Factors of WLB, Bankers, Bangladesh

1. Introduction

Banking sector in Bangladesh has a key role to play in enhancing the growth of economic and financial activities especially in the area of trade, commerce, industry, import and export. Taking into consideration the need of the economy, there are at present 57 banks out of which four (4) state owned commercial banks (SOCBs), five (5) specialized banks, thirty nine (39) domestic private commercial banks (PCBs) and nine (9) foreign commercial banks in the Bangladesh banking sector. These banks are offering a variety of services to their clients through nearly ten (10) thousands branches and more than one (1) lakh employees all over the country. The services provided by banks include general banking, investment banking, EXIM banking, internet banking etc. In course of time, the nature and magnitude of banking business have changed in respect of product diversification and service quality. This has resulted tremendous work pressure on the employees involved in the process and the issue of work life balance (WLB) came to the academic discussions which signifies simply as a tradeoff between work as well as family life. Osterrman (1995) stated that work life balance (WLB) played a significant role in creating job satisfaction and organizational commitment which helped to maintain a stable behavior of the employees. WLB is positively related to job and life satisfaction (Haar & Ollier-Malallerre, 2014) and negatively related to anxiety and depression (Haar et al., 2014), psychological strain (Brough et al., 2014) and job stress (Behson, 2002). Haar (2013) stated that WLB has an impact on the indirect (mediation) effect between conflict and work life enrichment of working parents and non-parents. White (2010) argued that because of increased educational opportunities of women resulted in their greater participation in public life including the banking sector and in recent years, some banks of Bangladesh responded to change demographic profile of their employees by developing family-friendly policies.

The proposed study on the Banker's work-life Balance and organizational commitment in the context of Bangladesh plans to investigate the relationship between WLB items and employee's commitment in the context of banking sector in Bangladesh. This sector is the service provider of bulk of the job seekers and a controversy is always raised among the employees in the issue of two integral parts in work environment, i.e., family vs. work life. To address this controversy, the proposed study was designed in three step process such as interview of bank executives, factor analysis and impact study on commitment towards WLB contents. It is expected that the findings of the study will be useful to human resources planners and policy makers at large in implementing and formulating policies related to work life balance and organizational commitment in banks in Bangladesh.

A review of related literature on different aspects of WLB in the Banking sector in Bangladesh and abroad will provide further justification for the proposed study.

2. Review of literature

2.1. Work-life balance

Work-life balance as an important aspect of human resources management (HRM) has drawn attention of many researchers who have studied the subject from different angles and dimensions. Work-life balance refers the balance between family life and the work life. The practice of work-life balance in organization is to reduce the conflict of work and personal issues. The practices includes flexible working hours, work life from home life, sharing of job, different types of family leave programs etc. The aims of those practices are to reduce the job trauma, the conflict of work family and eventually guide to decreased turnover (Arif & Farroqi, 2014). WLB is said to improve employees' performance and efficiency (Mukururi & Ngari, 2014). This is obvious because when the organization helps to lessen the conflict of work-family

issues, the stress of family would go down and less disrupting to the work (Kirchmeyer & Cohen, 1999).

In this respect the study of shey (2012) drew a special attention on work family balance of female managers of banking sector of Bangladesh. The study revealed that in present days women worked more in banking job in mid lower level than similar level the socio economics issued of women employee in most case limited to their WLB issued the study concluded their will need change as well adoptions in attitude in workplace the banks organization culture.

Greenhaus et al., (2002) in another study on the relation between work family balance and quality of life examined the issued among professionals employed in public sector in there component like time balance implement balance and satisfaction balance. the study showed differentials results in different levels the individuals who spent more time in work and family roles and those who spent more time in family than work experience a better life quality than balanced individuals who can turn a higher quality of life than those who spent more time on work than family.

Karckay et at., (2017) stated in their study on the mediating effect of work-life balance on the association between work-family conflict and satisfaction of life tried to develop a scale of work life balance for Turkish weekend woman and men of Turkey. The study was also investigation the intercede effect of work life balance between work to family conflict family to work conflict and life satisfaction the study pointed that the work life balance scale was suitable and revitalize for a Turkish employee (SEM) sample structure equation modeling supported in direct effect of work family conflict and family conflict on life satisfaction via work life balance. The study concluded that developing a new work life balance scale, examining the relationship of the concept to conflict and life satisfaction variables and comparing men and women will contribute to the work life balance aspects in Turkey.

Another study by Beauregard et al., (2009) focused on individual level explanations for the link between work life practices and organizational performance such as reduced work life conflict; improve job related attitudes, perceived organizational supports and use of practices. The study recommended that business case may be customized to reproduce the ways by which WLB practices can persuade organizational performance including enhanced social exchange process, increase cost savings and reduce turnover.

Perfect balances between working and non-working roles are advantageous for both the employee and the employer and that type of balance boosts the quality of organizational outcomes and personal & organizational communication. (Lazar, 2010)

(Susi, 2010) in a study narrated that WLB is coerce for happiness of employees. Lots of organizations experience the emergence of WLB policy (including employee retention, work family conflict, and job stress, better life balance, and job satisfaction) the practices need to be sustained and persuaded at workplace culture. Well-built and helpful organizational culture along with job nature increase employee's aim to stay behind in the organization.

(Asiedu-Appiah, 2013) revealed that WLB is vital for increasing employee performance both in home and workplace. An individual obtain fulfillment in life from family and work places.

(R.lockwood, 2003) defined WLB is nothing but to manage work and personal responsibilities. Work-life involves the support from peers & senior management and the WLB programs improved employee's productivity and motivation.

2.2. Organizational commitment

Some researches propose that there is an association between work-life balance and organizational commitment. Organizational commitment refers to what an employee feels for his organization. It is an experience of sense of belongingness for the organization. (PSUWC, 2013). Allen and Meyer (1996) suggest the three dimensional construct of the organizational commitment: affective section refers the emotional association and affection of employee towards the organization; and normative component refers the feeling of obligation of employee to remain with the organization. Research suggests that work life policies to reduce the work family conflict helps to induce the organizational commitment. Birjandi et al., (2013) identifies the positive relationship between work life balance and organizational commitment. The different components considered were the fair and sufficient payment, secure and sanitary working environment, growth opportunity, observance of law, working life social attachment, working life general atmosphere, social unity and integration and development of human capabilities and relationship with organizational commitment. Work life balance tries to increase the affective commitment and thereby positively influences the in-role performance (Kim, 2014).

The extensive review of literature on the work life balance and organizational commitment does not provide any conclusive evidence on the organizational level in general and banking sector in particular. More specifically in the context of Bangladesh, limited research work was performed in the area of WLB in general and banking sector in particular. The main focus of the proposed study is to identify the major factors that influence banker's work life balance activities and its impact on organizational commitment. The results of the study may create a sensation among the employees of banks to maintain a happy balance between work and life in order to increase productivity of banks vis-à-vis the economy as a whole. Moreover, the study could be able to create a theoretical base for the future researchers on the issue applicable to banking operation which was not found in the past studies done by other researchers.

3. Methodology

The study is exploratory in nature which tries to develop a relationship between WLB and organizational commitment on the basis of data collected from selected bank employees. Accordingly, the researchers attempt to build a WLB scale and to do this they went through many related literatures and which was an extensive review of different international and national researches. At the beginning the authors discuss with different employees of selected banks (N=6) regarding their work life and personal life issue through face to face conversation. Few items were developed from such discussion. To verify and strengthen the factors the researchers again went for an extensive literature review and finally develop 17 items which are more or less coherent and important for the bankers in Bangladesh. The 17 items are given in table-III.

Employee Commitment

In the study, the researchers picked up two types of commitments (Affective & Normative) based on literature survey related to the study.

Questionnaire Development

After a threadbare exercise, the researchers prepared a structured questionnaire which contained three parts. The 1st part contained demographic information such as gender, age, designation, education, years of experience. In 2nd part, the respondents were interviewed regarding WLB policy by their banks and their concern regarding the policy. In 3rd part, a five point Likert scale was established on WLB policy and Commitments (Affective & Normative),

where 5 denoted very important/content/strongly Agree and 1 denoted very unimportant/not content/strongly disagree.

Sampling

As the population size was unknown so the sample size was set as 300 employees from 10 private & 4 government commercial banks in Bangladesh under non probability convenient sampling method; where, only 281 responses found suitable for the study ($n=281$). The respondents consisted ($n=281$) where ($n=241$, 85.76%) were male and ($n=40$, 14.24%) were female, with having average age of 44.23 years. The education standard of the respondents; up to HSC or equivalent ($n=23$, 8.19%); and graduate or above ($n=258$, 91.81%). The average year of experience of the job displayed 7.52 years. The respondents' designation showed as First Assistant Vice President (FAVP) ($n=5$), Junior Assistant Vice President (JAVP) ($n=12$), Senior Executive Officer (SEO) ($n=22$), Executive Officer (EO) ($n=25$), Principal Officer (PO) ($n=33$), Senior Officer (SO) ($n=40$), Management Trainee Officer (MTO) ($n=31$), Probationary Officer (Prob-O) ($n=17$), Trainee Junior Officer (TJO) ($n=14$), Officer (O) ($n=22$), Teller (T) ($n=5$), Direct Sales Executive/ Marketing Executive ($n=25$), Security Guard ($n=23$), and MLSS ($n=7$).

Data Analysis

Upon collecting data, the study analyzed the WLB policy and respondents' concern regarding the policy through MS Excel. Then the study went for a reliability testing (calculated Cronbach's alpha) to observe the consistency of data and, after passing the consistency test; the study went for a correlation & regression analysis by using all the 17 items of WLB scale with affective commitment & normative commitment to find out the relationship. After that, the study went for an exploratory factor analysis (EFA); Principal component analysis by varimax rotation with Kaiser Normalization to find out the dominant factors which affect the employees' work life activities and personal life activities.

4. Analysis & Findings

Work-life & employees' concern analysis

In this section the study started with a very simple question regarding WLB policy by the respondents' respective bank. The question is, "*does your bank have a separate policy for work-life balance?*" and the result so far in given in table-I.

Table-I: Separate WLB policy by Bank

	Frequency	Percent
N/A	5	1.8
No	115	40.9
Not Aware	82	29.2
Yes	79	28.1
Total	281	100.0

Source: Authors' calculation

Only ($n=79$, 28.1%) were known to separate WLB policy whereas ($n=115$, 40.9%) said 'No' and ($n=82$, 29.2%) were 'Not Aware' regarding the policy and ($n=5$, 1.8%) did not say anything regarding the issues. The researchers then asked the following questions regarding work life and family life issues and the results are given in table-II as below.

Table-II: Employees' concern regarding work-family life issues

Question	Always	Often	Sometimes	Rarely	Never	n
1. Do you normally work more than 12 hours in a day?	23	23	60	49	126	281
2. Do you feel you are not able to balance your work life?	15	27	100	60	79	281
3. How often do you think or worry about work (when you are not actually at work)?	29	22	101	64	65	281
4. Do you find yourself unable to spend enough time with your family?	22	38	130	57	34	281
5. Do you ever miss out any quality time with your family or your friends because of pressure of work?	10	41	133	74	23	281
6. Do you ever feel tired or depressed because of work?	21	46	101	72	41	281
7. Are you not able to get time for working out?	8	34	134	67	38	281
8. Do you take special initiatives to manage your diet?	30	25	69	80	77	281

Source: Authors' calculation

Descriptive statistics of data

The following table III shows the mean & std. deviation of WLB policy, affective and normative commitment items. More or less all the mean are lying from 3 to 5 in the scale of 1 to 5 & the Std. deviation are lying from .7565 to 1.5007 except only one variable which is 3.1031 (The large deviation may arise due to the preference or ignorance of respondents regarding Communication with colleagues). As the difference between the scales is 1 so those deviation can easily be appreciated.

Table-III: Descriptive Statistics of the data

WLB Items	Analysis		
	Mean	SD	N
Workload	3.84	1.25	281
Job nature	3.92	1.11	281
Communication with friends & family	4.26	.88	281
Communication with colleagues	4.43	3.10	281
Education and training activities	3.87	1.19	281
Working hours	3.91	1.09	281
Balance between work and Current salary level	3.83	1.06	281
Life in general at present	3.98	.99	281
Family	4.46	.87	281
Relations with friends and acquaintances	4.19	.84	281
Free time and relaxation	4.14	.84	281
Community activities and volunteering	4.01	.83	281
Religion	4.29	.96	281
Earning a high salary	4.21	.83	281
Getting promoted	4.39	.80	281
Improving work expertise	4.36	.76	281
Length of service in my current job	4.19	.76	281
Affective Commitment			
I would be very happy to spend the rest of my career with this organization.	4.07	1.50	281
I would feel guilty if I leave my organization now.	3.77	1.05	281
I would continue to work for this organization in future, as it deserves the same.	4.06	.97	281

Normative Commitment

I really feel as if this organization's problems are my own.	4.03	.97	281
This organization has a great deal of personal meaning for me	4.09	.92	281
I do not feel any obligation to remain with my current employer.	3.08	1.37	281
I would not leave my organization right now because I have a sense of obligation to the people in it.	4.07	.91	281
Too much in my life would be disrupted if I decided to leave my organization now	3.91	1.02	281

Source: Authors' calculation

Reliability statistics

The table-IV revealed the data consistency of WLB policy, Affective, and Normative Items and the result showed that the data were poorly to fairly internally constant which supported the findings (Taylor, 2013; Cortina, 1993; Kline, 2000; George & Mallery, 2003)

Table-IV: Reliability Statistics

Factor Retain	Cronbach's Alpha	No. of Items
Work-life Balance Scale (WLB)	.731	17
Affective Commitment (AC)	.599	3
Normative Commitment (NC)	.695	5
		Total Items = 25

Source: Authors' calculation

Exploratory factor analysis (EFA)

To apply EFA the study went to investigate the data suitability through Bartlett's test of sphericity and Kaiser Mayer-Olkin (KMO) test. The KMO value was observed as 0.789; KMO value was more than 0.6 is suitable for EFA and about to 0.9 or above is excellent which supported the findings of (Kaiser, 1974; Tabanick & Fidell, 2001; Hutcheson & Sofroniou, 1999) and the Bartlett's test result showed significant ($\chi^2 = 1321.865$; $p < .001$) as well for the EFA.

After running the factor analysis with 17 items (as shown in table-VIII) the eigenvalue of all the 5 revealed factors were more than 1 and the factors' eigenvalue were respectively 3.022, 2.514, 2.082, 1.371 & 1.227 and the total variance explained from the model was determined as 60.101%. The Cronbach's Alpha was .731 which means data were fairly consistent which supported the findings (Taylor, 2013; Cortina, 1993; Kline, 2000; George & Mallery, 2003)

Table-VIII shows the factor loading for each items and the WLB factors' Cronbach's Alpha as follows.

Table-VIII: Obtained Factor loading from EFA (n=281)

<i>Principal Component Analysis</i>		
<i>Variables</i>	<i>Factor</i>	
	<i>Loading</i>	<i>Alpha</i>
1. Balance between work and Current salary level	.734	0.769
2. Working hours	.732	
3. Life in general at present	.727	
4. Job nature	.627	
5. Education and training activities	.570	
6. Workload	.563	
7. Family	.796	0.784
8. Relations with friends and acquaintances	.772	
9. Religion	.760	
10. Getting promoted	.615	0.653
11. Earning a high salary	.597	
12. Community activities and volunteering	.546	
13. Free time and relaxation	.508	0.653
14. Length of service in my current job	.807	
15. Improving work expertise	.670	
16. Communication with colleagues	.842	0.578
17. Communication with friends & family	.527	

Source: Authors' calculation

Table-IX: Names & Definitions of obtained factors from WLB scale

<i>Factor names</i>	<i>Definition</i>
One: Work to family Balance	Refers to various work related issue of job such as workload, job nature, education & training activities, working hour, balance of work & current salary, and current lifestyle.
Two : Involvement Balance	This means the opportunity to psychological involvement in family, relatives, peers, and religion.
Three : Satisfaction Balance	Satisfaction Balance refers satisfaction towards both the family and work roles.
Four: Job Interest Balance	States the attraction of being expertise in related field and the length of present job.
Five: Communication Balance	How well the communications can be maintained among friends & family, peers, subordinates, and the bosses.

Source: Authors' observation

Correlation Analysis

A correlation analysis was conducted on all variables to explore the relationship among them. The Birvarite (Pearson Correlation) procedure was subject to a two tailed of statistical significance at two different levels highly significant ($p < .01$) and significant ($p < .05$). The correlation coefficient value (r) ranged from 0.01 to 0.29 is considered weak, from 0.03 to 0.49 is considered moderate and from 0.50 to 1.00 is considered strong which supported the findings (Ratner, 2018; Rumsey, 2018). The result of correlation analysis for all the variables is shown in table-V. It examines the correlations among WLB items, employees' affective and normative commitment towards organization.

Table-V: Correlation Matrix

Component	Work-life Balance	Affective	Normative
	Scale (WLB)	Commitment (AC)	Commitment (NC)
Work-life Balance Scale (WLB)	1.000		
Affective Commitment (AC)	.118*	1.000	
Normative Commitment (NC)	.188**	.618*	1.000

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

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

Source: Authors' calculation

The variable of WLB related Items is positively correlated with affective commitment, and employees' normative commitment towards organization. ($r = 0.118$; $p < 0.05$, and $r = 0.188$; $p < 0.01$). The two commitments (affective and normative) are also positively and strongly correlated to each other ($r = 0.618$; $p < 0.05$) shown in table-V.

Regression Analysis

Regression analysis is normally used to find that how much independent variable can explain of dependent variable. In this research the two independent variables affective & normative commitments towards organization and the dependent variable is WLB items.

Model-1: From the study in model-1 the R square = .014 which means independent (affective commitment towards organization) variable can explain 1.4% of dependent variable (WLB items) shown in table-VI

Table-VI: Model Summary-1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.118 ^a	.014	.010	.84194

a. Predictors: (Affective commitment), WLB items

Source: Authors' calculation

Model-2: From the study in model-2 the R square = .035 which means independent (normative commitment towards organization) variable can explain 3.5% of dependent variable (WLB items) shown in table-VII

Table-VII: Model Summary-2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.188 ^a	.035	.032	.64079

a. Predictors: (Normative commitment), WLB items

Source: Authors' calculation

From the above regression analysis the study found that the WLB items can explain a little about the organizational commitment (affective & normative) of the bankers'. There are some other items apart from the WLB which policy may affect the bankers' commitment.

Justification of weak results

From the above result of correlation (given in table-V) & regression (given in table-VI & VII) the result might look weak. Since, the research is exploratory in nature so the researchers try to explore whether there are any relationship between WLB items and organizational commitment or not. The study shows a very weak or poor relation in that relationship.

The basic reason may occur due to the lack of the knowledge regarding WLB content and policy (given in table -I) or apart from the WLB policy there have some other issues of HR practice (recruitment & selection, Training & development, salary & benefits, career opportunity growth etc.) may affect the bankers' commitment.

Major implication of the study

As per the researchers' knowledge, this is possibly the very first attempt by any author from developing economic countries like Bangladesh to establish and measure a work life balance scale for banking industry. Though the result between the items & commitment didn't find that much significant relationship however, the implication of the study would be very interesting to the policy makers. Many of the bankers could address their problem regarding the family & job balance. Some new policies and awareness program can be arranged by the authority for the betterment of the bankers' mental health.

Limitations

The major limitations of the study can be considered as many of the bankers didn't know better about the work-life balance policy by their bank as well as the concept in Bangladesh. Surprisingly found that, most of the bankers thought that the leave policy & holidays are the only factors of WLB policy. More fully, most of the respondents' were less interest and unwillingness to provide information. Time, funding, and authoritative support (as it is personal initiative research without funding) from the banking authority would be the other significant limitation of the study. Majority of the respondents are working in Dhaka zone and based on whole country or other zone would have different response regarding the issue.

Further future research

At this moment the model is the basis for further research in this selective area. Some fine tune will be badly needed to establish this model as a major contribution. This model could be verified by Confirmatory Factor Analysis (CFA) and more items can be added in the scale by using more extensive survey of literature and discussion with employees.

Future researches could be drive to improve these situations by using criteria of work-life balance towards job satisfaction, employee motivation, job boredom, monotonousness in job etc. The study only picked up 17 WLB items, few more items can be added in further researches. Bangladesh Bank & BIBM could support such types of research in future.

Conclusion

In this study firstly a scale on WLB items was developed by picking up 17 related WLB items based on literature & interview with bankers. Secondly the identified the major factors influencing bankers' Work-life balance activities. An EFA was run and five dominant factors (Work to family Balance, Involvement Balance, Satisfaction Balance, Job Interest Balance and Communication Balance) were revealed affecting bankers' Work-life balance activities.

Finally the study explored the bankers' organizational commitment (affective & normative) towards bank and find out the relationship between WLB items and employees' commitment (affective & normative). For that outcome, the respondents showed their opinion regarding organizational commitment and that found more or less satisfactory; however a very insignificant relation had been found between WLB items and employees' commitment (affective & normative) through regression and correlation analysis.

The findings could be compared with literatures such as; the literatures supported the significant positive relationship between WLB & employee commitment and the study found as same. However, the relationship was not as strong as the supported literature.

It is expected that the newly generated WLB scale will be very effective and supportive for the WLB policy of the banks. This study will be an era for the policy makers (Bangladesh Bank, BIBM, & others) to improve the current WLB policy and future researches will have a base to work on these issues.

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Public Capital and Recurrent Education Expenditures and Economic Growth in Nigeria: An Empirical Investigation

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Abstract

Over the years, researchers have found conflicting results regarding the relationship between public education expenditure and economic growth in Nigeria and there seem to be no clear distinction regarding which of capital and recurrent components contributes more to the growth of a nation's economy. Hence, this work empirically investigated the impact of capital and recurrent public education expenditure on economic growth in Nigeria so as to ascertain which component contributes more to economic growth. The study applied ordinary least squares technique on time series data for the period, 1981-2016 and found that capital component of the total education expenditure had stronger impact (17%) on the nation's economy (GDP) than its recurrent counterpart (13%). The Granger Causality test showed that while capital education expenditure granger causes economic growth in Nigeria, recurrent education expenditure does not. This work therefore recommends that Nigerian government should step up her yearly budgetary allocation to education from the current single digit averaging about 7% of the total budget to double digits so as to boost the growth of her economy and that such allocation should pay more attention to the capital component as it promotes growth more than its recurrent counterpart.

Keywords: Capital expenditure, Recurrent expenditure, Education Expenditure, Economic Growth, Empirical Investigation

1. Introduction

In recent times, much attention has been given to human capital development as one of the key forces that can spur growth and development. According to Becker (1964), investment in human capital, part of which is education, raises an individual's productivity and earnings in particular, and impacts on the growth of the economy in general through its spillover effects. The key idea here is that a highly educated labour force is expected to be relatively more productive than an uneducated labour force. Works done by Lucas (1988), Mulligan and Sala-i-Martin (1993) and Baro and Sala-i-Martin (1995) underscore the importance of human capital (education) and its contribution to economic growth globally.

Every government in any part of the world is saddled with the responsibility of formulating policies and initiating programs and actions that will help them achieve their core macroeconomic goals. One of such goals that has proven itself from recorded history as the most important and primary target of every economy is the achievement of sustained economic growth used in the assessment of the economic health of any nation of the world (Greg & Agboro, 2014). Economic growth is spurred by a plethora of factors and governments across the world adopt different policies and programs to see that their economies move steadily on the path of growth. One of such measures adopted by governments is the use of fiscal policy.

Fiscal policy involves the use of government revenue and expenditure variables to control or influence the behaviour of the economy or that of the macroeconomic variables of the nation. It is a complement to monetary policy. Since the time of the "Keynesian Miracle" that pulled the global economy out of a hopeless depression, emphasis has heightened on the role of government intervention in the economy in saving it from total collapse in times when the market fails. One of such interventionist approaches adopted by the government is the use of public expenditures through its constitutional responsibility of annual budget formulation and execution.

Government expenditure refers to the totality of all the consumption/investment spending/transfers made by the government on behalf of the citizens in the economy to achieve some specified goals (Churchill, Yew & Ugur, 2015). Government expenditure has so many components such as education, health, defence and national security, social security etc. Also, each of these components is subdivided into recurrent and capital expenditures. Recurrent expenditures are those expenditures that are fixed to occur on year-to-year basis. It includes, but not limited to, the payment of salaries, wages, and earned allowances. On the other hand, capital expenditures are flexible in nature given the fact that they are basically long-term investment expenditures embarked upon by the government depending on the availability of funds and its ability to make adequate provision for recurrent expenditures.

Expenditure on human capital has also been recognized by the endogenous growth model as being the key to human capital accumulation and economic growth and development (Churchill, Yew & Ugur, 2015). Hence, education being one of the major components of human capital ought to be given adequate attention. It has been argued that Nigerian government, over the years, has performed abysmally poorly in its budgetary allocation to the sector despite the outrageous tuition fees paid by students in the various federal education institutions in the country, especially at the tertiary level. For instance, public expenditure on education in 1962 was 3.6% of GDP and 18.2% of all government expenditure but by 1998 it had dropped to about 2.3% of GDP and 14.2% of the total expenditures of all arms of government in Nigeria (Hinchliffe, 2002). Similarly, budgetary allocation to the education sector was 7.53% on the average between 2010 and 2014, it dropped to about 7.05% between 2015 and 2018 despite the

tremendous increase in the total budgets over the period (Ndujihe 2018). The highest approved national budget (~~N~~8.612 trillion) in Nigeria is recorded in year 2018 and only a paltry sum of about ~~N~~605.8 billion which represents about 7.03% of the total budget was allocated to the education sector. These figures show that the government has not given the sector the kind of attention it deserves despite its critical role as the driver of the growth of modern economies. They are also in sharp contrast to UNESCO international benchmark of 15 to 20 percent of the total annual budget as contained in the EFA global monitoring report for 2000-2015 (Adedigba, 2017).

The purpose of this study is to empirically investigate the impact of public education expenditure on economic growth in Nigeria for the period, 1981-2016, identifying the aggregated and separate impacts of both the recurrent and capital components of public education expenditures for the period under consideration. Hence, one of the many ways that this study seeks to address this anomaly is to investigate which of capital and recurrent education expenditures impacts more on growth and make recommendations accordingly on how allocations should be made to the sector in more efficient ways so as to affect education output positively and significantly.

Studies have shown that improvement in human capital through public spending on education leads to a significant and positive impact on economic growth in Nigeria (Lawal and Wahab, 2011; Chude and Chude, 2013; Oyediran, Leye, Adedoyin and Oyewole, 2016). Their findings are also similar to the findings of Churchill, Yew & Ugur, (2015) who investigated the effect of public education and health expenditures across 31 countries using meta-analysis and Greg and Agboro (2014) who carried out a study on the effect of public expenditure on educational infrastructural facilities and economic growth in Nigeria using time series data as well as Torruan, Chiawa and Abur (2014) who examined the impact of public expenditure on tertiary education and economic growth in Nigeria using time series data covering the period, 1990-2011 and employing cointegration and error correction method of estimation. These authors also found a positive and significant impact of public education expenditure on economic growth for the periods studied as opposed to Urhie (2003) who found public spending on education to have both positive direct and indirect effects on economic growth in Nigeria.

Anyanwu and Erhijakpor (2007) investigated government expenditure on education and enrollment at the primary and secondary school levels with illustrations from the SANE countries of South Africa, Algeria, Nigeria and Egypt and found that government expenditure on education has a positive and significant impact on education attainment in countries studied. Guandong and Muturi (2016) in a study also found that public expenditure on productive areas such as infrastructure and security has a positive impact on growth while expenditure on unproductive social services has a negative effect on growth in South Sudan using panel data for the period, 2006-2014. A study Babatunde and Adefabi (2005) established a long-run relationship between education and economic growth while Odeleye (2012) and Obi and Obi, (2014) found that only recurrent expenditure on education has significant impact on economic growth in Nigeria.

Al-Samarai (2003), in a cross-country test study, using Botswana, Malawi and Uganda as a base found that the link between public spending and primary education access is weak as it was observed that public spending fell at the same time that primary school access was increasing though education services offered within the period studied changed greatly as equally reported. Robinson, Eravwoke and Ukavwe (2014) also studied the relationship between government expenditure and economic growth and found that government expenditure increases both local and foreign investments in Nigeria as supported by Edmund, Choong and

Lau (2017) who examined the relationship between government expenditure, efficiency and economic growth and discovered that raising government expenditure boosts economic growth in low income countries of Sub-Saharan Africa.

In the same vein, Okoro (2013) employed time series data of 32-year period (1980-2011) to examine the impact of government spending on Nigerian economic growth and found that there exists a positive long-run relationship between them. Yamugu (2006) employed Autoregressive Distributed Lag Model (ARDLM) technique to investigate the impact of fiscal policy on economic growth. The findings revealed, amongst other things, that productive government expenditures have positive relationship with growth. Francis and Lyare (2006) employed Cointegration and Vector Error Correction Models to investigate the causal relationship between education and development in three Caribbean countries based on time series annual data for the period, 1964-1998. The result showed that education causes development only in one of the countries studied but does not in the other two countries. This finding defies theoretical expectations with respect to the two countries.

Using time series data for the period, 1970-2007, and employing an Error Correction Method of estimation, Ajogwu (2009) assessed the effect of public expenditure on economic growth in Nigeria and discovered that most of the variables employed displayed no significant or strong relationship with economic growth in Nigeria. Ogundipe and Oluwatobi (2012) in their analysis of the impact of government recurrent and capital expenditures on economic growth in Nigeria based on Johansen's technique for the period, 1970-2009, found out that most components of total expenditure of the government impact negatively and insignificantly on economic growth save for education and health expenditures.

Al Gifari (2016) using time series data of 45-year sample size (1970-2014), found that government expenditure has a negative impact on Malaysian economy during the period studied. On their own, Maftaly, Symon, Aquilars and James (2014) empirically studied how government expenditure contributed to economic growth in East Africa using time series data from 1980 to 2010. The findings showed that while expenditure on health and defense has positive and significant effect on growth, those on education and agriculture did not.

Ahon (1999) found a negative and insignificant relationship between per pupil expenditure and the primary gross enrollment rate while a positive and statistically significant relationship was found between total education expenditure and economic growth using time series data. However, Foster and Henrekson (2001) conducted a panel study over a period of 26 years to discover the relationships existing between public expenditure and economic development. Their findings support the position that large public spending affects economic growth negatively. The results obtained by Pevcin (2003), Brady (2007), Pham (2009) and Maku (2009) corroborated their finding thereby recognizing large public expenditure as a threat to economic growth.

So far, the empirical literatures explored and presented have shown that there is no consensus among researchers on the effect of public spending, specifically spending on education, on economic growth. Some found a positive and statistically significant relationship between spending on education and economic growth while others found a negative and statistically insignificant relationship between the two variables. These contrasting results in the existing literature raise a serious question as to what could be responsible for the conflicting results. It has also been discovered that most of the works reviewed that studied the impact of public education expenditure and economic growth lumped total education expenditure (the sum of capital and recurrent expenditures) in Nigeria into their regression equations without

separating capital expenditure and recurrent expenditure to estimate their individual impacts on growth in the country and the strength and directions of such impacts. It is therefore, the prime target of this study to investigate the individual impacts of capital and recurrent education expenditures in Nigeria on economic growth in addition to the aggregated impact using time series data for the period, 1981-2014.

2. Method

In order to examine the impact of disaggregated capital and recurrent government expenditures on economic growth in Nigeria empirically, and to establish the direction and strength of such impact, this study followed the standard procedure of time series analysis. The requisite pre-estimation diagnoses were conducted on the time series data to ascertain their fitness to be used for estimation. First, the Augmented Dickey-Fuller (ADF) unit root test was conducted on the variables to determine their stationarity status and order of integration. This was followed by the Johansen's Cointegration test for the establishment of a long-run relationship among the variables.

2.1 Model Specification

$$1. \text{LogRGDP} = \alpha_0 + \alpha_1 \text{LogCEDUEXP} + \alpha_2 \text{LogINVI} + \alpha_3 \text{RIR} + \mu \quad \dots\dots\dots 1$$

$$2. \text{LogRGDP} = \lambda_0 + \lambda_1 \text{LogREDUEXP} + \lambda_2 \text{LogINVI} + \lambda_3 \text{RIR} + \mu \quad \dots\dots\dots 2$$

2.2 Estimation Procedure

The estimation method employed in this study is the Ordinary Least Squares estimation method (OLS) as also employed by the works of Greg and Agboro (2014), Alexander (1990), Devaraajan and Vinay (1993) and Bleaney et al (2001). This method is appropriate for the specified models because of its Best Linear Unbiased Estimators (BLUE) property.

2.3 Variables Description and Data Source

To investigate the relationship between capital and recurrent public education expenditures and economic growth in Nigeria which is the objective of this study, five variables were employed. These include Real Gross Domestic Product (RGDP) used as a proxy for economic growth, Capital Education Expenditure (CEDUEXP), Recurrent Education Expenditure (REDUEXP), Private Investment Expenditure (INVI) indexed at 2010 constant value and Real Interest Rate (RIR). All these variables except Real Interest Rate, were expressed in their log form. The variables were sourced from Central Bank of Nigeria (CBN) Annual Statistical Bulletin.

3. Results and Discussions

Table 1. ADF Unit Test Result

Variables	ADF test statistic	5% critical value	Order of integration
logINVI	-3.222505	-2.957110	I(1)
RIR	-4.338856	-3.587527	I(1)
logRGDP	-3.779125	-3.548490	I(1)
logCEDUEXP	-9.199851	-3.548490	I(1)
logREDUEXP	-5.518626	-3.562882	I(1)
logTEDUEXP	-3.548490	-3.362882	I(1)

Table 1 above shows pre-estimation tests of variable stationarity using Augmented Dickey-Fuller unit root test. The unit root test shows that the variables are only stationary after first differencing. This means that they are all integrated of order one.

Table 2. Johansen's Co-integration Test Result

N0 of co-integrating Equations	Trace Statistic	5% Critical Values
None *	148.6608	117.7082
At most 1 *	100.4977	88.80380
At most 2	55.20663	63.87610
At most 3	29.65677	42.91525
At most 4	11.93062	25.87211
At most 5	3.895184	12.51798

The table above (table 2) shows the result of Johansen's Co-integration test for long-run relationship. The co-integration test reveals a long-run equilibrium relationship among the variables.

Table 3. Regression Result for Model One

Variables	Coefficients	Std Errors	t-Statistics	P-values
Constant	7.817875	0.309915	25.22585	0.0000
LCEDUEXP	0.173398	0.017098	10.14165	0.0000
LINVI	0.258218	0.068886	3.748494	0.0007
RIR	0.011346	0.006680	1.695512	0.0991

The std errors were improved using NW HAC

The result of the first model estimating the impact of government capital education expenditure on Nigerian economy, as shown in the table above, shows a positive and statistically significant relationship between capital education expenditure (CEDUEXP) and economic growth (RGDP). The result shows that on the average, (controlling for other regressors), a percentage increase in capital education expenditure will grow Nigerian economy by about 0.17% as the probability value is 0.0000. It is also shown that while private investment (INVI) has a positive and statistically significant impact on Nigerian economy, real interest rate (RIR) has statistically insignificant impact on the economy. The R^2 and the Adjusted R^2 which are measures of goodness of fit of the estimated equation show that about 90% and 89% respectively of the total variation in RGDP were explained by the regressors included in the equation. The F-statistic of about 96% with a probability value of 0.000000, show that, when considered as a whole, all the regressors are statistically significant.

Table 4. Regression Result for Model Two

Variables	Coefficients	Std errors	t-statistics	P-values
Constant	8.716663	0.210514	41.40664	0.0000
LINVI	0.303850	0.051176	5.937312	0.0000
RIR	0.008231	0.005320	1.547234	0.1316
LREDUEXP	0.129553	0.009542	13.57739	0.0000

The std errors were improved using NW HAC

The second model estimates the impact of recurrent education expenditure (REDUEXP), on economic growth in Nigeria.

\The result suggests a positive and statistically significant relationship between economic growth and recurrent education expenditure in Nigeria for the period under review. It shows that increasing recurrent education expenditure by 1% will, on the average grow Nigerian economy by about 0.13% when other regressors are controlled for. Private investment (INVI) was also found to be statistically significant and impacts positively on Nigerian economy while real interest rate (RIR) had a positive but insignificant impact on the economy. The positive relationship of real interest rate with RGDP agitates the mind when placed side by side with the existing economic theories concerning the two variables. The sign of the real interest rate variable opens a door for an interesting academic investigation although the works of Tomas (2017), Blanchard (1984), and Del (2018) unanimously but separately concluded that though the relationship between interest rate and RGDP is inverse in the short-run, the long-run relationship can be positive. Also, given the fact that RGDP is adjusted for inflation, it could be argued that interest rate positively affects RGDP indirectly via the stabilization of inflation rate in an economy.

Table 5. Granger Causality Test Result

Null Hypotheses	F-statistics	Probability Values
1.LogREDUEXP doesn't Granger cause LogCEDUEXP	2.58617	0.0926
2.LogCEDUEXP doesn't Granger cause LogREDUEXP	2.62053	0.0899
3.LogRGDP doesn't Granger cause LogCEDUEXP	0.38696	0.6826
4.LogCEDUEXP doesn't Granger cause LogRGDP	3.83271	0.0333
5.LogRGDP doesn't Granger cause LogREDUEXP	0.33867	0.7155
6.LogREDUEXP doesn't Granger cause LogRGDP	1.55266	0.2288

The Granger Causality test ran revealed that while capital education expenditure granger causes economic growth in Nigeria, recurrent education expenditure does not, thereby further buttressing the result that capital education expenditure has greater impact on economic growth in Nigeria than its recurrent counterpart.

4. Conclusion and Policy Recommendation

The focus of this research work is to empirically investigate the impact of capital and recurrent public education expenditures on Nigerian economic growth using time series data of 1981-2016. The objective is to ascertain which of the education expenditure components has a stronger impact on the nation's economy to make for proper and more efficient resource allocation to the sector. The regression results show that both Capital and Recurrent education expenditures affect Nigerian economic growth positively and significantly with a common P-value of 0.0000. This implies that a percentage increase in capital and recurrent education expenditures will, on the average, lead to about 17% and 13% increases in the nation's real gross domestic product respectively when other factors are controlled for. It was further shown that Capital education expenditure exerts stronger influence on Nigerian economy than recurrent education expenditure given their individual coefficients of about 17% and 13% respectively. Also, private investment expenditure and real interest rate were included in the estimated equations as control variables. It was found that while private investment expenditure showed a positive and statistically significant impact on RGDP in the estimated equations, real interest

rate showed positive but statistically insignificant impact on RGDP in Nigeria within the period under investigation.

Therefore, based on the findings, this work recommends that Nigerian government at all levels should pay more attention to capital expenditure when making budgetary allocation to the education sector. Paying more attention to such capital projects like good class room blocks, conducive learning environment, constant electricity supply, adequate equipment of practical laboratories, investment in research and development and standard hostel accommodation among other things, will both in the short and long-runs contribute to the growth of the nation's economy.

In the short-run, the contribution comes from the employment and income generated from such capital investments in the sector while the long-run contribution comes basically from the high-quality human capital that will be produced through such investment over time. This is true given the fact that economies all over the world have gradually transited from resource-based growth to knowledge-based growth. The Granger Causality test result further stresses this point as it showed that while capital education expenditure granger causes economic growth in Nigeria, its recurrent counterpart does not. The study concludes that the two components of education expenditure have positive and significant impact on economic growth in Nigeria though capital expenditure component exerts stronger influence on the economy than its recurrent counterpart.

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Prospect and Development Strategy of MSME Mango Dodol Processing : Case Study at Kameumeut MSME, Cirebon Regency, West Java, Indonesia

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Abstract

Cirebon Regency is one of mango production centers in West Java Province, Indonesia. The availability of abundant mango in the mango season has resulted in lower mango prices. Mango dodol processing is one of the alternatives to the use of mangoes that are easy to do community. MSME Kameumeut is one of MSMEs (Micro-Small and Medium Enterprises) in the scale of micro business in Cirebon Regency. This study aims to : 1) to describe the effect of dodol mango business, 2) to analyze the prospect of mango dodol processing, and 3) to analyze the development strategy of MSME Kameumeut. The research design is qualitative and used descriptive analysis, difference of raw materials, profit analysis, BEP, R-C ratio, market analysis and SWOT analysis. The results had shown that MSME gave a profit of Rp 2,575,581 per twelve times of production for one month with R-C ratio of 1.39. It meant that MSME Kameumeut was worthy of being cultivated and profitable. The strategy which is the main objective to be applied by MSME Kameumeut is to maintain continuity of product and cooperation with marketer partner.

Keywords: Performance, Strategy, MSMEs of Mango Processor, SWOT, QSPM

Introduction

The agricultural sector has an important role in the Indonesian economy, especially in the formation of gross domestic product (GDP). GDP distribution according to economic sector or business field based on constant prices shows the role and changes of Indonesia's main economic structure consisting of the manufacturing industry sector, the agricultural sector and the trade sector.

The agricultural sector is divided into the food crop subsector, the horticultural subsector, the forestry sub-sector, the plantation sub-sector, the livestock sub-sector and the fisheries subsector. The horticultural crop sector is one of the agricultural sectors which is one of the largest contributors to the agricultural sector GDP, which is 14.70 percent of the agricultural sector GDP in 2015 (BPS, 2016).

Indonesia's mango harvest area in 2010 to 2014 has increased while production and productivity have fluctuated (Ditjen Horticulture, 2015). Mango harvest area in 2010 amounted to 131,674 ha increased to 268,053 ha in 2014. The average growth of mango harvest area per year was 21.15 percent. Mango productivity for five years (2010-2014) showed an increase of 1,287,287 tons, increasing to 2,431,330 tons. Mango productivity for 5 years (2010-2014) shows a decrease of 9.78 tons per hectare to 9.07 tons per hectare. Increased mango production is mostly due to an increase in mango harvest area. The average growth of mango productivity per year is -1.35 percent.

Table 1. Extent of Harvest, Production and Productivity of Mangoes in Indonesia in 2010-2014

Year	Harvest Area (Ha)	Production (Tons)	Productivity (Tons/Ha)
2010	131.674	1.287.287	9,78
2011	208.280	2.131.139	10,23
2012	219.666	1.376.333	10,82
2013	247.239	2.192.928	8,87
2014	268.053	2.431.330	9,07
Growth Rates per Year (%)	21,15	25,08	-1,35

Source: Ditjen Hortikultura, 2015

Based on physical potential such as climate land suitability, human resources, and the level of technological adaptation, mango plants can be cultivated in various regions in Indonesia. Mango production data in Indonesia in 2014 shows that there are five provinces which are the largest mango production centers in Indonesia, including East Java, Central Java, West Java, South Sulawesi and West Nusa Tenggara. West Java Province which is equal to 13.22% (Directorate General of Horticulture, 2015).

Although the national mango production level increases every year, reports on price developments indicate that the selling price of mango in West Java itself still fluctuates sharply due to non-continuous (seasonal) production. When supply is abundant, the selling price of mango falls and even reaches a percentage of almost 86% (Agriculture Ministry of Indonesia, 2014). This results in the availability of mango dodol processing raw materials related to the price of production inputs.

Cirebon Regency is one of the mango production centers after Indramayu and Majalengka Districts in West Java Province. Mango production in Cirebon Regency in 2015 was 37,443 tons (Table 2). Mango production in Cirebon Regency tends to fluctuate from 2011-2015.

Table 2. Mango production in the Sentra Mangga area of West Java

Mango Production in the Central Java Province Mangga Sentra Region (Tons)					
Location	Year				
	2011	2012	2013	2014	2015
Kuningan Regency	44868	39377	32406	23329	32108
Cirebon Regency	55981	62053	30945	51661	37443
Majalengka Regency	43280	48521	10243	57172	64394
Sumedang Regency	21169	29008	23607	20633	23491
Indramayu Regency	63057	68506	84788	72436	69737

Source: Statistics of Food and Horticulture Plants in 2011-2015

Mangoes in Cirebon Regency are planted in several districts including Astanajapura District. Mango production produced in Cirebon Regency around 20% is mango reject (Sulistyowati, 2015), which has no value or is valued at very low value. This requires a breakthrough to provide added value by processing mango into processed products, including being mango dodol. Mango processing becomes processed products such as dodol, sweets, juice, and puree. Mango fruit processing aims to extend shelf life and increase sales value.

Micro, small and medium enterprises (MSMEs) are described as sectors that have an important role for economic development in Indonesia, because most of the population lives in small business activities both in traditional and modern sectors. The role of small-scale businesses is a priority part in every planning of development stages. In 2013, there was an increase in the number of MSME units seen in (table 3) when compared to 2012.

Table 3. Development of Small and Medium Enterprises (MSMEs) Data for 2012-2013

No	Indicator	Unit	2012	2013
1	Business Unit			
	1. Micro Business	(unit)	55.856.176	57.189.393
	2. Small Business	(unit)	629.418	654.222
	3. Medium Business	(unit)	48.997	52.106
2	Labor			
	1. Micro Business	(orang)	99.859.517	104.624.466
	2. Small Business	(orang)	4.535.970	5.570.231
	3. Medium Business	(orang)	3.262.023	3.949.385
3	GDP at Current Prices			
	1. Micro Business			
	2. Small Business	(Rp. Milyar)	2.951.120,6	3.326.564,8
	3. Medium Business	(Rp. Milyar)	798.122,2	876.385,3
		(Rp. Milyar)	1.120.325,3	1.237.057,8
4	GDP at a constant price of 2000			
	1. Micro Business	(Rp. Milyar)	790.825,6	807.804,5
	2. Small Business	(Rp. Milyar)	294.260,7	342.579,19
	3. Medium Business	(Rp. Milyar)	366.373,9	386.535,07

Source : <http://www.depkop.go.id>

One of the SMEs in Cirebon Regency is processing mango dodol. Mango (*Mangifera indica*) is one of the tropical and subtropical fruits produced by Indonesia. Usually, it can also be used as a dessert, but can also be consumed through preparations such as mangoes such as dodol, sweets, juices and puree. Mango processing is one of the efforts so that the community can take fruit and benefits by reprocessing mango into processed products.

The number of MSME mango dodol in Cirebon Regency is 3 units in 2016. The number of MSMEs in the previous year was 5 MSME in 2015. The processing of mango dodol is a fruit processing activity that is relatively easy and can be used in one day. Production process tools used in household processing, activities that can be made by people who do not have a lot of capital.

One of the MSME in Cirebon Regency is Kameumeut MSME. These MSMEs are classified on a micro business scale. Kameumeut MSME is located in Munjul Village, Astanajapura Subdistrict, which was established in 2014. Among the 3 MSME processing mango dodol in Cirebon Regency, Kameumeut MSME is a MSME that produces dodol and product distributors in Cirebon. This study aims to describe the performance and analyze the development strategy of MSME processing of mango dodol in Munjul Village, District Astanajapura, Cirebon Regency.

Method

This research was conducted at Kameumeut MSME, Munjul Village, Astanajapura District, Cirebon Regency. Site selection was carried out purposively with the consideration that Kameumeut MSME was the only mango dodol processor in Munjul Village, Astanajapura District, Cirebon Regency, as well as sustainable production and established business partners. The research design used was qualitative with the aim of presenting a detailed outlook and development strategy for the processing of mango dodol by Kameumeut MSME in Munjul Village, Astanajapura District, Cirebon Regency.

In this study researchers used case study research techniques. Case studies are one method for understanding individuals who are carried out integratively and comprehensively in order to obtain an in-depth understanding of the individual and the problems he or she faces with the goal of the problem being resolved and gaining good self-development (Susilo Rahardjo & Gudnanto, 2011).

1) Descriptive Analysis

Descriptive analysis is an analysis that is useful to describe the variables studied (Arikunto, 2002). This analysis is used as a tool to find out and explain the general description and availability of mango dodol processing supporting material in the study area which was analyzed descriptively.

2) Profit Analysis

The benefits of MSME processing of mango dodol can be analyzed using the following formula:

$$\pi = TR - TC$$

Information: π = Business benefits of mango dodol (Rp.)
TR = Total Revenue (total revenue) mango dodol (Rp)
TC = Total Cost (Total Cost) of mango dodol (Rp)

3) BEP analysis

Break Event Point (BEP) is a state or sale of business where the amount of benefits (income) is equal to expenditure (cost) in other words in this situation the company does not get profit or loss (Fatah, 1994).

BEP Production = $TFC / (P - AVC)$
BEP Price = $TFC / (1 - (AVC / P))$

Information :

TFC = Total Fixed Cost (Total Fixed Cost)

P = Price

AVC = Average Variable Cost / unit

A business activity is feasible if the benefits are greater than the sacrifice (cost). According to Soekartawi (2002), the analysis of return cost ratio is a comparison between revenues and costs. The revenue ratio of production costs can be used to measure the level of relative profit of a business, meaning that the figure of the ratio of revenue to costs can be known whether a business is profitable or not. Mathematically can be formulated as follows:

$$R / C - \text{ of Total Cost} = TR / TC$$

Information:

TR = Total Revenue / Total Revenue (Rp)

TC = Total Cost / Total Cost (Rp)

4) SWOT analysis

This analysis is based on logic that can maximize strengths and opportunities (Opputunities), but simultaneously can minimize weaknesses (Weakness) and threats (Threats) (Rangkuti, 2007). According to Situmorang and Dilham (2007) in making a SWOT analysis steps can be taken as follows:

1. Preparation: equalize understanding (perception)
2. Identifying internal factors and external factors
3. Creating an Internal Evaluation Matrix (EFI) and External Factor Evaluation (EFE)
4. Creating MSME Position Matrices
5. I-E matrix

5) Quantitative Strategic Planning Matrix (QSPM)

Quantitative Strategic Planning Matrix is an analytical technique designed to establish the relative appeal of appropriate alternative actions by ranking strategies for obtaining a priority list. QSPM is a tool that allows strategists to evaluate alternative strategies objectively, based on critical factors for previously recognized external and internal success. Alternative strategies are obtained from the analysis of I-E matrix and SWOT matrix.

Results and Discussion

Kameumeut dodol business is one of the micro-scale household industry that produces dodol products and has P-IRT (Household Industry Food) licenses in Munjul Village, Astanajapura District, Cirebon Regency. Micro business is said if a business has an asset value of at most Rp.50,000,000 and the number of permanent workers is up to 4 people. This business is a business that is engaged in the processing of special souvenirs from Cirebon made from mango gedong. The result of processing the mango is a product called mango dodol gedong Kameumeut.

This initial capital is a private capital that is considered sufficient because the dodol processing is still simple. At first the tools used for the production process are household kitchen appliances that are used daily. The recipe for processing this product is the result of personal learning by the owner.

1. Performance of Kameuemeut MSME

A. Production Factor

a. Capital

Capital is one of the important factors in establishing a business, without sufficient capital, the business built will not run as it should. The amount of initial capital used is Rp. 1,000,000 to carry out the initial process of production. The source of capital used by Kameuemeut MSME comes from the personal savings of business owners.

Capital limitations are a weakness in this business. The capital of MSMEs is still limited to their own capital. The owner increases his capital by saving from the profits obtained from the sale for business development in increasing the scale of production. The obstacle in obtaining capital is the existence of collateral that must be fulfilled and the inability of the owner to fulfill the loan interest installments.

b. Labor

Workers are workers who are employed to carry out activities in the production process to transform production factors into goods and services to meet the needs of the community. Workers in Kameuemeut MSMEs come from the area around Munjul Village. The number of workers owned by business owners is 5 people. All workers owned are female with an age range of 18-40 years. The following is the workforce data in Kameuemeut's MSME.

c. Raw Materials and Supporting Materials

The raw material used is mango gedong which is still suitable for consumption on condition that it does not rot and is not exposed to fruit flies. For one time mango dodol production was used as much as 12 kg of gedong mangoes. This raw material is obtained from the produce of the business owners and farmers around Munjul Village. Mango is one of the seasonal fruits, so to obtain the continuity of the availability of raw materials, storage of fruit meat in the freezer is stored which can last for 1 year. In addition, to meet the needs of raw materials by looking to other areas such as Indramayu Regency and Majalengka Regency.

Supporting materials used are sugar, brown sugar, sticky rice flour, coconut milk, gelatin, salt and citrun. For one time the production of dodol mango gedong used 3 kg of sugar, 1.5 kg of sticky rice flour, 3 packs of coconut milk, 2 packs of gelatin, salt and sufficient citrun. Supporting materials used were obtained from the Cipeujeuh Market in Munjul Village. Owners usually buy supporting materials once a week.

d. Technology

The equipment used by Kameuemeut MSME in dodol processing is said to be simple, because the use of these tools can be found in Indonesian household appliances. The Directorate of Agricultural Product Processing does not specifically apply the Standard Operating Procedure (SOP) in processing mango dodol, so the owner has an SOP set by the internal MSME.

B. Production process

The process of making gedong mango dodol is divided into three processes, namely mango washing and stripping process, processing, and packaging.

C. Marketing

The marketing area of mango gedong dodol produced by Kameuemeut MSME is mostly in Cirebon Regency and some are sold outside the region such as Tegal and Bandung. The

marketing area of mango dodol in Cirebon Regency includes sales in several souvenir shops such as Batik Trusmi, Adi Joy Stores, Daud Stores, Ade Stores, Johan Stores, and Aneka Kue Stores.

The MSME way Kameumeut promoted his products through exhibitions held by several institutions (such as BI, the Industry and Trade Office), products made into special products of several institutions for meetings, social media (such as Facebook and Instagram) and dodol mango gedong Kaemeumeut can be obtained online through Tokopedia. The owner also sells directly to consumers at home.

The marketing channels that have been carried out by Kameumeut MSME in Cirebon Regency

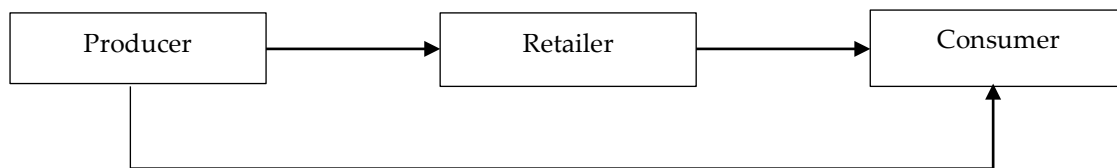


Figure 1. Marketing Channel of Gedong Kameumeut Mangga Dodol

2. Prospects of Mango Dodol Processing Business of Kameumeut MSME

A. Availability of Raw Materials

The main raw material in making mango dodol is mango gedong. According to data from the Cirebon District Agriculture Office (2017) the amount of mango production in Cirebon Regency is 30,227.4 tons per year, while the mango needs to produce dodol as much as 12 kg / 1 time production or as much as 1,728 kg / year, so that mango needs can be met.

Mangoes used as raw material for making dodol mango do not really need the best criteria, the main requirement is not rotten and not affected by fruit flies. To meet the availability of raw materials. From reject mangoes from supermarkets as much as 65% and the rest is obtained from the market in Munjul and mango apabalia is not season so it is obtained from areas around Cirebon. In addition, to meet the needs of raw materials, mango during the harvest season will be stored in a freezer that can last for one year by giving mango treatment in the form of mango washing and mango stripping.

B. Analysis of Total Costs, Receipts and Profits

The total cost of Kameumeut MSME issued each month is derived from the sum of fixed costs and variable costs. The total cost spent by Kameumeut's MSME for one month for 12 production processes can be seen in Table 4.

Table 4. Total Cost of Kameumeut MSMEs (1 Month)

No	Jenis Biaya	Total Cost(Rp)	Percentage (%)
1.	Fixed Cost	854.194	12,82
2.	Variable Cost	5.810.225	87,18
Total Cost		6.664.419	100,00

Source: Data Processed, 2018

Table 4 shows that the total costs incurred for one month amounted to Rp 6,664,419. The biggest percentage is the variable cost, which is 87.18%, while the fixed cost is 12.82%. This condition is caused by the type of variable costs that are more than the fixed costs, so that the costs incurred to meet production needs are greater. The biggest cost incurred is the cost for

labor wages of 30.61% of the total costs incurred with the smallest cost is the cost of rent in the fixed cost component.

The revenue received by Kameumeut MSMEs from one month of mango dodol processing business was Rp. 9,240,000 which was obtained from the product quantity of 660 packs at a price of Rp. 14,000 / pack. Such receipts are classified as gross receipts, so that to receive net profits it is necessary to reduce the total costs incurred for the production process. calculation of profits can be seen in table 5.

Table 5. Kameumeut MSME Profit Calculation (1 Month)

Uraian	Jumlah
Revenue	Rp 9.240.000
Total Cost	Rp 6.664.419
Profit	Rp 2.575.581
R-C Ratio	1,39
BEP_{price}	Rp 2.308.632
$BEP_{production}$	164 pack

Source: Data Processed, 2018

Table 5 shows that the benefits obtained by Kameumeut MSMEs amounted to Rp 2,575,581 in the period of one month. This business feasibility ratio is 1.39. According to Soekartawi et al. (2002), the business is said to be feasible and profitable if the R-C ratio is greater than 1. This means that the dodol mango gedong product produced by Kameumeut MSMEs is worthy of effort. Profits can be obtained if production results and selling prices exceed the breakeven price point (BEP price) and production break-even point (production BEP). Based on calculations from the data obtained, Kameumeut's MSMEs exceeded the break-even point, namely for the break-even point of revenue of Rp 2,308,632 and a break-even point of 164 packs.

C. Market Analysis

One of the applications of the marketing concept is an understanding of the needs, desires and behavior of customers. For this reason, a business must be able and willing to listen to the customer's voice through market analysis. Limited time, opportunities and data to analyze Kameumeut's MSMEs directly to consumers, the authors attempt to describe it in general. This can be seen from the sales volume, the number of stores for dodol distribution, the influence of regional development, and the location of the production area.

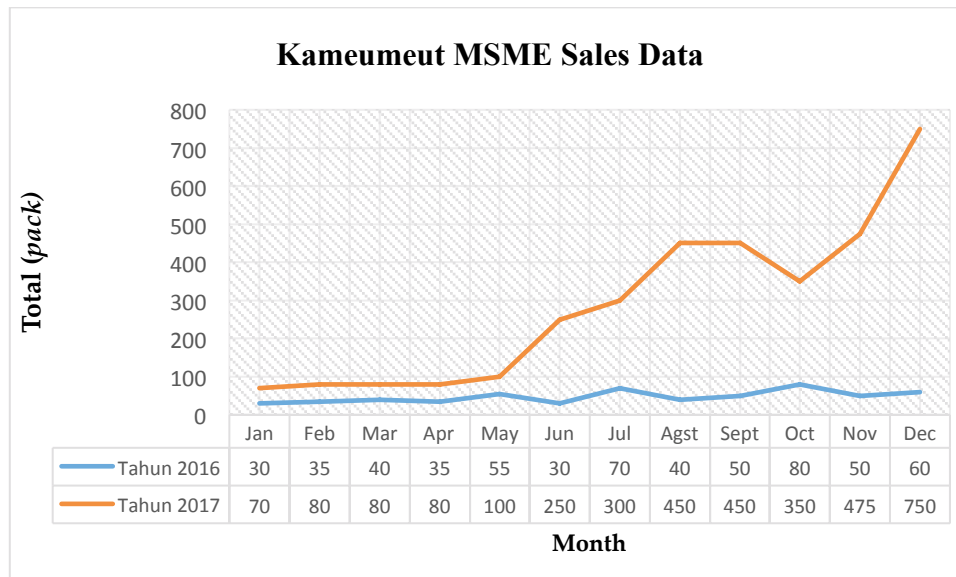


Figure 2. Kameumeut MSME Sales Data

According to Schiffman (2004), sales volume is the level of sales obtained by the company for a certain period in units (units / total / rupiah). According to Basu Swasta (2004), sales is an interaction between individuals face to face aimed at creating, improving, mastering or maintaining an exchange relationship so that it is beneficial for others. Sales of mango dodol in Kameumeut MSMEs in 2016 and 2017 tend to increase every month. Sales continue to increase from January 2016 to December 2017. In 2016, the total sales volume was 575 packs and in 2017 increased to 3435 packages. The percentage of sales increase is 497.40%. Sales increase usually occurs in July and December. This is due to the Eid holiday, school and year end. The volume of increased sales increased due to requests from souvenir shops in Cirebon, so that the owners increased the scale of production. In addition the owners also participated in exhibitions in several cities (such as Cirebon, Bandung, Pontianak, Bogor, Tangerang and Garut) held by the government.

The shop partner who markets dodol MSME Kameumeut is a gift shop in Cirebon. At the beginning of the establishment of this business, stores that partnered with Kameumeut MSME were as many as 2 stores. In 2017 increased to 8 stores.

Demodal demand will increase due to the increase in the number of tourists to Cirebon. Cirebon is projected to get tourist visits of up to 1 million in 2018. The operation of the West Java International Airport is one of the supporting factors for achieving the target. Another supporting factor is the presence of the Cikopo-Palimanan toll road. In addition, the attraction of tourist visits to Cirebon is culinary tourism, shopping and historical tourism. The increasing number of tourists will increase the visit to souvenir shops in Cirebon and is a market opportunity for MSMEs to develop their products.

3. Analysis of the Internal and External Environment of Kameumeut MSME

A. Internal environment

a. Human Resources

Workers who work in Kameumeut MSME come from the neighborhood around Munjul Village, totaling 5 people. All of these workers are women, this is in line with the aim of the owner to help women around the business environment in getting a job so that they are not unemployed.

The length of time worked at Kameumeut MSME is around 8 hours, from 07.00-12.00 then rest and restart at 13.00-16.00.

Interaction between workers in the Kameumeut MSMEs looks very good and family-friendly because of the same regions and tribes. The relationship between owner and worker is very close but does not interfere with the running of the existing work system. To improve the ability of the workforce to support the production process, the government does not provide special training for the manufacture of mango dodol. So that the owner only depends on self-development through the internet and business experience.

For dodol processing, it takes 2 workers and 3 people for dodol packaging. Distribution of wages for workers is determined based on the division of labor, namely Rp. 40,000 for the cooking process and Rp. 30,000 for workers who carry out packaging and usually the wages are given after performing their respective duties. In addition to the wages earned, workers also get lunch from business owners.

b. Production

Production and operation activities have not run effectively and efficiently. This can be seen in the use of tools in the manual production process. The treatment process is one of the processes that has a long time in the stirring part of the dough which takes about 6 hours. This has an effect on the work pattern of workers in production activities the next day because they complain that the hands are not strong anymore. The time needed for mango processing is 7 hours and for 6 hours packaging. Before packaging, dodol requires cooling time in open spaces for 1 night.

The place for production activities is still incorporated into the house of the owner. Usually the production process is carried out in front of the owner's house. This certainly affects the cleanliness of the product because the location is right on the edge of a public road and there is no special equipment used by workers. In addition, the position of the production site that is still not permanent makes the production preparation process require more time to prepare the tools and materials.

Mango quantity every time the production process is as much as 12 kg which will produce the final yield of 55 packs weighing 200 grams each. The production process is 12 times each month, so it takes 144 kg mango with not too good quality mangoes. The requirements for mangoes used for dodol processing are not rotten and not affected by fruit flies. Production techniques carried out for processing mango dodol are still relatively simple. The tools needed can be found in every kitchen of Indonesian family households. One of the tools that uses a machine is only a fruit crusher, namely a blender. But if this tool is not available, mangoes only require slicing manually using a knife.

c. Marketing

Kameumeut MSMEs have one type of mango processed product which is dodol. The product is packaged in a special green cardboard packaging. Kameumeut MSME uses the brand "Dodo Mangga Gedong Kameumeut". The price of mango dodol offered is IDR 14,000 and weighs 200 grams. The packaging has included the product identity in the form of product name, composition, product expiration date, weight of contents, halal label of MUI (MUI. JB. 01191169400616), permission of P-IRT (Din. Kes. P-IRT No. 206 3 2090 11 073) can be seen in Figure.

The production location of gedong mango dodol is in the owner's house, Eti Rohaeti, which is precisely on Jalan Raya Munjul, RT 03 / RW 03, Munjul Village, Astanajapura District, Cirebon

Regency. Mango Dodol can be purchased directly to the production site. In addition to marketing directly, Kameumeut MSMEs also market to several partner shops around Cirebon such as Batik Trusmi, Adi Joy Stores, Daud Stores, Ade Stores, Johan Stores and Aneka Kue. Distribution of goods is carried out by delivering directly to the marketer's partner shop by the owner.

The payment system that is carried out is to pay directly and leave a purchase note that has not been paid. In addition to marketing in Cirebon, the owner has also tried to expand the coverage of marketing by marketing products to Tegal and Cihampelas, Bandung. Product promotion is also carried out by Kameumeut MSMEs. This is done by participating in exhibitions conducted by the government (Trade Office and MSME Office) and BI. In addition, Kameumeut's MSMEs also market their products to government agencies when conducting meetings so that they can simultaneously promote products outside the region. Promotion is also done through the use of social media, namely Instagram and Facebook. This product can also be obtained online through Bukalapak's purchasing network. The difficulty experienced by Kameumeut MSMEs in marketing their products outside the Cirebon area is the amount of transportation costs, so that the owners handle them by utilizing their free time when going to Bandung or Tegal.

d. Finance

In running a business, capital problems are very important. Mango processing in Cirebon Regency has long been carried out by the community for generations. At first Kameumeut MSME started a business with a relatively small capital, where business capital was spent on its own. The initial capital in establishing a business is Rp. 1,000,000. The capital used for the production process is relatively small and limited. There are three ways of obtaining capital, namely capital, family loans and bank loans. The owner prioritizes own capital and loans to the family. The owner saves money from profits from the business to increase business scale. Administrative systems such as bookkeeping have not been carried out routinely by Kameumeut MSMEs either weekly or monthly. The owner sometimes still mixes personal money with business money because there is no systemized administration.

Kameumeut MSMEs have the desire to buy automatic dodol stirrers, but they cannot be achieved due to limited capital. The owner has submitted a proposal for submission of assistance funds to several government agencies such as Disperindag and the MSME Cooperative Office, but has not yet materialized until now. For borrowing capital from the bank, the owner does not have a desire because of the limited ability to pay interest on the loan and the process of the requirements are not met. The method used by MSME owners to be able to buy the equipment needed is by saving profit.

e. Technology

The technology used by Kameumeut MSMEs in supporting the production process is still relatively simple. The equipment used is still done manually. The production process is long enough to process dodol so that sometimes more work is needed to carry out the stirring process. The owner has planned to switch from manual stirring to automatic stirrer, but this cannot be done because it is limited by capital.

B. External environment

a. Supplier

Suppliers are parties who provide input needs in the production process, namely raw material in the form of mango gedong. The raw materials needed by Kameumeut MSME are obtained from the owner's and mango reject gardens which are rejected from modern retailers. The

mangoes are obtained from mango suppliers to modern retailers and exporters who are the husbands of these business owners. If there is no mango from the two sources, then the owner buys mango from around Cirebon or outside the area such as Indramayu and Majalengka Regencies. Pricing is based on an agreement with the mango supplier that applies at that time. If the mango is in a harvest season, the owner will buy a larger amount of raw material so that it can be stored in the freezer and can be used when mango is not seasoned. The average price for purchasing raw materials is IDR 10,000. purchases are made in cash to mango suppliers.

b. Partnership

Kameumeut MSMEs have collaboration with several souvenir shops in Cirebon, including Batik Trusmi, Adi Joy Stores, Daud Stores, Ade Stores, Johan Stores, and Aneka Kue. The partnership that is carried out opens the opportunity for increased demand for this mango dodol product. But other than that, working with several partners will cause problems such as the failure to fulfill the requests of all parties due to the lack of production capacity in Kameumeut MSMEs. Each partner has a different system for collaborating. Partnership agreements in the form of written contracts have not all been implemented, but the cooperation contract with Batik Trusmi has been carried out.

c. Competitor

Kameumeut MSME competitors come from dodol processors around Cirebon. For this business there is no great competition between dodol processors in Cirebon. The process of processing mango dodol which is quite easy and simple is one of the factors that causes competition in processing mango. In Cirebon District, in 2017 there were only three mango dodol processors and Kameumet MSMEs were the largest and most sustainable business scale processors. Other processors do not develop because they are limited to the availability of seasonal mango and low product quality, so they only produce mango at certain times and only market around the production site. Products produced by competitors have not been able to partner with souvenir shops in Cirebon because they have not met the existing sales standards, such as packaging there are no trademarks, date of registration, etc. When compared to Kameumeut's MSMEs, competing products can only last for 1 week and will be moldy. Unlike the case with Kameumeut MSME, the quality of its products is able to compete and be accepted by the market.

Besides competitors from Cirebon, the main competitor of Kameumeut MSME came from outside Cirebon, namely dodol mango from Indramayu Regency. Mango Dodol competitors have begun to enter souvenir shops in Cirebon such as Ade shop. The product that is a competitor of Kameumeut's MSME dodol is mango dodol Ibu Kasturi. The price offered by Ibu Kasturi's dodol mango is higher compared to Kameumeut's MSME mango dodol with a price difference of IDR 2,500 and the same weight. The packaging design that is owned by dodol mango Ibu Kasturi is similar to the packaging of Kameumeut's MSME mango dodol.

Product innovation was also carried out by Kameumeut MSME competitors. One such innovation is chocolate filled with mango dodol. In addition to the old processors of mango dodol, the arrival of newcomers will be a threat to Kameumeut's MSME. With the increase of tourists from outside the area to Cirebon can lead to the emergence of new entrepreneurs will increase. This is a threat to Kameumeut's MSMEs because it will affect product sales.

4. Internal-External Matrix Analysis (I-E)

Based on the results of the IFAS and EFAS matrix, the IFAS total score is 2.774 which shows that the internal conditions of Kameumeut's MSME are in the average position and the EFAS total

score is 2.544 which indicates the external condition is in the middle or medium position. From these results it can be seen that Kameumeut MSME is in cell V in the IE matrix.

	Strong 3,00 - 4,00	Average 2,00 - 2,99	Weak 1,00 - 1,99
High 3,00 - 4,0	I	II	III
Average 2,00 - 2,99	IV	V	VI
Low 1,00 - 1,99	VII	VIII	IX

Figure 3. Kameumeut MSME IE Matrix

Source: Primary Processed Data, 2018

The IE diagram at position V shows that Kameumeut's MSME development is in a position of maintaining and maintaining. According to David (2003), the strategy used in this position is market penetration and product development. This strategy can be done in several ways such as the development of product innovations such as flavors, shapes and sizes, and increasing the scope of marketing at a broader stage.

5. Quantitative Strategic Planning Matrix (QSPM) Analysis

QSP matrix analysis is used to determine the priority strategies that can be taken for the development of Kameumeut MSMEs. The following alternative strategy results from the calculation of the QSPM matrix based on the total order of the highest to lowest attraction.

Table 6. Kameumeut MSME QSPM

No	Name of Strategy	Strategy	Total of Attractiveness Score (TAS)
1.	SO1	Maintaining product continuity so as to maintain the stability of cooperation with dodol product marketing partners	5,47
2.	SO4	Increase the scale of dodol production to support the empowerment of women around the Kameumeut MSME location.	5,40
3.	SO2	Expand the marketing range of dodol products	5,26
4.	SO3	Utilizing the support of government policies to expand the market	5,14
5.	WT2	Optimizing the use of technology to increase the shelf life of raw materials.	5,04
6.	WO1	Empowerment of financial institutions and training in the use of effective capital for developing regional MSMEs.	4,66
7.	ST1	Establish and maintain relationships with marketers	4,51

No	Name of Strategy	Strategy	Total of Attractiveness Score (TAS)
8.	WO2	so that products can be stable on the market Follow activities held by the government to promote products.	4,30
9.	ST2	Buy large quantities of raw materials to overcome shortages when the fruit is not seasoned	4,12
10.	WT1	Increased business capital through government support by holding capital institutions that are friendly to MSME actors and promoting counseling on business management.	3,77

Source: Primary Processed Data, 2018

Based on the results of the QSP matrix calculation, the priority strategy is to maintain product continuity so as to maintain the stability of cooperation with dodol product marketing partners (SO1) with a total attraction value of 5.47, while the strategy that gets the lowest total attraction value is 3, 77 is an increase in business capital through government support by holding capital institutions that are friendly to MSME players and promoting counseling on business management (WT1).

The first priority strategy relates to market penetration, product development and market development. This is also consistent with the results of the IE matrix which shows that the most suitable strategy for Kameumeut MSMEs is V hold and maintain cells that are related to diversification efforts and do not change the direction of the established strategy. The sustainability of products on the market greatly affects the existence of MSMEs, because if the product is empty on the market, consumers will move to other products. This is related to consumer loyalty to products. This strategy supports the stability of products on the market to get a stable position in the eyes of consumers.

Conclusion

Based on the discussion of research results, it can be concluded as follows: This business performance is still simple with a micro business scale, limited capital and simple technology. The business prospect of Dodol Mango has a better development, it can be seen in the increase in sales volume. The right development strategy for implementing Kameumeut MSMEs is a type of "hold and maintain" strategy. This strategy can be carried out by maintaining the sustainability of products on the market in order to generate customer loyalty and marketer partners. Kameumeut MSMEs must also begin to innovate with the products produced.

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