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Role of Fishing on Economic Development of Somalia: Case Study of Lido Beach Mogadishu Somalia

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ABSTRACT

The fishing sector contributes to development and growth in many countries, playing an important role for food security and nutrition, poverty reduction, employment, economic development and trade, fisheries and aquaculture provided livelihoods and income for an estimated 54.8 million people engaged in the primary sector of fish production in 2011. The marine fisheries of Somalia have generally held an important position in the Somali economy and culture. Somalia has a large coastline, covering 3,300 kilometers and a corresponding Exclusive Economic Zone (EEZ) covering 39, 000 kilometers. In 1990, prior to the collapse of the Somali government, fisheries contributed 2 percent of the overall Gross Domestic Product (GDP), an estimated $15 million USD per annum, while providing over 18,000 tons of fish for human consumption. The research explores the role of fishers and aquaculture for sustainable development, economic growth and global food security. To determine employment in the fishing industry leads to economic development and the role of fishing in poverty alleviation in Somalia. Agriculture is one of the most important sectors of Somalis economy, the principal exports Somalia's Livestock are fish, charcoal, and bananas. Fisheries play an important role in the economy of Somalia in expanding food supply, raising nutritional level, generating employment, and in earning foreign exchange, in order to increase production of fisher industries. It is of this shortage of empirical evidence on the role of fishing in poverty alleviation that the study intends to reveal the role of fishing in economic development of Somalia as this will guide policy formulation on fishing.

1. Introduction

The world fisheries sector is rarely a strategic sector for national economic development. Although it plays a prominent role in only a few countries such as Iceland, Namibia, Maldives and other small island developing states rich in fishery resources relative to their populations (FAO, 2012). It is nonetheless an important economic activity, and very often a strategic one, in many coastal regions of the world. Indeed, in many countries, fish export is a major contributor to foreign exchange earnings, often ranking far higher than other agricultural commodities (FAO, 2012). The major trade flow from south to north -- underlines the significance of this sector for the trade balance of many developing countries. Licensing fees of foreign fishing fleets are another source of foreign exchange revenue from marine fishery resources, especially in West African and South Pacific countries (FAO, 2012).

The world wide fishing product harvest in 2005 consisted of 93.3 million tones captured by commercial fishing in wild fisheries, plus 48.1 million tons produced by fish farms. In addition, 1.3 million tons of aquatic plants (seaweed etc.) were captured in wild fisheries and 14.8 million tons were produced by aquaculture. The number of individual fish caught in the wild has been estimated at 0.97-2.7 trillion per year (FRDC, 2012). The last two decades Somalia has been separated by factional conflicts and the lack of national administration functioning which have acted as major breaks on inward investment and economic development, Somalia has managed to maintain a healthy informal economy, largely based on livestock, remittances, money transfer companies, and telecommunications despite the absence of effective national governance (Wilson, 2013). Agriculture is one of the most important sectors of Somalis economy, the principal exports Somalia's Livestock are fish, charcoal, and bananas. Fisheries play an important role in the economy of Somalia in expanding food supply, raising nutritional level, generating employment, and in earning foreign exchange, in order to increase production of fisher industries. The marine fisheries of Somalia have generally held an important position in the Somali economy and culture (FAO, 2009). Somalia has a large coastline, covering 3,300 kilometers and a corresponding Exclusive Economic Zone (EEZ) covering 39, 000 kilometers. In 1990, prior to the collapse of the Somali government, fisheries contributed 2 percent of the overall Gross Domestic Product (GDP), an estimated $15 million USD per annum, while providing over 18,000 tonnes of fish for human consumption (Brown, 2010).

Domestic demand for fish remains high throughout the country, especially in the capital Mogadishu. Since fish consumption is estimated at over 9 tons per day, redevelopment of the fisheries industry represents an opportunity to reinvigorate the Somali economy. Furthermore, the inability of Asian and European countries to meet their domestic demand for fish within their own Exclusive

Economic Zones (EEZs) drives illegal, unreported and unregulated (IUU) fishing throughout African waters (Schullery, 2014). Fishing is one of the major sources of incomes, and one of Somalia's richest natural resources, and provides income to thousands of fishers inside Somalia. Several hundred fishing vessels enter the Indian Ocean every day from Mogadishu, Marka, Kismayu, and Barawe (FAO, 2013).

The fishing sector is an important inside the Somalia economy which remains extremely limited and its potential is yet to be capitalized. Only 40,000 people (of an estimated 12 million population) depend on fishing as their principal livelihood and additional 80,000 uses fishing as a supplementary livelihood. Fish consumption at the household level is one of the lowest in Africa. This is predominantly for cultural reasons, though consumer attitudes are slowly changing by an increasing number of fish markets and restaurants in urban areas. Lack of regulatory bodies, poor markets and the lack of proper infrastructure, exploitation of the fishing sector have been extremely limited. Moreover, the lack of central authorities has led to illegal fishing off the Somali coast by international offshore companies (Regensteinn, 2010)

Traditionally the fishing industries production estimates to put the country's sustainable annual marine fisheries production in the range of 400,000 metric tons per year. While the average yield from fishing in Somali waters was approximately $46 million per year between 1997 and 2006, which is only 1% of Somalia's estimated 2010 GDP (Polybius, 2009).

The fishing sector is employed by the artisanal fishery which is simple and effective, consisting of hand lines and long lines. The based fishermen employed in Somalia their boats are too small for other types of fishing industries, use hand lining, long lines are also used for shark, tuna and other big fish species like king mackerel, which are the most popular and most favored species in the country (Stewart, 2014)

The government of Somalia is establishing policies to promote the development of fishing to cooperate in order to improve the network of fishing communities (FAO, 2014). There is national fishers policy in Somali but the government of Somalia through the ministry of fishing, ports, marine transport and marine resources, prepared in 2006 a marine fishers policy and strategy for their own coastlines (UNDP, 2012). This has being facilitated increased number of fishing companies and private industries to engage in the fishers sectors in the past previous years

The marine fisheries of Somalia have generally held an important position in the Somali economy and culture (Losse, 2011). Somalia has a large coastline, covering 3,300 kilometers and a corresponding Exclusive Economic Zone (EEZ) covering 39, 000 kilometers. In 1990, prior to the collapse of the Somali government, fisheries contributed 2 percent of the overall Gross Domestic Product (GDP), an estimated $15 million USD per annum, while providing over 18,000 tonnes of fish for human consumption. Domestic demand for fish remains high throughout the country, especially in the capital Mogadishu. Since fish consumption is estimated at over 9 tonnes per day (Polybius, 2012).

Redevelopment of the fisheries industry represents an opportunity to reinvigorate the Somali economy. Furthermore, the inability of Asian and European countries to meet their domestic demand for fish within their own Exclusive Economic Zones (EEZs) drives illegal, Unreported and unregulated (IUU) fishing throughout African waters. Fishing is one of the major sources of incomes, and one of Somalia's richest natural resources, and provides income to thousands of fishers inside Somalia. Seven hundred fishing vessels enter the Indian Ocean every day from Mogadishu, Marka, Kismayu, and Barawe (FAO, 2013). The government of Somalia is establishing policies to promote the development of fishing and cooperation in order to improve the network of fishing communities. There is national fisheries policy by the government of Somalia, implemented through the ministry of fishing, ports, marine transport and marine resources, prepared in 2006 as the main marine fisheries policy guideline and strategy for the country`s coastline (UNDP,FAO).

This has facilitated increased number of fishing companies and private industries to engage in the fisheries sectors in the past previous years, however according to FAO (2013), the country`s fishing sector productive capacity has not been fully exhausted Due to political instability since 1991. According to (UNDP, 2013), there was no national government in Somalia for nearly two decades.

According to FAO (2013), fishing in Somalia is practiced on a limited scale, with limited output and income, all these reveal a clear lack of understanding of what the fishing sector is capable of contributing to the economic development of Somalia. For several decades, Somalia and their development partners have placed greater emphasis on livestock and more recently crop production. But they have neglected the fishing sector (FAO, 2013).

According to FAO (2013), part of the reason for the exclusion of fishing sector from development initiatives in Somalia lies in the shortage of empirical evidence to show the impact of fishing on poverty and economic development in Somalia. It is of this shortage of empirical evidence on the role of fishing in poverty alleviation that the study intends to reveal the role of fishing in economic development of Somalia as this will guide policy formulation on fishing.

Objectives of the study

1. To determine the role of fish processing in economic development of Somalia
2. To examine the role of fish marketing in economic development of Somalia
3. To find out the role of fish technologies in economic development of Somalia
4. To examine the role fishing investments in economic development of Somalia

2. Related Literature

Theoretical Review

a. The Theory of Economic Development

In the earlier literature the position is different. There the emphasis is definitely on the why questions - the questions relating to the fundamental conditions of development - and, although it would be wrong to claim that even now the theory of the subject is complete, there is a substantial body of generalizations which seem to have some bearing both on present problems and past experience. At any rate, it is this field that I shall be exploring - the evolution of ideas concerning the basic causes of economic growth and decline. The history, as distinct from the analysis, of theories of the path is so brief that it is not yet appropriate for this sort of treatment (Sea Around Us, 2013).

b. Modernization Theory

Walter Rostow (2011) presented the modernization theory as a model to be used by developing countries to achieve

development- as "a process that increases the economic and political capabilities of a society; it increases economic capabilities through industrialization and political capabilities through bureaucratization, Modernization is attractive because enables a society to move from being poor to being rich."

The stages of economic growth, he argued that although modernization first occurred in the west, it can occur in all societies provided these societies meet certain preconditions. Notably, a wholesale change must take place in underdeveloped societies in order to break the vicious cycle of poverty, ignorance and low productivity.

c. Theory of value addition

Value theory be a catch-all label used to encompass all branches of moral philosophy, social and political philosophy, aesthetics, and sometimes feminist philosophy and the philosophy of religion whatever areas of philosophy are deemed to encompass some evaluative aspect, In its narrowest sense, value theory is used for a relatively narrow area of normative ethical theory particularly, but not exclusively, of concern to consequentiality. In this narrow sense of value theory is roughly synonymous with axiology, Axiology can be thought of as primarily concerned with classifying what things are good, and how good they are, But in a more useful sense, value theory designates the area of moral philosophy that is concerned with theoretical questions about value and goodness of all varieties, the theory of value (Bradley, 2006).

The theory of value, so construed, encompasses axiology, but also includes many other questions about the nature of value and its relation to other moral categories. The division of moral theory into the theory of value, as contrasting with other areas of investigation, cross-cuts the traditional classification of moral theory into normative and met ethical inquiry, but is a worthy distinction in its own right; theoretical questions about value constitute a core domain of interest in moral theory, often cross the boundaries between the normative and the met ethical, and have a distinguished history of investigation. This article surveys a range of the questions which come up in the theory of value, and attempts to impose some structure on the terrain by including some observations about how they are related to one another (Hurka, 2010).

Conceptual frame work

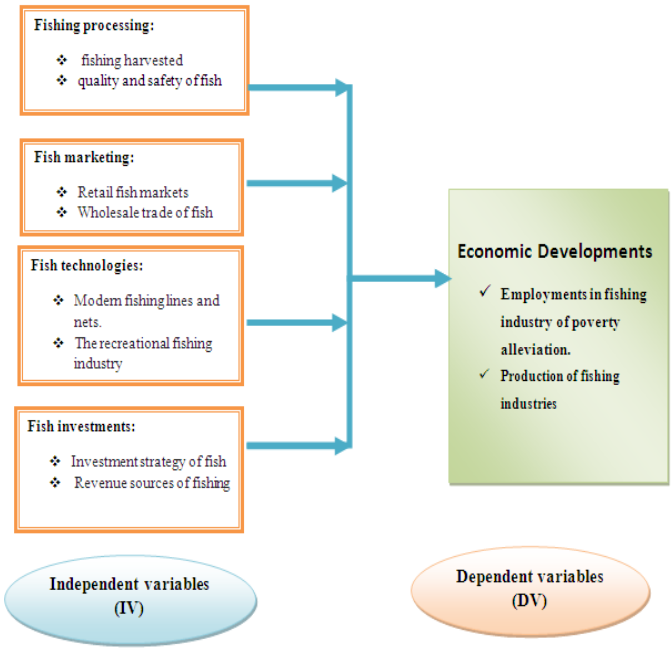

Figure 2.1. Conceptual frame works.

Fishing processing

Fish processing in fishing industries be concerned in fish handling, which is the preliminary processing of raw fish, and the manufacture of fish products and another natural subdivision is into primary processing involved in the filleting and freezing of fresh fish for onward distribution to fresh fish retail and catering outlets, and the secondary processing that produces chilled, frozen and canned products for the retail and catering trades, fish processing associated with fish and fish products between the time fish are caught or harvested, and the time the final product is delivered to the customer. Although the Fish processing has specifically concerns with the fish in practice it is extended to cover any aquatic organisms harvested for commercial purposes, whether caught in wild fisheries or harvested from aquaculture or fish farming (Luten, 2011).

Fish is a highly perishable food which needs proper handling and preservation if it is to have a long shelf life and retain a desirable quality and nutritional value, the central concern of fish processing is to prevent fish from deteriorating and the fishing industry must ensure that their fish handling, processing and transportation facilities meet requisite standards. Adequate training of both industry and control authority staff must be provided by support institutions, and channels for feedback from consumers established. Ensuring high standards for quality and safety is good economics, minimizing losses that result from spoilage, damage to trade and from illness among consumers; the fish processing highly involves very strict controls and measurements in order to ensure that all processing stages have been carried out hygienically. Thus, all fish processing companies are highly recommended to join a certain type of food safety system (SILVA, 2015).

Fish marketing

According to the fishery sector of Somalia is the highly perishable nature of the resource once it is removed from its natural environment, fish is similarly difficult and expensive to store over long time. In many coastal areas of Somalia, quick transportation/distribution, freezing or immediate consumption of fresh fish is virtually impossible (Bellamy, 2012). Therefore, current marketing opportunities are very marginal, if not impossible. Since refrigeration and rapid transport became available in the 19th and 20th century, fish markets can technically be established at any place. However, because modern trade logistics in general has shifted away from marketplaces and towards retail outlets, such as supermarkets, most seafood worldwide is now sold to consumers through these venues, like most other foodstuffs (Bestor, 2013). Consequently, most major fish markets now mainly deal with wholesale trade, and the existing major fish retail markets continue to operate as much for traditional reasons as for commercial ones. Both types of fish markets are often tourist attractions as well (IUCN, 2008).

Fish technologies

According to (FAO, 2011) of fishing technology is usually a gradual process at the micro-economic level, improvements in technology can be the result of the search for efficiency by individual operators seeking to increase profitability, which if successful then spreads through the community. Key macro-economic conditions may also bring about changes in the use of technology. These macro-level conditions include factors such as the expansion of international and domestic markets for seafood products (Bort, 2013) exposure to international practices and greater

communication and knowledge of other areas of the world and liberal import policies on out board mot ors (Ahmed, 2012), All of these might be termed "enabling" conditions.

They may also be the result of necessity, supporting the adage that "necessity is the mother of invent ion". Examples include a) the need to introduce gillnets and engines to fish further from home as a result of declining catches, due to competed it ion with industrial trawlers, a short age of suitable large tress for dug-out canoes as in West Africa and India which required the development of new boat building technology, and c) the requirement for cash income as a result of the introduction of taxation (Reno, 2013)

Fish investments

Through generation of government revenues from export, taxation, and license fees and from payment for access to resources by foreign fleets or foreign investment in agriculture, while fish production generally contributes 0.5–2.5 percent of GDP globally, the fishery and aquaculture sector contributes more than 10 percent of GDP in some major fish-producing countries such as Mauritania and Vietnam. If processing, trade and services are added, the overall contribution of fisheries can be much higher and fish is one of the most traded of food commodities, second only to fruit and vegetables in value. At the same time, fisheries serve important role fishing on economic development of Somalia (Agnew, 2009).

This means governments may be forced to choose between export-led economic growth and local food security. However, improved management can make room for additional growth in fisheries by increasing the size of potential harvest; growth in aquaculture has transformed production and trade of fish products. To ensure that this transition in fisheries sustainably improves food and nutrition security, policies that recognize and safeguard the diversity and complementarities of roles played by capture fisheries and aquaculture are needed (Belton, 2013)

Economic development

According to (Schumpeter, 2013) the changes in this equilibrium state to document in economic theory can only be caused by intervening factors coming from the outside economic development has been understood since the World War II to involve economic growth, namely the increases in per capita income, and (if currently absent) the attainment of a standard of living equivalent to that of industrialized countries. Economic development can also be considered as a static theory that documents the state of an economy at a certain time.

Economic development' is a term that economists, politicians, and others have used frequently in the 20th century. The concept, however, has been in existence in the West for centuries. Modernization, Westernization, and especially Industrialization are other terms people have used while discussing economic development. Economic development has a direct relationship with the environment. Although nobody is certain when the concept originated, some people agree that development is closely bound up with the evolution of capitalism and the demise of feudalism.

Role of employment in fishing industries of poverty alleviation

According to FAO statistics, the total number of commercial fishermen and fish farmers is estimated to be 38 million. Fisheries and aquaculture provide direct and indirect employment to over 500 million people in developing countries. In 2005, the worldwide per capita consumption of fish captured from wild fisheries was 14.4 kilograms, with an additional 7.4 kilograms harvested from fish farms. In addition to providing food, modern fishing is also a recreational pastime (FAO, 2012).

According to (DFID & MRAG) fisheries and poverty reduction, the combating poverty is high on the agenda of governments and the international community. In September 2000, 189 nations committed themselves to work towards the Millennium Development Goals (MDGs), a set of 8 goals aimed at halving the number of people living in poverty by 2015. Fisheries can play a role in achieving these goals.

Fisheries are a source of income for over 100 million people. The majority is employed in small-scale fisheries in the developing world; 90% are from Africa and Asia, where poverty among coastal and rural communities is often particularly high. In many developing countries, fisheries and poverty are synonymous. But although many fishers are poor, fisheries are also capable of generating great wealth. For fisheries to contribute to poverty reduction, the distribution of that wealth must be addressed. However, too much fishing pressure is causing overexploitation of fish stocks and threatening the contributions they can make to poverty reduction (Brown, 2015)

Enhancing fishing productivity in economic growth

The collapse of the Somali government in 1991 created a significant void in the ability of Somalia to protect its EEZ. Elliott Anderson points out that "The absence of a functional method for enforcement of maritime fishing law, due to a non-functioning government and complete lack of naval force, meant that fishing vessels from Europe and Asia were able to deplete the nation's fisheries." The United Nations estimated that in 2005 over 700 unlicensed foreign vessels were fishing in Somali waters (UNDP, 2012).

According to the Food and Agriculture Organization (FAO), the world harvest in 2005 consisted of 93.3 million tones captured by commercial fishing in wild fisheries, plus 48.1 million tons produced by fish farms. In addition, 1.3 million tons of aquatic plants (seaweed etc.) were captured in wild fisheries and 14.8 million tons were produced by aquaculture. The number of individual fish caught in the wild has been estimated at 0.97-2.7 trillion per year (not counting fish farms or marine invertebrates) (FAO, 2005).

The Marine Resources Assessment Group estimates that the total value of fish stocks removed from Somali waters each year totals over 100 million US dollars. This number represents nearly 15% of the total Somali GDP from 1990 and is likely a larger percentage of the current GDP. The catch sizes are nearly ten times more than prior to 1991 because Somalis typically use artisanal fishing methods and have not had the benefit of new fishing technologies used by foreign fishermen. Additionally, foreign fishermen have no stake in the future of Somali fish stocks and are willing to over-fish species that are slow to reproduce, such as tuna and sharks, leading to an aggregate collapse in Somali fish stocks (UNDP, 2012).

According to the article 56 of the United Nations Convention on the Law of the Sea (UNCLOS), ratified by Somalia in 1989, provides Somalia with "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil." additionally, UNCLOS Article 58 provides that "states shall have due regard to the rights and duties of the coastal state and shall comply with the laws and regulations

adopted by the coastal State." Somalis have clear rights to harvest fish stocks from their EEZ under UNCLOS; however, these rights are predicated upon the ability of Somalia to protect its waters and the good faith of signatory states to respect these sovereign rights (UNDP, 2012).

Economics focuses on the behavior and interactions of economic agents and how economies work. Consistent with this focus, primary textbooks often distinguish between microeconomics and macroeconomics. Microeconomics examines the behavior of basic elements in the economy, including individual agents and markets, their interactions, and the outcomes of interactions. Individual agents may include, for example, households, firms, buyers, and sellers. Macroeconomics analyzes the entire economy (meaning aggregated production, consumption, savings, and investment) and issues affecting it, including unemployment of resources (labor, capital, and land), inflation, economic growth, and the public policies that address these issues (monetary, fiscal, and other policies).

3. Methodology

This study was descriptive in nature. The study covered AbdiAsis District of Mogadishu in Southern Province with a geographical area of 4SQ km^2 and a total population of 120,000.

The target population of the study was the fishing industries and fishermen in AbdiAsis district in Mogadishu Somalia.

4. Findings

Influence of fishing process on economic development

Table 4.8. Fishing process in fishing industries.

	N	Mean	Std. Deviation
The fishing handling of fishing industries are meets difficult	80	2.81	1.274
The raw fish process is mainly accessible	80	2.76	1.082
Manufacturing fish products are more useable	80	2.69	1.428
The primary of filleting and freezing of fresh fish is from fishing industries	80	2.73	1.551
Valid N (list wise)	80		

The researcher requested the respondents to indicate their level of agreements to the statements above relating to fishing process in fishing industries. The table above 4.5.1 Shaw the findings, From the findings most of responders agrees that the fishing process of fishing industries in the fishing handling of fishing industries are meets difficult as evidenced by mean of 2.81, The raw fish process is mainly accessible as shown by a mean of 2.76, Manufacturing fish products are more useable as shown by a mean of 2.69, The primary of filleting and freezing of fresh fish is from fishing industries as shown by a mean of 2.73 that the fishing process is important role to develop fishing industries and economic developments.

Similarly fishing process has been carried out by various scholars such as (SILVA, 2015). Observed study by these variables.

Influence of fishing markets on economic development

The researcher requested the respondents to indicate their level of agreements to the statements above relating to fishing markets in fishing industries. The table above 4.5.2 Shaw the findings, From the findings most of responders agrees that the fishing markets of fishing industries in Fish from the fishing industries is cheaper than Manufacturing fish as evidenced by mean of 3.12, The most of fishing industries in fish markets deal with whole sellers as shown by a mean of 2.92, and The fish retailers gets less benefits in fish markets as shown by a mean of 2.93 that the fishing markets in AbdiAsis district is important role to develop fishing industries and economic developments.

Table 4.9. Influence of fishing markets on economic development.

	N	Mean	Std. Deviation
Fish from the fishing industries is cheaper than Manufacturing fish	80	3.12	1.216
The most of fishing industries in fish markets deal with whole sellers	80	2.92	1.385
The fish retailers gets less benefits in fish markets	80	2.93	1.439
Valid N (list wise)	80		

According to the as similarly fishing markets has been carried out by various scholars such as Bellamy JC (2012) The housekeeper's guide to the fish-market for each month of the year Issue 33171 of Goldsmiths'-Kress library of economic literature, Longman, Brown, Green & Longmans, observed study by these variables.

Influence of fishing technologies on economic development

Table 4.10. Influence of fishing technologies on economic development.

	N	Mean	Std. Deviation
Fishing industries have small fish handling	80	3.04	1.257
Fisher men not have modern technologies of fishing	80	3.45	1.168
To developing selective fishing gear in fishing industries	80	2.87	1.479
Valid N (list wise)	80		

The researcher requested the respondents to indicate their level of agreements to the statements above relating to fishing technologies in fishing industries. The table above 4.5.3 Shaw the findings, From the findings most of responders agrees that the fishing technologies of fishing industries in Fishing industries have small fish handling as evidenced by mean of 3.04, Fisher men not have modern technologies of fishing as shown by a mean of 3.45, and To developing selective fishing gear in fishing industries as shown by a mean of 2.87 that the fishing technologies in AbdiAsis district is important role to develop fishing industries and economic developments.

Similarly fishing technologies in fishing industries has been carried out by various scholars such as Bort, (2013) "Somali Piracy: An Escalating Security Dilemma." observed study by these variables.

Influence of fishing investments on economic development

Table 4.11. Influence of fishing investments on economic development.

	N	Mean	Std. Deviation
To designing aquaculture systems that reduce their impact on external environments.	80	2.93	1.339
Fisher man need to invest big boats of fishing	80	3.22	1.158
Seafood needs more investment projects in fishing	80	3.28	1.263
Fishing industries need capacity building of fishing developments	80	3.03	1.147
Valid N (list wise)	80		

The researcher requested the respondents to indicate their level of agreements to the statements above relating to fishing investment in fishing industries. The table above 4.5.4 Shaw

the findings, from the findings most of responders agrees that the fishing investment of fishing industries in to designing aquaculture systems that reduce their impact on external environments. difficult as evidenced by mean of 2.93, Fisher man need to invest big boats of fishing as shown by a mean of 3.22, Seafood needs more investment projects in fishing as shown by a mean of 3.28, Fishing industries need capacity building of fishing developments as shown by a mean of 3.03 that the fishing investment is important role to develop fishing industries and economic developments.

Similarly fishing investments in fishing industries has been carried out by various scholars such as Bestor TC (2013) Tsukiji: the fish investments at the center of the world In PE Lilienthal, California studies, Volume 11, University of California Press observed study by these variables.

Regression analysis of the study

This research used, a multiple regression analysis are conducted to test the role of fishing on economic development AbdiAsis district in Mogadishu, Somalia. The study used statistical package for social sciences (SPSS V. 20) to enter and compute the measurements of the multiple regressions.

Regression modals

Table 4.12. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436[a]	.190	.147	.937

a. Predictors: (Constant), The fishing handling of fishing industries are meets difficult , To designing aquaculture systems that reduce their impact on external environments., The primary of filleting and freezing of fresh fish is from fishing industries , Manufacturing fish products are more useable

b. Adjusted R^2 squared is coefficient of determination which tells us the variation in the dependent variables due to change in the independent variables. From the findings in the table 4.12 the value of Adjusted R squared is 0.190 and indicates that there was variation of 19% on economic growth in Mogadishu due to small of fishing industries.

R is the correlation coefficient which shows the relationship between the study variables. From the findings shown in the table 4.12 there was a strongly positive relationship between the study variables.

ANOVA

Table 4.13. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.471	4	3.868	4.401	.003[b]
	Residual	65.916	75	.879		
	Total	81.387	79			

a. Dependent Variable: Employments of fishing industries Increase in economic development

b. Predictors: (Constant), The fishing process, fishing markets, fishing investments, and fishing technologies.

The ANOVA statistics shown in table 4.13, the processed data, which is the population parameters, had a significance level of 0.05% which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The F critical at 5% level of significance was 0.03. Since F calculated (4.401) is greater than the F critical (0.03), this shows that the overall model was significant and that fishing process, fishing markets, fishing technologies and fishing investments are significantly affect on the economic developments of fishing companies in AbdiAsis district Mogadishu- Somalia.

Regression Coefficients

Table 4.14. Regression Coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	5.475	.469		11.683	.000
	Fishing process	-.174	.076	-.244	-2.271	.026
	Fishing markets	-.200	.070	-.306	-2.870	.005
	Fishing investments	-.137	.080	-.181	-1.720	.002
	Fishing technologies	-.098	.087	-.122	-1.128	.031

a. Dependent Variable: Employments of fishing industries Increase in economic development

The data in the table 4.14 are the recognize regression equation and it's

$Y = 5.475 + 0.174X_1 + 0.200X_2 + 0.137X_3 + 0.098X_4$

From the above regression equation it was revealed that holding fishing process, fishing markets, fishing technologies and fishing investments when to a constant is zero, economic developments of fishing industries in Mogadishu would be at 5.475. When means that the fishing process to the fishing handling of fishing industries are meets difficult would lead to increase economic developments of fishing industries in Mogadishu as a factor of 0.174. Also increases in fish from the fishing industries is cheaper than manufacturing fish would lead to increase in fishing markets a in Mogadishu as a factor of 0.200 and also increase in fishing industries have small fish handling in influence fishing technologies would lead to increase on economic developments in Mogadishu as a factor of 0.098 and lastly the fishing investments in fishing industries would lead to increase on economic developments in Mogadishu as a factor of 0.137.

You can see that regression results presented table 4.14 indicate that fishing process, fishing markets, fishing technologies and fishing investments were significant at 5 percent level. The coefficient of fishing process showed 0.174 with a p-value 0.026, which is less than 5%, the coefficient of fishing markets was 0.200 which is less than 0.05, with a p-value of 0.005, And the coefficient of the fishing investments was 0.137, with a p-value of 0.002 which is less than 0.05 and the coefficient of the fishing technologies was 0.098, with a p-value of 0.031 which is less than 0.05 so that indicates there was statistically and strong positive relationship between fishing process, fishing markets, fishing investments and also fishing technologies and economic developments in Mogadishu. So that the research can be recognize that the most significant of the study objective variables is fishing process that effect on the economic development in Mogadishu and the second fishing markets, fishing investments and the last fishing technologies though the variables were found to be significantly affect on the economic developments.

FAO (2011) Finding out Who the Food Insecure Are, Where They Are Located, and the causes Food Insecure has made empirically investigated the effect of fishing investments on fishing industries in an emerging markets. Their data set consisted of companies listed on the Fish Stock for the period of 1998 - 2007. Using multivariate regression analysis, their results specifically indicate that the fishing investments and all its major components namely - days in record, days' fish markets are associated with the economic developments.

Table 4.15. Coefficient correlation.

		Fishing process	Fishing market	Fishing technologies	Fishing investments.
Fishing process	Pearson Correlation	1	.244*	.099	-.008
	Sig. (2-tailed)		.029	.381	.941
	Sum of Squares and Cross-products	128.188	29.875	12.562	-1.125
	Covariance	1.623	.378	.159	-.014
	N	80	80	80	80
Fishing markets	Pearson Correlation	.244*	1	-.127	-.103
	Sig. (2-tailed)	.029		.260	.363
	Sum of Squares and Cross-products	29.875	116.750	-15.375	-13.250
	Covariance	.378	1.478	-.195	-.168
	N	80	80	80	80
Fishing technologies	Pearson Correlation	.099	-.127	1	-.043
	Sig. (2-tailed)	.381	.260		.702
	Sum of Squares and Cross-products	12.562	-15.375	124.888	-5.775
	Covariance	.159	-.195	1.581	-.073
	N	80	80	80	80
Fishing investments	Pearson Correlation	-.008	-.103	-.043	1
	Sig. (2-tailed)	.941	.363	.702	
	Sum of Squares and Cross-products	-1.125	-13.250	-5.775	141.550
	Covariance	-.014	-.168	-.073	1.792
	N	80	80	80	80

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

Coefficient Correlation

The correlation summary shown in Table 4.15 above indicates that the associations between the independent variables were significant at the 90% confidence level. This means that the inter-variable correlations between the independent variables were strong enough to affect the relationship with the dependent variable. It also reveals that there was indeed a very strong positive relationship between fishing process, fishing markets, fishing investments and fishing technologies and economic developments in fishing industries Mogadishu Somalia.

5. Conclusion

The fishing sector is an important inside the Somalia economy which remains extremely limited and its potential is yet to be capitalized. Only 40,000 people (of an estimated 12 million population) depend on fishing as their principal livelihood and additional 80,000 uses fishing as a supplementary livelihood. Fish consumption at the household level is one of the lowest in Africa. This is predominantly for cultural reasons, though consumer attitudes are slowly changing by an increasing number of fish markets and restaurants in urban areas. Lack of regulatory bodies, poor markets and the lack of proper infrastructure, exploitation of the fishing sector have been extremely limited. Moreover, the lack of central authorities has led to illegal fishing off the Somali coast by international offshore companies..

Commercial fishing, inherently a dangerous undertaking, has one of the highest mortality rates of any occupation. Furthermore, a substantial number of vessels are lost and many more are damaged or break down each year during fishing operations and transit to and from the fishing grounds. Overall, the industry's safety performance record is so poor that the availability and cost of insurance have become major sources of concern to many fishermen. Despite these facts unlike most other maritime activities the safety of fishing industry vessels has, until recently, gone largely unregulated. Voluntary measures relied on to improve safety have been spotty and inconsistent, though if universally applied, some appear to have significant potential to improve safety performance.

This thesis explores the role of fishers and aquaculture for sustainable development, economic growth and global food security. To determine employment in the fishing industry leads to economic development and the role of fishing in poverty alleviation in Somalia. Agriculture is one of the most important sectors of Somalis economy, the principal exports Somalia's Livestock are fish, charcoal, and bananas. Fisheries play an important role in the economy of Somalia in expanding food supply, raising nutritional level, generating employment, and in earning foreign exchange, in order to increase production of fisher industries.

The study showed that a large percentage of the respondents in Somalia agree that it through offering quality education to the people of Somalia that productivity of the country will improve. Due to this there has been increased number of Foreign Universities that have been allowed to have collaborations with local universities in order to improve the quality of education in the country

6. Recommendation

1. The Department of Transportation, acting through the Coast Guard, should lead a coordinated national effort to improve safety within the commercial fishing industry.
2. Implementing the program is significant levels of manpower and financial resources would be required to implement the more stringent safety alternatives, such as vessel inspection. The prospective effectiveness of these more costly alternatives cannot be assessed within the scope of existing data. Less-resource-intensive safety interventions, grounded in existing programs, could facilitate near-term implementation and have potential to increase safety awareness and improve vessel fitness for service. At the same time, they would lay a foundation for more-stringent safety measures in the longer term if it becomes clear that they are necessary to meet safety objectives. As a cautionary note, higher casualty rates may be disclosed as more complete data are developed. Therefore, the effects of data-improvement regimes must be considered when evaluating progress in meeting safety objectives and

determining whether to impose more rigorous safety-improvement alternatives.

3. Effective safety administration will require a comprehensive program that first identifies and encourages participation of all who have the potential to contribute to the program, evaluates this potential, and organizes a safety infrastructure such that all efforts are mutually supportive and integrated to achieve maximum results. Next, means must be found to acquire sufficient and usable data to identify specific safety problems, measure their impact, evaluate improvement alternatives, and monitor results

4. Subsistence fishing it is not easy to differentiate between subsistence and artisan fishing. However Subsistence Fishing can be defined as fishing without the use of boats and where the catch is entirely for private consumption carried out on an individual basis. Thus, this fishing activity does not contribute significantly to employment and income generation.

7. Suggestions for Further Studies

The study are suggested that a more detailed study targeting all fishing industries are needed is made to derive a comprehensive models explaining the quantitative relationship between economic development or related fishing industries and their respective of working economic growth.

The study or the researcher is advised to adopt other sets of working economic development to explore or find out how respective fishing industries influence the economic development. This will significantly make contributions towards establishing a comprehensive scholarly opinion relating to companies fishing and working economic development.

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