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1. INTELLECTUAL CAPITAL AND FIRM PERFORMANCE: EVIDENCE FROM ETHIOPIAN PRIVATE COMMERCIAL BANKS

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Abstract

The link between intellectual capital and firm performance showed mixed results that attracted the attention of researchers worldwide. As one of the under-researched geographical locations, Ethiopia's private commercial banks deserve the attention from the intellectual capital-performance relationship perspective. This study aimed at investigating the connection between intellectual capital and performance of private commercial banks. The researchers compiled data from audited annual reports released on respective websites of 9 private commercial banks in Ethiopia from 2011-2017. Accordingly, the intellectual capital of those banks was calculated using value-added intellectual capital coefficient (VAIC^{TM}).The multiple regression results indicated that components of VAIC predicted banks performance better than VAIC alone. Besides, capital employed efficiency was found to have the most positive significant relationship (5.28) with ROA. Thus, Ethiopian private commercial banks are advised to capitalize on the efficient utilization of their physical and financial capitals to increase their financial performance.

Keywords: Banks; Firm performance; VAIC.

1 Introduction

Globalization coupled with the frequent advent of science and technology have brought a tough competition in the financial, intellectual capital intensive, sector and a need to effectively manage knowledge has become the central issue. Now a day the world economy has changed into a knowledge economy and the focus is on managing knowledge in every activity of a business firm in general and of banks in particular (Al-Ali, 2003; Branco, Delgado, Sousa & Sá, 2011).

Knowledge management has become a crucial theme at several giant business companies as managers notice that abundant of their firm's worth depends on the firm's ability to make and manage information. Though there are differentopinions as to whether knowledge is the same as information, it is altered information by finding arrangements, principles and settings where it works and Knowledge management alludes to the set of business processes established in a firm to create, store, transfer, and apply knowledge (Laudon and Laudon, 2012). Knowledge along with information and experience constitute intellectual capital (IC) (Ghosh and Mondal, 2009), which is categorized as an intangible asset.

The shift in focus from tangible to intangible assets has been observed among users of accounting information, which has further stressed the importance of IC reporting (Abeysekera, 2007). IC is the concept of knowledge economy (Amin, Aslam, Makki & Abdul, 2014) that can be defined as ‘the group ofknowledge assets that are owned and/or controlled by an organization and most significantly drives organization value creation mechanisms for targeted company key stakeholders (Alipour, 2012).

The IC held by a firm can be thought as a form of ‘unaccounted capital' in the traditional accounting system. Traditional accounting systems have failed to show a true picture of the companies as they take only tangible assets into consideration for measuring their performance (Abeysekera, 2007). However, the resulted gap between market value and book value of the companies in the absence of IC necessitated the consideration of IC in the accounting process.

Despite the necessity to consider IC in accounting studies, there has been a challenge on how to measure IC. In this regard different scholars put forward their frameworks to measure IC. Typical IC measurement frameworks include the balanced scorecard by Kaplan and Norton (1992); Skandia value scheme by Edvinsson and Malone (1997); the intangible asset monitor by Sveiby (1997); and VAIC^{TM} by Pulic (1998; 2000). However, agreement over an integrated and potential framework to measure IC has not been reached (Martín-de-Castro, Delgado-Verde, López-Sáez, & Navas-López, 2011).

Another challenge faced in the study of IC is the absence of unified definition and classification. With this regard, Zambon (2016) describes the slow advancement in providing common definition and conventional language in reference to IC and the absence of such a definition.

The significant gap in the current literature on IC is that the theoretical foundation of IC has been questioned by some (like Galabova and Ahonen, 2011) stating that IC is not purely a resource based rather it should be viewed as market based and mostly IC-based.

With regard to recent contributions to the measurement of IC and the literature, Goebel (2015) recommended IC Expense-Investment Approach. Besides, the International Integrated Reporting Council (IIRC) and the World Intellectual Capital/Assets Initiative's WICI Intangibles Reporting Framework can be considered as recent but contradicting contributions in the study of IC (IIRC, 2013; WICI, 2016). The former framework introduced additions to the existing IC components while the later restored the previous components giving base for the consideration of the human capital, structural, and organizational capital.

Commercial banks, being major players in Ethiopian financial sector, have exhibited a dramatic increase in the number of branches and capital. According to Abdu (2015), the total number of bank branches increased in the country to improve the branch to population ratio of 1:49,826 people to 1:39,402 as of the fiscal year that ended on June 30, 2014. Additionally, the sector has seen its profits and expenses as well as its assets and capital growing during the year.Despite the increasing operation of commercial banks in Ethiopia, published studies on IC are rare. Therefore, the shift to a knowledge economy, mixed results for the relationship between IC and performance, together with lack of published studies calls for empirical investigation on the relationship between IC and performance of commercial banks in Ethiopia.

2. Intellectual Capital and its Components

Business has perpetually relied on its intangible resources, in conjunction with tangible and capital resources, to make worth and come through the organization's goals. Business performance and its success depend on how well an organization manages its resources. Formerly, business resources comprised eighty percent of tangible and capital resources, with intangible assets creating up around twenty percent. Gradually, this changed with intangible assets reaching 80 percent of the assets of most organizations by 1999. The IC of a firm encompasses intangible assets and resources that a firm relies upon to create value by transforming it into new processes, products, and services (Al-Ali, 2003).

IC can be defined as the economic value of structural and human capital that are intangible assets of a firm (Organization for Economic Co-operation and Development (OECD), 2000). According to Susdarsanam et al. (2006) IC can be expressed as a collection of intangible assets also known as knowledge assets indicating that knowledge asset and IC are interchangeable. Additionally, Claver-Cortes et al. (2007) stated that intangible assets constitute IC and intangible assets are created as a result of knowledge flow in the organization. Adding to the above mentioned definitions, Martín-de Castro et al (2011) and Hsu and Wang (2012) described IC as the set of intangible resources and capabilities, or knowledge assets, possessed or controlled by the firm, that are linked to firm competitiveness and performance.

Though there are plenty of IC definitions, this study uses a definition of Al-Ali (2003), which defines IC as:

> *The knowledge, experience, and brainpower of employees as well as knowledge resources stored in an organization's databases, systems, processes, culture, and philosophy.*

There are three commonly agreed upon components of IC; namely, human capital, structural capital, and capital employed. Human capital (HC) refers to the knowledge, abilities, experiences

and attitudes possessed by the organizational members. Additionally, HC represents the combined competencies of human resources in a firm whose capability determine performance (Noordin and Mohtar, 2012). Structural Capital (SC), on the other hand, refers to the knowledge that holds a firm after the employees go home at night and it consists of manufacturing processes, relationships with customers, business procedures, copyrights, policies etc. (Zeghal and Maaloul, 2010). In other words, Bontis, Chua & Richardson (2000) explained SC as part of IC that consist organizational capabilities to fulfil market requirements such as systems, procedures, policies, copyrights, and manuals. Capital Employed (CE) is an integral part of IC taking into account creating the potential for wealth creation of firms through the integration of human and structural capital (Makki and Lodhi, 2009; Makki and Lodhi, 2014).

2.1. Resource Based View of Organizations and Intellectual Capital

Resource-based theory inspects performance differences of firms in view of their assets. A key supposition in resource-based theory is that it concentrates on an enterprise level or firm level of examination. The theory concentrates on the resources and capabilities (intangible asset) controlled by a firm that underlies performance differences across firms (Peteraf and Barney, 2003).

The Resource Based View (RBV) sees the economic undertaking of firms as a procedure through which value is made relying upon their capacity to characterize and control input factors (assets), process them productively and deliver a compelling result. It sees the assets in regard to the particular condition (Galabova and Ahonen, 2011).

It has been generally recognized that not all assets of a firm have the same key value. The general understanding of most strategy and IC theory researchers (like Ahonen, 2000 and Roos et al., 2005) is that IC is more important than physical capital. This is because of its capacity to expand value when put in to practice without diminishing itself.

Thus, the resource based view theory puts great emphasis on the importance of tangible and intangible resources for competitive advantage and this paves way for better understanding of the importance of IC for organizations.

2.2. Recent Trends in Intellectual Capital Framework and Its Components

Acknowledging the increased research attention and number of papers published around IC, still there are unresolved issues like establishing a holistic framework, agreeing on IC components and IC measurement frameworks (Martín-de Castro, 2014; Zambon, 2016).

With regard to the introduction of relatively recent frameworks, the International Integrated Reporting Council (IIRC) provides partially new definitions and categorizations of intangibles in the context of its important and widely acknowledged Framework detailing the principles for Integrated Reporting (IIRC, 2013). The IIRC has decided to identify for reporting purposes the following categories of intangibles: “human capital”, “social and relational capital”, and “intellectual capital”. Whereas, the World Intellectual Capital/Assets Initiative’s “WICI Intangibles Reporting Framework” (WIRF) that categorizes IC in to human capital, relational capital and organizational capital (WICI, 2016) can be considered as another important development in the field of language and definitions of intangibles. Comparing these two recent developments poses a question as to where the IC framework is going. For the time being, the

announcement of WIRF restores the IC framework to the previous categorization but as to the future Zambon (2016) argues that there will be conceptual mix-up and misunderstanding.

2.3. Intellectual Capital and Firm Performance

There is variation in terms of IC measurement among various studies and its relationship with firm performance. Some of the studies found a positive relationship between IC and firm performance across different continents, whereas some others found the opposite. Accordingly, Bontis et al. (2000) found a positive relationship between SC and financial performance in Malaysian firms. Similarly, Mavridis (2004) found that there is a positive relationship between Japanese banks' efficient use of their HC and their performance.

Bollen, Vergauwen & Schnieders (2005) found an indirect relationship between IC and firm performance among Germany firms and stated that all components of IC have a significant influence over intellectual property (IP) and that IP has a significant direct positive relationship with performance. Cohen and Kaimenakis (2007) categorized IC as Hard IC (which the firm can determine its value like patents), Functional IC (which includes organisational processes like monitoring processes), and Soft IC (which is difficult to determine its value). Thus, Cohen and Kaimenakis's result from a study of smaller European firms shows that hard IC and functional IC are significantly positively related to profits and sales per employee respectively, whereas no relationship was found between soft IC and performance. Moreover, Henry (2013) and Berzkalne and Zelgalve, (2014), stated that IC is a key driver of corporate value enhancement.

On the other side, Firer and Williams (2003), Shiu (2006), and Chan (2009), all find that HC employed has a significant negative relationship with firm performance (asset turnover and market to book ratio). Additionally, Appuhami (2007) found an insignificant relationship between HC employed and the capital gains made by investors, although the relationship is a positive one.

In general, different studies which were conducted on the relationship between IC and firm performance brought both negative and positive relationship between IC and firm performance yielding mixed results.

3. Research Methodology

3.1 Research Design and Approach

The study used explanatory research design in order to investigate the effect of IC on firm performance of private commercial banks under the study area from 2011-2017. Additionally, the study employed quantitative research approach to calculate figures from annual reports of banks.

3.2 Target Population

In Ethiopia, there are 19 licensed private and public banks of which 17 are commercial banks (National Bank of Ethiopia [NBE], 2012). The target populations in this study were private commercial banks in Ethiopia. The researcher considered licensed private commercial banks which were in the operation from 2011-2017 and which have publicized their audited annual reports through their website in the specified time period. Therefore, 9 private commercial banks that fulfill the inclusion critera were involved in this study.

3.3 Data type, tools, and Sources

This study employed secondary sources of data to gather relevant information to calculate IC and financial performance of commercial banks. The subjectivity of the scales, together with the common problems associated with questionnaires, such as low response rate, representativeness of data and relatively small sample size, the qualification of respondents in order to obtain accurate responses to the survey items, and the potential existence of common method bias (Podsakoff & Organ, 1986 cited in Martín-de Castro, 2014), and additionally the difficulty of replicating this kind of data collection, makes this measurement strategy complicated. Besides, the usage of secondary sources of data to calculate IC is a common trend among many research scholars (Joshi et al., 2013; Sumedrea, 2013; Lu, Wang and Kweh, 2013; Al-Musali and Ku Ismail, 2014; Ozkan, et al, 2016; Al-Musali and Ku Ismail, 2016) and hence it is sound.

Hence, this study used audited annual reports of Awash International Bank Share co., Dashen Bank Share co., NIB International Bank, Oromia International Bank, Wegagen Bank, Abay Bank, Addis International Bank, United Bank and Zemen Bank from their official websites.

3.4 Measurement of Variables

*Dependent variable***:** this study measures performance of private commercial banks using Return on assets (ROA). Similar studies also used ROA as a measure of performance (Chen, Cheng & Hwang, 2005; Kujansivu, 2005; Shiu, 2006; Chang, 2007; Gan and Saleh, 2008; Ting and Lean, 2009; Yalama, 2013; Joshi Cahill, Sidhu & Kansal, 2013; Ozkan, Cakan & Kayacan, 2016).

Return on Assets (ROA) = Profit before Tax / Average Total Assets.

Explanatory variables:

Value Added Intellectual Capital Coefficient (VAIC^{TM}) was designed by Pulic (1998, 2000) to provide information about the value creation efficiency of tangible and intangible assets within a company. It was then applied by many researchers to measure intellectual capital (like Young, Su, Fang & S.R. Fang, 2009; Joshi et al., 2010; Al-Musali and Ku Ismail, 2014; Ozkan, et al, 2016). Thus, the VAIC^{TM} to measure IC of commercial banks in Ethiopia as follows.

$$VA = OUT - IN = NI + T + DP + I + W \quad (1)$$
$$SC = VA - HC \quad (2)$$
$$SCE = SC / VA \quad (3)$$
$$HCE = VA / HC \quad (4)$$
$$CE = TA\text{-}IA \quad (5)$$
$$CEE = VA / CE \quad (6)$$
$$VAIC = HCE + SCE + CEE \quad (7)$$

Where:

VA = Value Added, OUT = Total Sales, IN = Cost of purchased materials, components and services, NI=net income after tax, T= tax, DP= depreciation, I= interest expense, W= employees' wages and salaries

SC=structural capital, HC=human capital, SCE = structural capital efficiency, HCE= human capital efficiency, CE= capital employed, TA= total asset, IA= intangible asset, CEE =capital

employed efficiency, VAIC= value added intellectual capital, SCE = Structural Capital Efficiency.

3.5 Data processing and analysis

This study used descriptive data analysis technique (using frequency, percentage, mean, and correlation matrix) and regression to explore the relationship between IC and firm performance using statistical software, STATA 14 SE.

3.5.1. Replication hypothesis and Regression model

This study used hypotheses to check for a significant relationship among variables and these hypotheses were based on the result of prior studies like Chang (2007), Ting and Lean (2009) and Zeghal and Maaloul (2010).

Hypothesis 1: There is a significant positive relationship between the value-added intellectual capital coefficient (VAIC) of the private banks and their financial performance measure (ROA).

Hypothesis 2: There is a significant positive relationship between the capital employed efficiency coefficient (CEE) of the private banks and their financial performance measure (ROA).

Hypothesis 3: There is a significant positive relationship between the human capital efficiency coefficient (HCE) of the private banks and their financial performance measure (ROA).

Hypothesis 4: There is a significant positive relationship between the structural capital efficiency coefficient (SCE) of the private banks and their financial performance measure (ROA).

The regression model for this study has a dependent variable of ROA and independent variable VAIC in the first model. The second model adds control variable logSIZE as measured by the total asset of the banks (Chan, 2009 and Shiu, 2006) to the regression result of overall IC measure and ROA followed by the third model that regress ROA into sub-components of IC (HCE, SCE, and CEE). Finally, the fourth model adds control variable logSIZE to the regression result of ROA and sub-components of IC. Similarly, the hypotheses developed above are tested in the following regression models.

Model 1 $ROA_{it} = \beta_0 + \beta_1 VAIC_{it} + \varepsilon_{it}$

Model 2 $ROA_{it} = \beta_0 + \beta_1 VAIC_{it} + \beta_2 SIZE + \varepsilon_{it}$

Model 3 $ROA_{it} = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \varepsilon_{it}$

Model 4 $ROA_{it} = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 SIZE + \varepsilon_{it}$

4. Results and Discussion

4.1 Descriptive Results

Table 1 describes selected private commercial banks in Ethiopia and their abbreviated names. Besides, the abbreviations mentioned in the table are used according to NBE's naming. From those private commercial banks, Zemen Bank (ZB) is the first single branch bank in Ethiopia that

aimed at serving the middle and high-income people in the country. Awash International Bank (AIB), on the other hand, is one of the pioneering and top private commercial banks in Ethiopia whose name has changed recently to Awash Bank. Because of the time frame for data used in this study, the researcher used AIB instead of Awash Bank.

Table 1: List of the selected private commercial banks

No.	Abbreviation	Bank name
1	AIB	Awash International Bank (currently changed its name to AB; Awash Bank)
2	DB	Dashen Bank
3	NIB	Nib International Bank
4	OIB	Oromia International Bank
5	WB	Wegagen Bank
6	AB	Abay Bank
7	AdIB	Addis International Bank
8	UB	United Bank
9	ZB	Zemen Bank

Source: extracted from National Bank of Ethiopia, 2012

Table 2 represents the VAIC and its components for selected private commercial banks in Ethiopia from 2011-2017. Accordingly, AB, ZB, DB and AIB scored the highest average VAIC of 27.49, 9.68, 7.83 and 7.19 respectively. On the contrary, NIB, AdIB, UB, WB and OIB scored a decreased average VAIC of 6.61, 6.54, 6.51, 5.86 and 4.73 respectively. Additionally, the table indicates the efficiency of banks in creating value from their HC compared to CE and SC efficiency for the period 2011-2017. This result is in line with other previous studies in other countries (Goh, 2005; Joshi, Cahill & Sidhu, 2010; Joshi et al., 2013; Al-Musali and Ku Ismail, 2014; Ozkan, et al, 2016).

Table 2: VAIC and its components for the selected private commercial banks in Ethiopia by bank name

Bank Name	SCE	HCE	CEE	VAIC	Rank
AB	0.55	26.70	0.24	27.49	1
ZB	0.88	8.71	0.10	9.68	2
DB	0.848	6.898	0.09	7.836	3
AIB	0.834	6.276	0.09	7.196	4

NIB	0.818	5.71	0.082	6.61	5
AdIB	0.81	5.63	0.10	6.54	6
UB	0.81	5.61	0.08	6.51	7
WB	0.79	4.97	0.09	5.86	8
OIB	0.74	3.92	0.08	4.73	9

Source: researchers' calculation, 2018

Table 3 describes the average annual values of SCE, HCE, CEE and VAIC calculated for the private commercial banks in Ethiopia. On average all the selected banks scored an average VAIC of 9.16 from the year 2011-2017. Besides, the average VAIC values of the banks declined from 2011 to 2017 indicating the decreased efficiency of banks in creating IC value in Ethiopia.

Correlation matrix:

Table 4: correlation among the study variables

	ROA	SCE	HCE	CEE	SIZEln
ROA	1				
SCE	0.201	1			
HCE	0.478	0.593	1		
CEE	0.444	0.607	0.419	1	
SIZEln	-0.138	0.219	0.072	-0.072	1

Source: researchers' calculation, 2018

As indicated in table 4, HCE has a relatively high positive correlation (0.47) compared to SCE (0.2) and CEE (0.44) that indicates the presence of association among the explanatory and dependent variables. Besides, the highest correlation coefficient was 0.6 between CEE and SCE that will not have multicollinearity problem during regression as it is much lower than 0.99 (El-Bannany, 2012).

4.2. Regression results

Prior to the final presentation of each model the data was checked for basic linear regression assumptions and all were met. As shown in table 5, four models were tested to see the relationship between intellectual capital components and Ethiopian private commercial banks' performance as measured by ROA. Accordingly, the regression result of model 1 and 2 predicted a positive but statistically insignificant relationship between VAIC and ROA without and with control variable respectively at a significance level of 1%. This is in line with the finding of

several authors (Maditinos, Chatzoudes, Tsairidis & Theriou, 2011; Mehralian, Rajabzadeh, Reza Sadeh && Reza Rasekh, 2012; Joshi et al., 2013; Ozkan et al., 2016) who indicated that VAIC does not have an impact on ROA. On the other hand, model 3 and 4 predicted a significant relationship between VAIC components and ROA without and with the inclusion of control variable (natural logarithm of SIZE).

Table 5: regression outputs

Independent variables	**Coefficient values**			
	Model 1	**Model 2**	**Model 3**	**Model 4**
Constant	1.0882	1.8855	0.9588	1.2480
VAIC	0.0510*	0.0527*		
SCE			-0.4238**	-0.3914***
HCE			0.0593*	0.0589*
CEE			5.2832*	5.0436*
SIZE		-0.3596		-0.0129
Adjusted R^2	0.2043	0.2191	0.3266	0.3135
Prob>F٨	0.0012	0.0024	0.0003	0.0008

Source: researchers' calculation, 2018

*significant at 1% level

**significant at 5% level

***significant at 10% level

٨Corresponding value for the overall model

With respect to the explanatory power of the models, model 3 and 4 have an adjusted R^2 value of 0.3266 and 0.3135 respectively, which is higher than that of model 1 and 2 (0.2043 and 0.2191 respectively). Thus, we can infer that components of intellectual capital (SCE, HCE and CEE) can explain the performance (ROA) of banks in a better way than VAIC alone. This finding supports the work of Chen et al., 2005; Ku Ismail and Karem, 2011; Joshi et al., 2013 and Ozkan et al., 2016.

As far as the explanatory power of individual VAIC components is concerned, CEE and HCE have a positive relationship with ROA, the earlier exhibiting a significant strong positive relationship with ROA. This indicates that the profitability of private commercial banks in Ethiopia is impacted by CEE from among the VAIC components and those banks capitalize on their physical and financial assets to enjoy a high profit. The other variable, SCE, was found to have a negative insignificant relationship with ROA. This finding is in line with the study of

Ting and Lean (2009) and Joshi et al. (2013) who found a similar insignificant relationship between SCE and ROA.

Finally, the empirical evidence obtained regarding the control variables in Model 2 and 4 shows that bank size does not have a significant effect on the profitability of banks. Thus, the third model was the best to describe the relationship between components of IC and firm performance (32.66% of variation in ROA was explained by the individual components of IC). All in all, the first, third and fourth hypothesis were rejected as there was no significant relationship between explanatory variables (VAIC, SCE, HCE) and ROA. However, the second hypothesis was accepted as there was a significant positive relationship between CEE and ROA.

5. Conclusion and Future Direction

The relationship between intellectual capital and banks performance is still having a mixed result in different country contexts. This study adopted Pulic's VAIC^{TM} to measure intellectual capital performance and applied regression to see the association between intellectual capital and performance of private commercial banks in Ethiopia. For this purpose 9 private commercial banks were assessed for their intellectual capital performance and their annual financial reports were used to calculate their performance as measured by ROA from 2011-2017.

The findings indicate that HCE is positively correlated to ROA in a better magnitude than CEE but the regression result indicated that CEE is a highly significant predictor of ROA. Similarly, SCE does not have a significant impact on ROA of private commercial banks. Besides, VAIC alone was weak in predicting ROA whereas its components performed well in predicting ROA.

Private commercial banks in Ethiopia are not relying on their human and structural capital; rather they are relying on capital-employed efficiency, to predict their performance. Thus, Managers in Ethiopian private commercial banks have to consider the efficient utilization of their physical and financial capital to increase their performance (ROA). Additionally, the findings could help policymakers in Ethiopia to be cognizant of the importance of establishing a robust banking sector by addressing the impact of intellectual capital on banks' financial performance.

This study contributes to the IC literature significantly in that it provides an insight on the role of IC, a construct that is well established in the western management literature, in adding value to firm performance within the context of Ethiopian economy. Besides, it sheds light, using resource based view, on how knowledge based resources along with physical and financial resources improve financial performance of private commercial banks. The IC literature will also help in deciding the potential role of IC efficiency in the financial performance of banks in Ethiopia, a developing country that lacks such research.

This study focused on five consecutive years' data of nine private commercial banks using the widely adopted VAIC. The selection of commercial banks from the entire financial sector, the limited time period (Joshi et al., 2013) covered and absence of qualitative assessment using primary sources can be considered as limitations of this study given that bias and non-reliability are the major limitations of primary sources. However, other researchers can extend the scope by including other financial institutions like insurance companies for a longer period of time by amalgamating both primary and secondary sources to give a picture of IC for the entire financial institutions in Ethiopia. Besides, it is better if other researchers extend the theoretical base from resource based to knowledge-based theory.

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Appendix 1: full regression result of all models

```
. regress ROAln VAIC
```

Source	SS	df	MS	Number of obs	=	44
				F(1, 42)	=	12.04
Model	.500220793	1	.500220793	Prob > F	=	0.0012
Residual	1.74527968	42	.041554278	R-squared	=	0.2228
				Adj R-squared	=	0.2043
Total	2.24550047	43	.052220941	Root MSE	=	.20385

ROAln	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
VAIC	.0510339	.0147091	3.47	0.001	.0213497	.080718
_cons	1.08829	.1016463	10.71	0.000	.8831595	1.29342

```
. regress ROAln VAIC SIZEln
```

Source	SS	df	MS	Number of obs	=	44
				F(2, 41)	=	7.03
Model	.5735395	2	.28676975	Prob > F	=	0.0024
Residual	1.67196097	41	.040779536	R-squared	=	0.2554
				Adj R-squared	=	0.2191
Total	2.24550047	43	.052220941	Root MSE	=	.20194

ROAln	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
VAIC	.052756	.0146278	3.61	0.001	.0232145	.0822974
SIZEln	-.035966	.0268229	-1.34	0.187	-.090136	.018204
_cons	1.885549	.6030498	3.13	0.003	.6676649	3.103432

```
. regress ROAln SCE HCE CEE
```

Source	SS	df	MS	Number of obs	=	44
				F(3, 40)	=	7.95
Model	.838966568	3	.279655523	Prob > F	=	0.0003
Residual	1.40653391	40	.035163348	R-squared	=	0.3736
				Adj R-squared	=	0.3266
Total	2.24550047	43	.052220941	Root MSE	=	.18752

ROAln	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
SCE	-.4238952	.1969016	-2.15	0.037	-.8218481	-.0259422
HCE	.0593745	.0180719	3.29	0.002	.0228499	.0958991
CEE	5.283233	1.808227	2.92	0.006	1.628671	8.937795
_cons	.9588941	.134567	7.13	0.000	.6869241	1.230864

```
. regress ROAln SCE HCE CEE SIZEln
```

Source	SS	df	MS	Number of obs	=	44
				F(4, 39)	=	5.91
Model	.847417813	4	.211854453	Prob > F	=	0.0008
Residual	1.39808266	39	.035848273	R-squared	=	0.3774
				Adj R-squared	=	0.3135
Total	2.24550047	43	.052220941	Root MSE	=	.18934

ROAln	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
SCE	-.3914309	.2097521	-1.87	0.070	-.8156946	.0328329
HCE	.0589152	.0182715	3.22	0.003	.0219576	.0958728
CEE	5.043685	1.891237	2.67	0.011	1.218296	8.869073
SIZEln	-.0129506	.0266725	-0.49	0.630	-.0669008	.0409996
_cons	1.248042	.6108207	2.04	0.048	.012541	2.483544

```
.
```

Appendix 2: normality test for residuals (rroa)

```
. swilk rroa

                    Shapiro-Wilk W test for normal data

    Variable |        Obs       W           V         z       Prob>z
-------------+-------------------------------------------------------
        rroa |         44    0.98626       0.585    -1.135    0.87188
```

Appendix 3: homoscedasticity test

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of ROAln

         chi2(1)      =     1.11
         Prob > chi2  =   0.2930
```

Appendix 4: multicollinearity test

```
. estat vif

    Variable |       VIF       1/VIF
-------------+----------------------
         SCE |      2.26    0.441665
         CEE |      1.72    0.583089
         HCE |      1.56    0.640376
      SIZEln |      1.13    0.882164
-------------+----------------------
    Mean VIF |      1.67
```

Appendix 5: Residuals

. summarize df beta Cooks

Variable	Obs	Mean	Std. Dev.	Min	Max
Dfbeta	44	-.0329206	.3829579	-2.1619	.4268295
Cooks	44	.0071023	.2758701	.0000407	.2901550

2. PRACTICES OF STUDENT ASSESSMENT IN COMPETENCY BASED MODULAR INSTRUCTION FOR QUALITY EDUCATION: THE CASE OF COLLEGES OF EDUCATION IN AMHARA REGION UNIVERSITIES

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ABSTRACT

This research investigated the practices of student assessment in competency based modular instruction for Quality Education in College of Education within Higher Education Institutes in Amhara region. The research looked into the training program conducted by Colleges of Education within the Universities. Relevant literature on the practice of student assessment was also reviewed. In the research different modular theoretical assumptions were examined and used in studying the practice. Data were collected from three Universities namely Woldia University from the third generation, Wollo university from the second generation and Bahir Dar university from the first generation by employing questionnaires, unstructured and structured interviews and focus group discussion. Data analysis was made using t test and F-test for quantitative data and use of interpretational and reflective analysis for qualitative data. The findings showed that the practice student assessment in competency based modular instruction was not done as intended. Here, the practice of continuous assessment seems to be weak in supporting the teaching learning process; assessments were not made on time in according to the learner pace; the use of formative assessment is found less; assessment is highly relied on cognitive domains which overlooked the rest domains. Moreover, great effort was not exerted to check students' improvement in the world of work. Likewise, criteria that were used at the time of assessments were not shared for the owner of the subject (the learner) with less immediate feedback Eventually, it was concluded that he practices of student assessment in competency based modular instruction for Quality Education in the College of Education were found weak that requires consideration both from the government and institutions.

CHAPTER ONE

INTRODUCTION

Chapter one introduces the practices of student assessment in competency based modular instruction for Quality Education in Colleges of Education within the selected HEIs in Amhara region. This study finds its basis in the needs for improving the techniques of assessment in Colleges that had had a lot of problems within its practice. The Practices of student assessment in competency based modular instruction for Quality Education in Colleges is outlined in the background of the study consisting of three aspects, namely quality of education, modularization and assessment.

The study presents the issues of quality of assessment specifically competency based assessment in modular instruction, statement of the problem and objective of the study. It is followed by the scope of the study as an appropriate approach to make familiar the issues for any beneficiaries.

1.1. Background of the Study

For instruction and learning to become effective, the teacher must be concerned with: the quality of education specifically quality of instruction, which means that instruction, must make sense to the students; the appropriate strategy to use; the incentive to the students for them to learn; and sufficient time for learning to occur (Bedaure , 2012). Teachers must adapt instruction to the students' level of knowledge and development, motivate them to learn, and manage their behavior. According to Bedaure one important issue is matching tasks to students' abilities, or vice versa.

Whatever approach a teacher uses, a clear focus and explicit learning outcomes that students understand and are held accountable for learning; material or materials presented in a manner that elicits active inquiry and interest; guidance provided by the teacher as students interact with new materials or tasks; and feedback about the quality of students' learning are basics (Bedaure, 2012).

One instructional strategy, which has recently gained popularity, is competence based modular instruction. Of all the various systems of individualized instruction, modular approach is one of the recently used and combines many advantages of a number of separate instructional innovations, such as performance objectives, self-pacing, and frequent feedback (Hand et al., 2000).

Competence based modular instruction demands teachers to employ progressive assessment, use diversified teaching methods, carefully plan the lessons etc (MOE, 2012). Here, teachers could have a chance to monitor the progress of students learning and the whole provision of the module and allows them to look in to the strength and pitfalls of the instructional process and take remedies for further improvement.

In a competence based modular instruction, assessment is integrated in to the instructional package to ensure that mastery of the outcome is based on the demonstration of the competencies defined rather than test taking skills (MOE, 2012). According to NCTVET (2006), assessment of competency is not only based on knowledge and attitude but primarily on the actual demonstration of the competency. Occupational standards or unit competency standards should be used as the basis for assessing achievement and students/trainees should be aware of them.

Systems that embrace change through data generation, use and self-assessment are more likely to offer quality education to students (Glasser, 1990). As Glasser has indicated continuous assessment and improvement can focus on any or all dimensions of system quality: learners, learning environments, content, process and outcomes.

In Ethiopia, Higher Education Institutions have embarked on major reform since last decade. Of all important tools of the reform, Business Process Reengineering (BPR) and Teacher Education System Over all (TESO) were the most known. According to MOE (2012) in the reengineering of the teaching learning core process, modularization was proposed as a best way for the implementation of curricula and the production of competent graduates.

Similarly, techniques of assessment seem to be changed from the traditional way of students' evaluation to the competency based approach. In this regard students are expected to be evaluated in all areas while they are practicing both in the institute and work place.

1.2. Statement of the problem

As many evidences indicate, among many teachers in Ethiopia, the critical determinants of effective teaching, namely knowledge of the subject matter, pedagogical skills and motivation are actually lacking (Ambaye, 1999). Teachers' motivation is declining and teachers began to develop low self-esteem in their professional role.

Despite the government's efforts such as establishing the Teacher Development Program (TDP) and commissioning the World Bank Project on Education Quality Improvement Project, the quality of teachers and education in general continues to decline. Perhaps the most powerful indictment of the seriousness of declining quality in teacher development and consequently the student learning can be seen in preparation of teachers in all levels.

According to Daniel (2004) observation, in most higher education, lecture method was dominating in the teaching learning process. Similarly, mechanism of assessment seems to be weak so as to look students' progress. Such types of problems persist as common in colleges of education and elsewhere.

Generally, due to the rapid expansion rate of HEIs, many assessment challenges are left untouched as a result many poorly prepared graduates were produced. Among all, one of the most critical constraints in higher education for quality education is poor organization of teaching module. To make the teaching learning process more effective and efficient, it is

apparently very important that teachers have to look the necessary competencies, abilities, knowledge, and skills while she/he develops a module (Rosenberg, Sindela & Hardman, 2004).

Thus, based on the stated critical professional development limitation in enhancing quality education in HEIs in Ethiopia, this study is planned to examine the status of modularization with a special focus on practices of student assessment in competency based modular instruction .

1.3. Objective of the Study

The general objective of the study is to examine the practices of student assessment in competency based modular instruction in CTE within the HEIs in enhancing quality education. The specific objectives of the study include:

1. To scan whether or not the practice of continuous assessment technique is actually on progress in measuring students competency
2. To examine whether or not assessments were made on time in according to the learner pace
3. To examine to what extent learning outcome and competencies based instructions being considered in the assessment mechanism
4. To evaluate the involvement of students in the process of assessment and
5. To examine the status of feedback given by the teacher.

1.4. Significance of the Study

Knowledge on modularization specifically on student assessment in competency based modular instruction is a crucial issue for all of us. Many educators and practitioners have given more attention how quality education could be achieved through an effective implementation of modular approach and how such a program can be improved. Hence, it is essential to assess the practice of student assessment in competency based modular instruction with their constraints in the HEIs to know more about the issues with their implication and to set the right remedy as per their magnitude.

In order to improve teacher's performance in an area of teaching, great concerns have been given over the years in raising standards of professional training and academic qualifications. For this reason, findings from this study might encourage the Ministry of Education to train teachers as professionals.

The other important contribution of this study is it encourages policy makers in education and strategic education planners to explore the best practices used elsewhere to improve and support teacher both in the pre-service and in-service training programs for the improvement of educational effectiveness.

Moreover this study helps teachers to be more familiar with strategies for analyzing, planning, developing, implementing, managing and evaluating curriculum. It equips teachers with essential concepts of their subject and with the skills and strategies for designing and plying different assessment techniques. Finally, the findings of the study will help interested individuals to conduct further researches in the area.

1.5. Scope of the Study

Scope of the study refers to the conditions that pose restrictions on the conclusion and application of a research endeavor. Research on assessment practice requires a wide scale study on different groups, levels and areas of the country. Nevertheless, in order for the study to be more manageable, its scope is delimited to three college of education within the Amhara region.

The study will not attempt to offer a single, one-fits-all, conclusive definitions of neither practices of student assessment, nor does it try to identify a set of characteristics of modularization. The study will not take as one of its objectives the mission of establishing whether one group's understanding of practices of student assessment is superior to another, or whether certain techniques are the only ones compatible with the practice of modularization. Instead, the study primarily will concern with identifying the degree to which the practices of student assessment match or mismatch with the principle of modular instruction.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Key Issues Influencing the Quality of Teaching and Learning in College of Education

As different authors indicated educational quality has no universally accepted definition .Each country's policies defined quality explicitly or implicitly according to its own economic, political, social, and cultural visions (USAID, 2006). Virtually all countries, however, include two key elements as the basis of quality: students' cognitive learning (which is what achievement tests usually measure) and their social, creative, inter-personal, and emotional development. One of the major indictors of quality education is cognitive learning that is the main explicit objective of most education systems, although there is a wide disagreement on what to measure as cognitive learning and how to measure it. The social, creative, and emotional development is rarely assessed in a significant way (Leu, 2005 and UNESCO, 2004).

In improving quality of education, many countries increasingly focus on understanding complex interactions that take place at the school, classroom, and community levels as the primary engines of quality and as a way of engaging local actors to address the frequently weak link between policy and practice (Farrell 2002). Of the factors that contribute to education quality at the local level, quality of teaching is recognized as the key, the factor without which other quality inputs are unlikely to be successful (USAID, 2006). Focusing on teachers' and principals' roles on quality is particularly important because they are the professionals primarily responsible for interpreting and implementing the constructivist, active-learning, and student-centered pedagogical approaches to improving education quality that underlie the reform policies of many countries.

As USAID identified in a research made in Ethiopia, quality education fell into three clear categories - input, process, and output factors. From the input side it depends on resources such as textbooks, desks, teaching materials, libraries, and classrooms. Teachers and community are also considered a crucial resource. The need for qualified teachers who have appropriate subject knowledge and pedagogical skills and community involvement are an important determinant of quality education, including teachers' interactions with parents as well as the communities' financial and other contributions to schools. From the Process side quality factors relate to teachers' and students' activities and interactions in the classroom. The use of student-centered approach and employing various teaching strategies and materials to motivate students as well as continuously assessing student performance have a significant impact on the improvements of quality education. The other important factor is the output factor which focused on scoring high on exams and achieving promotion to the next grade. This includes students' behavior, attitudes, and inter-personal characteristics of active learning such as the nature and extent of students' participation and cooperation with each other and the growth of their self-confidence. How students behave in school - adhering to the rules and regulations as well as attending regularly

and punctually. In this case, quality learning also involves students demonstrating and using what they have learned in practical settings in their everyday lives.

2.2. Modularization

Modularization is regarded as one of the methods contributing to raising the efficiency and flexibility of education and training and also for ensuring mobility of people. Modular teaching is one of the most widespread and recognized teaching learning techniques in America, Britain, Australia and other western countries. In addition, modular teaching is used in almost all subjects like natural sciences and medicine and even in social sciences as well as in computer education. All kinds of subjects are being taught through modules (Farooq, 1997).

In fact, the process of modularizing a course offers interesting opportunities to improve instruction. A course using a modular design divides up its content into learning activities that target specific concepts relevant to that domain. It is a process of breaking a large program into modules.

Generally Modularization Provides a Process of paying attention to important properties while ignoring nonessential details (selective ignorance) and makes complex tasks looks simple. It also allows professional developers to write new programs in weeks or months, instead of year (Dhamija, 1993).

There are two ways of modular approach: one being the 'creation' model and the other the 'conversion' model. The creation model denotes the design of a new course while the conversion model is either 'an internal (course-led) or external (faculty- or institution-led) decision to recast and develop current courses in a modular form' (Watson, 1989).

According to Watson the creation model which focused on clustering of courses has two variations. In the first variation existing courses are grouped into clusters with separately defined graduate profile. In this method some courses are removed while others are altered, and some new courses may be added. In the second variation the existing courses are grouped by merging the contents of the courses into a new unit.

The conversion model is usually is employed while there is a need to open a new program. It begins from professional profiles and ends with modules. The steps begin from description of professional profile, description of graduate profile and translating this into knowledge, skills and attitudes and finally come to description of modules by grouping knowledge, skills and attitude into themes (Watson, 1989).

Competence based modular instruction

The development of knowledge is taking place in more diverse context. Gibbons (1998) speaks about two modes of knowledge production. Mode1 production refers to knowledge of the discipline –based type, typically produced in the classical universities. Mode 2 knowledge developments is the production of knowledge in the context of application, that is, it arises in the process of solving particular complex problems in collaborative trans-disciplinary teams and partnership, situated both within and outside higher education institutions.

Even though competence based instruction is more exercised in technical and vocational education, especially at secondary level, recently the competence-based approach been found as well in higher education.

In developing countries many higher education institutions experience a growing gap between their curricula and the demands from society, business and industry for a more flexible workforce with high skills (competencies) in problem solving, team work and project management. They have mostly kept to the traditional functions and objectives of Western Universities (Maamouri & Wagner, 2001).

However, global development in science, society and economy affects the developing countries as well and their higher education institutions are closing the gap between classical disciplinary knowledge and know-how required for the new job market.

A way to conceptualize the relation between education and the world of work is through competence –based modular instruction. Acquiring and developing competence is more than learning a set of skills. A common term describing the acquisition and development of competence is competence –based modular instruction, where training is more associated with the mastering of skills (Kouwenhoven, 2009)

According to Kouwenhoven, a competency is conceptualized in the model as the capability to choose and use (apply) an integrated combination of knowledge, skill and attitudes with the intension to realize a task. Competence is then defined as the capacity to realize up to standard the key conceptual tasks that characterize a profession. Competence based instruction aims to make students more competent through the acquisition of competencies and the further development of the newly acquired or already held competencies. In a more elaborated way the definition of competence is defined as follow:

> Competence is t*he capability of a person or an organization to reach specific achievements. Personal competencies comprise: integrated performance oriented capabilities, which consist of the clusters of knowledge stracture and also cognitive, interactive, affective and where necessary psychomotor capabilities, and attitudes and values, which are conditional for carrying out tasks, solving problems and more generally, effectively functioning in a certain profession, organization, position or role. (Mulder, 2001:9)*

2.3. Assessment in Competency Based Modular Instruction

Assessment is the process by which the University is able to confirm that a student has achieved the learning outcomes and academic standards for the module and/or award for the program for which he or she is registered (Boud and Falchikov, 2007).

Assessment is a generic term for a set of processes that measure the outcomes of students' learning, in terms of knowledge acquired, understanding developed, and skills gained. It serves many purposes. Assessment provides the means by which students are graded, passed or fail. It provides the basis for decisions on whether a student is ready to proceed, to qualify for an award or to demonstrate competence to practice. It enables students to obtain feedback on their learning and helps them improve their performance. It enables staff to evaluate the effectiveness of their teaching (Boud and Falchikov, 2007)

According to Meyer et al (2009) there are two distinct purposes of assessment: assessment of learning, and assessment for learning. Assessment of learning involves measuring what and how much students have learned, tied to specific learning outcomes which are themselves derived from the graduate profile. Assessment for learning is focused on using assessments to help students improve and move forward in their learning. This kind of assessment is equally important in giving students the information they need to guide and promote their own learning so that they can meet the intended outcomes. Assessment for learning requires that academic staff assess in a manner that will allow them to identify what kinds of improvements are needed and communicate this information to students.

From the module design perspective, UCD (2011) has identified the following 6 principles that will assist in designing learning experience.

1. Allow students, where possible, have opportunity for regular, low stakes assessment with opportunity for feedback on their progress

Students especially in their first few weeks in university need regular feedback on their progress so that they can assess progress in their learning. Effective and high quality feedback is often regarded as a key element of excellence in teaching that supports student (Sadler, 1989). This is often described as formative (feedback on progress), as oppose to summative assessment (counting towards a grade). If you consider, in particular in the first semester of first year, that students should have strong emphasis on the former, then many assessment tasks can be in-class activities.

2. Develop students' opportunities for in-class self and/or peer review of their learning against assessment criteria.

While feedback dialogue with the teacher is important peer review is equally important where peers generate and receive feedback in relation to the same assignment task, they learn not only about their own work but also about how it compares with productions of others (Nicol, 2010). Sadler (2009) also advocates including students in the assessment process – educating them in the process of making judgments about their work in ways similar to those made by expert assessors.

One of the key techniques associated with this approach, is to allow students opportunities, often in- class, to self or peer review their work, or examples of work, against the assessment criteria for the module. This allows them to have discussions around the expectations for the assessment of the module and is a more timely activity to allow change of behavior, than staff directed feedback given after a module is completed.

3. Allow students multiple opportunities for well-structured and supported collaborative learning and its assessment (peer and group-work, project work)

Developing effective social networks is a key part of a successful transition to university life; group work and opportunities for collaborative learning can play an important role here. Prince (2004) describes collaborative learning as `any instructional method in which students work together in small groups toward a common goal', emphasizing interaction between students.

Group work is a popular approach to student learning in higher education as: Peer learning can improve the overall quality of student learning; Group work can help develop specific generic skills sought by employers and at times can reduce the workload involved in assessing, grading and providing feedback to students (CSHE, 2010). However, under less than ideal conditions, group work can become the vehicle for acrimony, conflict and freeloading (CSHE, 2010). Therefore, it is important to consider the type of assessment and how we prepare students for group work. This can include introducing students to the rationale for group work; exploring and getting them to set and review ground rules for group work; discussing and allocating different roles; working out procedure for dealing with group conflict as it arises, etc (CSHE, 2010).

4. Consider the redesign of the learning sequence of module learning activities in an efficient and effective manner, including the related blended learning opportunities.

In more recent module design literature, there has been a re-examination of the role and sequence of the different learning opportunities. Whereas the lecture had played the key role in the past, as students had limited access to resources, this has now changed with an increase in resources available on-line. Poor attendance at lectures in some areas has also been a source of concern for academic staff. The students are required to do a task, activity (individually or in groups, on-line or face to face meetings) and then having completed this they then receive a 'focused expert' lecture.

Through more careful consideration of this section, students by 'doing' tasks can 'cover' what was traditionally done in the lecture. Blended learning allows you more opportunity to monitor the 'out of class' leaning activities, particularly in larger groups.
Therefore, instead of starting in the module design process by filling in the usual lecture load, such as 12, 24, 36 lectures for a 12 week semester, you may consider the module as a series of in and out-of-class activities, that feed into the assessment requirements.

5. Introduce more active/task-based learning which uses more authentic assessments (i.e. subject/discipline identity)

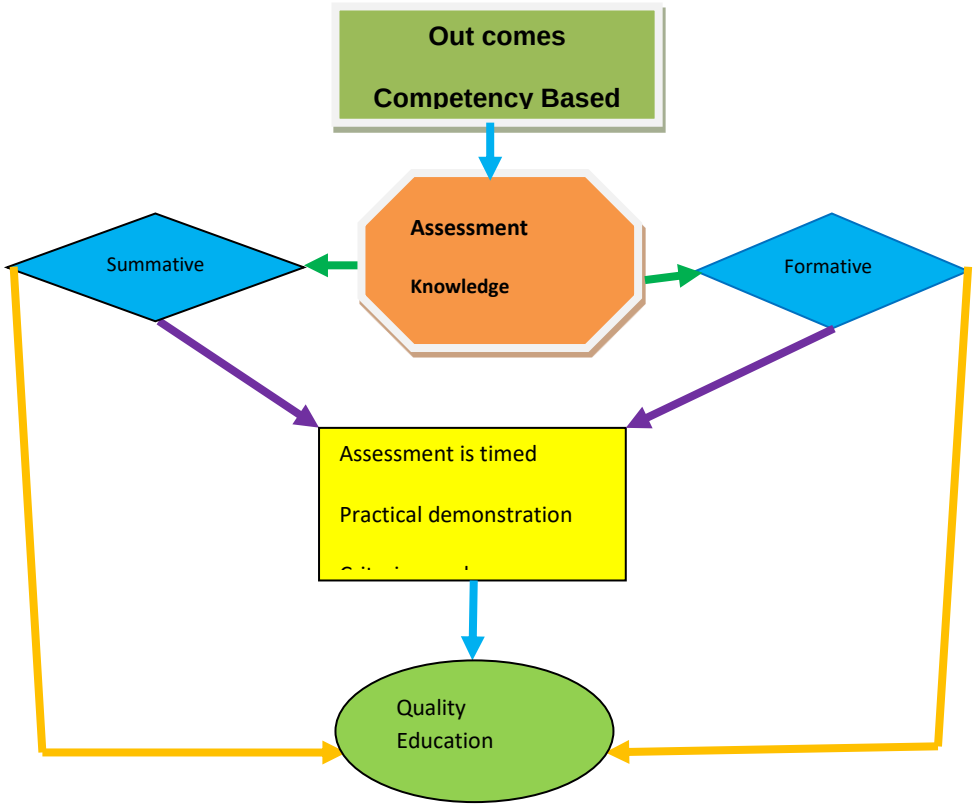
The implication for this design principle is that a) student should be as active as possible, and b) teaching and learning activities need to use real-life examples, making important connections to the students' current lives and future careers. The assessment methods should also parallel this using a variety of authentic real-life assessments, where possible. In addition, student should have opportunity to experience a developmental and supported approach to the common assessment types of the discipline, i.e. early essay writing skills support, early exposure to case studies, support in laboratory report writing, etc.

6. Consider the student work-load demands within the module, as well as in parallel modules.

Some of the issues to do with assessment workload require a school or program overview of the amount and types of assessment used, in addition, to the structure of the modules. One of the potential consequences of modularization, as far as assessment is concerned, appears to be fragmentation and over-assessment, or at least these are new possibilities. This observation points to the need to create strategies at the program level that seek to overcome these problems (Mutch, 2002). According to Prosser (2004), surface approaches to learning are generally associated with the perceptions that the workload is too high and that assessment is testing

reproductive learning, whereas deep approaches to learning are associated with the perceptions that teaching is good and goals and standards are clear. Lizzio et al. (2002) also found that the perceptions of heavy workload and inappropriate assessment push students to adopt surface approaches to learning' cited in Serife (2008).

Conceptual frame work



CHAPTER THREE

METHODOLOGY

3.1. Research Method

The methodological approach, which I used in this research, is a mixed method which focused on survey and descriptive study which is a systematic approach used to describe life experiences and give them meaning.

3.2. Design of the Study

The method, which was preferred in this study, was both survey and descriptive study. Thus, this design is preferred to investigate issues that are related to the Practices of student assessment in competency based modular instruction for Quality Education within the HEIs.

Relationship among theory and practice in student assessment has been scanned through the use of survey method. On the other hand, a qualitative approach has been done as an important method in collecting the appropriate information. Here, an in-depth investigation and empirical inquiry of events has been employed to explore causation in order to identify the underlying impacts within its real-life context.

3.3. Selection of Respondents

In Ethiopia, there are thirty three public universities. Out of these figures by the use of purposive and stratified sampling techniques three colleges of education from the seven universities within the Amhara Region has been selected. The main criterion for the strata was year of establishment.

Therefore, among the seven public universities within the region (Gonder, Bahir Dar, Debremarkos, wollo, Debrebirhan, Woldia and Debre Tabor university), Woldia university from the new universities (third generation), and Wollo university from the young universities (second generation) and Bahir Dar university from old university (first generation) were selected and included in the study.

After selecting Universities and issues that are related with student assessment, data has been gathered from each College of education instructors and students. Since the number of departments within each college is small, all departments have been considered in the study.

For qualitative data, selection has been made purposefully. Here, in order to get the right information, I contacted and discussed different instructors and students who have a good knowledge of the issue.

Hence, for the purpose of interview, the purposive sampling technique has been used to students and instructors from each college who are involved in modular training. Moreover, instructors were selected on their long time experience of consultancy and teaching in the Ethiopian higher education. Finally for the purpose of focus group discussion, instructors from each department were selected using purposive sampling technique.

3.4. Data collection Instruments

There are several method of collecting primary data, particularly in survey and descriptive researches. In such type of research, we obtain primary data either through observation or through direct communication with respondents. Therefore, in this study information that is relevant to the given program has been collected by the use of questionnaires, interviews and focus group discussion

Questionnaire

This method of data collection is quite popular, particularly in case of big enquiries. The questionnaire is mailed to respondents who are expected to give the required information. For the formulation and disposition of the different questions in the first draft, I have followed a series of recommendations carried out by many scholars with respect to: order of difficulty, inserting easy questions at the beginning; formulating concrete questions, avoiding ambiguity; using simple and clear language and suitable vocabulary and; asking different types of questions.

Interviews

In the study, semi structured interview has been conducted for teachers and students from each HEI in the conventional style of everyday interaction. Interview guide has been constructed to tap the perceptions of all respondents. All the interviews were conducted in Amharic to make communication easier. All the transcribed materials have been carefully translated from Amharic in to English.

Focus group discussion

A focus group is a qualitative data collection method in which one or two researchers and several participants meet as a group to discuss a given research topic. According to wellington (1996) focus group discussion is a complementary technique to collect data in qualitative studies. Based on this assumption, focus group discussions have been conducted in the HEIs which comprise of six instructors.

3.5. Method of data analysis and interpretation

In the study, in order to reach on the reliable information on the Practices of student assessment in competency based modular instruction for quality education, both quantitative and qualitative analysis of the data have been employed. Furthermore chi-square and t-test were employed to examine the mean difference and level of significance among the respondents. This has been supported by the statistical package for social sciences (SPSS) computer program.

In analyzing qualitative data both interpretational and reflective analysis were used as the most important approach in order to create the necessary categories and to reflect my personal views on the bases of the information I collected.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

Introduction

In order to comply with the evidences that could be considered in practices of student assessment in competency based modular instruction, this research paid attention to the external and internal conditions surrounding the institutes of higher education with a specific reference of College of education. The basic assumption was that the practice of student assessment was not running in the right track.

In this research, factors that are related with assessment techniques were explored within the specified universities. This was done to answer the research questions posed in chapter one.

In doing so, I explored the data broadly that were obtained from the two groups of respondents namely teachers and students within the three colleges of educations. In doing so, I have tried to investigate in detail the basic issues of assessment practice from the perspectives of modularization.

Based on the information that has been obtained from the above mentioned respondents the following analysis and interpolation of data was made with great care.

Descriptive and Inferential Statistical Analysis

Analysis on Assessment Practice

Continuous assessment is a formative evaluation procedure concerned with finding out, in a systematic manner, the over-all gains that a student has made in terms of knowledge, attitudes and skills after a given set of learning experience (Ogunnyi, 1984). The results obtained from continuous assessment can be used to identify the students' weak areas so that teachers can give them special support in those areas.

In spite of the central role of continuous assessment in enhancing the teaching learning process, as Kellaghan and Greany (2003) further suggested, there is evidence that the quality of those practices may be deficient in many ways.

When we come to the type of assessment made in our studied Universities, it is not as such differed from the above suggestion. In a modular practice most teachers were not used regularly such types of technique. As in indicated in Table 1, both teachers and students were stood in a position of disagreement. In teachers' response, though 38.9% of them were mentioned that as the use of continuous assessment is in a right truck, majority of them (60.1%) were not agreed with the application of continuous assessment. Similarly except 3.5% of students' respondent, great majority of them (96.5%) were shown their disagreement.

In terms of students' skill measurement, teachers and students were having different perceptions. In such area, except 27.8% of teachers who have said assessment made on students is not

appropriate, great majority (72.2%) were replied in the opposite direction saying that it was appropriate. On the contrary 92.9% of students' respondents were assured that assessment techniques that have been made at the time of modular instruction were not in apposition of measuring their skills.

If learners' progress is not checked at key stages throughout the assignment, individuals may and often do lack focus in pursuing the learning objectives and become confused about the outcomes (Learning and Skills Development Agency, 2005). In this regard though teachers and students do have significant mean differences ($p<0.05$) on the extent of emphasis of assessment on time, both respondents were disagreed (85.3%) on the issue of assessment is timed according to the pace of learning. Teachers who have said assessment was not made with the expected time line with the students pace are 55.6% while students who agreed with this idea are 94.8%.

Evaluation at the end of the module was not a significant problem in all Universities. Here, significant mean difference was not as such observed from the two groups of respondents. In this aspect as shown in Table 1, except 14.7 % of the two groups of respondents, almost 85.3% of them were agreed as evaluation has been done at the end of each module.

In practice, learning and assessment should be founded on clear, effective and measurable competencies for practice that guide the planning and implementation of lifelong learning to enhance performance, improve quality of care and enhance the effectiveness an educational system systems. However, focusing exclusively on such quality measures alone has been insufficient as such measures are not currently available for all conditions, and in some conditions are based on conflicting or contradictory guideline (Tripartite Alliance, 2014).

Similarly, in all our studied Universities, the implementation of competence based assessment is getting low. Almost 87% of the respondents from the two groups were agreed with the idea of the Tripartite Alliance. Here students were not seen while they are assessed their practical demonstration. As in Table 1 indicated, except 38.9 % of teachers' respondents, great majority of them (61.1%) were disagreed with assessment made on practical demonstration. On the other side results obtained from the students are much more different from the teachers. In their response almost 94% of them were disagreed as assessment basically made with practical demonstration of competence.

As many scholars have agreed, it is crucial for teachers to share assessment criteria with learners to promote the chances of learning taking place. The assessment criteria should be clear and should not be added after learners have generated the work for a given task. It is therefore vital that all learners in a group understand what they are trying to achieve in a given task and why they are doing it. If teachers want learners to understand and demonstrate their commitment to a task, they need, as far as it is possible, to decide on the goals and define the assessment criteria on which their progress is to be assessed (Learning and Skills Development Agency, 2005).

In the case of our Universities experiences on the clarification of criteria for students on assessment is not yet matured. Students were assessed without a clear picture of what ought to be assessed. Results as in Table 1 indicated, 93.3% of the two groups were agreed that as clarification of performance assessment criteria for learners is less. In this study more students were disagreed (98.2%) on performance assessment clarity as we compared with the teachers respondents (77.8%).

Knowledge of the different levels of learning in the three domains (cognitive, psychomotor and affective) can help to ensure that assessment(s) test students at the appropriate level i.e. assessment fits with levels of learning specified in the learning outcomes (University of Auckland, 2010). However, measuring all level of domains within the practice of modular instruction in all studied Universities was not done as needed. In assessing student's performance in all domains, except 15.8 % of students who have said "I am not sure" and 7% of the whole respondents "I agree", great majority of the two groups of respondents (76%) were shown their disagreement.

Moreover, as evidences have been obtained from the depth interview and focused group discussion, most teachers were usually relay on assessment which is highly attached with cognitive domain. In this regard interviewees and focused group discussion participants have said the following:

> *Since our method of teaching is highly confined within the classroom, the room in measuring the practical skill and attitude of the learner is less. We usually measure their cognitive skill specially the recalling part* (teacher's interviewee).
>
> *Most of our instruction is focused on theory. Activities that are related with practice were not treated as modular instruction has invites us. Therefore, the experience of assessing learners progress in the area of psychomotor and affective domains was not done as required. Rather we focused on the cognitive part* (teacher's interviewee).
>
> *I have never seen a teacher while he/she is assessing students' practical skills. Even they do not know the level of our attitude towards our profession. They don't have any mechanism of knowing our interest. They are highly attached with classroom test which is a reflection of rote memory (student's interviewee).*
>
> *Assessing students' performance in all level of Bloom's taxonomy is crucial. The mastery of learning can be easily examined if we all exercised such type of assessment within the realm modular instruction. This is one of the principle of our modularize instruction which we are expected to follow. But in practice we are at far distance both in implementing the right method of teaching and assessing learners progress at all levels. We simply measure the easiest and lowest part of the cognitive domain rather than looking and examining the all rounded personality of our learners (focused group participant).*

Questions	Respondents	Response in%					mean	p-value
		Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure		
Student learning have been continuously assessed	Teachers	0.06	0.33	0.44	0.17		2.72	
	students		0.04	0.61	0.35		3.32	
	Total	0.01	0.11	0.57	0.31			0.001
Assessments were appropriate in terms of measuring students' skill	T	0.17	0.56	0.28			2.11	
	S		0.07	0.60	0.33		3.26	
	Total	0.04	0.19	0.52	0.25			0.000
Assessment is timed according to the pace of learning.	T	0.11	0.33	0.50	0.06		2.50	
	S		0.02	0.47	0.47	0.04	3.53	
	Total	0.03	0.09	0.48	0.37	0.03		0.000
The learner is assessed immediately on completion of each module.	T	0.44	0.50	0.06			1.61	
	S	0.39	0.44	0.18			1.79	
	Total	0.40	0.45	0.15				0.349
Assessment is based primarily on the practical demonstration of competence	T	0.06	0.33	0.50	0.11		2.67	
	S		0.05	0.58	0.37		3.32	
	Total	0.01	0.12	0.56	0.31			0.000
Performance criteria are clear to learners	T	0.06	0.17	0.56	0.22		2.94	
	S		0.02	0.53	0.46		3.44	
	Total	0.01	0.05	0.53	0.40			0.004
All domains were stressed	T	0.06	0.22	0.50	0.22		2.89	
	S		0.07	0.51	0.26	0.16	3.51	
	Total	0.01	0.11	0.51	0.25	0.12		0.008

Table 1: Student Learning Assessment

In a discussion of the conditions under which assessment supports learning, Gibbs and Simpson (2004) highlight the importance of feedback being understandable, timely and acted upon by students. Yorke (2003) argues that, as well as the content of feedback, an awareness of the psychology of giving and receiving feedback is vitally important to student learning. On such matters, Zahorik (1987), for example, stated that when students are told about the correctness of their answers, it helps them to alter their studying style which then leads to improved achievement. Furthermore, according to Zahorik, immediacy of feedback is important because it provides students with information about how well they are doing.

However, literature on feedback reveals that students are often dissatisfied with the feedback they receive, in terms of lacking specific advice to improve (Higgins et al., 2001). According to Higgins et al feedback is still relatively underexplored and is a process which faces challenges, such as time, miscommunication and emotional barriers.

Similar to Higgins et al views, although more teachers (61.1%) were stood in the opposite direction. (92.9%) of students from the studied Universities reported that the experience of immediate feedback is weak and as a result students were not as such beneficiaries. In the result significantly mean difference was also observed among the two groups ($p<00.5$). However, in the depth interview and focused group discussion both groups were assured that as immediate feedback was not done at regular bases.

> *At the time of classroom instruction students are expected to give an answer for a certain question either in group or individually. Just after their response we teachers usually give our comment. Actually this could not be done for the whole exercise at regular bases (teacher's interviewee).*
>
> *Timely feedback is not exercised as needed for the purpose of constructing learners' skills. In most cases teachers are not involved in such tedious activities except delivering their exam result. Even they are teachers who are not volunteers to deliver students' result (teacher's interviewee).*
>
> *Most teachers were not happy to give their feedback on either for their test or assignment that they gave us. This has been taken as a good trend in all fields of studies across the University (student's interviewee)*
>
> *Teachers were not ready to construct their students' by the use of different supportive mechanism including giving feedback at right time (student's interviewee)*.
>
> *It is clear that giving an immediate feedback for students after any form of assessment is fundamental. However, due to multiple factors like large classroom, time constraints, lack of commitment, lack of awareness etc teachers were not in a position of giving an immediate feedback at all levels. As a result most students were not happy with their teachers' assessment techniques and follow up mechanisms (focused group participant).*

Table 2: Feedback

Questions	Respondents	Response in%					mean	p-value
		Strongly Agree	Agree	Disagree	Strongly Disagre	Not		
Continuous feedback is given timely to a learner on assessment results	Teachers	0.11	0.50	0.39			2.28	
	students	0.02	0.05	0.60	0.33		3.25	
	Total	0.04	0.16	0.55	0.25			0.000

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

In this study a mixed type of research was carried out to investigate practices of student assessment in competency based modular instruction in selected three Universities. By exploring the experience of modular instruction that took place in College of Education within the selected Universities, the current investigation has tried to examine practices of student assessment with the help of different assessment theories.

The relevant literature materials on the problem were reviewed under the second chapter of this research. In the literature different theoretical assumptions on practices of student assessment in competency based modular instruction for quality education were reviewed. Moreover, relevant model of assessment techniques were examined and described with the help of conceptual frame work. The literature review focused on the benefit of competency based assessment in HEIs due to the suggestion that modular instruction meets the needs of today's students more adequately than traditional instruction both with respect to the quality of learning and the content.

However, various factors could contribute for its ineffective implementation. Among these, we can mention failure in designing and developing the appropriate modules and use of poor assessment mechanisms.

By focusing on the examination of the practice of assessment within the teaching learning process in HEIs, data were collected to answer the research questions set in chapter one. Accordingly, questionnaires, unstructured and structured interviews and focus group discussions were employed to collect data. A pilot study was conducted to test the reliability and validity of the questionnaire for students and teachers in one university.

Data were collected from key informants (college teachers and trainees). Using both purposive and random sampling techniques, Colleges and respondents within the HEIs were chosen on the basis of the experience they acquired during the implementation of modular instruction in the previous years.

For capturing information about the practice of student learning assessment, focus group discussions were conducted with teachers who have more experience within the Colleges.

Analysis was made based on the nature of the tools employed to collect the data. For thendata collected by the use of questionnaire, information has been grouped in to different categories.

Interpretation of the data was made based on the research questions set. To assess the relationship between the respondent opinions on the practice of assessment, chi-square test was employed. Furthermore t-test and F-test have been employed to examine the mean difference among the respondents.

In analyzing qualitative data, the interpretational and reflective analysis were selected as the most important approach in order to create the necessary categories and to reflect my personal views on the bases of the information I collected.

As to the ethical issues in this research, participants were given their informed consent prior to seeking their responses. For the sake of anonymity and confidentiality, I have tried to use pseudonyms of the participants in the research. After making a thorough analysis, the following major findings of the study were discovered:

- Assessments were not made on time in accordance to the learner's pace.
- Assessment technique that was employed was not as such measure what intended to measure.
- The assessment techniques were fully attached with theories which did not go beyond the lower level of cognitive domain.
- Students are expected to take all types of exam without being aware of the assessment criteria that are needed for modification.
- Trends in giving immediate feedback is found weak or too low either in the form of written or verbal dialogues.

5.2. Conclusions

In our higher education institutes, teaching learning method is considering a change from traditional lecture and demonstration to self-paced modular approach. As a result numerous public and private institutes have made this change in the past few years. Similarly, the three selected higher education institutes in Amhara region were contemplating this transition as well. Therefore, research was conducted to determine whether the change to modular instruction specifically the practices of student assessment in competency based modular instruction could be qualitatively and quantitatively proven superior to traditional instruction.

In order to reach on a reliable result, a mixed type of research was conducted on three colleges of education from the selected HEIs. Data were gathered by the use of questionnaire, interview and focused group discussion both from the teachers and students to reach on the following conclusion.

As has been indicated in the analysis and interpretation section, the practice of continuous assessment seems to be weak in supporting the teaching learning process. Similarly, assessments were not made on time in according to the learner pace. In most cases teachers preferred to assess their students at the end of each module which is summative type of assessment. The use of formative assessment is found less. Moreover, in all studied universities, assessment is highly relied on cognitive domains. The rest psychomotor and affective domains were either ignored or overlooked.

More recently, the shift towards competency based education has reframed the design, implementation, assessment and evaluation of education. Within this context assessment should be focused either on the achievement of individual competences or conceptualized around the established milestones. From this perspective assessment that has been made in all sampled Universities seems to be weak. Great effort was not exerted to check students' improvement in

the world of work. The assessment techniques were fully attached with theories which do not go beyond the lower level of cognitive domain.

Likewise, criteria that were used at the time of assessments were not shared for the owner of the subject (the learner). Students are expected to take all types of exam without being aware of the assessment criteria that are needed for modification. The need of clarification of performance assessment criteria for learners was totally ignored.

One of the main features of quality teaching is giving effective comments on students' work. From this perspective as many scholars have agreed with, timely feedback is central to student learning. Timely feedback plays a decisive role in learning and development within and beyond the formal educational settings. Written annotations and comments on drafts or on finalized assignments in addition to verbal dialogues prior to or after submission are basic. However, in this research, results have shown us trends in giving immediate feedback is found weak or too low either in the form of written or verbal dialogues.

5.3. Recommendations

Overall, this study has tried to examine both internal and external enabling conditions of continuous assessment in HEIs within the selected samples. From the result it was clearly seen that significant limitation were found in all areas of assessment practices. This calls for a closer attention of the practice of modularization across all HEIs. Therefore, in accordance with the finding, the following suggestions were forwarded for the purpose of improvement

- In competence based modular instruction, the use of continuous assessment and timely feedback are fundamentals. Therefore, teachers who are involved in such type of mode of delivery should be more familiar with the different techniques of assessment like self assessment, peer assessment, formative and summative assessment. These all techniques should be in place at the time of modular instruction.
- Higher institutions of learning should train teachers on how to use continuous assessment strategies for their implementation. The training should focus on how teachers can carry out continuous assessment in the different teaching and learning stations with ease.
- Regular training and seminars/workshops should be constantly organized for teachers to update their knowledge of the process involved in the implementation of continuous assessment to further boost the realization of learning objectives as room still exists for improvement.
- Competency-based assessment has to be done using the following assessment strategies:
    - Direct observation
    - Multiple source feedback: which is a questionnaire based assessment strategy that includes self-evaluation and feedback on observable behaviors from colleagues and co-workers.
    - Audit and feed back: which is an assessment strategy that provides performance data (typically from records) with feedback
    - Portfolios and Reflective Learning Tools: Portfolios are technological tools that span the educational continuum and provide formative assessment of the proficiency of

individual learning and improvement where scores and judgments are based on the individual data elements.

- Finally a practicum guide with a Performance assessment form (which is attached in appendix) should be developed and distributed to all stake holders.

- Assessment criteria should be clear so as to understand what students are trying to achieve in a given task and why they are doing it. Moreover, in order to know more about the overall change of the learner, the higher order of learning out comes like psychomotor and affective domain should be checked with the help of the above stated strategies.

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3. THE DYNAMICS OF BUSINESS MODEL INNOVATION FOR TECHNOLOGY ENTREPRENEURSHIP: A SYSTEMATIC REVIEW AND FUTURE AVENUE

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Abstract

A need for business model innovation (BMI) compelled by technology has been increasing since the adoption and application of technological entrepreneurship and goes further to transformation as an integral part of a value proposition. However, there is an ambiguity and lack of clarity that prerequisites the construction of comprehensive BMI in the technology entrepreneurship area.Therefore, this study is aimed to systematically integrate, and synthesize the existing works related to the dynamism of BMI and technology entrepreneurship to build a unified framework. To meet this objective, various publications on the subject matter have been reviewed and, the logics and arguments of various scholars were compared to draw conclusions and develop BMIfor technology entrepreneurship. In these sense, the study integrates the dynamism and innovation with a BM and forms a single construct that puts up the systematic development of concepts in the newly developed framework. Besides, the study uncovers a specific relationship of a comprehensive and dynamic BMI for technology entrepreneurship to variables of performance and economic sustainability. Further, the BMI creates a new offering system and improves the current delivery system, which leads to reconfiguration of the model by integrating with firms capabilities in creating and exploiting new business opportunities. Therefore, the future research might study the specific activities that highly integrated with the BMI for technology entrepreneurship using experimental research design.

Key words: Business model, Technology, Innovation, Sustainability, Commercialization

1. Introduction

1.1.Background of the study

The business model dynamism (BMD) capability links the business model (BM) change to innovation in maintaining and challenging the firm's status quo(Cavalcante et al., 2011). Thus, organizations should apply extension, revision, and termination of the BM, which necessitated the BMD to have a competitive advantage(Anjorin & Ravi, 2012). This is because no equivalent ontology is available to describe the strong sustainable business model (Upward & Jones, 2016) since this might happenthrough changes in the dynamic environment. Therefore, firms should find novelty in performing activities that help to achieve the novel BM advancement (Ireland et al., 2001).

Anjorin & Ravi (2012) *stated that "a BM which passed through the various change processes were considered as dynamic*".That is, BM is a complex and dynamic system (Demil & Lecocq, 2010). Besides, BMs contribute to the successful commercialization of disruptive technologies since the value of technology alone will be less since values are emerged through commercializing a BM (DaSilva, et l., 2013). Hence, intension should be tended to gain

technological capability and personnel skills in developing innovation and being competitive (Khefacha & Belkacem, 2016). Therefore, the need forBMI compelled by technology has been increasing (Gambardella & McGahan, 2010). That is because, BM helps managers to discover markets that contribute to the creation of a "*techno-economic network of innovation*" (Doganova & Eyquem-Renault, 2009)since adoption and application of technological entrepreneurship goes further to transformation as an integral part of the value proposition (Eliakis et al., 2020).Moreover, technology entrepreneurship is considered as the main source for the firm's better value creation (Chebo & Wubatie, 2020).

On the other hand, there are researchers such asde Reuver et al. (2009) who stated the need for BMD (Anjorin & Ravi, 2012), since BM is flexible and will not exist in its current form for a long period (Cavalcante et al., 2011). However, little is done still in theoretically integrating dynamism to BMI in the technology entrepreneurship domain. In addition, there are researches that reveal innovation dynamism contributes to economic sustainability (e.g., Hirooka, 2005). Aspelund et al. (2005) also argue that the rise of innovative entrepreneurship has a significant positive effect on economic development(Eliakis et al., 2020). Prior studies also examine the linkage between BM and firm performance (eg. Snihur & Tarzijan, 2018; Kim & Min, 2015; Sabatier et al., 2010; Santos et al., 2015; Zott & Amit, 2007).

To answer the research questions, this study systematically collects, synthesizes, and reviews the works of literature in the field and build a new construct and frameworkthat combines the dynamism in BMI and technology entrepreneurship. That is, by adopting a systematic review, the article provides collective and all-inclusive frameworks in the area of BMI in the technology entrepreneurship dimension.

1.2.Statement of the problem

Previously, firms innovate products, processes, and technology in creating and achieving sustainable values (Hansen et al., 2009). However, these methods were not adequate and need to be complemented with BMI to bring more sustainable value (Schaltegger et al., 2012). That is, the route towards sustainability requires a change in the purpose and strategies of business (Bocken et al., 2014). Further, when BM is integrated with sustainable development, the complexity rises more(Abdelkafi & Täuscher, 2016). To reduce this complexity, I have limited the dynamics of BMI to economic sustainability by excluding other dimensions such as societal and ecological sustainability. Thus, drawing on a big and multidisciplinary nature of BMI and technology entrepreneurship, the study identified evidence from previous studies that support linking both BMI and technology entrepreneurship (eg. Chesbrough, 2010) to better firms' performance and further to economic development.

Practically, it is still a serious challenge in developing a feasible BM (DaSilva, et l., 2013) because of its dynamic nature. Among these challenges, the main is designing a business that creates economic achievement (Schaltegger et al., 2012; Abdelkafi & Täuscher, 2016). Also, innovating a novel BM will not always be the root to success, because of the complexity associated with the business environment dynamism. This necessitates a dynamic BM, which is capable of handling both the status quo and flexible features. Yet, it's challenging for organizations to make a BM dynamic since organizations are reluctant to adopt changes (Cavalcante et al. 2011). In general, the need for coping up with technological advancement, market change, and other environment dynamics brought challenges that necessitated the use of

dynamic BM (Anjorin & Ravi, 2012). This is because, BMI from technological developments occur alongside a sector market and overall design (Gambardella & McGahan, (2010). Therefore, it's important to develop a comprehensive and dynamic BMI in technology entrepreneurship for the success of the organizations.

Theoretically, problems with BM research continue to hinder theory development (Fjeldstad & Snow, 2018), the concept is ill-defined (Roome & Louche, 2016) and there is no clarity in purposes and concepts (Cosenz & Noto, 2018). That is, the BM patterns are unclear, inconsistent, incomplete, and overlapping (Remane et al., 2017)particularly in the technological entrepreneurship domain**.** It also lacked academically enquiring about the complexity of a multi-business model setting (Snihur & Tarzijan, 2018; Nickerson & Zenger, 2004) that considers the changes throughout the time with changing technologies. The ambiguity and lack of clarity prerequisites the construction of comprehensive BMI in the technology entrepreneurship domain. Besides, much of the recent researches on BMI focuses on the narrow goal of value capturing mostly in a downstream process of a business environment(Tidd & Bessant, 2018). Hence, this study attempt to integrate the different fragmented constructs and approaches of BM concerning its dynamics and innovation in the technological entrepreneurship area. Because, even though theories that illustrate BM in technological firms were identified, they rarely discover the common components of the BMI and technology entrepreneurship as well as the association with dynamism.

1.3.Research questions

Taken in to account these contributions, this review paper tends to answer research questions such as;

- Do the existing research in the BMI of technology entrepreneurship dimension has a common understanding?
- Is there an opportunity to develop a comprehensive model of dynamic BMI in the technology entrepreneurship domain that summarizes the widespread issues in the subject matter?
- Are there theories that support to merge the fields of dynamic BMI and technology entrepreneurship in forming a single construct that offers a framework for further research?

1.4.Objective of the study

1.4.1. General objectives

The major objectives of this study is aimed to systematically integrate, and synthesize the existing works related to the dynamism of BMI and technology entrepreneurship to build a unified framework.

1.4.2. Specific objectives

- To identify the existing research in the BMI of technology entrepreneurship dimension towards bringing a common understanding.
- To investigate the existence of opportunity to develop a comprehensive model of dynamic BMI in the technology entrepreneurship domain.

- To identify the theories that support to merge the fields of dynamic BMI and technology entrepreneurship in forming a single construct that offers a framework for further research.

1.5.Significance of the study

This study attempt to make novel contributions to the subject matter in different ways. First, a comprehensive framework of BMI for technology entrepreneurship (BMIfTE) has been established. Here, its argued that both BMI and technology entrepreneurship is highly related to the dynamism and determined by some components such as change and innovation, which necessitated the development of dynamic BMI for a specific sector of technology entrepreneurship. In this regard, the integrated outcomes give a meaningful understanding and make a considerable contribution to the practical application and theoretical development. Second, although there is a richness of the fields of BM and entrepreneurship in theory and literature, there is a fragmentation of studies under various disciplines, which leads to a lack of consensus in providing clear definitions and concepts. That is, still, there is a need to clarify the concepts and constructs of BMD and technology entrepreneurship. This study, therefore, takes a new approach of integrating the dynamism and innovation with a BM to form a single construct by refining and developing a unified concept of the integrated BMI and technology entrepreneurship. Thus, I put up the systematic development of concepts and constructs.

Third, the study focused on analyzing and synthesizing towards providing research agendas by proposing the frameworks as the inputs, internal elements, and outcomes. This is because existing works are rarely advises the subsequent works in the subject matter. Then, based on the overall analysis we developed a framework that will advance the understanding of the innovative BMD in the technological entrepreneurship dimension by highlighting and integrating the various antecedents of both concepts. Accordingly, there is an attempt to pinpoint the specific areas of investigation in the subject matter for future studies. This is because of the lack of systematic review that combines and synthesizes the different components and outcomes of BMI in the technology entrepreneurship domain is another motive for doing this paper. Accordingly, the systematic review is necessitated to assemble different understandings related to BM and technology entrepreneurship by combining and linking the various common elements and outcomes associated with a new construct of BMIfTE.

1.6.Scope of the study

This study integrates the dynamism and innovation with a BM to forms a single construct that puts up the systematic development of concepts in the newly developed framework. Accordingly, the various aspects covered by the study includes the inputs, processes, and the outputs of the construct of BMIfTE. This variables includes the opportunity and risk assessment, value migration, dynamic capability, and networking as an input and firms performance and economic sustainability as an outputs.

2. Theoretical Foundations

2.1. The dynamism of BMI and Technology Entrepreneurship

Recently, the BMI gets attention **(eg.**Hacklin, 2018;Cosenz & Noto, 2018; Futterer et al., 2018; Tidd & Bessant, 2018;Gambardella and McGahan, 2010; Zott et al., 2011**)**.BMI does not follow

rigid programs and is modified to breakthrough through opportunities and rectify the problems **by** adopting and integrating the capabilities towards exploiting the novel combination and creating and capturing values in a novel way (Gambardella &McGahan, 2010; Tidd & Bessant, 2018). Accordingly, Cavalcante et al., (2011) conceptualize BM as a systematic and organized scheme related to organizational change and innovation, which is associated with dynamism. Besides, the paradigm in technology innovation is rising on a nonlinear basis(Hirooka, 2005). The firms that innovate in their BM will tend to develop a new knowledge exchange and exploit opportunities instantaneously and dynamically towards developing competitive advantage sustainably (Gambardella & McGahan, 2010).Accordingly, the dynamic capabilities unified with knowledge domains contribute to the development of the dynamic BM that captures the link between structures and routines(Mason, et al., 2008; Drakulevski & Nakov, 2014).

There are researchers such asde Reuver et al. (2009) that indicated the need for BMD, which necessitated the connection with the firm's capabilities to transform the BM (Anjorin & Ravi, 2012). This is because, BM is flexible and will not exist in its current form for a long period (Cavalcante et al., 2011). Therefore, incorporating the dynamism in the central element of BM,which results in BMD (Anjorin & Ravi, 2012). This is done through organizational learning and/or knowledge, system flexibility, and changes that permit the strategic position of the firm (Drakulevski & Nakov, 2014). Therefore, a dynamic BM is capable of handling both the status quo and flexible features by linking the BM change to innovation (Cavalcante et al., 2011). However, previous works rarely discover the common components of the BMI and technology entrepreneurship in association with dynamism. Even though there is a need to make BM flexible and adaptive, it's challenging for organizations to make a BM dynamic, because organizations are reluctant to adopt changes(Cavalcante et al. 2011)**.** That is, the willingness and ability to identify and implementing changes determines the BMD(Cavalcante et al., 2011). Therefore, both BMI and technology entrepreneurship is highly related tothe dynamism and determined by some components such as change and innovation, which necessitated the development of dynamic BMI for a specific sector of technology entrepreneurship.

2.2. Conceptual Linkage between BMI and Technology Entrepreneurship

Technology entrepreneurship is a vehicle that facilitates prosperity in individuals, businesses, and nations (Chebo & Wubatie, 2020). Arguments about technology entrepreneurship are lying around facilitating novel BMs(Baden-Fuller & Mangematin, 2013).Because of enterprises' vulnerability to market complementarity, firms tend to involve in BMI following the strategies related to technology and its dynamic applicability (Gambardella & McGahan, 2010). That is, the paradigm of innovation contains the technology development and market diffusion period (Hirooka, 2005). As a result, the value of technology alone will be less since values are emerged through commercializing using a BM (Chesbrough & Rosenbloom, 2002). That is, commercialized technology provides a variety of results and firms are requiring better values from launching a new and innovative BM and technology(Chesbrough, 2010). Besides, the appearance of a new market was, therefore, predicted by pursuing the existing technologies (Hirooka, 2005). However, still, there is a lack of study that integrates the BMI with technology entrepreneurship to form a unified construct.

Besides BM researches, technology entrepreneurship researches were also fragmented and not gentle in responding to practices (Eliakis et al., 2020). The two concepts are interrelated and have common elements. For instance, technology innovation requires a BM in bringing

innovations to the market and satisfying unsatisfied customer needs (Teece, 2010). That is, a feasible BMhelps in successfully commercializing the disruptive technologies (DaSilva, et al., 2013) and is integrated into the technology innovation (Baden-Fuller & Haefliger, 2013).However, Gambardella & McGahan, (2010)argue thatthe BMI that intended to allow technology entrepreneurship is unpredictable and unavoidable consequences on the organizational capability. Even though these researches show the necessity of the linkage, there is still a fragmentation in the empirical and theoretical literature in the field of BMI and technology entrepreneurship integration.

2.2. Components ofBusiness Model Innovation for Technology Entrepreneurship

Although there is a richness of the fields of BM and entrepreneurship in theory and literature, many of the recent researches on BMI focuses on the narrow goal of value capturing mostly in a downstream process of a business environment(Tidd & Bessant, 2018). There is also the fragmentation of studies under various disciplines, which leads to a lack of consensus on the way of integrating the determinants, internal processes, and outcomes. For instance, BMs are related to the concepts of configuring, creating, and capturing value, and designing (Teece, 2010; Baden-Fuller & Mangematin, 2013; Amit & Zott, 2001). Foss & Saebi (2017) states the alignment of a proposed value, segmented targets, revenue mechanisms, value chains, and the internal structures is necessary. However, more attention needs to be paid to the concepts of interaction with technology (Schallmo et al., 2017;Roome & Louche, 2016; Baden-Fuller & Haefliger, 2013; Chesbrough & Rosenbloom, 2002) since technology entrepreneurship also assembles and deploys manpower and existing assets to create and capture value (Bailetti, 2012). Accordingly, the entrepreneurial resources including financial resources and human resources help entrepreneurs engage in the discovery, evaluation, and exploitation of opportunities (Kosa & Mohammad, 2017). These resources are critical in improving the existing BMs or introducing new ones (Fjeldstad & Snow, 2018). Therefore, the methods of creating and capturing values were central to technology entrepreneurship and the foundation for a business model (Muegge, 2012).

The four core characteristics of BMs(i.e. value proposition, value network, value capture, and value creation and delivery) that emerge from the literature)(Roome & Louche, 2016) require a considerable improvement to commercialize technological innovation. Combining the two, opportunities can be thought of as technically visible latent demand (Eckhardt, 2013).The integration between technology entrepreneurship and BM is established and proven by value creation and value capturing (Muegge, 2012). By considering this integration, BMI is characterized by value networking (Roome & Louche, 2016) and creating entrepreneurial opportunities (Markides, 2016). Among the many conceptual relationships, many authors relate BMI with opportunity exploitation (e.g., (Khefacha & Belkacem, 2016), value migration (e.g., Hacklin, et al., 2018; Jabłonski, 2018), dynamic capability (e.g., Teece, 2018; Ritter & Lettl, 2018), and networking (e.g., Snihur & Tarzijan, 2018; Ritter & Lettl, 2018). Internally, BMs are used to create (Chesbrough & Rosenbloom, 2002), and capture values (Teece, 2010) through developing (e.g., (Fjeldstad & Snow, 2018; Futterer et al., 2018), experimenting (e.g., (Bojovic et al., 2018), renewing (e.g., Foss & Saebi, 2017), and commercializing (e.g., Da Silva et al., 2013) the business model. However, building an integrative BM in the dynamic and technological entrepreneurship domain is appears to be a common management challenge recently.

As an impact, the operational aspects of BMindicate the wayfirms are doing their business(Fjeldstad & Snow, 2018).Taking out the BMI helps to clarify the main strategies of the business model (Hacklin, 2018), which are performed to satisfy the unrequited market needs (Cosenz & Noto, 2018).The argument that BMI is key to firm performance has gained momentum (Futterer et al., 2018) and focused as spring for performance (Zott & Amit, 2007; Trimi & Berbegal-Mirabent, 2012; Kim & Min, 2015; Visnjic et al., 2016). The innovativeness identifies and exploits business opportunities through engagement in new ideas, products, processes, and markets, as a result, the overall performance of ventures will be improved (Chebo & Kute, 2019; Kosa et al., 2018). On the other hand, given the Kondratiev business cycles theory, Hirooka, (2005)reveals that innovation dynamism contributes to economic development. Aspelund et al. (2005) also argue that the rise of innovative entrepreneurship has a significant positive effect on economic development (Aspelund et al. 2005).That is, the entrepreneurial activities create and capture economic values from exploiting new or existing technologies (Roja & Năstase, 2014).Therefore, the adoption of new technologies through a dynamic process of creative destruction contributes to long-term economic growth (Khefacha & Belkacem, 2016).

By combining the various insights from the existing theories and literature, we provided new insights that identify and link four perspectives (such as; opportunity and risk assessment, value migration, dynamic capability, and networking) as a major input of the new construct BMIfTE. The processes are also displayed in figure 1.Then, the model connects these perspectives to the firm's performance and further to economic development. The framework of the study is shown in figure 1.

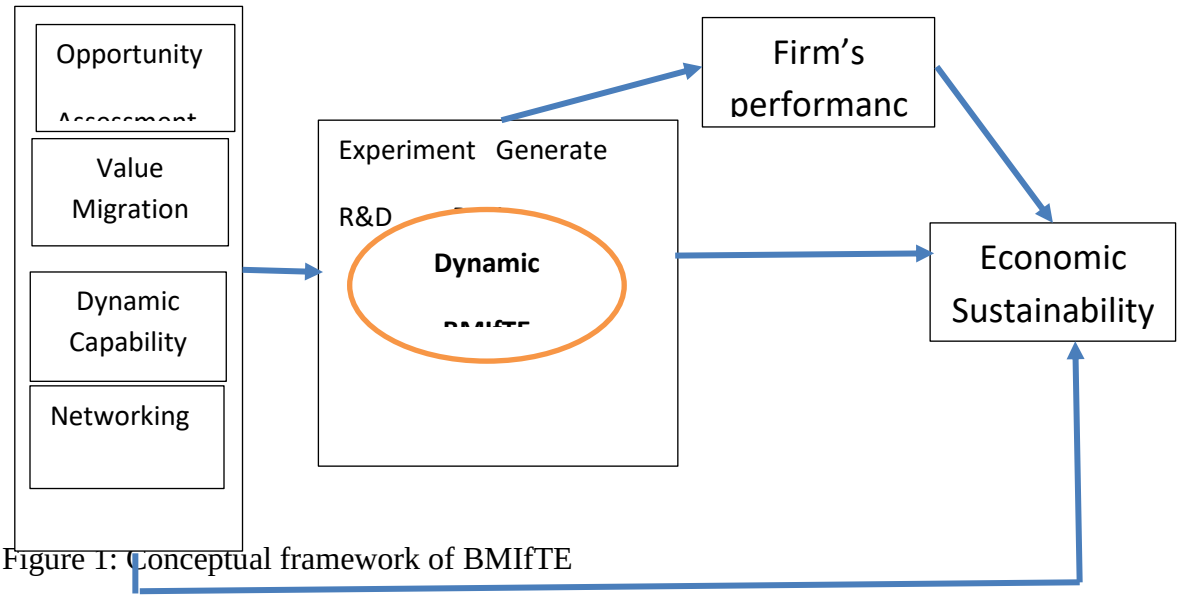

Figure 1: Conceptual framework of BMIfTE

3. Methodology

3.1. Study framework

Building on the health and medical researches, recently a systematic review studies have extended to business and management researches (eg. Zahoor & Al-Tabbaa, 2020;**Phillips et al., 2015).** Accordingly, this systematic review was conducted to analyze the existing literature on the dynamism of BMI and link it with technology entrepreneurship by synthesizing theinputs and

outcomes toward the firm's performance and economic sustainability. Before the study was started, the presence of an existing systematic review on the construct of BMIfTE as a single concept was checked to avoid duplication. To establish the BMI for technology entrepreneurship as a new single construct, the literature was identified primarily from Google scholar. Since the concept is multidisciplinary and many unrelated publications were identified, a comprehensive traditional literature review was established to form the parameters for a consequent systematic review (Jesson, 2011). Together they enable the origination of the framework (Upward & Jones, 2016]. Moreover, both forward and backward citation checking has been performed to confirm that allimportant articles were retrieved(Mpundu-Kaambwa et al., 2017).

To guarantee the transparency, consistency, and accuracy of the study, the four-step method suggested by Denyer and Tranfield (2009) and adopted byZahoor & Al-Tabbaab, (2020)is employed.Generally, the framework of the review process follows and adopts the approaches of Denyer and Tranfield**.** First, the review questions were developed and the conceptual boundary is formed. Second, the search boundary is proven by establishing a review scope. Third, the study identification, screening, and selection process that follows the PRISMA flowchart diagram has been used. Finally, the synthesis (i.e. narrative approach) and analysis (i.e., coding the article's data) were applied.

3.2. Review Scope

The review scope is established by applying the inclusion and exclusion criteria. The review scope is determined through setting the search database to Google scholar (GS), while the keywords used for searching purpose is associated using the Boolean logic. The exclusion criteria are, considering only the articles published internationally in the English language (Khosravi, Newton, & Rezvani, 2019), excluding sources such as books, conference papers, unpublished documents, and non-peer-reviewed publications, book chapters, short communications, and technical communications). Besides, only articles (Both theoretical and empirical studies) that go through rigorous review processes were included. However, to ensure relevant data are not missed, the snowball and bibliographic methods were used. Accordingly, the reviewers list the relevant articles from the bibliography in each article that they reviewed for inclusion(Zaza et al., 2020**)**. From this, we formulated a comprehensive and dynamic BMI in the technology entrepreneurship sphere and also has a contribution to the firm's performance and economic development. In this sense, the framework has the inputs for BMIfTE and its processes that may bring better outcomes (individual firm's performance and sustainable economic development).

3.3. Search strategy

The keyword search is conducted through advanced search options. While, GS search engine was employed to guarantee the robustness of the search process (De Menezes & Kelliher, 2011; Schlachter, McDowall, Cropley, & Inceoglu, 2018), keywords for search has been established by two independent investigators. However, to build comprehensive multidisciplinary sources databases such as Science Direct, Emerald, SAGE Journals, Springer, and Wiley Online Library have been visited in addition to GS. We conducted the identification, screening, and selection of articles filters 'academic journals', 'peer-reviewed', 'language-English', and 'field- title,

abstract, and keywords'. Also, the search is not restricted by country and time. Besides, the search terms were pre-defined to allow an all-inclusive search strategy that included all important articles. Accordingly, the following thematic terms were identified: 'Business model innovation', 'technology entrepreneurship', 'firm's performance', and 'economic sustainability'. The specific terms under each theme are; (1) "business model" OR "business model innovation" OR "innovative business model" OR "business model dynamics" OR "business model dynamism", (2) "technology entrepreneurship" OR "technology innovation" OR "technological entrepreneurship" OR "technological innovation" OR "digital entrepreneurship" or "digital innovation", (3) "performance" OR "firms performance" OR "ventures performance", and (4) "economic sustainability". Then, the searches were conducted independently for the first two groups of terms followed by conducting a combined search between themselves and with the remaining two groups of terms.

3.4. Study Selection and Eligibility Criteria

Two independent reviewers who are selected based on the experience in content development and conducting systematic reviews were collected the data. If the data collected by two reviewers are different the two researchers were discussed and reconcile the differences. All the articles identified were screened by two independent reviewers to identify the articles that meet the inclusion criteria. All duplicate articles have been removed. Each stage of the eligibility criteria and selection has been outlined in the PRISMA flow chart and assessed by the PRISMA checklist.

Some of the major sources of citation data were Web of Science (WoS), Google Scholar (GS), and Scopus. The coverage of WoS and Scopus were different among different disciplines. For instance, their coverage is not good in social sciences and humanities (Mahdi et al., 2008). Comparatively, GS is advantageous by searching all citations from several sources. The coverage of research output is higher in GS and also does not differ among subject matters (Amara & Landry, 2012). In general, even though the data quality and reliability were poor in GS, WoS and Scopus were weak in non-science subjects. This makes GS comparatively advantageous over these subject matters. Besides, the multidisciplinary nature of the topic imposes us to use GS. Then, we have targeted in collecting data from articles published on the subject matter of BMI dynamic and technology entrepreneurship. Accordingly, GS was used as a primary database in accessing peer-reviewed reputable journals to obtain a wide coverage of literature on the subject matter. Besides, the special issues of long-range planning and organization and environment journals were reviewed. First, these concepts are reviewed separately and later linked to establishing a general concept of dynamic BMI for technology entrepreneurship. The identification, selection process, and eligibility were summarized in figure 1.

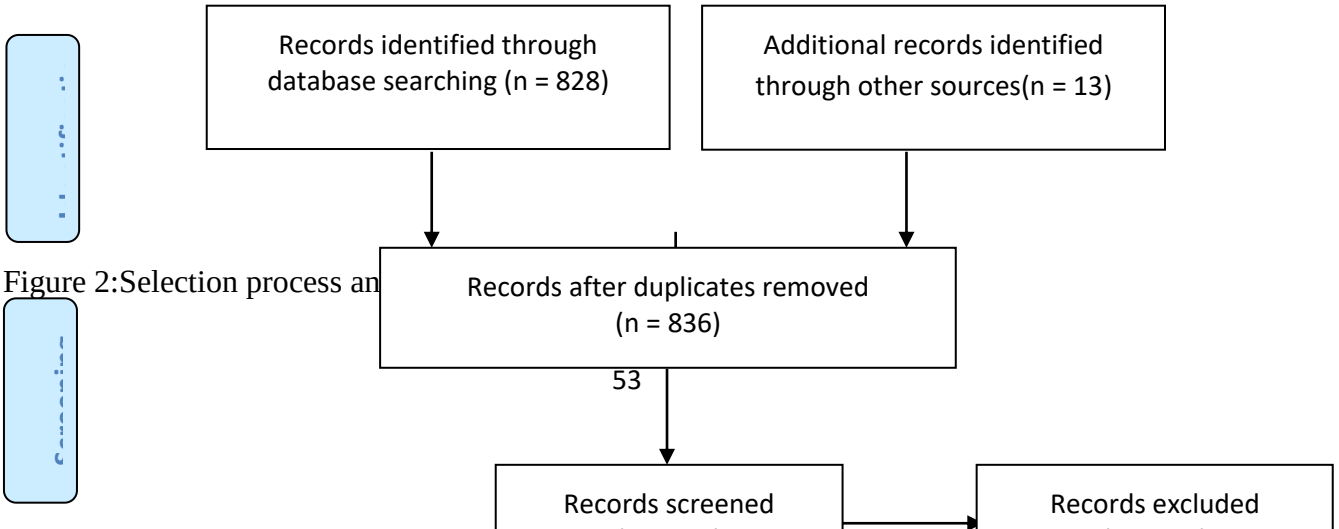

Figure 2:Selection process an

Source: PRISMA flowchart diagram, 2009

Even though there are many papers with the search term, some articles which give a highly different meaning and are far from the topic of study have been removed through the screening process. In general, the following procedures were followed. First, by focusing on the framework used to create BMIfTE towards firm performance and economic sustainability, a total of 828 articles were recorded after the exclusion criteria. Additional 13 articles were also retrieved using traditional searching methods, which leads to screening 836 articles after 5 duplicates were removed. Next, by analyzing titles and abstracts 326 and 346 non-relevant articles were excluded respectively. The items which are not suitable for the research question are excluded from the review and focus on the framework used to create the BMI for technology entrepreneurship with the analysis of the full paper, and 109 articles were eliminated. Finally, only 55 articles were verified and analyzed.

3.5. Data Extraction and Quality Assessment

To assure the quality of the research, the researcher has to document literature findings, the selection of keywords, and the evaluation of the result. Besides, a quality-related concern is reduced by considering only peer-reviewed articles. Besides, only the journals that publish their articles in the electronic databases were considered to systematically access all sources (i.e., all are publicly available, Bhimani et al., 2019). After these have been done, data were extracted by two independent reviewers. Then, the two researchers independently searched using the same keywords and found the same results, which ensures the robustness of review searching processes (Boiral et al., 2018). But, in the use of terms, a disagreement between reviewers was discussed with the reviewer, and reached a consensus. Moreover, duplicate articles were manually identified and removed.

The articles for review were identified from Google Scholar and checked for the paper's quality using the journal impact factor (JIF) of Web of Science (WoS) and SJR of Scopus before entering the screening criteria. Currently, many indicators were established to measure the quality of journals. Some of them are h-index and SJR. After data were obtained from GS, the quality of the selected articles were checked using the JIF for journals published in Thompson Reuter's WoS, and SJR of Scopus for this specific research. JIF is important in using GS since it ignores the lower down papers. Similarly, SJR is important, its value is normalized, and its current version in Scopus has a refinement that considers the relatedness of the citing journal (Guerrero-Bote & Moya-Anegón, 2012). Accordingly, from a total of 39 journals, 34 (87.18) classified as Q1 as a ranking of SJR quartile. Only five journals categorized under Q2 and Q3were added because of their relevance. This is done to include concepts from technology entrepreneurship since it is not adequate. Some journal articles have been removed due to not being indexed and ranked by JIF or SJR.

Table 1. Selected journals impact factor and rankings.

Journal	2018 JIF (WoS)	H-Index	2018 SJR IF	SJR quartile	Publisher
Academy of Management Annals	12.289	51	12.7	Q1	Acad Management
Academy of Management Review	10.632	242	9.32	Q1	Acad Management
Journal of Management	9.056	192	7.94	Q1	Sage Publications Inc
Organization and environment	8.5	48	2.61	Q1	Sage Publications Inc
Journal of Cleaner Production	6.395	150	1.62	Q1	Elsevier Sci Ltd
Business Strategy and the Environment	6.381	84	2.17	Q1	Wiley
Journal of Business Venturing	6.333	253	8.84	Q1	Elsevier
Entrepreneurship theory and practice	6.193	121	5.07	Q1	Sage Publications Inc
Journal of Management Studies	5.839	172	4.61	Q1	Wiley-Blackwell Publishing Ltd
Research policy	5.425	206	3.41	Q1	Elsevier
Technovation	5.250	111	2.3	Q1	Elsevier
Industrial Marketing Management	4.779	114	2.38	Q1	Elsevier Science Inc
Journal of Business Research	4.028	158	1.68	Q1	Elsevier Science Inc
Academy of Management Perspectives	3.857	115	3.35	Q1	Acad Management
Technological Forecast and Social Change	3.815	93	1.42	Q1	Elsevier Science Inc
Journal of Product Innovation Management	3.781	126	2.97	Q1	Wiley
Small Business Economics	3.555	108	1.91	Q1	Springer
International Journal of Electronic Commerce	3.439	73	1.63	Q1	Routledge Journals
Long Range Planning	3.363	89	2.04	Q1	Elsevier Sci Ltd
Organization Science	3.257	211	6.55	Q1	Informs
Strategic Organization	3.109	47	2.55	Q1	Sage Publications Ltd
British Accounting Review	2.984	56	1.12	Q1	Elsevier Sci Ltd
Strategic Entrepreneurship Journal	2.956	31	2.82	Q1	Wiley
Journal of Innovation and Knowledge	2.826	15	1.06	Q1	Elsevier
European Journal of Information Systems	2.603	96	2.04	Q1	Taylor & Francis Ltd

R D Management	2.354	91	1.16	Q1	Wiley
Sloan Management Review	2.196	87	1.16	Q1	Sloan Management Review Assoc
Management Decision	1.962	82	0.73	Q1	Emerald Group Publishing Ltd
Industrial and Corporate Change	1.824	95	1.51	Q1	Oxford Univ Press
European Management Review	1.600	27	0.68	Q1	Wiley Periodicals, Inc
International Journal of Technology Management	1.160	51	0.5	Q1	Inderscience Enterprises Ltd
Advances in Strategic Management	0.745	25	1.3	Q1	Emerald Group Publishing Ltd
Journal of Strategic Marketing	ESCI	42	0.83	Q1	Routledge Journals
Communications of Association for Information System	ESCI	38	0.57	Q1	Assoc Information Systems
Technology Analysis and Strategic Management	1.739	60	0.72	Q2	Routledge Journals
International journal of innovation management	ESCI	39	0.49	Q2	World Scientific Publishing Co
International Journal of Innovation and Sustainable Development	ESCI	18	0.2	Q3	Inderscience Enterprises Ltd
International Journal of Product Development	-	22	0.23	Q3	Inderscience Enterprises Ltd
International Journal Electron Business	-	6	0.19	Q3	Inderscience Enterprises Ltd

Further to ensure quality following a systematic approach, both authors have differentiated the articles based on their relevance and scored 0 for articles which have no relevance to objective, 1 for articles that have poor relevance to objective, 2 for articles that have basic relevance to the objectives, and 3 if they have deep relevance to the objective (Dean, Larsen, Ford, & Akram, 2019). To keep the quality only the articles scored 2 and 3 have been included.

4. Data Analysis, Synthesis, and Discussion

To organize different findings, we employed a narrative synthesis since it's a flexible approach to reviewers and helps to adopt a "*fit for purpose approach*" (Briner & Denyer, 2012). Besides, the reviewers identified the themes used to build a framework for analysis (Phillips et al., 2015). Therefore, the synthesis was made to find the relevant findings and summarize essential knowledge of the subject matter research domain, to understand the big picture of a particular domain by reducing the irrelevant ideas. A qualitative research method is chosen to analyze the data collected from existing literature. Using this approach, the theoretical aspects of BMI in technology entrepreneurship were described and interpreted. For this qualitative research, a systematic review process was undertaken, because a systematic review is used to identify, evaluate, and synthesize the available literature since its comprehensive, explicit, and reproducible approach (Fink, 2005). Further, Rousseau et al., (2008) argue that systematic

literature review has importance in analysis transparency and avoiding implicit biases. In general, the systematic review covers plan and searching strategy derived to lessen bias by finding, scrutinizing, and synthesizing the relevant studies (Uman, 2011).

Based on the research question, the selected articles were organized based on the themes of BMI and technology entrepreneurship, which were further categorized into components such as inputs, processes, and outcomes. The analysis is focused on the concept, processes, and frameworks. Accordingly, the logic and arguments of various scholars were compared and a conclusion was drawn based on the synthesized arguments.

Table 2. Number of articles in each domain.

Search Items	BMI	TE	Total
Total articles after exclusion criteria	N = 624	N = 217	N = 841
Title based relevance	N = 446	N = 69	N = 513
Abstract based relevance	N = 130	N = 39	N = 169
Full text and research question relevance	N = 49	N = 11	N = 60
After duplicated articles were eliminated	N = 55		
Final relevant articles	N = 52		

Although there is a richness of the fields of BM and technology entrepreneurship in theory and literature, there is a fragmentation of studies under various disciplines, which leads to a lack of consensus on the way of integrating the determinants and internal processes. This necessitated systematically integrating, structuring, and synthesizing the existing works related to various determinants, internal processes, and outcomes of the dynamism of BMI in the technology entrepreneurship dimension. In this regard, we hope the integrated outcomes give meaningful understanding and make a considerable contribution to the theoretical development and practical application in the field. Therefore, this systematic review is necessitated to assemble different understandings related to BM and technology entrepreneurship by combining and linking the various common elements and outcomes associated with a new construct of BMIfTE. Then, the major elements identified from the literature in the process BM are related to the dynamism. This includes; generating, modification, experimentation, designing, changing, and so on.

Table 3. Processes,inputs, and impacts of BMI for technology entrepreneurship.

Contributions	Authors
Modification/improvement	Abdelkafi et al., 2013; Ritter and Lettl, 2018; Fjeldstad and Snow, 2018; Teece, 2018, Demil and Lecocq, 2010; Zott and Amit, 2010; Aversa et al., 2015; Kulins et al., 2016; Laasch 2018
Interaction with technology	Baden-Fuller and Haefliger, 2013; Chesbrough, 2007; Chesbrough and Rosenbloom, 2002; Roome and Louche, 2016; Khefacha and Belkacem, 2016; Bailetti, 2012; Chesbrough, 2010; Teece, 2010

Develop/Generate	Berends et al., 2016; Osterwalder and Pigneur, 2010; Fjeldstad and Snow, 2018; Amit and Zott, 2010; Futterer, 2014; Spieth and Schneider, 2016; Futterer et al., 2018
Experimentation	Sosna et al., 2010; Bojovic et al., 2018; Foss and Stieglitz, 2015
Design	Teece 2018; Fjeldstad and Snow 2018; Zott and Amit, 2007, 2010; Teece, 2018; Demil and Lecocq, 2010; Aversa et al., 2015; Kulins et al., 2016; Laasch, 2018
Change/renew	Futterer, 2014; Spieth and Schneider, 2016; Futterer et al., 2018; De Reuver et al., 2009; Amit and Zott, 2012; Foss and Saebi, 2017; Schneider and Spieth, 2013; Spieth et al., 2014; Velu, 2017; Aspara et al., 2013; Chesbrough, 2010; Foss and Saebi, 2018
Commercialization	DaSilva et al., 2013; Chesbrough and Rosenbloom, 2002
Configuration	Baden-Fuller and Mangematin, 2013
Implement	Hienerth et al., 2011; Al-Debei and Avison, 2010; Teece, 2010; Standing and Mattsson, 2016
Value migration	Hacklin et al., 2018; Amit and Zott, 2001; Teece, 2010: Roome and Louche, 2016; Baden-Fuller and Mangematin, 2013; Foss and Saebi, 2017; Shafer et al., 2005; Jabłonski, 2018;
Dynamic Capability	Bj€orkdahl and Holm en, 2013; Chesbrough, 2010; Sanchez and Ricart, 2010; Zott et al., 2011; Massa et al., 2017; Hacklin et al., 2018; Achtenhagen et al., 2013; Teece, 2018; Ritter and Lettl, 2018; Lawson and Samson, 2001
Strategy	Cosenz and Noto, 2018; De Reuver et al., 2009; Velu and Jacob, 2014; Teece, 2018; Casadesus-Masanell and Ricart, 2010; Markides, 2006; Chesbrough, 2010; Casadesus-Masanell and Feng, 2013; Santos et al., 2015;
Opportunities & Risk assessment	Khefacha and Belkacem, 2016; Eckhardt, 2013; Shi and Manning, 2009
Institutional ontology	Upward and Jones, 2016; Randles and Laasch, 2016
Knowledge	Camisón-Haba et al., 2019; Öberga & Alexander, 2018; Mason, et al., 2008; Torugsa et al., 2016;
Stakeholders and Networking	Lund and Nielsen, 2014; Ferreira et al., 2013; Ritter and Lettl, 2018; Zott and Amit, 2007; Snihur and Tarzijan, 2018; Lechner and Hummel, 2002; Zott and Amit, 2007
Entrepreneurial logics	Futterer et al., 2018; Tikkanen et al., 2005; Sosna et al., 2010;
Economic Sustainability	Hansen, Grosse-Dunker, and Reichwald, 2009; Beattie and Smith, 2013; Lowitt, 2013; Gauthier and Gilomen, 2016; Upward and Jones, 2016; Schaltegger, Ludeke-Freund, and Hansen, 2012; Bocken et al., 2014; Khefacha and Belkacem, 2016;
Performance/growth	Khefacha and Belkacem, 2016; Amit and Zott, 2001; Zott and Amit, 2008; Kim and Min, 2015; Baden-Fuller and Haefliger, 2018; Futterer et al., 2018; Shi and Manning, 2009; Sabatier et al., 2010; Santos et al., 2015; Snihur and Tarzijan, 2018

Technology entrepreneurship searchesfor solutions to problems (Groenewege & Langen, 2012), through opportunity exploitation from emerging technologies (Bailetti, 2012). Accordingly, BMIfTE needs to be applied by ventures to cope with the advancement of technology. This is based on value creation and capture, target organizations, the mechanism of delivery, and the interdependence of these mechanisms (Bailetti, 2012). Since the existing framework of value configuration and partnership structuring from the network-based business model is poorer (Lund & Nielsen, 2014), developing BMIfTE is crucial from the viewpoint of its concepts and framework. However, existing works are rarely advised the subsequent works in the subject matter.Thus, this study takes a new approach of integrating the dynamism and innovation dimensions with a BM to form a single construct of BMI dynamics in the segment of technology entrepreneurship.

This study built a specific construct of BMI for technology entrepreneurship, which is comprehensive in the specific dimension of technology entrepreneurship. However, since BM and innovations are complex processes and interdisciplinary activities that require different methods, we have limited their application to the technological entrepreneurship applications. Hence, we argue that both BMI and technology entrepreneurship is highly related tothe dynamism and determined by some components such as change and innovation, which necessitated the development of dynamic BMI for a specific sector of technology entrepreneurship. Accordingly, we conceptualized a BMIfTE as a dynamic technological and innovative process that facilitates the integration of the various elements of opportunity identification, value migration, dynamic capability, and networking to create and offer values for themselves and others. That is, the value creation and capturing through the business model in technological entrepreneurship is useful and practicable among firms who need to innovate and adopt technological advancements.

In this systematic review, we identified several factors that back and contribute to the dynamic BMIfTE. Accordingly, some of the previous studies finding indicate thatBMI is characterized by value networking (e.g., Snihur & Tarzijan, 2018; Ritter & Lettl, 2018; Roome & Louche, 2016) and creating entrepreneurial opportunities (Markides, 2016). Further, researches relate the BMIs conceptual relationshipswith opportunity exploitation(e.g., Khefacha & Belkacem, 2016), value migration (e.g.,Hacklin, et al., 2018; Jabłonski, 2018), and dynamic capability (e.g.,Teece, 2018; Ritter & Lettl, 2018). Considering these factors, the continuous assessment of opportunities to innovate new technology and commercializing them and the firm's dynamic capability and their ability to use a firm's assets were linked to BMIfTE. Particularly, organizational resources and capabilities are highly required, to improve and modify the existing business model. This capability helps in creating and capturing value with technology entrepreneurship practices. Therefore, value is created through the deployment of human capital and financial resources. Moreover, the assessment of dynamic capability and financial requirements, as well as opportunity assessment, will be done in this regard. Therefore, the entrepreneurs should effectively integrate the above elements in experimenting, designing, renewing, and changing the BM and building a dynamic BMI in the technological entrepreneurship domain.

Networking with different actors plays a crucial role in modifying the existing BM since it helps to obtain various inputs used for modifying the existing BM. Moreover, to successfully improve the BM the firm should think of how the value will be captured by establishing a network with all stakeholders. That is, there must be a strong relation and collaboration between supplier organizations, distributors, and other stakeholders to build a successful network-based BM. This

provides an opportunity to develop a comprehensive BMIfTE as a new construct. Besides, researches linked the BMI with dynamic capability (e.g., Hacklin et al., 2018; Teece, 2010: Roome and Louche, 2016; Foss and Saebi, 2017).

Recently, building an integrative and dynamic BM is appears to be a common management challenge. Therefore, by orchestrating the elements and components of the BMs in the technological entrepreneurship sphere, it becomes vulnerable to modification or change. Accordingly, the BMs in the technology entrepreneurship sphere is used to create and capture values through developing (e.g., (Fjeldstad & Snow, 2018; Futterer et al., 2018), experimenting (e.g.,Bojovic et al., 2018), renewing (e.g.,Foss & Saebi, 2017), and commercializing (e.g.,DaSilva et al., 2013) the business model.More specifically, the techno-entrepreneurs will be involved in R&D, experiment, generating, designing, renewing, changing, and implementation, which is related to dynamism. However, these processes may not be successful without having an appropriate BMI and technology entrepreneurship that leads to better performance and further to a firm's economic sustainability. To sum up the above processes, the newly developed and experimented BM in technology entrepreneurship needs modification, renewal, configuration, and later implementation. These elements will be considered as the processes following and supporting each other, rather than independent elements. Accordingly, the above elements should be integrated since the improvement or change in one component affects the other. On the other hand, the suitability will be determined by the simplicity and capacity of the firms. For instance, for firms who lack important resources, developing and experimenting with a new BM is challenging, while alignment and replication may not be fruitful in a highly competitive market.

Regarding the impacts of BMIfTE, some researches linked BM to firm performance (e.g., Trimi & Berbegal-Mirabent, 2012; Zott & Amit, 2007), while others (e.g., Van Wijk et al., 2008) associated networks with innovativeness and performance. The efficient combination of BMIfTE elements will lead to better performance, which happened through the exploitation of opportunities by minimizing risks, efficient use of a firm's assets, value capturing through networking, and value migration. Consistently, Khefacha & Belkacem, (2016) revealed that the adoption of new technologies through a dynamic process of creative destruction contributes to long-term economic growth. Aspelund et al. (2005) also argue that the rise of Innovative entrepreneurship has a significant positive effect on economic development(Eliakis et al., 2020). Roja & Năstase, (2014) on the other hand stated that technology entrepreneurship is a driver of economic progress. Therefore, it is important to integrate and consider the long term objectives to link the elements of BMIfTE to economic sustainability.

To be sustainable, BMs must be innovative and capture new technological progress. That is, entrepreneurs are involved in innovating products/services, technologies, markets, and methods through experimentation and risk-taking to create sustainable value. More specifically, the journey toward economic sustainability considers a firm's value capture. Therefore, there must be an improvement in networking, stakeholder analysis, and customer interfaces to create sustainable economic value that will further fulfill society's demand. The innovativeness of the BMon the other hand will help to overcome the problem associated with sustainable development by integrating the financial and economic values from the BM. Finally, the innovation in a BM which is provoked by dynamic capability, value migration, exploitation of opportunity, and stakeholder networking was contributed to economic sustainability.

5. Conclusions, Contribution, and Implications for Future Research

5.1. Conclusions

By adopting a systematic review, the article provides collective and all-inclusive frameworks in the area of BMI in the technology entrepreneurship dimension. Given the results of the review, we synthesized the formerly dispersed area of studies into a framework that combines the dynamism of BMI and technology entrepreneurship as a single construct for further studies in the subject matter. By drawing on the existed theoretical and empirical findings, it put up the systematic development of a concept and construct. Particularly, this study draws a dynamic BMI for techno-entrepreneurship that leads to economic sustainability. It gives clues on the necessity to reinvent and reshape the business models in consideration of factors such as dynamic capability, existing opportunity and risks, value migration, and networking with stakeholders. The study overviews the various processes in the dynamic BMIfTE including experimenting, designing, generating, and renew to create and capture value from constellations of determinant factors. Further, by combining the various insights from the existing theories and literature, a new construct of dynamic BMIfTE is developed and conceptualized. In the end, the model connects the new construct to the firm's performance and further to economic development.

5.2. Contributions

Regardless of the deep conceptual link between business models and technology entrepreneurship, still little is recognizedas how technology entrepreneurship produces a fruitful business model(Muegge, 2012). This necessitated systematically integrating, structuring, and synthesizing the existing works related to various determinants, internal processes, and outcomes of the dynamism of BMI in the technology entrepreneurship dimension. In this regard, we hope the integrated outcomes give meaningful understanding and make a considerable contribution to the theoretical development and practical application in the field. This study,therefore, contributes to the discipline of BMI and technology entrepreneurship by bringing the subject matter under one umbrella. It also covers the various components and processes in BMIfTE. In this sense, the paper identifies the major and important determinants, processes, and outcomes of BMI for technology entrepreneurship.

Even though there is a need to make BM flexible and adaptive, it's challenging for organizations to make a BM dynamic, because organizations are reluctant to adopt changes(Cavalcante et al. 2011; Anjorin and Ravi, 2012). That is, the willingness and ability to identify and implementing changes determines the BMD(Cavalcante et al., 2011). **T**he need for coping up with technological advancement, market change, and other environment dynamics also brought challenges that necessitated the use of dynamic BM (Anjorin & Ravi, 2012). The common components of BMI and technology entrepreneurship as well as the association with dynamism is rarely discovered. Then, we argue that both BMI and technologyare highly related with dynamism and determined by the same components such as, change, innovation, which necessitated the development of BMI for a specific sector of technology entrepreneurship.

Therefore, we developed a framework that will advance the understanding of the innovative BMD in the technological entrepreneurship dimension by highlighting and integrating the various antecedents of both concepts.

This study takes a new approach of integrating the dynamism and innovation with a BM to form a single construct of BMI dynamics in the segment of technology entrepreneurship. In doing this, we reviewed the fragmented empirical and theoretical literature in the field of BMI dynamism and technology entrepreneurship to build a comprehensive model of BMI for technology entrepreneurship. Therefore, this study attempt to make novel contributions in refining and developing a unified concept of the integrated BMI and technology entrepreneurship. The newly developed construct is conceptualized and gives clues for future researchers. The developed model linked the drivers of BMIfTE at the back and links the outcomes of successful BMI at the front with the processes at the center.Prior studies examine the linkage between BM and firm performance (eg. Zott & Amit, 2007). Besides, drawing on a big and multidisciplinary nature of BMI and technology entrepreneurship, we identified evidence from previous studies that support linking both BMI and technology entrepreneurship to firms performance. It's novel in identifying the contribution of the integrated and dynamic BMIfTE to the firm's performance and further to economic sustainability.

In summary, by reviewing the various papers collected, logic, and arguments of various scholars, we compared and draws conclusions based on the synthesized arguments. As we understand from the existing literature, some scholars focus on the science-based factor's impact on the BMI, while others elucidate the institutional factor's impact on the BMI. To fill this gap, first, we reviewed the fragmented empirical and theoretical literature in the field of BMI dynamism and technology entrepreneurship to build a comprehensive model of BMI for technology entrepreneurship. That is, the various aspects of BMI were summarized under a few specific variables and the various insights from the existing theories and literature were discussed to provide new insights that identify and links four perspectives (such as; value migration, dynamic capability, opportunity, and risk assessment, and networking) as a major input of the new construct BMIfTE. Here, most of the previous studies forgot the assessment of existing opportunities in developing an innovative BM. This study tries to include the contribution of opportunity assessment as a major input of BMIfTE.In general, we focused on analyzing and synthesizing towards providing research agendas by proposing the frameworks as the inputs, internal elements, and outcomes and their linkages in a specific domain of technology entrepreneurship.

5.3. Limitations and Future Research Avenue

Besides its contribution, this study has limitations that will be studied by future researchers in the subject matter. For instance, it is known that the scientific value of the study will be strong when it is supported by empirical data such as data obtained through interviews. Many of the recent researches on BMI focuses on the narrow goal of value capturing mostly in a downstream process of a business environment and focused on the proliferation of typologies and case studies (Tidd & Bessant, 2018)**.** Most of the identified papers were also not tested whether it is suitable for companies in developing countries. That means this study has a limitation of not considering the empirical data that support integrating theoretical outputs with the managerial practices mainly focusing on developing countries. That is, the study of business model innovation for technology entrepreneurship is less in general and very weak in sub-Saharan Africa. Therefore,

we propose a direction for further research to focus on this region on the stated topic. Moreover, an experimental research design has been suggested for further research conducted on the subject matter.

Even though the study of BM is done widely, still,some challengesare related to a lack of common understanding in the BMI and the absence of an integrated construct of dynamic BMI in the technology entrepreneurship sphere. The other challenge is the BM patterns are unclear, inconsistent, incomplete, and overlapping (Remane et al., 2016). Thus, there is a need to clarify the concepts and constructs of BMD in technology entrepreneurship that necessitates forwarding a guide for further investigation of theoretical and practical applications. That is the ambiguity and lack of clarity prerequisites the construction of comprehensive BMI in the technology entrepreneurship domain. Then, we attempt to pinpoint the specific areas of investigation in the subject matter for future studies.

Although there is a richness of the fields of BM and entrepreneurship in theory and literature, there is a fragmentation of studies under various disciplines, which leads to a lack of consensus on the way of integrating the determinants, internal processes, and outcomes. Even though this study tries to provide valuable insights on the dynamism of BMIfTE conceptually and in terms of practical application, still there is a need to develop and clarify this new concept of BMIfTE since it might be contemplated with the general understanding and comprehensive concepts of BMIfTE. Further, when BM is integrated with sustainable development (eg. Sustainable economic development), the complexity rises more (Abdelkafi & Täuscher, 2016). Hence, we focused on the dynamics of BM concerning economic sustainability. However, to reduce the complexity, we tend to focus on the BMI dynamics in the technological entrepreneurship domain only by excluding other dimensions such as societal and ecological. Therefore, future research should consider the relation with the excluded dimensions differently.Besides, future research might study the specific issues in the external environment in social and other environmental factors that are highly integrated with the BMI for technology entrepreneurs.

Although studies have shown the importance of technology entrepreneurship for wealth and job creation, the specific contributing variables were discussed in a nutshell. Even though the underpinning for BMIfTE was recognized in this study, it needs a more in-depth study for each particular variable. That is, rather than testing multiple variables simultaneously, it is crucial to know the level of their impact independently.Finally, the practice of BMIfTE may not be successful similarly in all sectors. Therefore, identifying and differentiating the industries which are suitable for the application of BMIfTE is another issue that needs clarification. The specific technological sector for the application of the model also needs to be indicated to narrow the scope of the study.

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4. THE PERCEPTIONS OF UNDERGRADUATE STUDENTS TOWARDS ACADEMIC DISHONESTY AND ETHICS

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Background of the study

During the past decades, problems concerning academic dishonesty among undergraduate students have become increasingly apparent in colleges and universities in many countries. In Europe, with cheating rates as high as 75% to 78% (Baird, 1980) and detection rates as low as 1.3% (Haines, 1986), academic dishonesty is reinforced, not punished (Davis, 1992). With detection rates as low as 1.3% it is not surprising that students to a great extent perceive academic misconduct as worthwhile and even as accepted. During a five year period (1991-1995) only 24 students were brought to the disciplinary board for cheating at one Swedish university (Stevens and Stevens,1987).

The literature on academic dishonesty is very disturbing. In one study initiated in 2002 by the Center for Academic Integrity (CAI) in USA, 390 colleges and 50,000 undergraduate students were surveyed and the research result revealed that:

- A majority of students surveyed confessed to engage in some kinds of cheating.
- 25% of students admitted to "Serious" cheating on a recent exam.
- 50% of the students participated in "Serious" acts of cheating at least once on written assignments.
- Among 10,000 faculty surveyed, 44% of those aware of cheating never reported the incidents to the university (McCabe, 1992).

Similarly (Packer,1990) reported that in Canada:

- About 21% of undergraduates engaged in some form of serious cheating.
- 33% of undergraduate students obtained unauthorized information prior to an examination.
- The highest level of academic dishonesty was found among undergraduate business major. About 26% of business majors committed severe acts of cheating, compared to 20% for other disciplines.
- Almost 40% of undergraduates engaged in some form of plagiarisms, such as copying and pasting materials without acknowledgement.

In Nigeria also the great majority (87%) of college students engaged in cheating in examinations even when the examination was not difficult (Aina, 1996). The researcher was not fortunate enough to get a reliable statistical data that can show the current status or magnitude of the problem in Ethiopia. Anyhow, it is believed that our higher education institutions are not immune from this global academic disease.

Thus, in view of the ever increasing incidences of academic misconduct this qualitative study was undertaken to understand the lived experience of undergraduate students towards academic malpractices and ethics.

The Purpose of the Study

Having had firsthand experiences in this area by informally observing undergraduate students over the last two years, the researcher firmly believed the issue of academic dishonesty required a more formal investigation. There was a need to place students' experiences of academic misconduct at the center of the researcher project so that the meaning of academic dishonesty can be discovered. It was important that this study should take place while students were living the experience. Thus, the study aimed to use phenomenological analysis in order to explore the

perceptions of undergraduate students towards academic dishonesty and ethics; and also to capture essential structures presented by the reflections of students.

In order to explore the lived experience of undergraduate English language and Mathematics major students the following three research questions were examined in this study.

1) What is the perception of undergraduate students about academic dishonesty?
2) What are the common types of academic dishonesty that undergraduate students have experienced?
3) What factors motivate students to commit academic misbehaviors in Ethiopian in Ethiopian higher educational institutions?

Significance of the Study

In this study, academic dishonesty was viewed as an obstacle to academic integrity. For this reason, it was an area worthy of further investigation. There have been quite a number of quantitative and qualitative studies (Baird, 1980; Haines and et al., 1986; Ward, 1986; Sutton and Huba, 1995; McCabe, 1992), but none of these researches have looked at the lived experience of academic dishonesty or used phenomenological research methodology.

This study aimed to investigate the lived- experience of undergraduate students on academic dishonesty by seeking insights from students themselves rather than from instructors as earlier research has done. It is believed that this study will have three major contributions.

1) It would inform the college management and instructors the depth and magnitude of the problem and its negative impacts on the overall development of students.
2) Findings from this phenomenological qualitative study would fill the gap in the literature reviewed regarding the perceptions of undergraduate students on academic misbehavior.
3) It would serve as springboard for other researchers who are interested to conduct in-depth qualitative phenomenological study on academic dishonesty.

Delimitations of the study

The study was delimited institutionally to the First Generation of Ethiopian Universities and conceptually delimited to the perceptions of undergraduate students about academic dishonesty.

Limitations of the Study

Whether a study is of a quantitative or qualitative nature, there are limitations inherent in each paradigm. By the end of the 1970s, scholars began to understand that both approaches-quantitative and qualitative were needed, since no one methodology can answer all questions and provide insight on all issues (Burns, 2000).

The first possible limitation was that the study used only one source of data collection tool i.e. an interview. In the study, only male students were participated. This can be taken as the second major limitation of the study. Another limitation might be the issue of researcher's bias. Since the researcher is the part of the research, the study cannot be free hundred percent from researcher's bias.

REVIEW OF THE RELATED LITERATURE

Academic cheating has existed as long as there have been tests and will probably continue as long as students are evaluated. Robinson and Kuin (1999) noted that attempts at cheating were so common during the ancient Chinese civil service examinations that candidates were searched for crib notes and confined to individual examination rooms for the duration of the examination (usually 3 days) to prevent collaboration. The government further attempted to discourage cheating by imposing the death penalty on cheaters. Despite these precautions, examination candidates still tried to cheat, such as by having concealed pockets sewn into their clothing in which crib notes could be hidden.

Academic dishonesty is difficult to define precisely. Kibler (1993, p. 253) contended, "One of the significant problems a review of the research literature on academic dishonesty reveals is the absence of a generally accepted definition." Some definitions include the intentions of the person engaging in the dishonest behavior (e.g., Tibbetts, 1999). For example, Von Dran, Callahan, & Taylor (2001, p. 40) wrote that academic dishonesty "is defined in the literature as intentionally unethical behavior." Other studies defined academic dishonesty based upon a particular violation behavior, such as cheating on a test or plagiarism (e.g., McCabe & Trevino, 1996). Some behavioral-based definitions are even more general. For example, Weaver, Davis, Look, Buzzanga, and Neal (1991, p. 302) defined academic dishonesty as "a violation of an institution's policy on honesty." In this paper, academic dishonesty was broadly defined as any fraudulent actions or attempts by a student to use unauthorized or unacceptable means in any academic work. This definition is similar to that used by Pavela, (1997) and Blankenship and Whitley (1998). Lastly, there is the issue of terminology. Frequently the terms academic dishonesty and cheating are used in the literature (Whitley, 1998). While there may be subtle differences, for the most part these terms represent the same concept, and in this paper are used interchangeably.

From a review of the literature, there are many different forms of academic dishonesty (Kibler, 1993; Stern &Havlicek, 1986). According to Pavela (1997), there are four general areas that comprise academic dishonesty: 1) cheating by using unauthorized materials on any academic activity, such as an assignment, test, etc.; 2) fabrication of information, references, or results; 3) plagiarism; and 4) helping other students engage in academic dishonesty (i.e., facilitating), such as allowing other students to copy their work, maintaining test banks, memorizing questions on a quiz, etc. Student academic dishonesty includes, but is not limited to, lying, cheating on exams, copying or using other people's work without permission, altering or forging documents, buying papers, plagiarism, purposely not following the rules, altering research results, providing false excuses for missed tests and assignments, making up sources, and so on (Moore, 1988; Packer, 1990). In this study, wide ranges of lived-experience of academic dishonesty were captured.

For the last three decades the number of students who admit cheating (i.e., prevalence) has received considerable attention in the literature. In a survey of marketing students, it was found that 49% admitted to some form of cheating (Tom &Borin, 1988). In an anonymous survey of students at a major university, over two-thirds reported cheating at least once (Hollinger &Lanza-Kaduce, 1996). In a survey sent to more than 15,000 students at 31 major universities, it was found that over 60% admitted cheating at least once (Meade, 1992). Most studies estimated

that 50% to 65% of college students engage in some form of academic dishonesty (Jendrek, 1992). Still other studies have found a higher rate (i.e., 70% or more) of students admitting they have engaged in some form of academic dishonesty (e.g., Eskridge& Ames, 1993; Genereux& McLeod, 1995). In a meta-analysis, the mean prevalence of cheating was 70% (Whitley, 1998).

It appears that there is significant variation in the total number of students who admit to cheating. This is largely due to three factors. First, when measuring the overall rate of academic dishonesty, time frames matter. Some studies only asked about behavior during the prior six months (e.g., LaBeff et al., 1990), while others ask if the student had ever cheated while in college (e.g., Coston& Jenks, 1998). Second, studies have defined and measured academic dishonesty differently. Some studies asked students about a very limited range of academic dishonesty, such as cheating on a test or plagiarism. Other studies asked students about a much wider range of academic dishonest behaviors, such as altering test results, cheating on homework assignments, buying papers, and so forth. Since a common base was not used, it is not surprising that varying results were observed. Third, colleges differ in their rates of academic dishonesty because no two colleges are the same in terms of their student bodies and their collegiate environment. This observation leads to many studies that examined which students engage in academic dishonesty.

In order to determine who cheats, correlates of academic dishonesty have been studied. One area of correlates to receive a great deal of attention has been the demographic characteristics of students who cheat and those who do not (Haines et al., 1986; Stevens & Stevens, 1987). Gender has been often linked to academic dishonesty, with men generally reporting a higher level than women (Aiken, 1991; Genereux& McLeod, 1995; McCabe & Trevino, 1997; Michaels &Miethe, 1989; Whitley, 1998), but not always (Jordan, 2001; Stevens & Stevens, 1987). Sex-role socialization is typically provided to explain the difference in cheating (Ward and Beck, 1990). It is argued that women are socialized differently and view cheating more negatively.

Age has been negatively linked to cheating in college, with younger students cheating more frequently than older students (Diekhoff et al., 1996; Haines et al., 1986; McCabe & Trevino, 1997; Whitley, 1998), but not always (Tang &Zuo, 1997). The argument is that younger students are more immature in terms of both age and personality (Haines et al., 1986). Marital status has also been associated with academic dishonesty, with married students being lower in their level of academic dishonesty (Diekhoff et al., 1996; Haines et al., 1986; Whitley, 1998). The literature is unclear about why. It is possible that married students have a different perspective on life or are more mature. Additionally, age probably played a significant factor in this inverse association, since married college students tend to be older than single college students.

Aside from demographics, studies have looked at other personal characteristics. There appears to be no relationship between the strength of a student's superego and cheating (Whitley, 1998). Academic dishonesty does not seem to be linked with authoritarianism (Whitley, 1998). On the other hand, religious values have been found to decrease student cheating (Sutton &Huba, 1995), but this has not always found to be the case (Whitley, 1998). Furthermore, the stage of moral development has been found to be correlated with academic dishonesty (Diekhoff et al., 1996; Micheals&Miethe, 1989), but it was not a strong correlation (Whitley, 1998).

College characteristics have also been examined. College level (i.e., freshman, sophomore, etc.) has been linked to cheating (Jordan, 2001; Michaels &Miethe, 1989), but not always (Whitley, 1998). Among the studies in which a relationship was found, it is unclear which level cheated more.

Grade point average (GPA) has been associated with academic dishonesty, with students in the lower ranges more likely to have cheated than students with high GPA's (Bunn, Caudill, & Gropper, 1992; Diekhoff et al., 1996), but not always (Jordan, 2001). The rationale for this relationship is that those with lower GPA's have less to lose and more to gain by engaging in academic dishonesty (Leming, 1980; McCabe and Trevino, 1997). In addition, it is possible that those with lower GPAs may have poorer academic skills, which may cause them to feel that they must cheat.

Involvement in extracurricular activities has been linked to increase cheating. Those involved in sports have, on average, higher levels of academic dishonesty as compared to students who are not involved with a variety of sport (Diekhoff et al., 1996; Haines et al., 1986). Additionally, fraternity and sorority membership has been linked to higher rates of cheating (Baird, 1980; Diekhoff et al., 1996; Haines et al., 1986). One theory is that there may be social pressures from the groups involved in extracurricular activities that support academic dishonesty. Further, students involved in extracurricular activities have less time to devote to academics and have less time to devote to studying (McCabe & Trevino, 1997). On the other hand, employment has been observed to be inversely correlated with cheating (Diekhoff et al., 1996; Whitley, 1998). This contradictory finding with employment provides support for the social pressure theory rather than the lack of time theory, since employment also decreases the amount of time available to devote to academics.

Finally, area of study or major has been found to be important (Tibbetts, 1999), but not always (Jordan, 2001). However, in general, the literature suggests that cheating is relatively consistent across most disciplines. For example, Coleman and Mahaffey (2000) found business majors were similar in their views of cheating as compared to students in other programs. Other studies have found no difference in levels or types of cheating between criminal justice and other majors (Eskridge& Ames, 1993; Tibbetts, 1999).

Various rationales for cheating have been tested as well. It is argued that cheating can be deterred by the threat of official sanctions. Fear of being caught should reduce the amount of academic dishonesty (McCabe & Trevino, 1997). In one study, the perception of being caught was found to be inversely related to cheating (McCabe and Trevino, 1997). On the other hand, some studies suggest that formal sanctions have little effect and those informal sanctions by student's peers matter more. For example, Cochran, Chamlin, Wood, and Sellers (1999) found that perceived shame of being caught had a significant impact on five different forms of cheating by 448 students at the University of Oklahoma, but found no impact for the threat of formal sanctions. In a study of 330 students at a mid-Atlantic public university, Tibbetts (1999) found that moral beliefs and shame were significant predictors of intention to cheat on a test in a hypothetical scenario, but low-self-control had no effect. Conversely, Cochran, Wood, Sellers, Wilkerson, and Chamlin (1998) found that low self-control also accounted for some of the self-reported academic dishonesty among students at the University of Oklahoma. In general the literature supports the postulation that moral beliefs have a strong impact on whether a person

engages in academic dishonesty. Specifically, the belief that cheating in any form is wrong has been inversely linked to academic dishonesty (Tibbetts, 1999). Conversely, those who have weak moral views on cheating were more likely to engage in various forms of academic dishonesty (Whitley, 1998).

The literature also suggests that alienation may cause students to engage in academic dishonesty (Eve & Bromley, 1981). Similarly, a small but statistically significant association between anomie (i.e., lack of being tied to society and norms) and cheating was observed among business majors at an Australian university (Caruana et al., 2000). Cheating may also occur because of low levels of commitment to the ideals of higher education and learning orientations (i.e., wanting to learn versus earning a grade/degree) (Haines et al., 1986; Whitley, 1998). Talking with students about the subject of academic dishonesty and ethics can lead to a decrease in cheating (Kibler, 1993). Finally, past behavior tends to be the best predicator of future behavior, and this appears to be true for academic dishonesty. It was observed that those who cheated in high school are more likely to cheat in college (Whitley, 1998).

The issue of situational ethics has been discussed frequently in the academic dishonesty literature. Many students argued that cheating is not universally wrong (LaBeff et al., 1990). Under certain circumstances some students felt that cheating can be justified (LaBeff et al., 1990). This may explain why most cheaters try to justify their behavior (Haines et al., 1986; Whitley, 1998). The justification of cheating is based upon the concept of neutralization proposed by Sykes and Matza (1959).If the expectation rate for reward is higher the cheating rate will be also higher (Whitley, 1998).

A frequently provided reason for being dishonest in college has been the appeal to higher loyalties (Genereux& McLeod, 1995; LaBeff et al., 1990). The appeal to higher loyalties was generally from their friends and colleagues in extracurricular activities, such as sports or fraternities/sororities. Similarly, McCabe & Trevino (1997) found that peer disapproval was a significant predicator for not cheating. Other reasons for cheating were the desire to receive good grades (McCabe, 1992; Singhal, 1982) or the need to keep a scholarship (Diekhoff et al., 1996). The need to get a good grade was frequently linked to engaging in academic dishonesty (Coston& Jenks, 1998; Genereux& McLeod, 1995; Robinson, &Kuin, 1999; Whitley, 1998). Additionally, cheating was sometimes argued to be justified because of the course is too hard or the instructor is unfair (Coston& Jenkins, 1998; Diekhoff et al., 1996). Furthermore, the justification of the need to be admitted to a particular graduate/professional school has been found to be correlated to cheating (McCabe, 1992).

In summary, many students, across a wide array of colleges and majors, appear to cheat. The literature further reports that many students try to justify engaging in different forms of academic dishonesty for a variety of reasons, such as competitiveness of their major, course difficulty, the need for professional success, cynicism, and that other students cheat (Chop & Silva, 1991; Davis, 1992). While there has been significant research on the subject of academic dishonesty, why students cheat and what types of cheating students typically engage in and has not been fully answered. As Caruana et al., (2000, p. 23) contend, “Little research appears to have been done to try and identify variables that have an effect on academic dishonesty.”

RESEARCH METHOD

Qualitative Methodology: why this approach for this study?

Amare (2004) argues that "a qualitative research approach is more appropriate to understand the dynamic of higher education in an Ethiopian context" (p.47). According to Burns (2000), there has been a greater acceptance of qualitative methods in educational research since the 1970s. Qualitative research methods are aimed at giving real and stimulating meaning to a phenomenon, while looking at phenomenon as a total and complete context (Taylor, 2000). Qualitative research uncovers that essential meaning of the experience being investigated (Burns, 2000). Qualitative forms of investigating tend to be based on recognition of the importance of the subjective, experiential life world of human beings, describing the experience of people in-depth. According to Von Eckartsberg (1998), the aim of phenomenology is to examine and clarify human situations, events, and experiences "as they spontaneously occur in the course of daily life" (p.3). Phenomenological research aims to obtain descriptions of the experience that is being studied; therefore it was appropriate to use this method to study students' experiences since it is important to know what they experience while committing academic misconduct. The researcher wanted to hear the voice of students in this study while they were experiencing the event. The experience of students is essential for instructors to understand and to better assist students.

The basic Concept of Phenomenology

Phenomenology represents the effort to describe human experience as it is lived (Merleau-Ponty, 1962); therefore it is not concerned with explanation of the phenomena i.e. the reason behind a phenomena (Ehrich, 1997), but with description of it. Phenomenology investigates what something is and not why. According to van Manen (1997), from a phenomenological point of view, to do research is always to question the way we experience the world.

Phenomenological possibilities are so vast that "any experience a person can see, hear, touch, small, taste, feel, know, understand or live through is a legitimate topic for phenomenological investigation (Seamon 2002, p.3). Thus, this study of academic dishonesty experiences of undergraduate students is a legitimate topic for a phenomenological study.

Participants and Research Site

Twelve informants were participated in this study. Seven participants were English language major and five participants were Mathematics major. All participants were willing to speak their minds and hearts. Qualitative study tend to be based on the recognition of the importance of the subjective experiential life world of human begins. As such this study used purposive and snowball sampling to gain insight into academic dishonesty. The logic for purposive sampling is that to have information-rich respondents for the study in depth. Information- rich respondents are those from which one can learn about issues of central importance to the purpose of research. Thus, it was important for this study to select participants who provided a rich source of data. For this study participants were selected by taking into account the following points.

1. The willingness and ability to express or articulate his experience on academic dishonesty;
2. The ability to sense and express inner feelings and emotions without shame and inhibition;
3. The ability to sense and express organic experiences that accompany these feelings;
4. Recent experience of the situation under investigation and

5. Willingness to narrate their organic experience of academic dishonesty.

The sites of the study were three first generation government universities of Ethiopia.

Data Collection Methods

The purpose of data gathering in phenomenological study is to collect naïve description of the experience under investigation (Polkinghorn 1989).He also stated that there are different approaches to collect or gather lived- experience material. These may take the form of protocol writing, obtaining experiential descriptions from others, interviewing and observing, diaries, Journals and logs. However, according to Stone (1979), there are three main sources in a phenomenological study. These are in-depth interviews, documentary evidence and case study analysis. In this study interview was used to capture in-depth understanding about the issue under investigation. The research questions were open-ended and broad. The informants were asked to describe what they have perceived, observed, and experienced regarding academic dishonesty for the last two years.

Data Analysis

As the study was governed by phenomenological methodology, data analysis required the researcher capture essences from descriptions made by respondents and translates the data from concrete statements provided by the interviewees to the language of research. As Parse (1989), states adequate description are capable of yielding distinctive structure of the phenomenon and inadequate ones cannot be used as data. If the descriptions are too vague, they cannot be also used as data. The researcher might then need to ask for clarification about particular statements.

The researcher followed the following steps during data analysis process:

1) The researcher read through the entire description of the experience to get a sense of the whole experience from the interview made with participants.
2) The researcher read the descriptions again more slowly, identified transitions or units in the experience. A meaning unit was described as words and phrases which express clearly a meaning which distinguished it from other meanings.
3) The researcher eliminated redundancies in the units, clarified or elaborated meanings of the remaining units by relating them to each other and to the whole. The researcher then stated as simply as possible in the meaning that dominates the natural unit. The researcher interrogated each meaning unit and its theme in the specific topic of the study by transforming it into general categories.
4) Finally, the researcher developed a situated structural description for each experience and produced or wrote a single general structural description that represents the total experience of the phenomenon.

A phenomenology is the search for the essential structure of a phenomenon (Valle and Halling, 1989). The main aim of this study was to identify the essential themes and structures of interviewees' experiences of academic dishonesty. By inviting the subjects to share their experiences the researcher learnt about students' experiences of academic dishonesty. The researcher went back to the respondents to ensure the final analysis was validated by the respondents themselves. The final validation was facilitated through a discussion with each of participants informally. During the discussion, the researcher read out the general description for the participants to validate if this reflected their actual experience. This discussion helped the

researcher to determine if the description that was arrived at was based on their experiences. The participants were in agreement with the general descriptions, therefore, acting as the final validators of the analysis process.

Validity Issues

The researcher validated the research findings by taking them back to the participants to evaluate whether they fit in to their own experience and refined them in the light of the subjects' reactions. Besides, the research questions were fully answered and what supposed to be captured was also successfully maintained.

Reliability Issue

Phenomenological a research as a methodology seeks understanding for its own sake and addresses the question "what" Not "why". This methodology suited the study as it answered the research question which asked what was to be a cheater or dishonest in under graduate study.

Ethical Issues

Glesne (1999) states that "ethical considerations are inseparable from your everyday interactions with research participants and with your data" (p.113). Privacy and confidentiality are important aspects in any research. Confidentiality involves a clear understanding between researcher and participants concerning the uses of the data provided (Burns, 200). Accordingly the participants were informed the confidentiality would be maintained at all times and anonymity preserved. The study started ensuring that any participants wanting withdraw knew that he has the right to discontinue at any time. Participants were therefore made aware that participation was voluntary and they could stop when they feel discomfort.

FINDINGS AND DISCUSSIONS

Question: What are the perceptions of university students about academic dishonesty?

Key Themes

Five key themes emerged from the analysis of the text of the interviews. The following are the themes illuminated through the rich quotations of the respondents' experiences of academic dishonesty:

a) Academic dishonesty was viewed by the majority of the respondents as best means to be qualified;
b) Academic dishonesty is a norm;
c) Cheating and plagiarism are wide spread phenomenon in the college;
d) Academic dishonesty is largely motivated by the need for better grade and external pressures.
e) High intellectual value discourages academic dishonesty and low intellectual value motivates academic dishonesty.

Theme 1: Many students do not appreciate the value of knowledge.

Knowledge is indispensable in social, moral, intellectual, economic, and political sphere of life. Knowledge is absolutely necessary for all right actions and it is the source of intellectual power and happiness. It is also helpful in character training and in development of personality. It is knowledge which makes a man complete, far-sighted and visionary. It is also knowledge which ensures success in any profession.

In this study, many respondents gave very low appreciation to the importance of knowledge in individual and social life. The study captured the following comments and observations:

a) There is a perception that degree without knowledge is acceptable.

"Academic dishonesty is an attempt to obtain a college degree." I don't worry about the acquiring real knowledge and skill; because, there are many people who had been awarded degree without acquiring adequate knowledge. Fortunately, many of these people have been enjoying luxurious life. On the contrary, some people who are intelligent and honest are living non-standardized life. So, I strongly believe that what matters is being successful in exams by "hook or crook" to get college degree rather than being knowledgeable (Informant-"H", English major).

b) Knowledge is simply a passport into the world of employment.

- In my understanding, degree or diploma serves as a job ticket. It ensures to a large extent "bread and butter" aim of life. If you have degree you get bread easily. In our society the amount of education received by a student is measured in terms of degree, diploma or certificate awarded to him not by the real knowledge he has acquired. Job grades in public, private and non-governmental organizations are also classified by qualification based standard not by knowledge based criteria (Informant-"D" Mathematics major).

c) Knowledge is a minor issue to hold high a position.

- I perceive that two things are very important to obtain highly decent salary. "Being qualified for the sake of qualification by any possible means; and being loyal to the existing political system. No more!" Competency in conceptual knowledge and technical skill is a minor issue. I have known that many huge companies and public sector are now led by the so called "degree holders" in non-management field of studies. In the name of degree, many individuals are being assigned for management position without having adequate knowledge and skill (Informant-"B" Mathematics major).

c) **Cheating is viewed as a part of life.**

- I perceive cheating as a means to a profitable end; a way to obtain the highest grades in order to gain admission to the best job. In future, if I am to live a better life in this competitive world, I should cheat. Due to this very fact, I am now playing the game consciously and actively. Honestly speaking, I am addicted to academic cheating. It becomes part and parcel of my academic life" (Informant-"I" English major).

Most of the interviewees have negative experience about the importance of knowledge. Their out look about life was entirely materialistic. The materialistic tendencies had upper hand in the respondents' mind. They also perceived degree as a dependable license for job opportunity. Thus, their highest aims of life were passing examination, graduation and receiving degree for the sake of qualification.

Theme 2: Academic dishonesty is perceived as an accepted norm.

Academic dishonesty is an assault upon the basic integrity and meaning of college education. Cheating, plagiarism, and involvement in dishonest activities are serious acts which erode the

value of education and research roles and ultimately cheapen the learning experience as well as the value of academic degree.

A. Cheating is perceived as a norm

- *I always see cheating in every facet of life, "everybody does cheating". Politicians, engineers, economists, civic societies (NGOs) police force, civil servants, businessmen, even lawyers etc…, do it, so why not me? Thus, I don't feel guilty to cheat in examination (Informant-"A" English major).*

B) Academic dishonest is allowed

- *I perceived that academic dishonesty is permissible because, even if it is a crime, it is victimless because it hurts no one. Many instructors obviously hesitate to take action against cheating behavior may be because of the stress and discomfort that follows. Thus, cheating is encouraged in universities because many cheaters often escape punishment (Informant- "J" English major).*

C) Academic dishonesty should not be seen as a sin only from students' side.

- "Lazy teachers who have not taught would at all cost want their students to pass examination since passing examination is seen as a measure of good teaching. When I was a high school student in one of private school, the school principal arranged corporate cheating for students believing that when the students do very well in any given external examination, it will attract more and more students from other private schools" (Informant-"F" Mathematics major).
- *My moral value for not cheating was gradually eroded when I saw my peers cheat, without being caught. I had been an honest student, but I did what was necessary at the time. I have experienced that those students who do not cheat are not only at disadvantage, but also they have been viewed by their friends as fools for not playing the game. So I am not stupid enough to below my chances by not doing the same (Informant-" F" Mathematics major).*
- *"What matters is obtaining high grade. Students compete for the best jobs and employers compete for the best students. Imagine two students competing for the same position, the honest one with a 3.0GPA and the dishonest one with a 3.5GPA. Assuming other factors are equal; the dishonest one will most likely receive the job" (Informant-"A" English major).*

Many respondents viewed cheating as acceptable and even as morally correct. Besides, the respondents claimed that their dishonest behavior can be justified on a number of grounds. They may see academic dishonesty as justified because political leaders, civic societies and civil servants model unethical behavior, various kinds of dishonesty are the norm at many social, political, and economic institutions and public administrators that are assigned for different level of management positions either favor or tolerating cheating. They also perceived that academic dishonesty is permissible because, even if it is a crime, it is victimless because it hurts no one. Many interviewees feel as they are reasonable in what they are doing. They were cheating because they saw others cheating and they thought as they were being unfairly disadvantaged. The only way many of them felt they can stay in the game and to get into the best job is by committing Academic dishonesty.

Theme 3: The major types of Academic dishonesty in the college are cheating and Plagiarism.

Nowadays, at all levels of education systems, the majority of students often look for short cuts to make their work easier. To achieve a good grade students are many times tempted to cheat. Cheating is an ethical from social and academic standpoint. First cheating is socially unacceptable behavior. Students are expected by their instructors and classmates to do their own work genuinely. If a student cheats, he/she violates that trust. This in turn damages the relationship between the instructor and the student, as well as the relationship with his classmates. Second, cheating is also unacceptable in academic world; because it is against academic policy. Besides, it prevents students from realizing their own potential. If students cheat, they will not develop their thinking skills. In the end, cheating damages the students' own academic success.

Question: What types of academic dishonesty you and your friends have experienced while university life?

The respondents have identified their cheating and plagiarism experiences as follows:

1. Cheating

A) Individual oriented lived- experiences on cheating

- *I usually copied examinations as much as possible from best students. When I faced difficult examination and the control is serious I tried to leave the examination room with great care without handing in a test and later apply for a deferred examination and claim as the test was missed (Informant-"B" Mathematics major).*
- *I brought basic formulas into exam room on the back of my calculator. I used unauthorized materials (short notes) during exam; and copied answers on multiple choice tests from other student if possible without his knowledge if not possible with his/her approval (Informant-"E" Mathematics major).*
- *I often looked at another student's answer and checked my answer if it was the same; I hired highly knowledgeable person from outside the campus to write a paper for me on take-home assignments; I read a condensed version of a novel rather than reading the assigned full-length version; and I wrote an article using only abstracts rather than reading the assigned materials (Informant-"C" English major).*
- *"I hunted all previous examination papers" and ask senior students the right answers of the exam question; because the majority of the lecturers used the same questions every years" (Informant-"D" Mathematics major).*

- *I misplaced items from library shelf so others will not have an opportunity to view and read them (Informant-"A" English major).*
- *"Thanks to technology .I use a variety of electronic devices, such as cellphones iPods, electronic calculator, and personal data assistants (PDA) to copy on examinations. Sophisticated cellphone helps me to send text message answers to my friends during an exam and even take pictures of an exam to give to junior friends. I am sure; I am more expert than my instructors in managing these electronics devices"(Informant-"B" Mathematics major).*

B) Group-Oriented common lived- experiences on cheating

- *We used technology to send each other text messages on cell phones during examination; we worked in a group on home-take assignments or project work that was assigned as individual work; we tear pages out of exam for our junior friends or future use; we allowed own course work to be copied by another student, we plannedagreement between two or more students to communicate answers to each other during an examination; we*

also signed as present a not present fellow student at a course where obligatory attendance is asked for (Informant- D Mathematics major).

2. Plagiarism

- *I used false or fabricated citations; I used frequently improperly paraphrased text, I copy without references; and I paraphrase without references (Informant-"C" English major).*
- *I down loaded text from internet, I coped and pasted a whole or part of a work belonging to another person without any acknowledgment and presented/submitted as my own work (Informant-"I" English major).*
- *I copied material almost word for word without giving bibliographic credit and submitted to the instructor as my own original work; and also used quotation marks to cite the quoted text but by neglecting to refer to the page from which this quotation was taken (Informant-"H" English major).*
- *I paraphrased a few sentences of material from a written source without refereeing it in my paper; I also copied in part from senior students' paper that took the same course and deserved "A" grade (Informant-"J" English major).*

As it has been said earlier, academic dishonesty is an illegal or unethical behavior. It conflicts with the core purposes of education-the training of the mind and character for the acquisition of theoretical and practical skills, knowledge and functional ideas for development; and the search for truth and knowledge and the creation and communication of ideas. These students who have experienced plagiarizing learn nothing when they copied an assignment; they missed out opportunities to master research and writing skills (two essential abilities in today's market place); they did not experience the gratification that comes from creating something that is distinctly their own; if plagiarism was discovered, their career was ruined before it started and they let themselves down.

The above students' lived-experiences have witnessed that our higher education system is highly questionable. The implication is that many of our students have low concern for hard work, knowledge, wisdom and academic excellence. The possible consequence will be producing degree holders in thousands every year but who are not educated and trained in real sense.

Theme 4: Issues that motivate Academic dishonesty

A) Performance Concerns

- *I cheated in examination due to lack of confidence in my ability; no matter how hard I studied; "I thought that if I don't cheat I would fail. "Thus, in my view, cheating was the only way out if much work done over a long period of time was be examined once" (Informant-"E" Mathematics major).*

- *I want a better grade to be employed with best salary in the most prestigious organizations. The need to get good grades frequently pushed me to be participated in academic dishonesty (Informant-"C" English major).*

B) External pressure that associated with academic issues

- *I usually engaged in cheating, because others' cheating put me at disadvantages. Students that cheated have good score in examination. Besides, some instructors did not adequately teach all courses and the work load across all courses was too heavy (Informant-"E" Mathematics major).*

C) External pressure associated with non-academic issues.

- *"I am self-helping student. I should find a means of earning money in order to survive. I don't have enough time to read for examination; thus I took part in cheating" (Informant-"C" English major).*
- *My parent put high pressure on me. Not only from my parents but also there was a pressure for good grades from peers, distance relatives and even the college. Thus I was concerned about negative evaluation if I failed (Informant-"E' Mathematics major).*

D) Unfair grading system

- *I perceived that tests and examinations are unfair and designed to fail students. Student grading system was not transparent enough. Besides, there was sex, religion and ethnicity-based bias. Thus, no need of studying hard (Informant-"J" English major).*

E) Poor Academic effort

- *I had no appetite for learning because many classes were not attractive. Last semester I missed many classes. The only option I had was cheating in order to deserve pass grade and graduation (Informant-"A" English major).*

The major motivational factors for committing academic misconduct are the concern for performance in terms of both avoiding failure and getting a higher grade to impress potential employers.

Some students admitted that lack of effort such as not attending classes on regular basis, not wanting to do the work assigned as motivating force for their dishonesty.

CONCLUSION AND RECOMMENDATIONS

The researcher strongly believes that it is because of the gap in all levels of our education system in promoting intellectual development and development of intellectual values. For example higher education usually attaches great importance to intellectual development. But intellectual development and envelopment of intellectual value are not identical. Intellectual development means collection of dry facts, whereas development of intellectual value signifies the development of the spirit acquiring knowledge in the minds of students. It also means development of independent thinking, critical outlook and ability to take decision independently based on logical reasoning. In order to achieve these objectives all educational institutions should have to work in a planned way in these directions. Unless and otherwise students are brought into the right track by collaborative and well-coordinated efforts of all stakeholders their lives will remain impoverished and meaningless.

Intellectual value is an essential aspect of the total development of personality of an individual. The researcher perceives that education without moral value is not education. Socially accepted moral character is the cream of life. If education can produce men of good moral, the society will

progress. Without sound moral, nobody can utilize his theoretical knowledge properly. Thus, the formation of sound moral character should be the primary aim of education.

Conclusion and its implications

The students under this study perceived that dishonesty is found in every facet of life; politics, business, home and school. They placed more and more emphasis on getting best grades and a degree by any possible means. The benefits of real knowledge and skill are no longer seen as a goal. They are more interested in getting the right answer not in acquiring real knowledge.

It is possible to conclude that students cheat because of low levels of commitment to the ideals of higher education and learning orientations. Many students want a grade or degree rather than knowledge. They do not appreciate the value of knowledge and skill. They viewed academic dishonesty as socially accepted practice. Unless students are brought into the right track by well-coordinated efforts of all stakeholders, their lives will remain impoverished and meaningless.

The present educational system is dominated by ineffective, invalid, unreliable and corrupted examination system. For success in life the students have already developed beliefs that drive them to have degrees as passports for jobs. Hence malpractices in examination become widespread nowadays. The high ideals of life and education such as total development of personality, character formation and good citizenship are clearly absent in the system of our education.

Dishonesty in educational institutions is merely a reflection of the broader erosion of ethical behavior which has become commonplace in societies that tend to support self-centeredness over concern for others. In short, it is the reflection of our society's social, political, and economical ways of living. The present ills that are manifested in political, social and economic life are due to the over emphasis on the material values of life and totally disregarding the moral value. Human elements are fast eroding in our life and society. Inhuman and anti-social elements are gaining ground in every field of our social life. Indiscipline and insubordination are common in family, in educational institution and in the society at large.

Recommendations

1) There is a wide gap between intellectual development and development of intellectual values at all levels of our education system. For example, higher education usually attaches great importance to intellectual development. But intellectual development and

development of intellectual values are not identical. Intellectual development means collection of dry facts, principles and formulas, whereas development of intellectual value signifies the development of the spirit acquiring knowledge in the minds of students. It also means development of independent thinking, critical outlook and ability to take decisions based on logical reasoning. Thus, in order to achieve these objectives, it would be good if all educational institutions work together to address the problem in a meaningful way.

2) It is true that practice of values in life is more important than theoretical value education. The corrupted actions of social, economic and political leaders have adverse effects on the value standard of the young generations. All kinds of corruptions have their evil effects on the sensitive minds of the young generations. This position has to be changed, at least checked. So we are in urgent need of value education.

5.EFFECT OF STRATEGIC MANAGEMENT ON SUSTAINABLE PERFORMANCE OF MEDIUM ENTERPRISE: IN CASE OF OROMIA SPECIAL ZONE

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Abstract

Over the past three decades, strategic management has become a common part of executives' lives. Whether trying to boost revenues, innovate, improve quality, increase efficiencies or plan for the future, executives have looked for strategic management to help them. The current environment of globalization and economic turbulence has increased the challenges executives face and, therefore, the need to find the right strategies to meet these challenges and sustain business performance is needed. Thus, this study aim at investigating effect of strategic management on sustainable performance of firms in the context of medium enterprises in Ethiopia.The sample size of study was a total of 315 leaders and non- managerial employees of medium enterprises found Oromia special zone.The source of the data for the study was primary data in which the primary data was collected through questionnaires which was developed in English language. To achieve this objective, both: an explorative and explanatory research design was used. Regression analysis result show that strategic thinking and strategic planning were the most determinants of firm performance but strategic implementation was in significant to determine firms performance..Therefore, it is advisable for medium firms to focus on strategic thinking and strategic planning that can contribute for the superior performance of the firm

Keywords: *strategic plan, strategy, strategic thinking, performance firm*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Strategic management is a means used by management team to direct employee activities towards the achievement of specific goals and implementation plans (Bianca, 2017). A shared sense of strategy is of fundamental importance to managers because it is essential for positioning an organization to face a complex and uncertain future. Effective managers can use strategy to

focus attention and effort on real priorities, provide a consistent framework to guide decisions and actions, and give an organization a new or renewed sense of purpose (Nutt &Backoff, 1992). Strategy will be designed and implemented at three level of organization and hierarchy by nature. But, among three strategies this study focused on business strategy since case study organiations are medium enterprises' and most of them have single product or service type. Business strategy is concerned with formulating strategy, a "disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it" (Bryson, 2004). A "big picture" approach addresses the most fundamental issues facing an organization in an attempt to promote the best "fit" with the environment and ensure the organization's long-term vitality and effectiveness (Kemp, Funk, &Eadie, 1993) (Poister&Streib, 1999). Strategic management is the broader process of managing an organization in a strategic manner on a continuing basis. Business strategy is a principal element of strategic management, which also involves resource management, implementation, and control and evaluation for designed to organization business units (Steiss, 1985).

There are significant number of researches as well as more practical experiences in business prove that an efficient and effective business strategy can increase profitability and assure sustainable business performance. More recent experimental proof indicates that corporatethat adoptbusiness strategy and perform well achieved their goals in terms of sales and profit growth more than the other corporate that do not. Therefore, it is obvious that organizations; formulating and practicing business strategy will show better performance compared organizations without business strategy, also it helps the corporate to get back on track and to enhance the business ability to predict changes in the environment.
In addition, business strategy ties the organization together with a common sense of purpose and shared values; improves financial performance in many cases; provides the organization with a clear self-concept, specific goals, and guidance as well as consistency in decision making; helps managers understand the present, think about the future, and recognize the signals that suggest change; requires managers to communicate both vertically and horizontally; improves overall coordination within the organization; and encourages innovation and change within the organization to meet the needs of dynamic situations (Swayne, Duncan, &Ginter, 2006), thus effective business strategy can build competitive advantage and improve organizational performance.

Organizational performance is obviously a central issue in strategic management research. Several authors have analyzed the organizational performance in terms of corporate strategy (Chenhall&Langfield-Smith, 2007) (Carton & Hofer, 2006). Hamon (2003) defined organizational performance as a variable used to measure the degree of organizational performance in achieving organizations' objectives, efficiency, and effectiveness in achieving their goals (Robbins & Coulter, 2002). In addition, Ho (2008) defined organizational performance as an indicator to measure the efficiency of an organization to accomplish its objectives, in terms of achieving organization market orientation and financial goals (Li, Ragu-Nathan, Ragu-Nathan, &Rao, 2006).

By their very nature, Medium enterprises (MEs) constitute the most viable and veritable vehicle for self-sustaining industrial development, but MEs in developing countries, like Ethiopia they are not performing well and are struggling to survive under intense competitive environments from both domestic and international companies. Medium Enterprises (MEs) in Ethiopia have

not performed creditably well and hence have not played the expected vital and vibrant role in the economic growth and development of Ethiopia. They note that the situation has been of great concern to the government, citizenry, operators, and practitioners. These challenges could beas a result of perceived ineffective strategic Management which is having negative effect on the organization's performance, product quality, customer satisfaction and profitability. Medium enterprises (MEs) operators need to provide a quality product with good packaging that satisfies customer needs, offering affordable price and engaging in wider distribution and back it up with effective promotion strategy in order to survive the pressure from global market competitive environment. Thus, it is imperative that business managers understand the changes taking place in their environment; they should not simply be responsive to them, but strive to create the future. Business leaders must see into the future, create new visions for success, and be prepared to make "quantum improvements" (Efendioglu&Karabalut, 2010).

Therefore, this study significantly help medium business organizations to improve their competitiveness by addressing issues in business strategy formulation, implementation, evaluation and control..

1.2. Statement of the Problem

Over the past three decades, strategic management has become a common part of executives' lives. Whether trying to boost revenues, innovate, improve quality, increase efficiencies or plan for the future, executives have looked for strategic management to help them. The current environment of globalization and economic turbulence has increased the challenges executives face and, therefore, the need to find the right strategies to meet these challenges and the need to design strategy business is needed. To do this successfully, executives must be more knowledgeable than ever as they sort through the options and select the right strategies for their companies and product line. The selection process itself can be as complicated as the business issues they need to solve (Casey & Goldman, 2010). They must choose strategies that will best help them make the business decisions that lead to enhanced processes, products and services—and result in superior performance and profits. Successful use of business strategy requires an understanding of the strengths and weaknesses of each strategy as well as an ability to creatively integrate the right strategies, in the right way, at the right time. In the absence of objective data, groundless hype makes choosing and using business strategy is a dangerous game of chance (Bain & Company, 2017).

Long devised and implemented to deal with the 'industrial dynamic' marked by 'competitive behavior' (Porter M. , 1982), strategy is now considered a field that makes it possible for the leaders of public and private organizations to 'take options on the future' (Williamson, 1999). However, despite increasingly sophisticated training programs and highly advanced academic research on strategic contents, processes, options and actions, the effectiveness of business strategy is still a source of major controversies (Mazouz, Rousseau, &Hudon, 2016). At best, the strategic thinking and tools do not seem to have been sufficiently adapted to the context of Medium enterprises(McHugh, 1997). At worst, in Ethiopia the strategic exercise seems to be low with the non-competitive environment in which small number of medium business enterprises in each industry's and most business organization operate traditionally.

Several recent works have highlighted the criticality of performance as a dependent variable; with some persuasively arguing that the most obvious and useful set of research, questions

should address the linkage between business strategy and performance. Further, there is need to identify enterprise level factors which influence organizational performance. A review of organizational structure (Dalton, Todor, Spendolini, Fielding, & Porter, 1980) argued that organizational performance is the single most important dependent variable in both the public and private sector.

Business strategy can be applied in different areas, such as: marketing management, operations management, financial management, human resource management, information technology, planning and resource allocation and, efficiency and effectiveness (Armstrong M. , 1993).

In the literature, there are findings focused on the relationship between business strategy and organizational performance (Afonina, 2015). It should be noted that studies, which examine the relationship between business strategy and organizational performances remain uncertain. Some of the studies have argued that utilization of management influences organizational performance (Indiatsu, Mwangi, &Mandere, 2014) (Iseri-Say, Toker, &Kantur, 2008). While other studies concluded that there was no clear relationship between Business strategy and organizational performance (Rigby &Bilodeau, 2007,Efendioglu&Karabalut, 2010). Thus, in the literature there is very little empirical support to justify this relationship. For example, Rigby (Rigby D. K., 1994) reflected the effect of Business strategy on organizational performance by considering five performance categories (financial results, organizational integrity, performance capability, customer equity and competitive advantage).

Given these mitigated results, studies examining the direct bivariate relationship between Business strategy andfirm performances have been strongly criticized. Some researchers have argued that context plays a considerable role in explaining the relationship between firm processes and outcomes (Child, Elbanna, &Rodrigues, 2010). Therefore, several contingency factors, such as the organizational structure, the nature of the environment, and the size of the organization, have been introduced in the study of the relationship between business strategy andfirm performances (Miller, Burke, & Glick, 1998). It has equally been suggested that some factors may have a mediating role in this relationship (Rudd, Greenley, Beatson, & Lings, 2008). This study will test the role of business strategy on organizational performance.

Therefore, this study investigated the effect of strategic management on the performance medium enterprises and to address the objective of the study the following basic research questions were considered.

Basic Research Questions

1. What is the effect of strategic thinking on organizational performance of Medium enterprises?
2. What is the effect of strategic planning on organizational performance of Medium enterprises?
3. What is the effect of strategy implementation on organizational performance of Medium enterprises?

1.3 General Objectives of the study

The purpose of this study was to examine the effects of businessstrategy on sustainable performance of Medium enterprises in Ethiopia

1.3.1 Specific Objectives of the study

The purpose of this study was to determine the effects of business strategy on sustainable performance of Medium enterprises in Ethiopia

1. To examine the effect of strategic thinking on organizational performance of medium enterprises.
2. To identify the effect of strategic planning on organizational performance of medium enterprises.
3. To examine the effect of strategy implementation on organizational performance of medium enterprises.

1.4 Significance of the study

The World Bank Institute has determined that there is rare systematic research informing the various policies in support of MEs in developing countries (Theressia, 2015).Therefore, the finding of this study at end it will help for policy maker of Ethiopia as well as for all developing countries and for future scholars as in references.

In addition, this research offers a contribution to strategic management literature by identifying the association of knowledge management capacity, competitive strategy, market strategy and financial performance of firms and their direct or indirect effect on performance ofMEs'. So, the finding of this study adds to the theoretical and practical or managerial understanding of this area. The study has a practical significance for owner and policy makers of medium size firms;for understanding their success in relationships with customers, market and finance and for effectively positioning their organization's competitive advantages.1. Scope of the Study

The study wasconducted on Medium enterprises'Oromia Special zone Surrounding Finfinnee. The population that was eligible for enrollment into the study was the management for the aforementioned Medium enterprises'. The study wasconducted between November 2019 – October 2020.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter covers review of the existing literature on strategic planning conceptual framework and its effects on organizational performance. The chapter discusses in depth the effect of strategic thinking, strategic planning and strategy implementation on the organizational performance.

2.2 Strategic Thinking and Organizational Performance

The necessity of evolution in governmental and privately held organizations and companies is the inevitable consequence of not only global changes but also of citizen and customers' expectations of the organizations. Despite the existence of performance management in the public sector for a quarter of century, there are still major problems and the expected improvements in performance, accountability, transparency, and the quality of services have not been made (Fryer, Antony, & Ogden, 2009). Today, setting and defining goals as well as producing and assessing performance are the major challenges of top managers (Farhangi&Dehghan, 2010). Attaining the best performance and achieving desired results is not possible if there is not a formulated plan in an integrated system. This system should be able to plan the performance, devise and implement its plans through an appropriate administrative system, and assess the results using evaluation procedures in order to improve the performance (Pirouz, Razavi, &Hashemi, 2009). There are different views on performance. It can be only regarded as the obtained results. Individually, it refers to the success and achievements of a person (Armstrong & Baron, 2005). Performance is "the record a person has which is gained regardless of the goal, it is also defined as results of work because they have the strongest connection with the strategic goals of organization, customer satisfaction, and financial gains. One of the factors that affect an organization reaching its goals is the employees' thinking and commitment to the company.

Strategic thinking is a representation of attitude and results from the person' value system. In recent decades, strategic thinking has received a lot of attention and it is claimed that it distinguishes successful organizations from non-successful ones. In fact, the considerable success of thriving companies stems from some powerful intangible factors in their organizational culture and employees' beliefs and values (Khalili, Armani, Rahimi, Jamshidi, &Jamshidi, 2015).

Strategic thinking is considered as a very valuable and important component in the macro management of organizations and businesses. Generally, strategic thinking is "an understanding of and insight into the current situation and seizing opportunities". This vision helps with the proper and timely understanding of the market and its rules so that creative and effective solutions would be suggested in response. In other words, opportunity involves things that have not been attended to or there is a need for responding to them in the market, and strategy is having suitable plans and vision to achieve the goals of the organization with regard to meeting that need while considering interactions and chaos in the today's relations of business and

companies. Strategic thinking enables managers to realize what factors are effective in attaining desired goals. It involves real understanding of the market rules and responding creatively to them; this is very important in the changeable environment of business because without strategic thinking, companies cannot pursue the formulated strategies effectively. The main characteristic of strategic thinking is having a wide perspective on the organization's future and environment. This requires understanding of the relation between different issues and topics as well as of the way a solution to a problem in a certain area influences another area or solution. Based on strategic thinking, a framework would be suggested that enables the organization to reach its goals with a strategic vision and to institutionalize it (Khalili, Armani, Rahimi, Jamshidi, &Jamshidi, 2015).

Strategic thinking is a process of utilizing previous experiences in a coherent framework and showing the best reaction in vital situations (Noubar, Orangi, &Mejarshin, 2014). However, what may look challenging regarding this issue is the degree of durability and stability of planning and strategic management within the organization, and therefore a strategic thinking of managers and employees is an assurance to the mentioned matter, and creation of strategic thinking in managers of companies plays more important role than presenting strategic plans since existence of such a thinking is a strong support for strategic plans within any company. Strategic thinking is process, which requires time and effort; it cannot be bought and only can be earned through experience. In simple words, strategic thinking is a logical development of thoughts (Fairholm& Card, 2009).

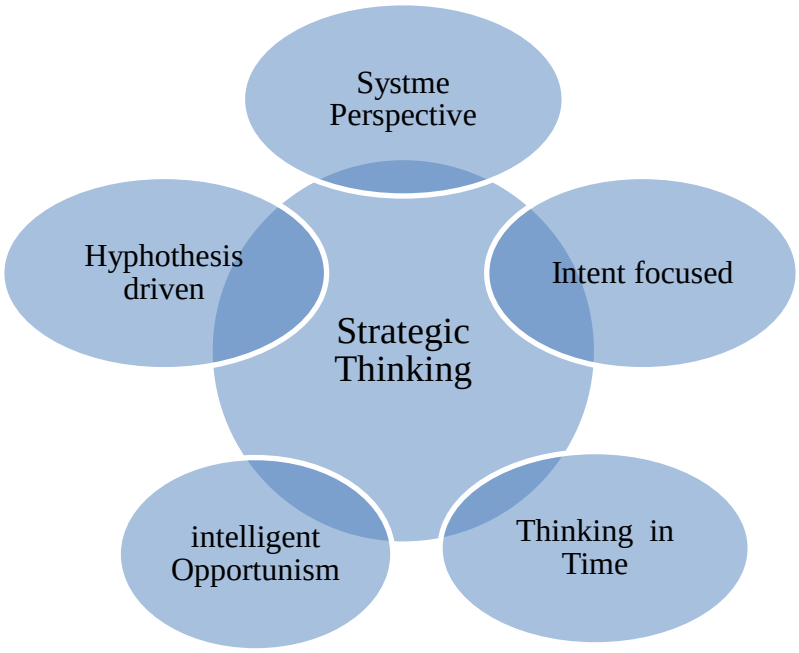
Having strategic thinking is advantageous for organizations since: it helps and directs different levels of management in identifying goals, it makes designation of opportunities and threatseasier, it reinforces the management's logics regarding the required assets and workforce of company, it replaces the act with react within companies and help business to be prepared for future changes. Like every process, strategic thinking has challenges and obstacles such as: lack of systematic vision, lack of using collaborative management, unavailability of exact information, lack of institutional trust, lack of organizational encouraging culture (Noubar, Orangi, &Mejarshin, 2014).

Strategic thinking is consisted of several main elements: systems thinking, breaking down organization to smaller systems collaborating with each other, creativity, developing new solutions and business ideas to gain competitive edge, having vision, realizing the reasons of company existence, its values and goals and having long term plans leading to those goals (Pandelica, Pandelica, &Dumitru, 2009).

Several templates have been introduced by researchers to implement strategic thinking such as: The Liedtka Model of the Elements of Strategic Thinking (Liedtka, 1998), Leading the Revolution (Hamel G. , 2002), and The Fifth Discipline (Senge, 2006). The Fifth Discipline template focuses on internal dimensions of organization and offers a framework that helps institutions to solve problems using systems thinking method.

These five disciplines are as follows: Continue deepening and clarifying mangers vision, mental models refining to have clear picture of our world in order to understand our environment and take proper actions, building shared vision - a practice of unearthing shared pictures of the future that foster genuine commitment and enrollment rather than compliance, team learning starts with dialogue, the capacity of members of a team to suspend assumptions and enter into genuine thinking together, and systems thinking - The Fifth Discipline that integrates the other four (Senge, 2006).

Figure 2.1: Elements of Strategic Thinking



Source: Liedtka (1998).

The strategic thinking gap is due to a lack of understanding of the concept overall (Bonn, 2005) (Liedtka, 1998) (Mintzberg H. , The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, Planners, 1994) and limited development of it among organizational leaders (Bonn, 2005). Practitioners and theorists wrongly use the terms strategic thinking, strategic planning, and strategic management interchangeably. This has resulted in significant historical confusion in the literature, with the aforementioned terms being used not only as substitutes but also as both nouns and verbs (Steiner, Miner, & Gray, 1982). Strategic thinking has been recognized as an individual activity influenced by the context within which it takes place (Liedtka, 1998).

Research has found a statistically significant and positive relationship between strategic thinking and organizational creativity (Khalili, Armani, Rahimi, Jamshidi, &Jamshidi, 2015). In addition, there is a significant relationship between organizational creativity and the five components of strategic thinking including systems perspective, intent focused, intelligent opportunism, hypothesis-driven, and thinking in time. Monovarian did a descriptive survey titled ‘assessing strategic thinking among managers of the municipality of Tehran’. Using Leidtka’smodel which includes five elements of systems perspective, intent focused, intelligent opportunism, hypothesis driven, and thinking in time, they investigated strategic thinking among managers in the municipality of Tehran. Based on experts’ views and available resources, the researchers created 29 sub-elements and investigated the significance and current condition of all through a questionnaire distributed among the managers in the municipality of Tehran. Analyzing the data through the Friedman test and paired t-test revealed that despite some important measureslike preparing strategic documents in the municipality of Tehran, there is a significant gap between the significance of the elements and their current condition in the organization that deserves attention (Monavarian, Asgari, &Ashena, 2007).

Five components of strategic thinking were specified, and to assess the achievement of companies, the rise in sales in three consecutive years was considered. The findings showed that the top managers' ability to think strategically has a substantial effect on the success of small and medium companies although in practice they do not use it enough (Sadegh, Yazdani, &Behrang, 2011). Research carried out on the crucial factors in strategic thinking. The results suggested 16 key variables in four main dimensions including systems perspective, individual factors, organizational factors, and intuitive ones. All these dimensions are effective in the realization of strategic thinking, so they can be considered for improving and promoting strategic thinking in organizations (Khalili, Armani, Rahimi, Jamshidi, &Jamshidi, 2015).

2.3 Strategic Planning

The process of strategic planning defines where the organization is going and sometimes where it is not going. It defines the organization and provides focus. At the same time, the plan sets direction for the organization and – through a common understanding of the vision and broad goals – provides a template for everyone in the organization to make consistent decisions that move the organization toward its envisioned future. Strategic planning, in large part, is a decision-making activity. Although these decisions are often supported by a great deal of quantifiable data, strategic decisions are fundamentally judgmental. Because strategic decisions cannot always be quantified, managers must rely on "informed judgment" in making this type of decision (Swayne, Duncan, &Ginter, 2006). Rather, it must consider the nature of the future environment in which planning decisions and actions are intended to operate.

Planning is a process that does not end when a plan is agreed upon rather, it must be implemented. Also at any time during the implantation and control process, plans may require modification to avoid becoming useless or even damaging, implying that decisions must be made at many points in the planning process. For instance, managers must decide which predictions in such areas as the economy, and the actions of competitions are likely to be most accurate. They must also analyze organizational resources and decide how to allocate them to achieve their goals most effectively (Olusanya, Olumuyiwa, Adelaja, &Chukwuemeka, 2012). Again, Koontz et al (Koontz, O'Donnell, &Weibrich, 1980) introduces an issue known as the nature of planning which can be highlighted by for aspects of planning. These aspects are contributions to purpose and objectives‟ primacy of planning, pervasiveness of planning and efficiency of plans.

Two distinct approaches to strategy making have attracted the attention of practitioners and researchers: the rational approach and the adaptive approach (Grant R. , 2003). The adaptive approach, which is a process of making strategy based on intuition, creativity, and learning (Mintzberg H. , 1994), is gaining more interest in today's dynamic environment. In contrast, rational strategic planning has been known since the 1950s through the work of Selznick (Selznick, 1957). It is "a systematic process through which an organization agrees on priorities that are essential to its mission and are responsive to the environment" (Allison & Kaye, 2005). Indeed, rational strategic planning is based on the idea that organizations adapt to changes in their environment by making rational decisions (Chaffee, 1985). Rational strategic planning is a formal, logical, systematic, and continuous process (Hough & White, 2003) with the following steps: definition of the mission and long-term objectives of the organization, analysis of its environment, generation and evaluation of strategic alternatives, implementation of the chosen strategy, and finally, monitoring of the results (Crittenden & Crittenden, 2000). It is a normative

and rational approach to strategy making (Hough & White, 2003), even though it has been strongly criticized for its uncertain effects on firm performance (Robinson & Pearce, 1983). Indeed, the proponents of the adaptive approach to strategy making criticize rational strategic planning, arguing that it bridles creativity and spontaneity, creates rigidity, and encourages excessive bureaucracy (Mintzberg H., 1994) therefore reducing the organization's ability to quickly adapt to change. Nonetheless, rational strategic planning has many proponents (Ansoff, 1991) (Robinson & Pearce, 1988). According to them, rational strategic planning is much more effective than an informal process because it involves the collection and analysis of pertinent information allowing an organization to make more informed and fact-based strategic decisions and therefore to be more aligned with its environment.

Also, rational strategic planning enables an organization to determine its strategic direction (Porter M. , 1996), identify relevant opportunities and effectively seize them (Hough & White, 2003), and anticipate change and create strategic options to deal with change (Rudd, Greenley, Beatson, & Lings, 2008). More recently, Casey and Goldman (2010) found that participation in organized strategic planning processes and involvement in developing strategic plans enhances strategic thinking. Also, Elbanna (2012) showed that a comprehensive strategic planning process is a vital tool for improving performance.

The most important organizational decisions, such as entering a market, introducing a new service, or acquiring a competitor, although based on information and analysis, are essentially judgments. Decision consistency is central to strategy; when an organization exhibits a consistent behavior, it has a strategy (Al isa, 2017). The requirements of decision consistency suggest that a strategy is the means an organization chooses to move from where it is today to a desired state sometime in the future. Thus, strategy also may be viewed as a set of guidelines or a plan that will help assure consistency in decision-making and serve as a map to the future. Strategic plans indicate what types of decisions are appropriate or inappropriate for an organization. Developing the road map (strategic plan) requires situational analysis, strategy formulation, and planning the implementation of the strategy (Swayne, Duncan, &Ginter, 2006).

Strategic planning has received special attention in strategic management research, particularly in terms of its relationship with financial performance and its role in strategic decision-making (Grant R. , 2003). In fact, researchers have made considerable efforts to study the relationship between strategic planning and firm performance because understanding the nature of this relationship is crucial to organizations. However, the results of these studies are considered uncertain and contradictory with no clear conclusions (Falshaw, Glaister, &Tatoglu, 2006) (Grant R. , 2003) (Mintzberg H., 1994). For instance, Sarason and Tegarden (2003) found a positive relationship between rational strategic planning and firm performance, Fredrickson and Mitchell (1984) a negative relationship, and Robinson and Pearce (Robinson & Pearce, 1983) no significant relationship at all.

Given these mitigated results, studies examining the direct bivariate relationship between rational strategic planning and firm performance have been strongly criticized. Some researchers have argued that context plays a considerable role in explaining the relationship between firm processes and outcomes (Child, Elbanna, &Rodrigues, 2010). Therefore, several contingency factors, such as the organizational structure, the nature of the environment, and the size of the organization, have been introduced in the study of the relationship between strategic planning and firm performance (Miller, Burke, & Glick, 1998). It has equally been suggested that some factors may have a mediating role in this relationship (Rudd, Greenley, Beatson, & Lings, 2008)

(Ouakouak&Ouedraogo, 2013). In this research, we are testing the role of strategic planning on organizational performance.

2.3. Strategy Formulation

Strategy formulation refers to the process through which a firmdefines its overall long-term direction and scope. It involves establishing the way a company creates value through the configuration of its activities and resources in the markets in which it operates. Strategy formulation is a purposeful, deliberate exercise to develop a company's competitive advantage and thus enhance its performance (Gimbert, Bisbe, & Mendoza, 2010) (Collis & Montgomery, 2005) (Porter M. , 1996).

The way organizations formulate strategy has become one of the most congested areas of debate in the strategic management field. In the conventional approach (the so-called 'prescriptive' or 'design' school of thought), strategy development is mainly the result of a systematic, rational process of deliberate planning by a top management team, which is then communicated to the organization for implementation. In large companies, this process typically occurs through formal strategic planning systems. An alternative approach, based on descriptive studies of strategy formation, sees strategy as the result that emerges from a complex, multi-level process of organizational decision-making. The realized strategy is thus the outcome of two simultaneous processes: on the one hand, the execution of the strategy as conceived by the top management team (deliberate strategy) and, on the other, the cumulative effect of day-to-day decision-making in a changing environment, which eventually results in the formation of emergent strategies (Mintzberg& Waters, 1985).

Central to the continued survival of any organization is the ability to formulate and execute an effective strategy despite the limitations of organizational resources and the constraints of the external environment. Private-sector firms must plan to face challenges from competitors, rulings of regulatory bodies, shifts in the commercial context including changes in interest rates and economic activity, and shortages of personnel and supplies. Public- sector organizations also face many of these challenges but in different forms, as well as the additional considerations of an election cycle that may cause changes in leadership, a wide variety of stakeholders with competing agendas, and the subjective nature of success given these diverse perspectives (Rose & Cray, 2010).

2.4 Strategy Implementation and Organizational Performance

The third element of strategic management shown in Figure 2.2, strategic momentum (strategic implementation), concerns the day-to-day activities of managing the strategy to achieve the strategic goals of the organization. Thus, once plans are developed, they must be actively managed and implemented to maintain the momentum of the strategy. Strategic thinking and periodic planning should never stop; they become ingrained in the culture and philosophy of a strategically managed organization. As part of managing the strategy, strategic momentum: is the actual work to accomplish specific objectives, concerns decision- making processes and their consequences, provides the style and culture, fosters anticipation, innovation, and excellence, evaluates strategy performance through control, is a learning process, and relies on and reinforces strategic thinking and periodic strategic planning (Swayne, Duncan, &Ginter, 2006).

Strategic planning activities are common in all types of organizations. Top managers come together to develop a strategic plan, often using strategic thinking, and many important issues are

discussed and documented. However, sometimes a strategic plan is created and everyone enthusiastically returns to the organization only to find "business as usual" – nothing really changes, the strategic momentum is lost, and plans are never implemented. This is a critical issue for all organizations, as many have noted before, implementing strategy is often more difficult than formulating it, and it is widely accepted to be an aspect of management where many organizations fail (Hrebiniak, 2006) (Nutt P. , 1999). As next year rolls around, it is once again time for the annual strategic planning retreat and the cycle repeats itself. This is an example of strategic planning without strategic momentum. Alan Weiss, in his irreverent book, Our Emperors Have No Clothes, explains that in these situations the problem is that, "Strategy is usually viewed as an annual exercise at best, an event that creates a 'product,' and not a process to be used to actually run the business" (Weiss, 1995). Moreover, much of the process literature focuses on the effects of strategy formulation, and there is very little evidence on the processes that organizations use when implementing their strategies and the consequences for performance (Bantel& Osborn, 2001) (Dobni&Luffnan, 2003).

Strategic implementation ensures an ongoing philosophy for developing and managing the plans, actions, and control of the organization. It attempts to continually orchestrate a fit between the organization's external environment (political, regulatory, economic, technological, social, and competitive forces) and its internal situation (culture, organization structure, resources, products and services, and so on). In some cases, orchestrating the fit may mean responding to external forces; in other cases, the organization may attempt to actually shape its environment (change the rules for success). External change is inevitable; often the shifts may be subtle, other times they can be discontinuous and extremely disruptive. When such dramatic changes occur, new opportunities emerge and new competencies are born, while others die or are renderedinconsequential. Inevitably, the basic rules of competing and survival will change (Mische, 2001).

For many organizations, strategic planning is the easiest part of strategic management and the planning process receives the greatest attention. However, plans must be implemented to create momentum and to realize strategic intent. Poor implementation or lack of implementation has rendered many strategic plans as worthless. Whereas the strategic plan and its underlying strategic thinking must be viewed as important, they fall apart without implementation and the decision-making guidelines provided for managers at all levels in the organization (Swayne, Duncan, &Ginter, 2006).

If the strategy is not actively managed, it will not happen. Sometimes it is difficult for managers to plan or envision the long-term future of an organization in a dynamic environment. Managers often need to react to unanticipated developments and new competitive pressures. Different environmental characteristics and different organizational forms require new and different ways of defining strategy (Camillus, 1996).

Strategy becomes an intuitive, entrepreneurial, political, culture-based, or learning process. In these cases, maps are of limited value. Managers must create and discover an unfolding future, using their ability to learn together in groups and interact politically in a spontaneous, self-organizing manner. However, learning is difficult in organizations. Learning requires engagement, mastering unfamiliar ideas, and adopting new behaviors. Engaged learning demands that executives share leadership, face harsh truths, and take learning personally. It requires them to fundamentally change the way they manage (Linder, 2000).

As a result, strategy emerges spontaneously from the chaos of challenge and contradiction, through a process of real-time learning and politics. For these uncharted, complex situations, a

compass indicating a general direction, steadied by leadership, may be more appropriate than a map of known events, territories, and ideas. Clearly, rational strategies do not always work out as planned (an unrealized strategy). In other cases, an organization may end up with a strategy that was quite unexpected as a result of having been "swept away by events" (an emergent strategy) (Swayne, Duncan, &Ginter, 2006). , and regularly experiment with potential responses to emerging environmental trends" (Miles & Snow, 1978).

Chapter Three Research Methodology

3.1 Research Design and approaches

The research design for this study was both descriptive and explanatory type and mixed research approach was employed. Mixed approach research is formally defined here as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study (Creswell, 2003). To test the posited hypotheses, a cross- sectional field study was used.

3.2 Population and Sample size of the study

3.2.1 Target population: For this study, the target populations included were medium firms in selected area. Hence, the target respondents includedmedium size firms that are engaged in agro- processing in study area. Therefore, the study conducted on medium enterprises found Oromia Special zone. The leader of firms represented by either the owner or the top manager, who tends to be the most knowledgeable person about the strategic direction of the firm (Keh et al. 2007; Yang 2008). The scope of agribusiness is limited to enterprises operating in the agro-processing and produce agricultural output for market. These two were chosen for their largest representation of business sector and significant contributions to the country's economy by adding value to agriculture output.

3.2.2 Sampling Technique

To select the sample of respondents, the combination of non-probability (convenience) and probability (simple random sampling) methods was employed one after the other. Industrial zones (towns) were selected as samples of population by convenience based on the density of industrial zone in Ethiopia.The sample-selected zones are:Mojo, LegaTafo-LagaDadhi, Sebata, Gelan, and Burayu.

Then after, researchers use simple random sampling technique to select agribusiness firms and then respondents were chosen using simple random sampling method from all selected offirms.

3.2.3 Sampling size

Correlation coefficient fluctuate from sample to sample, much more so in small samples than in large sample size (Field, 2005). Therefore, the reliability of factor analysis dependent on the sample size. Many researchers suggested about sample size necessary for factor analysis and reliability and conclude it depends on many things. More than 250 respondents recommended to

apply factor analysis for less than 30 variables (questionnaires) (Julie, 2005, Field, 2005). In general over 300 cases probability adequate but communalities after extraction should be above 0.5 (Field, 2013).To generate the required information with relatively good precision for infinite or large populations 386 or over cases important (Saunders et al.; 2000).

Sample Size Determination Formula:

$$n = \frac{z^2 pq}{E^2} = \frac{(1.96)^2 (.50)(.50)}{(.05)^2} = 386$$

Description:

n = required sample size
z = confidence level at 95% (standard value of 1.96)
E = margin of error (maximum error tolerable) to within .05
p =population proportion at which the sample size is **maximum** (at p=0.5 and q=0.5, p*q=0.25)
Where **q=1-p**

Accordingly, 386 plus 10% in order to offset an anticipated low response or unresponded rate percent 10% to 20% and to maximize the generalizability of the results(Remenyi et al., 1998),totally 425 respondents were selected proportionally from both manufacturing and service sectors. This sample size is hoped to generate the required information with relatively good precision for infinite or large populations (Saunders et al.;2000).Also it is more than recommended size(250cases) for applying statistics tools such as; factor analysis, correlation, regression etc. (Julie, 2005; Field, 2013).

3.2.4 Sampling Frame

A sampling frame is a representation of the elements of the population. Sekaran and Bougie (2010) defined a sampling frame as 'a physical representative of all elements in the population from which the sample is drawn' (p. 267). This physical representative could be a company database, random-digit dialing or a membership roster (Hair et al. 2000). It consists of a list or set of directions for identifying the target population. For this study, lists of agribusinesses were obtained from the respective selected town. The researchers accessedinformation that includes the name of the company, e-mail address, industry type or specialization, postal address, website and telephone numbers. Hence, the target respondents include firms which are engaged in agro-processing. Therefore, the study is going to be conducted on medium size firms that are found in Oromia special zone (Mojo, LegaTafo-LagaDadhi, Sebata, Gelan and Burayu). The leader of an agribusiness were represented by either the owner or the top manager, who tends to be the most knowledgeable person about the strategic direction of the firm (Keh et al. 2007; Yang 2008) and is the person who engages in entrepreneurial activities.

3.3Types of data

primary sources of data were used.

Primary data: primary data was collected from medium and large enterprise owners, employees and students through questionnaires, interview and focus group discussion was used to gather the necessary information.

3.4 Data Collection Procedures

A well-structured questionnaire for survey was used as tools of data collections.The questionnaires were distributed to selected respondents in order collect data for main study

3.5 Data Analysis Procedure

To achieve the objectives, the studies manipulated; descriptive and inferential (such as: multi regression) research methods one after the other. For this, SPSSv21 was used to proceed with the necessary statistical analysis.such as of regression, correlation, and analysis of variance. It is specified in estimation, assess, and presentation of the model in an intuitive path diagram which shows hypothesized relationships among variables (Browne &Cudeck, 1993; Kaplan, 2000; James, 2011).

CHAPTER FOUR

Data Presentation, Analysis and Interpretation

Table 4. 1 Priority given for strategic planning in selected organization

For my organization strategic planning is top priority activity, performed on a regular basis to improve organizational performance.	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	3	1.0	1.0
Disagree	23	7.3	8.3
Slightly Agree	53	16.8	25.1
Agree	193	61.3	86.3
Strongly Agree	43	13.7	100.0
Total	315	100.0	

Source; Survey 2020

Table 4.2 above shows that 13.7% of the respondents strongly agree that strategic planning is top priority activity, performed on a regular basis to improve organizational performance. 61.3% of the respondents agreed that strategic planning is top priority activity, performed on a regular basis to improve organizational performance. 16.8% of the respondents slightly agree to the statement. 1% and 7.3 % of the respondents strongly disagrees and disagree that strategic planning is top priority activity, performed on a regular basis to improve organizational performance respectively. Thus the above findings show that majority (74%) respondents replied strategic planning is top priority activity, performed on a regular basis to improve organizational performance and this indicate that in selected organizations strategic planning formulation and implementation performed on regular basis and considered as base to improve organizational performance.

Table 4.2Resources specified to improves strategic planning

Resources specified to improves strategic planning	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	8	2.5	2.5
Disagree	21	6.7	9.2
Slightly Agree	112	35.6	44.8
Agree	131	41.6	86.3
Strongly Agree	43	13.7	100.0
Total	315	100.0	

Source; Survey 2020

Table 4.2 above shows that 13.7% of the respondents strongly agree that the selected organization were specified resources to improves strategic planning 41.6% of the respondents agreed that the selected organization were specified resources to improves strategic planning. 35.6% of the respondents slightly agree to the statement. The remaining 2.5% and 6.7 % of the respondents strongly disagrees and disagree that organization were specified resources to improve strategic planning respectively. Thus the above findings show that more than half (55.3%) respondents replied selected organization were specified resources to improve strategic planning and this indicate that selected organizations are highly committed to implement planned strategies.

Table 4.3 Availability of procedures during strategic planning process

My organization follows defined set of procedures during strategic planning process	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	8	2.6	2.6
Disagree	12	3.8	6.4
Slightly Agree	92	29.5	35.9
Agree	145	46.5	82.4
Strongly Agree	55	17.6	100.0
Total	312	100.0	

Source; Survey 2020

The above table shows that 17.6% of the respondents strongly agree that the selected organization follows defined set of procedures during strategic planning process. 46.5% of the respondents agreed that the selected organization follows defined set of procedures during strategic planning process. 29.5 % of the respondents slightly agree that the selected organizations follow defined set of procedures during strategic planning process. The remaining 2.6% and 3.8% of the respondents strongly disagrees and disagree that the selected organizations

follows defined set of procedures during strategic planning process respectively. Thus the above findings show that majority (64.1%) respondents replied the selected organizations follows defined set of procedures during strategic planning process and this indicate that the selected the organizations prepared and used defined set of procedures during strategic planning process

Table 4.4 The availability of written mission statement

My organization has written mission statement	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	11	3.5	3.5
Disagree	18	5.7	9.2
Slightly Agree	78	24.8	34.0
Agree	146	46.3	80.3
Strongly Agree	62	19.7	100.0
Total	315	100.0	

Source; Survey 2020

The above table shows that 19.7% of the respondents strongly agreed that their organization have written mission statement. 46.3% of the respondents agreed that their organization have written mission statement. While 29.5 % of the respondents slightly agree that their organizations have written mission statement. The remaining 3.5% and 5.7% of the respondents strongly disagrees and disagrees that their organizations have written mission statement respectively. Thus the above findings show that majority (66%) of respondents replied their organization have written mission statement and this indicate that the selected the organizations have recallable and guiding mission statements

Table 4.5 The availability of written goals (short or long term)

The availability of written goals (short or long term)	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	6	1.9	1.9
Disagree	20	6.3	8.3
Slightly Agree	60	19.0	27.3
Agree	159	50.5	77.8
Strongly Agree	70	22.2	100.0
Total	315	100.0	

Source; Survey 2020

The above table shows that 22.2% of the respondents strongly agreed that their organization have written goals. 50.5% of the respondents agreed that their organization have written goals. While 19% of the respondents slightly agree thattheir organizations have written goals. The remaining 1.9% and 8.3% of the respondents strongly disagrees and disagrees regarding to written goals respectively. Thus the above findings show that majority (72.7%) of respondents replied their organization have written goals and this indicate that the selected the organizations can easily monitor and check performance level

Table 4.6 The availability of measurable targets in the organization

My organization has goals list quantified with measurable targets (e.g., volume, market share, growth rate, and profitability)	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	20	6.3	6.3
Disagree	3	1.0	7.3
Slightly Agree	70	22.2	29.5
Agree	156	49.5	79.0
Strongly Agree	66	21.0	100.0
Total	315	100.0	

Source; Survey 2020

Table 4.6 above shows that 21% of the respondents strongly agree that their organization has quantified goal with measurable targets. 49.5% of the respondents agreed their organization has quantified goal with measurable targets.While 22.2% of the respondents slightly agree to the statement. The remaining 6.3% and 1% of the respondents strongly disagrees and disagree to the statement their organization has quantified goal with measurable targets respectively. Thus the above findings show that majority (70.5%) agreed that their organization has quantified goal with measurable targets and this imply that in selected organizations functional and individual worker level performance can easily monitored and tracking performance improvement was possible

Table 4.7 Agreement level on extent responsibility are clearly assigned to implement plan

Organizational members clearly assigned responsibility for action to implement plan	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	24	7.6	7.6
Disagree	20	6.3	14.0
Slightly Agree	73	23.2	37.1
Agree	112	35.6	72.7
Strongly Agree	86	27.3	100.0

Total	315	100.0	

Source; Survey 2020

Table 4.7 above shows that 27.3% of the respondents strongly agree that organizational members have clearly assigned responsibility to implement plan. 35.6% of the respondents agree that their organizations conduct a situational analysis review to improve organizational performance. While 21.6 % of the respondents slightly agree to the statement. The remaining 1.9% and 9.2% of the respondents strongly disagrees and disagrees to the statement that their organizations conduct a situational analysis review to improve organizational performance. Thus the above findings shows that majority (67.3%) of the respondents agreed that their organizations conduct a situational analysis review to improve organizational performance

Table 4.8 allocation resources for strategy implementation

My organization allocation resources for strategy implementation	Frequency	Valid Percent	Cumulative Percent
Strongly Disagree	18	5.7	5.7
Disagree	26	8.3	14.0
Slightly Agree	61	19.4	33.3
Agree	165	52.4	85.7
Strongly Agree	45	14.3	100.0
Total	315	100.0	

Table 4.8 above shows that 14.3% of the respondents strongly agree that their organization allocate resources for strategy implementation. 52.4% of the respondents agree that their organization allocate resources for strategy implementation. While 19.4 % of the respondents slightly agree to the statement. The remaining 5.7% and 8.3% of the respondents strongly disagrees and disagrees to the statement that their organizations that their organization allocate resources for strategy implementation. Thus the above findings shows that majority (66.7%) of the respondents agreed that their organization allocate resources for strategy implementation

4.2 Regression Analysis

Multiple regressions is not just one technique but a family of techniques that can be used to explore the relationship between one continuous dependent variable and a number of independent variables or predictors (usually continuous). Multiple regressions are based on correlation, but allow a more sophisticated exploration of the interrelationship among a set of variables. Therefore, the researcher used to explore between dependent variable (firm performance) and independent variables such as (strategic thinking , strategic planning and strategy implementation).Before carrying *out multiple regression analysis, all of the assumptions were tested.*

Therefore, multiple regression analysis was carried out to test the combination marketing thinking , strategic planning and strategy implementationon firm performance. The various statistics results are reported in the following tables below.

Table 4.9 Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.458	1.000		1.458	.146
Strategic thinking	.140	.017	.415	8.154	.000
Strategic Planning	.065	.025	.175	2.603	.010
Strategy implementation	.211	.083	.187	2.548	.011

R= 0.65 R Square =0.422 Adjusted R Square = 0.417

a. Dependent Variable: Performance

The three independent variables were significant at both 10% and 5% significant level.Strategic Thinking was highly and significantly correlated with firms performance at 10% and 5% significant level and as a whole with the correlation coefficient R= . 0.415. Also the above table illustrates coefficient of determination R2 = .417 which indicates that 41.7% of the variation in firms performance for the sample of 315 can be explained by the changes in the three independent variables together while58.3 % remains unexplained.

The regression result reveals that the contribution of each independent variable. Accordingly, in order to find out the effect of these three independent variables on firms' performance the regression analysis depicts the following results. That is, all independent variables were significantly and positively influence firms performance at significant at 5 % and 10% significant level

From Table 4.27 above the established linear regression equation becomes:

$Yi= 1.458+0.415x1 +0.175x2+ 0.187x3 + \varepsilon$

Yi= Firms Performance (dependent variable)

ε = Error Term, Where x1, x2, x3, x4 and x5, are independent variables.

X1= Strategic Thinking

X2= Strategy Planning

X3= Strategy Implementation

X4= External environmental factors

B0 = the estimated value of Y when X1, X2 and X3, are zero

β1 = the estimated effect of strategic thinking and firm performance

β2 = the estimated effect of strategy planning and firm performance

β3 = the estimated effect of strategy implementation and firm performance

As the above model shows

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	1715.225	3	571.742	75.021	.000[b]
	Residual	2347.284	308	7.621		
	Total	4062.510	311			

a. Dependent Variable: Performance

b. Predictors: (Constant), Strategy implementation, Strategic thinking, Strategy Planning

The above table indicates the summary of Analysis of Variance and F-statistics, that indicates the value of F = 75.021 is significant at P = 0.000 level of significance. The value of F is large enough to conclude that the set of independent variables as a whole are contributing to the variance of firms performance and therefore, the model represents actual practice of the business operators under study.

As it is shown in the above matrix, the correlation coefficients among all the variables are less than 0.9 which implies multicollinearity does not exist among the three independent variables.

Also Variance inflation factor (VIF) is the measure of the speed with which variances and covariance increase and it is the most commonly used method for detecting multicollinearity problem. There is no formal cutoff value to use with the VIF for determining the presence of multicollinearity but Neter, Wasserman and Kutner (1990) recommended, looking at the largest VIF value. A value greater than 10 is often used as an indication of potential multicollinearity problem. If VIF < 10, no multicollinearity problem, therefore, the study had no multicollinearity problem as VIF < 10, as shown in the regression table below

Chapter Five

Conclusion and Recommendation

Understanding the linkage between thinking strategically and firm performance sets the stage for exploring how managers exploit managerial activities for market leadership and value creation. A firm's environment however aids and promotes strategic thinking. While there are things about the firm environment that should be taken as 'givens, 'there is considerable room for framing, restructuring, revising, and transforming the firm environment or selected parts of it, for competitive advantage (Hanna, Rohm, & Crittenden, 2011; Iansiti&Levien, 2004). Interestingly, the critical importance of connecting strategic thinking and firm performance becomes evident when we consider different types of industry and firm.

This study thus pinpoints the importance of strategic thinking among managers and employees in firms since a positive relationship was revealed from this study. Strategic thinking is not the sole responsibility of senior managers; some of the most creative ideas that stimulate strategic thinking come from middle and lower level managers, as well as employees who interact with customers, suppliers, and other stakeholders. Strategic thinking embodies creativity, inventiveness, and pro-activeness in changing the competitive arena and inducing new dynamics and bringing in new methods into the market in order to get a considerable market share. It often entails revising the boundaries and complexion of the competitive arena, as well as challenging and sometimes revising the assumptions that underlie market forces. Therefore, top executives and senior managers should create an environment that motivate all organizational members to think strategically and the responsibility of top executives and senior managers will coordinate others ideas and provide guidance for all organizational members regarding the vision and goal of the organization.

In this study, it has been established that effective strategic planning indeed has a positive effect on performance. Although formal planning only will not bring about better performance, effective implementation will suffice. Strategic formulation and the process of strategic planning is a complex one but it does not mean it is a futile effort because there is something to be gained at end of the day.

Strategic planning is vital for ensuring continued good corporate performance and only those organizations that practice some form of strategic planning will survive.

The result of this study revealed the selected MSE's is also a part of the global economy and is not exempted from what is happening and therefore should not feel it is not important to embark on strategic planning process. It was established that the extent of strategic planning, the categories of workers involved and the level implementation are variables that affect the achievement of higher performance even in manufacturing industry and this process should not be ignored.

This research work has brought knowledge to MSE's administrators. This result will help the

Top management to see that strategic planning has a positive impact on corporate performance and therefore, it is necessary to carry out strategic planning in MSE's and not only in large Companies concerns where international market was considered. The MSE's management can benefit from strategic planning on the long run

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