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The Effects of Tax Incentives on Private Domestic Investment in Addis Ababa, Ethiopia

Aschalew Kassa

Center for Public Policy Studies, Ethiopian Civil Service University, Addis Ababa, Ethiopia

Email address:
aschuwithjesus@gmail.com

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Abstract: The main purpose of this study is to assess the effects of tax incentives on private domestic investment in Addis Ababa, Ethiopia. The study has adopted a Quantitative research method in which primary data were collected from private domestic investors' through questionnaires and also secondary data which has been collected from Ethiopian Investment Commission (EIC) and Ethiopian revenues and customs authority through document analysis. Descriptive research method was used to describe the major roles of tax incentive on private domestic investment. Hence, the finding reveals that the major role of tax incentive on private domestic investment is stimulating capital accumulation. On the other hand OLS regression method was employed to assess the respective effect of tax incentives on private domestic investment. Thus, the finding reveals that tax holiday and export duty free significantly affect the capital value of private domestic investment whereas customs duty exemption and loss carries forward were found having insignificant effect on capital value of private domestic investment. Regarding, the control variables age, occupation and infrastructure was founded to have a significant positive influence on capital value of private domestic investment. Moreover, in a bid to solve problems related with tax incentives and private domestic investment, clearly assessing and understanding costs and benefit of providing tax incentives and making it specific to private domestic investors demand as well as building transparent and accountable tax incentive administration were forwarded for both policy makers and implementers respectively.

Keywords: Tax Holiday, Export Duty Free, Customs Duty Free, Loss Carries Forward

1. Introduction

Private domestic investment is becoming considered as a major economic powerhouse for developing countries. To prompt domestic investments governments have been providing incentive. Tax incentives are one of such incentives.

According to UN [25] reductions in the standard tax holidays and reduction in corporate tax are the most commonly used tax incentives which are followed by exemptions from customs duty, duty drawbacks, and accelerated depreciation, deductions from gross earnings, investment and reinvestment allowances and deductions from social security contributions.

One rationale for providing tax based incentive is based on the assumptions that it increases government revenue, increase Inland Revenue, job creation, know-how transfer and technological development, and it facilitate a parallel linkage to local economy [18]. However, Mosioma also indicted that there are scholars who argue that using tax incentive could not provide a sustainable basis for creating jobs or achieving sustained economic development. The incentives perpetuate unhealthy competition and lead some investors to exploitation over the others. [18]

Another justification for providing tax incentives is to address market failures mainly externalities such as economic effects despite selective users of the tax incentive [24]. Hence, tax incentives which are aimed to promote advanced technologies and pioneer industries which could result in productivity and growth of economy are always sound. However, the needs of addressing development needs of countries are the debatable case for granting targeted incentives.

In the Ethiopian context, the underdevelopment of private sector development emanates from various root factors which are government policies, under development of infrastructures; social, political and economic instability and unequal share in the world market and inefficient tax administration [8].

Although many empirical studies were carried out on the relationship between tax incentives and investment in general and factors affecting private domestic investment in particular, still there is a knowledge gap which is not addressed. Among the empirical studies, Kassahun has investigated major issues related with tax incentive which adversely affect promoting investment in Ethiopia but his survey was limited on foreign direct investment [15]. Similarly an investigation carried out by [8]. on major tax factors that are affecting promotion of investment was restricted on foreign companies specifically engaged in manufacturing sector. Further, an empirical investigation made by Samuel [22] concerning tax incentives and investment was also carried out on foreign direct investment only. On the other hand, Ambay, Berhanu, and Abera founded the major determinates of private domestic investment, in Ethiopia but their study was only focused on non-tax determinants of private domestic investment [1]. The distinctive feature of this study is that it specifically tried to address the roles and effects of tax incentive on private domestic investment through cross sectional survey of private domestic investors in Addis Ababa. Basically it aimed to answer the following questions.

1) What are the major roles of tax incentives on private domestic investment?
2) How does each type of tax incentives affect private domestic investment?
3) What are the perceptions of private domestic investors towards the status of tax incentives eligible and tax related factors which affect private domestic investment?

2. Literature Review

Concept of private domestic investment and tax incentives

Private domestic investment is the value of machinery and assets that are owned by private firms of within their own countries for production purposes [20]. It refers to investment carried within the countries by its own private business for the purpose of profit generation. The role of private domestic investment is paramount in expediting economic growth through fulfilling capital goods for current demand, enlarging the production base and increasing production capacity.

PDI stimulates the economic growth of nations through modernizing production processes, improving cost effectiveness; reducing the labor needs per unit of output, which results in potentially producing higher productivity, and enabling the production of new and improved products, improving the quality of production; incorporating international world-class innovations and quality standards, bridging the gap with more advanced countries and helping exports and an active participation on international trade [20].

Theoretical review of literature

An incentive theory

According to this theory governments pursue investment incentives to enhance economic growth. It stipulates that poor economic growth is determined by a lack of investment [14].

A-q theory Approach

The major target of q theory is promoting supply which could be enhanced through investment expansion. The reduction in capital cost resulted by tax reduction expedites the supply of output [23].

New Study Destroys Theory

This theory states that tax reduction or exemption perpetuate income inequality through enhancing the income of the affluent firms engaged in investment whereas contributing nothing for those who are not engaged on investment [10].

The Standard theory of optimal taxation

The standard economy theory indicates that tax reduction or exemption for firms adversely affect investment expansion through its contribution to loss of revenue which could harm macro- economic stability [17].

The Balanced growth theory

Claims that least developed countries need to expand their industries in parallel with agricultural sector through providing investment incentive to the firms which includes tax holiday and tax exemption [7].

The Theory of Conventional wisdom

This theory states that Tax incentives are bad in both their theoretical and practical part. Theoretical part of tax incentives leads to distorted investment decisions and selection of activities which are not the interest of firms [10].

Neo classical theory

Neo-classical economic theory states that granting tax incentives to selective units of firms adversely affects horizontal equity. This in turn affects the price related issues faced by capable investors and results in uneven distribution of asset [2].

Determinants of investment

1) Socio demographic factors: namely age, gender, education level and occupation have no significant influence on investment.
2) Tax holidays: are exemptions from tax for a limited period of time granted by the government to certain specified taxes for of a new firm or investment.
3) Export Duty free: exemption from export duty on goods or service exported for the foreign market.
4) Investment loss carries forward: is a reduction in certain fraction of an investment from the tax liability for investors.
5) Corporate income tax: cross country studies carried out on OECD countries concerning incentives and investment founded that 10 percentage point increase in the corporate income tax lowers the share of investment by 0.45% of GDP [10].
6) Rules and regulation; comprehensive rules and regulation on tax incentives which could able to eliminate tax distortions; remove unnecessary administrative and compliance costs and fulfills the interest of firms encourages the decisions of investors to

invest in the host country [6]. Institutional framework: according to Bolnick institutional framework in developing countries is weak to stimulate investment. Lack of transparency, accountability and lack of standard time and programs to grant tax incentives are among the institutional hindrance of tax incentive which discourages investment promotion in developing countries [5].

7) Monitoring and enforcement: as tax incentives are difficult to manage and prone to abuse, misuse and deception it needs strong monitoring and control from the government affecting the expansion of investment [5].
8) Benefits relative to cost; According to Clark, Bohmer and Cebreiro costs of tax incentives particularly the costs of time and money investors incur to qualify and obtain incentives, its complexity and prone to corruption relative to its benefit negatively affect the enhancement of investment [6]. James also founded that Costs of obtaining tax incentives are not simple; the long process that it takes to qualify for tax incentives usage is undeniable which negatively affect the encouragement of investment. [13]

Non-tax factors that affect investment

On the other hand, according to Bayi and Nyangara variables such as political risk, GDP, debt servicing, trade terms and interest rates are the major determinants of domestic investment [3].

Empirical studies on tax incentives in developing countries

While certain types of tax incentives been effectively implemented in less developed countries such as Malaysia and Mauritius, experience in Africa indicates that the costs of tax incentives exceed the benefits. According to the finding of Pissan in Africa, tax incentives resulted in revenue losses, undermining good governance process and negatively affecting the efforts of developing countries to fight poverty. [21]. For instance, tax incentives in Tanzania have resulted in reduction of 3% of GDP in tax revenues in. Similarly, the estimation from Tax Justice Network and Action in Kenya indicates that Kenya's loss around KES 100 billion (USD 1.1 billion) of revenue a year from all tax incentives and exemptions. An investor survey conducted in Burundi, Rwanda, and Tanzania shows that the majority of investors in making investment decision were not highly motivated by tax incentives or exemptions. Instead those decisions were largely influenced by other non-tax factors such as market potential, access to finance, electricity supply and other infrastructures. Only 7.9% of all respondents from all the three countries indicated that they would not have invested without the tax and fiscal incentives they received.

"Investment surveys in sub-Saharan countries confirm that tax incentives usually do not top the list of investment factors in developing countries. In 2010, the United Nations Industrial Development Organization conducted a business survey of 7,000 companies in 19 sub-Saharan African countries active in agriculture, mining, manufacturing, and utilities, construction, and services sectors. Investors were asked to rank the importance of twelve location factors and to assess how they might have changed, improved and worsened, in the last three years. The results suggest that tax incentives packages ranked 11th out of 12 in importance; and this importance fell over time. For comparison: transparency of the legal framework ranked 5th in investors' concerns and grew in importance. Investors thus seem to care much more about deficient legislation and generous regulations than about the availability of tax incentives [11]."

Tax incentives have been commonly adopted and widespread in LICs in the past one decade. For instance, less than 40 percent of the LICs in sub-Saharan Africa offered tax holidays in 1980 while free zones were non-existent. However in 2005, more than 80 percent offered tax holidays and 50 percent had adopted free zones. The number of countries in sub-Saharan Africa granting tax holidays and establishing free zones has grown further since 2005 [13]. This continues change in tax incentives resulted increasing trade and capital flows and the growing importance of multinationals. However, some evidence indicates that the average length of tax holidays has declined somewhat in various regions of the world recently [11]. The decline in corporate income tax globally rates, including in LICs, it might indeed be that the benefit for investors of receiving tax incentives has somewhat diminished.

The trend of private domestic investment in Ethiopia

Private sector investment in Ethiopia simultaneously passed good and poorly designed policy regimes. During the imperial regime investment policy followed by the government was better in facilitating favorable working environment. Further the existence of the stable economic and political condition during the period helped the country to establish a secured and stable working environment for the private sector. However, in the socialist regime, the overwhelming role of the state in the economy through heavily involving in production of products ranging from household commodities to large machinery and construction materials has dramatically reduced the involvement of domestic private sector in the economy of the country. Public sector investment was favored in terms of incentive provision though its return was inefficient and ineffective [1].

Following the demise of the Dergue regime in 1991, a shift in policy from command economy to free market economy has opened a sound opportunities for the private sector to play a paramount role in various sectors of the country's economy. Following this, a lot of efforts have been exerted and various forms of incentive packages have been provided by the government to stimulate domestic private investment in the country [1].

Although different incentives were offered by the government, the domestic private sector's contribution to the economic growth of the country has been remained slightly weak by international standards, even compared with Sub-Saharan countries. This can be ensured through the low trend of domestic private investment share as a percentage of gross domestic products (GDP). For example from 1992-2000 and 2001-2010 domestic private investment as a percentage of

GDP were 2.6% and 1.2%respectively. Whereas from 2006-2010 the average domestic private investment as percentage of GDP was only 0.5% while average economic growth for the same period was about 11%. However, the involvement of private domestic sector in the economy of the country has scored a marked growth after 2008 with the exception of its decline in 2011 by 25% compared to 2010. However, in 2012 the contribution of private domestic investment in the economy was dramatically improved which was increased by 300% compared to 2010 [1].

Determinants of private domestic investment in Ethiopia

According to Ambay, Berhanu, and Abera the major determinates of private domestic investment, in Ethiopia are exchange rate, domestic saving, domestic credit, External debt and government expenditure. While exchange rate, domestic saving, and external debt negatively affects private investment, financial service, domestic credit and government expenditure positively affect private domestic investment [1]. Muhadin also founded that growth domestic product, exchange rate, credit, interest rate; domestic market demand, political stability, infrastructure, financial access and international trade are the major determinants which significantly affects private domestic investment in Ethiopia. [19].

Tax incentive related challenges affecting investment in Ethiopia

Ethiopia has an apple of investment opportunity in agriculture, manufacturing, information communication technology, mining, energy, tourism, air transport construction, health and education. The government is enhancing these sectors through granting tax incentives which includes customs duty exemption, income tax holiday, loss forward, remittance of profit, dividends, principals and interest payment on external loans and provision of land at competitive lease price to investors [9].

An empirical investigation made by kassahun founded that rules and regulation regarding tax incentives, shortage of modern management skill, and lack of monitoring and follow up, weak organizational structure and in efficient service delivery are the major hurdles in attracting and e promoting investment in Ethiopia [15]. Tax incentives in attracting and stimulating investment in Ethiopia has been also challenged by misbehaving activities on the side of investors like misuse of the privileges, tax evasion, hiding information and poor performance as well as poor follow up and management activities by the tax and customs administration.

The survey of Dereje analyzed through descriptive research founded that administrative procedures and rules of tax incentives are not clear, more than 50 percent of respondents in his survey claimed that procedures rules and regulation of tax incentive is not clear and smooth. Regarding effective and efficient follow up more than 52 per cent of respondents in his survey stated that there is poor follow up and monitoring. Based on this, it has been concluded that lack of infrastructure and lack of effective follow up are some of major challenges of tax incentive in promoting investment in Ethiopia [9].

3. Research Methods and Techniques

Research methods

Based on the time of data collection, this research has applied cross sectional study. Based on nature of inquiry, this study has employed both descriptive and explanatory research. The descriptive method of research was used to describe the opinion, characteristic and behaviors of respondents on the study whereas the explanatory method was used to test tax incentive factors which affect private domestic investment. Due to the aim of the study to describe, preferences, opinion, and attitudes of the respondents as well as to use statistical value and cross sectional way of data collection, survey method was used in this study.

Based on the type of data, this study employed quantitative types of research. Based on the environment in which the research carried out this study applied field setting research. Based on the degree of theorization, this research was empirical based research. Indeed, based on the logical reasoning this study applied deductive reasoning approach.

Sources and technique of data collection

The researcher used both primary and secondary sources of data. The primary data has been obtained from private domestic investors in Addis Ababa city whereas the secondary data were collected from Ethiopia Revenues and Customs Authority (ERCA) and Ethiopian Investment Commission (EIC).

To collect data from the private domestic investors, questionnaires which have both open ended and close ended questions designed. Hence, questionnaires were employed to collect data from primary sources whereas Document analysis has been conducted to collect data from secondary sources.

The total study populations of this study are all private domestic investors who are tax incentive users and those have the license of the investment permission to invest in Addis Ababa city.

The study population in which the sample of this study is drawn from lists of private domestic investors in three selected sub cities notably Akaki Kality, Bole and Nifas Silk Lafto. The main reason to purposively select the three sub cities is due to the fact that they comprises large investment projects such as industrial and construction zones and international hotels which could represent the total population.

Sampling design

A multi stage cluster sampling design was employed to gather data from the respondents. Hence among 10 sub cities in Addis Ababa three sub cities which were expected to comprise large of domestic investment projects and in which investment projects are easily accessible were selected through purposive sampling technique.

Sample size

To determine sample size of this study the researcher referred to different sample size determination methods. For this study the sample size determination formula of Cochran for large and unknown population was used. Since the total numbers of private domestic investors are large and tax incentive users are not actually/ known the following sample size formula was used.

Thus the sample size for this study has been calculated as follows

$$n=z^2 p\ (1-p)/e^2 \quad (1)$$

$$= 1.96^2*0.5*0.5/0.05^{2=} 385$$

Where: z= represents the degree of confidence level which is 95

P= represents the level of proportion (0.5)

e= represents the margin error (0.05)

Hence the sample size of this study is 385. These will be divided for three sub cities equally

385/3=128.33 for each. Since fraction cannot work sample size for two sub cities was allocated 128 for each and sample size for the rest one sub city was= 129. Moreover each sample sizes in the three sub cities were equally distributed within the parts of sub cities which are selected for the study.

Data analysis and techniques

This study employed quantitative tools to analyze the data collected from both primary and secondary sources. Among quantitative tools descriptive statistical tools like (charts, frequencies and, Z_{cal} and inferential statistical tools called (OLS regression) were used.

In this section the sex structure, age structure, and education level and occupational sector of private domestic investors has been discussed. In order to test the statistical significance of the responses the proportion test through Z_{cal} method has been used. Thus for the responses which covers more than half of respondents proportion test to test the significance of the majority has been used.

$$Z_{cal}\text{-}= (p1-p2)/SE$$

The Majority is significant at 1% level If $Z_{cal} > Z\ (\alpha/2) = 2.57$

The Majority is significant at 5% level if $Z_{cal} > Z\ (\alpha/2) = 1.96$

Descriptive statistical tools were used to describe the roles of tax incentives on private domestic investment and describe some opinion of respondents regarding tax incentives and the private domestic investment. Since the dependent variable is continuous which is measured through the capital investment value of private domestic investment by USD and the independent variables are more than two, the appropriate and sound method that fits to test the causal effects of the variables is OLS regressions. Thus the net effects of tax incentives on private domestic investment were tested through OLS regression method controlling the extraneous variables which are Socio- demographic factors and non-tax factors.

This shall be indicated as

$$Y=\beta_0+\beta_1X_1+\beta_2X2_2+\beta_3X_3+_{\dots}+\beta_nX_n+e_i \quad (2)$$

Where: Y is the dependent variable

Xs are independent variables

$B_{1\text{-}n}$ coefficients for each of independent variables

4. Result and Discussion

Descriptive Statistics

Socio-Demographic structure of Respondents

The table below provides an overview concerning socio demographic structure of respondents. Thus, regarding sex structure, 68.9 per cent (Z_{cal}=4.952) of total respondents are males implying that male respondents significantly constitute the majority. Regarding age level, 72.8 per cent (Z_{cal} =5.804) of total respondents are those who are below 40 years old implying that respondents below the age level of 40 significantly constitute the majority. This indicates that the investment in the city is carried out by young generation who has the capacity to expand their business and contribute more for the investment growth of the city.

Table 1. *Socio-Demographic structure of Respondents.*

Variables	Respondents	Count	Percentage	Z cal
Sex	Male	228	68.9	4.952
	Female	103	31.1	
	Total	331	100	
Age level	Below30	114	34.4	5.802
	31-40	127	38.4	
	41andabove	90	27.2	
	Total	331	100	
Education	Below10+2	63	19.3	
	10+3	97	29.3	8.09
	Degree and above	16	51.6	
	Total	331	100	
Occupation	Manufacturing	104	31.4	
	Construction	121	36.6	4.87
	Service	106	32	

Field Survey, 2016

Note: Majority is Significant at 5% level if $Z_{cal} > Z\ (\alpha/2)$=1.96<2.57;

Majority is Significant at1% level if $Z_{cal} > Z\ (\alpha/2)$=2.57

Perhaps, concerning Educational qualification, the findings indicates that 81 per cent (Z_{cal} =8.09) of total respondents have an educational level of 10+3 and above implying that respondents who have an educational level 10+3 and above significantly constitute the majority. Therefore there is sufficient evidence to conclude that private domestic investment are largely owned by educated human powers that have the potential capacity to promote investment innovation and expansion.

Indeed regarding the occupational sectors in which respondents are engaged the survey result indicates 68.8 per cent (Z_{cal}=4.87) of total respondents are those whose occupational sector are construction and service implying that respondents whose occupational sector are construction and service significantly constitute the majority. This indicates that majority of private domestic investors are those whose occupational sector are not manufacturing but service and construction.

Types of tax incentives eligible for private domestic investment

There are four main types of tax incentives eligible for private domestic investors in Ethiopia. These encompass tax holiday, customs duty free, investment loss carries forward and export duty free. The figure below indicates the magnitude of each type of tax incentives which are used by investors'

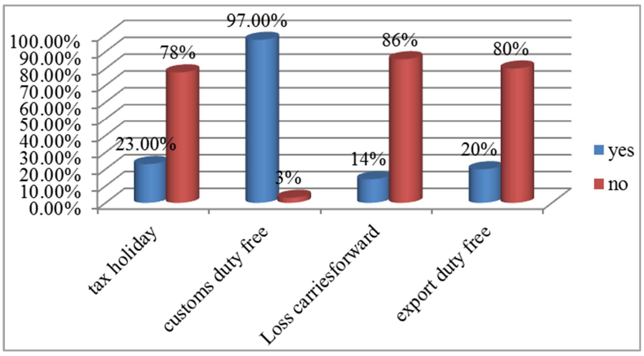

Figure 1. *Magnitude of tax incentives used by private domestic investors.*

Source: Field Survey, 2016 Z_{cal} results for higher proportion
Tax holiday =7.24 Investment loss carries forward= 9.77
Customs duty exemption=13.7 Export duty free =8.12
Note: Majority is Significant at 5% level if $Z_{cal} > Z(\alpha/2)=1.96$
Majority is Significant at1% level if $Z_{cal} > Z(\alpha/2)=2.5$

Accordingly, the chart shows that 78 per cent (Z_{cal} =7.24**)** of total respondents are not used tax holiday implying that respondents who were not used tax holiday significantly comprise the majority. In contrast 97 per cent (Z_{cal} =13.7) of total respondents used custom duty free exemption implying that domestic private investors who used customs duty free exemption significantly constitute the majority of respondents. On the other hand 86 per cent (Z_{cal} =9.77) of total respondents are not used investment loss carries forward indicating that respondents who didn't used investment loss carries forward significantly constitute the majority. Indeed, among the total number of respondents 80 per cent (Z_{cal} =8.12**)** of total respondents were not used export duty free type of tax incentives indicating that respondents who didn't used export duty free significantly comprises the majority. Thus based on the above results it can be inferred that customs duty free exemption is the widely used type of tax incentives by the private domestic investors.

The finding of this study contrasts with the findings of Easson and Zolt which states that the most common type of tax incentives used in developing countries is tax holiday. [10]. The main factor for this variation could be associated with the difference in tax incentive policy followed by different countries and also variation in types of tax incentives eligible in different sectors. Customs duty free exemption are commonly adopted by both domestic private investors and foreign investors who are engaged in different investment sectors where as Tax holiday are mostly commonly adopted by investors who export semi or full of their products to foreign countries. Moreover, since most of domestic private investors are engaged in service and the construction sector in which only customs duty exemption are granted, the numbers of investors who are eligible for the rest types of tax incentives are lower.

Major Roles of Tax incentives on Private Domestic Investment

Table 2 provides the major roles of tax incentives for private domestic investment. Accordingly, with regard to capital accumulation 77.3 percent (Z_{cal} =7.8) of total respondents replied that tax incentives increases their capital accumulation which implies that respondents who stated tax incentive increases their capital accumulation significantly constitute majority Thus it can be inferred that tax incentives increases the capital accumulation of private domestic investors. Whereas regarding profit, 71.6 percent (Z_{cal} =6.08) of total respondents replied that tax incentives do not increase their profit implying that respondents who stated tax incentives do not increase their profit significantly constitutes the majority. Thus, it can be understood that tax incentives do not increase the profit of private domestic investors.

Table 2. *Major Roles of tax incentives on private domestic investment.*

Roles of tax incentives	Response	Count	Percent	Z_{cal}
Increasing capital accumulation	Yes	256	77.3	
	No	75	22.7	7.8
	Total	331	100	
Increasing profit	Yes	94	28.4	
	No	237	71.6	6.08
	Total	331	100	
Improving investment loss	Yes	95	28.7	
	No	236	71.3	71.3
	Total	331	100	
Increasing productivity	Yes	107	32.3	
	No	224	67.7	4.95
	Total	331	100	

Source: Field Survey, 2016
Note: Majority is Significant at 5% level if $Z_{cal} > Z(\alpha/2)=1.96$
Majority is Significant at1% level if $Z_{cal} > Z(\alpha/2)=2.5$

Perhaps, concerning investment loss 71.3 percent (Z_{cal} =5.99) of total respondents replied that tax incentives do not improve their investment loss which indicates that respondents who revealed tax incentive do not improve their investment loss significantly constitute the majority. Thus it can be understood that tax incentives do not improve the investment liability of private domestic investors. Indeed regarding productivity 67.7 percent (Z_{cal} =4.75) of total respondents replied that tax incentives do not increase their productivity implying that respondents who stated tax incentives do not increase their productivity significantly constitute the majority. Therefore, there is sufficient evidence which justifies that tax incentives do not increase the productivity of private domestic investors.

In nutshell from discussions held above, it can be justified that tax incentives positively contribute for private domestic investment mainly through enhancing the capital accumulation. On the other hand some of the respondents have indicated on the open ended question that tax incentives enhances their investment through capital and technology transfer, enlarging domestic market demand for their products, and expanding innovation and creativity.

Indeed, the finding of this study is consistent with the finding of Easson and Zolt in which they found that tax incentives contribute to investment growth through stimulating the capital accumulation and transfer [10].

Respective Effect of Tax incentives on private domestic investment

Since this study aimed is to test the effects of tax incentives on private domestic investment, employing an appropriate method of analysis which provides significant evidence was found indispensable. Therefore, despite the socio demographic factors and some non-tax factors which are included in the model as control variable this part particularly targeted to provide the statistical evidence, concerning the respective effect of tax incentives on private domestic investment.

Perhaps, since the dependent variable is continuous and the independent variables are more than two, which are coded as dummy (categorical) the appropriate method that fits to test the causal effects of the variables is OLS regressions. Thus, the respective effect of tax incentives on private domestic investment was tested through OLS regression method controlling the socio demographic factors and some non-tax factors. Further, this study has employed two models to test the respective effect of independent variables on dependent variables**.** Thus socio demographic variables and non-tax factors which are expected to significantly affect private domestic are tested through the first model and in the second model all types of tax incentives which are believed to have strong influence on private domestic investment were tested controlling socio demographic factors and non-tax factors.

Table 3. *Respective Effects of tax incentives on private domestic investment: OLS regression result.*

Variables	Model 1 (B&SE)	Model 2 (B&SE)
Constant	-25767.785 (242433.846)	-408847.7 (296677.461)
Gender	-115608.261 (70949.700)	-42972.703 (68561.262)
Age	188288.98 (41079.700)***	101823 (41279.573)*
Education level	-9297.972 (36392.093)	-29993.475 (34758.764)
Occupation	-12522.903 (40996.328)	85559.4 (42080.56)*
Infrastructure	1527272.123 (78957.026)*	182950.26 (75625.67)*
Market demand	-78400.432 (70088.636)	-30517.340 (66871.966)
Tax holiday		274846.515 (124748.908)*
Customs duty free		271731.022 (191473.424)
Export duty free		282911.83 (133975.865)*
Investment loss forward		85795.402 (100090.054)
R square	8	18.7

Note: N= 331
*** = significant at 0.01% level
** =significant at 1% level
* = significant at 5% level#
Source: Field Survey, 2016

Consequently, the impacts of each of the independents variables on domestic investment will be discussed.

Socio -demographic factors:

It Comprises gender, age, education level and occupational sectors in which private domestic investors are engaged. These are tested in model one combined with non-tax factors and in model two combined with tax incentives. Therefore in both models only age level was founded significant where as others were founded insignificant. The coefficient value in model one indicates that a unit increase in the age level of private domestic investors increases the capital investment value of private domestic investment by 188,288.98 USD where as in model two a unit increase in age level of private domestic investors increases capital investment value of private domestic investment by 101,823 USD. This implies that tested in combination with tax incentives the effect of age on private domestic investment is minimal.

However in both models its effect has positive sign. This could be associated with experience and time in which investors have passed on their business. Aged investors have the probabilities to have large experience and longtime of investment activity in which they could accumulate large capital assets compared to young investors. Hence, this could increase the monetary value of their capital stocks. Further, occupation was founded having a significant effect on capital investment value of private domestic investment in model two. The coefficient value indicates that a unit increase in occupational sectors of private domestic investors led to an increase in capital value of private domestic investment by 85,559.4 USD.

Non tax factors; Constitutes infrastructure facilities and market demand which are tested in model one combined with socio demographic factors and in model two through including tax incentives. Hence, in both models infrastructure was founded having significant effect on capital investment values of private domestic investment. The coefficient value in model one indicates that keeping other factors constant a unit increase in existing infrastructure facilities increases the capital investment value of private domestic investment 152, 7272.123 USD where the coefficient value in model two shows that keeping other factors constant a unit increase in existing infrastructure facilities increases the capital investment value of private domestic investment 182,950.26 USD. This implies that tested in combination with tax incentives the effect of infrastructure on private domestic investment is high.

Tax holiday:

As it was discussed in the literature part of this study tax holiday is one of the commonly adopted tax incentives which are eligible for investors in different countries. It was tested in the regression model two in combination with other types of tax incentives controlling socio demographic and non-tax factors. Hence the outputs indicate that tax holiday significantly affects private domestic investment. It has a positive sign which indicates that keeping other factors constant a unit increases in tax holiday increases the capital investment value of private domestic investment by 274,846.515 USD. The study carried out by Clark, Bohmer and Cebreiro on tax incentives for investment in Mena countries and Non Mena countries indicated that tax holiday have a statistically significant effect on domestic investment [6]. Their study founded that extending tax holiday by 10 year for investors increases the average stimulation of investment to GDP by 0.45%. Similarly this study has also found that tax holiday has significant effect on private domestic investment. The finding indicates that tax holiday positively affect the investment capital value of private domestic investment. The reason for the similarity could be associated with the popularity of tax holiday incentives which are eligible for investors in different countries.

Further, Study conducted by Samuel on tax incentives and foreign investment in Ethiopia indicates that tax holiday significantly affect investment in Ethiopia. Statistically tested his finding indicates tax holiday has positive effect on investment which is in line with the finding of this study. This could be associated with the same requirement for eligibility of the right to use tax holiday between the private domestic investors and foreign direct investment [22].

Customs duty free exemption:

It is one of the widely used tax incentives in Ethiopia which is indicated in literature part and in which 97 per cent of respondents in this study have used. However, the regression model output two indicates that customs duty free exemptions have insignificant effect on private domestic investment. This could be associated with its low amount being used in big manufacturing factories and pioneer industries as well as the high costs that incur to import machineries.

Study carried out by Samuel on tax incentives and foreign investment in Ethiopia has founded that customs duty free exemption has statistically insignificant effect on foreign direct investment in which this study has also founded the similar result regarding its effect particularly on private domestic investment. This could associate with the similarity of the amount and rate of customs duty exemption granted to both the private domestic investment and foreign direct investment and the costs incurred through customs duty free [22].

Export Duty free:

It is a type tax incentive which is eligible for private domestic investors who export their products to the foreign market. The output in regression model indicates that export duty free significantly affect private domestic investment. The coefficient value implies that keeping other factors constant a one unit increases in export duty free led to an increase in capital investment of value of private domestic investment by 282,911.83 USD.

The finding of James on the effect tax and non-tax incentives on investment indicates that export duty free which is considered in his study as export holiday has a significant positive effect on fixed capital assets of investment. Similarly this study has also founded that export duty free positively affect private domestic investment. This might be associated with the large amount of tax rates permitted for investors who export their products to the foreign markets [13].

Investment loss carries forward:

It is also a type of tax incentives which is eligible for private domestic investors. It is one of the least used types of tax incentive as mentioned in literature and which is also ensured in this study. The finding in frequency table indicates that only 14.5 per cent of total respondents used investment loss carries forward. Indeed the regression model output two indicates that investment loss carries forward have insignificant effect on private domestic investment this is not surprising as investment loss carries foreword are list used by private domestic investors. Klemm founded that investment loss carries forward has insignificant effect on the capital assets of private investment [16]. Perhaps in this study investment loss carries forward were founded insignificant to affect private domestic investment. The reason could be attached with the unfamiliarity of the incentive type by most of investors in different countries.

5. Conclusion

Accordingly most of respondents who significantly constitute the majority revealed that tax incentive plays tremendous role in increasing their capital accumulation. Hence the major role of tax incentives on private domestic investment is increasing capital accumulation.

Perhaps, concerning the respective effect of tax incentives on private domestic investment tax holiday and export duty free have significant effect on private domestic investment whereas customs duty free and investment loss carries forward were found having insignificant effects on private domestic investment. Concerning respective impact of tax incentives on private domestic investment, the findings shows that keeping other factors constant a one unit increase in tax holiday increases the capital value of private domestic investment by 274,846.515 USD whereas keeping other factors constant a one unit increases in export duty free led to an increase in capital value of private domestic investment by 282,911.83 USD. Moreover, among the control variables age, occupation and infrastructure were founded having a positive significant effect on capital of private domestic investment. In nutshell, while tax holiday and export duty free has strong positive on private domestic investment, customs duty exemption in which majority of private domestic investors were used was found to have weak influence on private domestic investment implying that customs duty exemption has no strong effect on capital values of private domestic investment.

Indeed, regarding the perceptions of private domestic investors towards the status of tax incentives eligible for them and tax incentive administration, special treatment of sectors for tax incentives are faire and correct whereas tax incentive rate and amount permitted by the government are insufficient. Indeed problems of clarity and comprehensiveness in rules and regulation, lack of transparency, poor service delivery, and lack of technology, information gap, weak monitoring and enforcement on tax incentives are major tax related problems in which majority of respondents stated as the main factors adversely affecting their investment. Hence, institutional structure and rules and regulation of tax incentives of tax incentives are poor to enhance capital investment value of private domestic investment.

6. Recommendation

Recommendation for policy makers

In designing tax incentives the policy makers need to be well rounded and perfectly clear with the costs and benefit of providing tax incentives. Some of recommendation related with this are:

1) Reducing or moving away from customs duty exemption: The model output has founded that customs duty exemption has insignificant impact on capital value of private domestic investment. This implies that the contributions of customs duty exemption in increasing the capital accumulation of investment projects are low compared to other types of tax incentives. This indicates that its costs out weights its benefit. Therefore rates and amount of customs duty exemption permitted for private domestic investors should be reduced or eliminated.
2) Tax Incentives should not be export oriented: Tax incentives which were founded to have positive impact especially tax holiday on private domestic need to be also country specific and need to be guaranteed for the domestic firms who supply their product to the domestic demand.
3) Tax holiday need to be guaranteed for matured industries: Although tax holiday is the strong and crucial types of tax incentives in positively influencing investment, it is mainly targeted on or granted for new firms. However if it is also allowed for existing large firms its contribution in adding the capital assets of domestic investment firms could be high.
4) Additional alternative tax incentives need to be guaranteed: providing additional type of tax incentives consistent with domestic investment demand are also recommended as there are only two types of tax incentives which have positive sign on capital investment of private domestic investment. Rate and amount of tax incentives allowed for private domestic investors need to be increased to stimulate investment.

Recommendation for tax incentive administration/policy implementers

Based on the finding from investors view point and interview with key informants the following recommendations are forwarded for tax incentive administration or policy implementers

1) Tax incentive delivery system should be transparent and accountable which could eliminate complex administration and makes it easy and faire.
2) Tax incentives need to be granted automatically as it reduces the costs of the long process to qualify.
3) Paper trading need to be replaced with modern technology to enhance the service delivery system.
4) There should be strong monitoring and follow-up which could avoid the probabilities of glaring opportunities for aggressive tax avoidance, fraud and deception.

Recommendation for further Studies

Future researchers are recommended to use this finding as a base and make further investigation on the same topic to test its reliability and fill its gap through investigating the effects of tax incentives on private domestic investment through controlling all non- tax determinants of private domestic investment.

Conflicts of Interest

The authors declare no conflicts of interest.

References

[1] Ambaye, G. G., Berhanu, T., & Abera, G. (2013). Modeling the Determinants of Domestic Private Investment in Ethiopia. AGRIS on-line Papers in Economics and Informatics, 5(4), 13.

[2] Barbour, P. (2005). An Assessment of South Africa's Investment Incentive Regime with a focus on the Manufacturing Sector.'. Economic and Statistics Analysis Unit (ESAU).

[3] Bayai, I., & Nyangara, D. (2013). An Analysis of Determinants of Private Investment in Zimbabwe for the Period 2009-2011.

[4] Bes, M. (2013). Promoting Growth in the Caribbean: Tax Incentives in Theory and in Practice.

[5] Bolnick, B. (2004). Effectiveness and Economic Impact of Tax Incentives in the Southern Africa Development Community (SADC) Region, report by Nathan-MSI Group to the SADC Tax Subcommittee. Gabarone, Botswana: SADC.

[6] Clark, S., Cebreiro, A., & Bohmer, A. (2007). Tax Incentives for Investment–A Global Perspective: experiences in MENA and non-MENA countries. MENA-OECD Investment Programme.

[7] Durlauf, S. N., Johnson, P. A., & Temple, J. R. (2005). Growth econometrics. Handbook of economic growth, 1, 555-677.

[8] Deneke, S. (2001). Private sector development in Ethiopia. Addis Ababa, Ethiopia. March, 11, 2012.

[9] Dereje, W. (2014). The implication of tax incentives in enhancing investment in the manufacturing sector. Addis Ababa: Ethiopian Civil service University.

[10] Easson, A., & Zolt, E. M. (2002). Tax incentives. World Bank Institute, 1-36.

[11] IMF. 2015. Options for low income countries effective and efficient use of tax incentives for investment. Retrieved January 04, 2016 from https://www.imf.org/external/np/g20/pdf/101515.pdf

[12] Jain, D., & Mandot, N. (2012). Impact of demographic factors on investment decision of investors in Rajasthan. Researchers World, 3(2), 81.

[13] James, S. (2009). Tax and non-tax incentives and investments: evidence and policy implications. FIAS, The World Bank Group.

[14] Jordan, D. (2012). An overview of incentive theory and practice. a focus on the agro-processing industry in South Africa. Retrieved December 03, 2015, from www.nda.agric-za/doa dev/sidemen/agro process

[15] Kasshun, K (2014). Effects of tax incentives schemes on government revenue. Addis Ababa: Civil service University.

[16] Klemm, M. A. (2009). Causes, benefits, and risks of business tax incentives (No. 9-21). International Monetary Fund.

[17] Mankiw, N. G., Weinzierl, M., & Yagan, D. (2009). Optimal taxation in theory and practice. The Journal of Economic Perspectives, 23(4), 147-174.

[18] Mosioma, A. (2007). Tax Competition: The role of Tax incentives in encouraging harmful tax competition in the East African Flower industry. Tax Justice Network for Africa.

[19] Muhdin, M. (2016). Determinants of Private Investment: A Systematic Review. International Journal of Economics, Finance and Management Sciences. 4 (2), 2016, pp. 52-56.

[20] Piana, V. (2001). Investment: significance and composition. Retrieved from www.economic.webinstititute.org

[21] Pissan, J. (2008). Firms' incentives and Institutional frame work. Retrieved December 20, 2015 from http:/www.esa.org/iml/pdf/congrsee book.

[22] Samuel, K. (2015). The impact of tax incentives in attracting foreign direct investment in Ethiopia. Addis Ababa: Addis Ababa University.

[23] Summers, L. H., Bosworth, B. P., Tobin, J., & White, P. M. (1981). Taxation and corporate investment: A q-theory approach. Brookings Papers on Economic Activity, 1981(1), 67-140.

[24] Tanzi, V., & Zee, H. H. (2001). Tax policy for developing countries (Vol. 27). International Monetary Fund.

[25] United Nations. (2002). Investment and innovation policy review. Retrieved January 06, 2016 from http://www unctai. Org.