

Role of social Infrastructure in Sustainable Development of Mogadishu, Somalia

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ABSTRACT

Social infrastructure has enormous externalities. Education and health are social goods in which social marginal productivity (SMP) exceeds private marginal productivity (PMP). A country's economic development is closely related to the levels of achievement in education, health and transport. In as much as economic infrastructure has an important role in economic development, the improvement of social infrastructure is vital for economic progress. Health conditions play a vital role in a country's capacity for economic development. Education is a vital means of poverty reduction in poor countries as education gives people necessary skills that would increase their capacity to produce more effectively and efficiently. Education can directly reduce poverty through enhancement of productivity and economic growth, which indirectly helps to alleviate poverty through its positive spill-over effects (externalities) on the society more broadly. Education promotes the eligibility for paid employment in the formal sector and for their advancement once the people are employed. Somalia is a country with complex political, security, and development environment, and much of its recent past has been marked by poverty, famine, and recurring violence. The country has existed in a state of armed conflict of one form or another since 1988 and without a functional central government since 1991 with poor, damaged non functional social infrastructures. After two decades of civil war and conflict Somalia has had slow progress on political stability, Somalia's economy has been shaped and sustained by conflict with massive destruction of social infrastructure.

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Introduction

The 2012 Human Development Report estimates per capita GDP at \$284 - against a sub-Saharan Africa average of \$1,300 per capita. Poverty incidence is 73% (61% in urban centers and 80% in rural areas). For several decades, development agencies have placed great emphasis on building economic and political infrastructures and, more recently, security as tools for poverty reduction and sustainable development. But they have neglected social infrastructures like education and health as a means to improve economic growth and sustainable development. It is because of this neglect of Social infrastructure development that the study aimed at providing evidence on the role of social infrastructure in sustainable of Somalia. The study was guided by the following objectives, to determine the role of education infrastructure in sustainable development of Mogadishu, Somalia, to examine the role of health care infrastructure in sustainable development of Mogadishu, Somalia, to find out the role of transport infrastructure in sustainable development of Mogadishu, Somalia. The researcher used a survey design method for the study. Survey design is a design in which data is collected using questionnaires. The study findings indicate that a large number of respondents agreed to the statement that the presence of health care facilities in the community improve on individual development. This was represented by the mean response value of 3.76.

The study findings indicated that majority of the respondents agreed to the statement that transport infrastructure stimulates investment. This was represented by a mean response value of 3.89. Results from the study indicated that majority of the respondents agreed to the statement that transport links between places increases trade. This is evidenced by a mean response value of 3.86. Based on the findings from this research project, it is valid to recommend that education and healthcare are the two important variables, which policymakers should embrace when seeking to revitalize the social infrastructure in Somalia.

Social infrastructure has enormous externalities. Education and health are social goods in which social marginal productivity (SMP) exceeds private marginal productivity (PMP). Therefore, private investment capital in such social infrastructure is likely to fall far short of what is needed. In that case, it is imperative for the state to provide the finance and other complementary resources for the take-off of such social infrastructural projects. The state does not necessarily have to operate or manage a social infrastructure, but it is necessary for the state to provide guidelines for and monitor its operation (Denison, 2013)

Education is widely accepted as a leading instrument for promoting economic growth. For Africa, where growth is essential if the continent is to climb out of poverty, education is particularly important (N.Ssewanyana, 2007) . The main asset of the poor is human capital.

Human capital development, particularly education and training is a critical ingredient for a country's sustainable socioeconomic development and poverty eradication (UNDP, 2010). A successful poverty eradication strategy would require full and proper development of human capital through equitable education policies. (World Bank, 2007)

This is especially in line with the fact that poverty is a complex issue that requires to be tackled by using all fronts including education. Education is thus a vital tool because its role in poverty reduction cannot be underestimated as no country has successfully eradicated poverty without educating its people. As one of the most powerful instrument for poverty reduction, education can be a guarantee for development in every society and to every family. Its centrality is not only for poverty reduction but it can also contribute in reducing inequality. (World Bank, 2007)

It can equally be argued that education enhances people's productivity. No one would doubt that education gives people some necessary skills that would increase their capacity to produce more effectively and efficiently. Education can thus directly reduce poverty through the contribution that productivity enhancement makes to economic growth, and that could indirectly help to alleviate poverty through its positive spill-over effects (externalities) on society more broadly (Sulle & etal, 2013).

One can establish a linkage between education and poverty by considering the fact that investment in education is a poverty reduction strategy, which can enhance the skills and productivity among poor households and secondly, poverty is by itself a constraint to educational achievement both at the macro-level and micro-level. This is because the poor endures much serious deprivation of poverty as compared to the rich people, and this affects the level of educational attainment. In addition, low level of education affects individual productivity. Low production is considered a serious handicap to poverty reduction efforts since low productivity is considered to be a product of and in turn a producer of poverty and unemployment, and it is positively associated with income. (Sulle & etal, 2013)

Despite the controversies surrounding the contribution of human resource development to economic growth, it is clear that "programs of human resource development must be designed to provide the knowledge, the skills, and the incentives required by a productive economy". Human resource development may be a more realistic and reliable indicator of modernization or development than any other single measure. It is one of the necessary conditions for all kinds of growth – social, political, cultural or economic". Thus, economic development is not possible without education and investment in human capital which is highly productive (FAMILONI, 2015).

There is evidence that poor countries generally have lower levels of enrolment, while children of poor households receive less education (World Bank, 2009). Therefore emphasis in education could be of paramount importance. Adam Smith argued (Romer, 1990), education makes people more sophisticated and progressive, and this is very essential for the smooth functioning of a nation's economy (Williams, 2006).

Poverty has been defined variously. It could be seen as the deprivation of common necessities such as food, clothing, shelter, and safe drinking water, access to energy and all what determines quality life. Poverty also includes lack of access to opportunities such as education and employment

and may affect groups or individuals. Many research works have established that there is a close correlation between education and poverty. This demands governments to invest in education because there is a lot to be gained in terms of poverty alleviation as poverty and underdevelopment are in part, consequences of a lack of education (Ruth, 2005).

Education on the other hand is seen as the process of acquiring knowledge and understanding. According to (AKani, 2012) every society, community or state needs some form of education to be relevant, function and fulfill its social obligations. It helps people to advance their frontiers of knowledge. It is hard to refute Akani's argument that 'education is a universal right, a prerequisite for democracy, a path out of materials and spiritual poverty' (AKani, 2012)

Sen (1999) introduced the concept of Human Development. Human Development is about expanding the choices people have, to lead lives that they value, and improving the human condition so that people have the chance to lead full lives. Thus, human development is about much more than economic growth, which is only a means of enlarging people's choices. Fundamental to enlarging these choices is building building capabilities, which involves the range of things that people can do or be in life. Capabilities are "the substantive freedom a person enjoys to lead the kind of life they have reason to value. The most basic capabilities for human development are: to lead long and healthy lives, to be knowledgeable (e.g., to be educated), to have access to the resources and social services needed for a decent standard of living, and to be able to participate in the life of the community. Without these, many choices are simply not available, and many opportunities in life remain inaccessible (Sen, 1999)

Sen (1999) suggests that education contributes to development directly because of its relevance to the wellbeing and freedom of people and indirectly through influencing social change and economic production thus becoming an important instrument for poverty reduction (Sen, 1999).

Health, like education, is a very important argument in the socio-economic production function. A popular adage says that a sound mind usually resides in a healthy body. Health is one of the major determinants of labour productivity and efficiency. Again, since health as a social good provides externalities, large-scale health facilities can only be provided with public resources.

Public health deals with the environment in which economic activities take place. If that environment were conducive, it would be permissive of accelerated growth and development. "Public health measures include the improvement of environmental sanitation both in rural and urban areas, removal of stagnant and polluted water, slum clearance, better housing, clean water supply, better sewage facilities, control of communicable diseases, provision of medical and health services especially in maternal and child welfare, health education, family planning and above all, for the training of health and medical personnel

Poverty reduction has become an important goal development agenda in many developing countries. This is also the agenda of several international development organizations including UNDP, World Bank and UNICEF

A country's economic development is closely related to the levels of achievement in education, health care and transport.

In as much as social infrastructure has an important role in economic development, the improvement of social infrastructure is vital for economic progress. This is much less appreciated than the importance of economic infrastructure. The other constituent of social infrastructure is health care. Health conditions also play a vital role in a country's capacity for economic development.

Social infrastructure is a vital means of poverty reduction in poor countries as it gives people necessary skills that would increase their capacity to produce more effectively and efficiently. Education can directly reduce poverty through enhancement of productivity and economic growth, which indirectly helps to alleviate poverty through its positive spill-over effects (externalities) on the society more broadly. Education promotes the eligibility for paid employment in the formal sector and for their advancement once the people are employed. (Williams, 2006)

Education is a vital tool because its role in poverty reduction cannot be underestimated as no country has successfully eradicated poverty without educating its people. As one of the most powerful instrument for poverty reduction, education can be a guarantee for development in every society and to every family. Its centrality is not only for poverty reduction but it can also contribute in reducing inequality (World Bank, 2009).

Health is a key determinant of economic growth and development, while ill health is both a cause and effect of poverty. Aside from the serious consequences for social welfare, ill health deprives developing countries of human resources and the high cost of ill health reduces economic growth and limits the resources governments have available for investment in public health.

Somalia is a country with complex political, security, and development environment, and much of its recent past has been marked by poverty, famine, and recurring violence. The country has existed in a state of armed conflict of one form or another since 1988 and without a functional central government since 1991 with poor, damaged non functional social infrastructures.

After two decades of civil war and conflict Somalia has had slow progress on Social infrastructural development, Somalia's economy has been shaped and sustained by conflict with massive destruction of social infrastructure. The 2012 Human Development Report estimates per capita GDP at \$284 - against a sub-Saharan Africa average of \$1,300 per capita. Poverty incidence is 73% (61% in urban centers and 80% in rural areas) (UNDP, 2012).

For several decades, development agencies have placed great emphasis on building political and security infrastructures and, more recently, economic as tools for poverty reduction and sustainable development. But they have neglected social infrastructures like education and health care as a means to improve economic growth and sustainable development. The United Nations mission in Somalia and AMISOM, for example, advocated only for achievement of the country's political and security priorities as the drivers of broad social welfare. Because of a belief that political and security are more important currently than social infrastructure for sustainable development. The international development community priorities have encouraged Somali government relative neglect of Social infrastructure development.

Part of the reason for the inadequate attention to social infrastructure development in Somalia's development

initiatives lies in the shortage of empirical evidence in Somalia that it affects economic growth and sustainable development. It is because of this shortage of empirical evidence on the role of social infrastructure in sustainable development of Somalia that the study intended to reveal the role of social infrastructure in sustainable development of Somalia as this will guide policy formulation on economic development planning in Somalia.

Research Objectives

1. To determine the role of education infrastructure in sustainable development of Mogadishu, Somalia
2. To examine the role of health care infrastructure in sustainable development of Mogadishu, Somalia
3. To find out the role of transport infrastructure in sustainable development of Mogadishu, Somalia

Related Literature

Theoretical review

Infrastructures are basic essential services that should be put in place to enable development to occur. Socio-economic development can be facilitated and accelerated by the presence of social and economic infrastructures. If these facilities and services are not in place, development will be very difficult and in fact can be likened to a very scarce commodity that can only be secured at a very high price and cost. The provision and development of infrastructures has been the subject of much theoretical analysis and empirical studies.

We start by examining some of the theoretical analyses of socio-economic infrastructures.

Human Capital Theory

Human capital theory has strongly influenced most debates on the relevance of education for development. Human capital theory suggests that there are substantial economic effects of education for social development (Katherine, 2000). The basis of human capital theory is that education makes people more productive at work. Individuals invest their time and money in education and skills on the expectation that such investment will yield future benefits in terms of employment and earnings (Mark Taylor, 2012).

The theory showed that if the only cost of an additional year of education is the opportunity cost of the student's time, and if the proportional increase in earnings caused by this additional education is constant over an individual's lifetime, then the rate of return to the investment in education can be derived from estimating relatively simple econometric models (Adams T. L., 2010). The underlying theoretical assumption is that the skills acquired by the individual through education influence the individual's productivity by the same amount in all types of work for all employers (Adams T. L., 2010). Therefore, human capital theory implies that an effective anti-poverty strategy should incorporate increasing the skills of people in poor (low-income) households as this will increase their productivity and suitability for paid employment, and for career advancement within employment (Oxaal, 1997).

Unbalanced Growth Theory

According to the theory of unbalanced growth by Albert O. Hirschman, no LDC has sufficient endowment of resources as to enable it invest simultaneously in all sectors of the economy in order to achieve balanced growth. Balanced growth is a doctrine previously advanced by Rosenstein-Rodan in his 1943 article on "Problems of Industrialization of Eastern and South-Eastern Europe" and

developed by Ragnar Nurkse in his important study of Problems of Capital Formation in Underdeveloped Countries. Developing Rostow's leading sector thesis, Hirschman maintains that "investments in strategically selected industries or sectors of the economy will lead to new investment opportunities and so pave the way to further economic development". Hirschman identified convergent and divergent series of investments. Convergent series of investments are those projects that appropriate more external economies than they create while divergent series create more external economies than they appropriate.

Jhinghan says that development policy should aim at the prevention of convergent series of investments and the promotion of divergent series. Thus, for development to take place, a deliberate strategy of unbalancing the economy should be adopted. "This is possible by investing either in social overhead capital (SOC) or in directly productive activities (DPA).

Investment in SOC is advocated not because of its direct effect on final output, but because it permits and in fact invites DPA to come in... Some SOC investment is required as a prerequisite of DPA investment". In India, Russia and Nigeria, to mention a few countries, this growth strategy of massive investments in such SOC as power, irrigation, transport, communications, energy, education and health has been pursued.

Privatization and Commercialization Theory

Privatization and commercialization strategy is a latter-day form of the classical laissez – faire policy or strategy of development. The concept embraces deregulation of the economy so as to encourage private initiative and boost productivity and efficiency. The key elements are the "disengagement of government from the ownership of hither to state-owned enterprises (SOEs) and the concomitant sale of such to private entrepreneurs". The organized private sector becomes the driving force or the engine of development and growth while the government's role is reduced to that of a catalyst responsible for the creation of an enabling environment for the growth of the economy.

From a global perspective, this is a strategy of development through a more efficient pattern of resource allocation by a free interplay of market forces. Deregulation encourages competition and in this way, a greater quantum of economic and social overhead capital or infrastructures will be built up in a more efficient and competitive market environment.

This is the strategy of the new millennium as governments try to shed their economically inefficient and unproductive overloads to generate more revenue from the sale of the SOEs. This, expectedly, would enable the governments, especially LDC governments, to reduce their public expenditures, generate more revenue and balance their budgets, at least. The disposal of the economic infrastructures and parastatals would enable these governments to focus more attention to and fund more adequately the social parastatals and infrastructures that create substantial external economies through the provision of public goods such as health, education, sanitation, portable water, etcetera.

Vent for Supply theory

This model was developed by Hla Myint. Since countries generally operate inside their production possibilities curve; they are producing at less than full capacity. Thus, under capacity utilization of resources, especially labour, is a major characteristic of countries,

especially LDCs. The logic is that the unemployed resources can be mobilized to produce goods and services, both public and private, to push the economy closer to, or on its production – possibility frontier. In this way, growth can be promoted through a more efficient utilization of societal resources.

The vent for surplus is in the form of mobilization of surplus labour, the open and the disguisedly unemployed; to expand the stock of economic and social infrastructures in the less developed economies, especially. Civic works by the military can also be viewed from this perspective.

Conceptual Framework

A conceptual framework is used to outline the possible courses of action or the preferred approach to an idea. The conceptual framework highlights the independent variables and the dependent variable. The interaction between the dependent variable and the independent variables of the study is shown by the figure below .

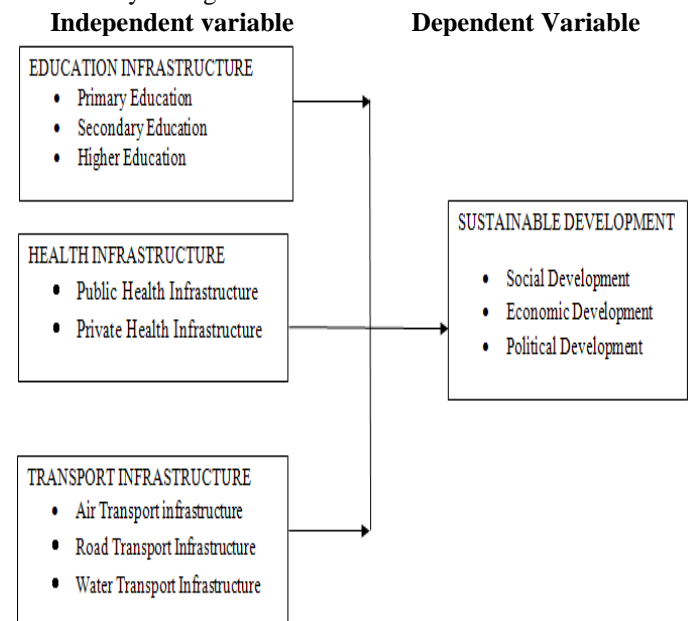


Figure 2.1. Conceptual Frame work.

The framework presented in Figure 2.1 does suggest many possible routes through which social infrastructures can benefit economies. In the next section, we assess the evidence that supports these links, and present new evidence of our own.

The Role of Education infrastructure in Sustainable Development

Poverty is a stumbling block in the way of achieving economic development. Cognizant of the essence of Millennium Development Goals (MDGs) and 'Education for All' program, education was promulgated as the primary weapon against poverty prevalence. Hence it is important to seek out the effect of different levels of education upon poverty in Somalia. It is found that experience and educational achievement is negatively related with the poverty incidence. Also as the level of education increases, the chances of a person being non-poor increase (Malik, 2011).

The thought that education and human capital are essential for economic growth (and finally, for poverty reduction) gained much importance in the mid 1990s because the economic progress of East Asian countries (Singapore, Hong Kong, The Republic of Korea and Taiwan) in 1970s and 1980s was primarily due to their investment in education and human capital formation.

Education and poverty are inversely related. The higher the level of education of the population, lesser will be the number of poor persons because education imparts knowledge and skills which is supportive in higher wages. The direct effect of education on poverty reduction is through increasing the earnings/income or wages. The indirect effect of education on poverty is important with respect to 'human poverty' because as education improves the income, the fulfillment of basic necessities becomes easier and raises the living standard which surely means the fall in human poverty. (World Bank, 1993)

Education and health endowments of the individuals are the necessary and important components of human capital which make them productive and raise their standard of living. Human capital is required for the effective utilization of physical and natural capitals, and technology and skills. Being a developing country Pakistan has owned the poverty reduction strategy paper, which is one of the main pillars of human capital. Without human capital formulation the goal of development or poverty elimination is inevitable and human capital accumulation is largely based upon education and skills attainment. (UNESCO, 2007)

Higher Education has direct benefits for economies. By producing well-trained teachers, it can enhance the quality of primary and secondary education systems and give secondary graduates greater opportunities for economic advancement. By training physicians and other health workers, it can improve a society's health, raising productivity at work. And by nurturing governance and leadership skills, it can provide countries with the talented individuals needed to establish a policy environment favorable to growth. Setting up robust and fair legal and political institutions and making them a part of a country's fabric, and developing a culture of job and business creation, for example, call for advanced knowledge and decision-making skills. Addressing environmental problems and improving security against internal and external threats also place a premium on the skills that advanced education is best placed to deliver.

Role of Health Infrastructure in sustainable Development

Health is a key determinant of economic growth and development, while ill health is both a cause and effect of poverty. Aside from the serious consequences for social welfare, ill health deprives developing countries of human resources and the high cost of ill health reduces economic growth and limits the resources governments have available for investment in public health. As a result, improving health in developing countries is essential in order to reduce poverty, providing more care options in underserved areas is to increase the number of Health Centers Community Health Centers have been proved to be a successful way to provide care to the underserved (Wolf, 2011)

Good health is an important development outcome in its own right. Illness brings suffering, and healthier lives are likely to be longer and more fulfilling. Health improvements can contribute to economic development through improved productivity as Better health can make workers more productive, either through fewer days off or through increased output while working. Improved health of family members will have a similar impact through reducing time lost to caring for dependants, Improved learning: Improved nutrition and reduced disease, particularly in early childhood, leads to improved cognitive development, enhancing the ability to learn. Healthy children will also gain more from school, having fewer days absent due to ill health.

Enhanced learning through either of these mechanisms will add to human capital which is an important determinant of economic growth (Lewis, 2009).

Nobel Laureate Amartya Sen postulates that health (like education) is among the basic capabilities that gives value to human life. The wealth of any nation can be measured by the health status of its citizens. This is in true confirmation of the popular adage which affirms that "Health is Wealth". According to World Bank (2005) fifty percent of economic growth differentials between developed and developing nations are attributed to ill-health and low life expectancy. The world's central framework for reducing poverty is expressed in UN's eight Millennium Development Goals. Three of these eight goals pertain to health: reducing child mortality, improving maternal health and combating HIV/AIDS, malaria, and other diseases. These potentially huge improvements in health are extremely important goals in themselves, and they serve as instruments for achieving economic growth and reducing poverty. In other words, health is a fundamental driver for economic growth and development.

The role health plays in economic growth and development has been dealt upon by various researchers. Finlay (2007) elucidates that health does play a role in economic development. He showed that health influences economic growth through education incentive effects. Finlay went further to say that individuals who are healthier live longer, and are encouraged to invest more in education, as returns to education can be enjoyed in the form of higher skilled wages. Baldacci (2004) explores the role played by health expenditures and found that spending on health within a period of time affects growth within that same period of time. Bloom et al. (2004) focus on the labour productivity effects of health on economic growth, where improvements in health will lead to an increase in per capita income. Their main result is that health has a positive and significant effect on economic development. Empirically, a high level of public health goes *pari passu* with a high level of economic development.

Health is a basis for job productivity. Good health has a positive, sizable, and statistically significant effect on aggregate output. Workers' productivity is being enhanced by increasing not just their physical capacities, such as strength and endurance, but also increasing their mental capabilities, such as cognitive functioning and reasoning ability (Bloom and Canning 2005). Healthier workers are more productive and earn higher wages. They are also less likely to be absent from work because of illnesses. Illness and disability reduce hourly wages substantially, with the effect especially strong in developing countries, where a higher proportion of the work force is engaged in manual labour than in industrial countries (Bloom 2004). Health is a vitally important form of human capital and deserves a high level of attention in the development processes of DVCs. A better health increases labour productivity which in turn leads to improved wages.

Role of Transport Infrastructure in Sustainable Development

Historically, improved transport technology and transport networks through their effects on transport costs, access and connectivity, have been major factors underpinning economic growth and opening up formerly isolated areas to people and economic activity, In the absence of other factors that can support economic growth in the region.

Indeed, better transport can be a two-way road, by exposing relatively remote localities to greater competition from imports of goods and services produced elsewhere and intensifying the pressures for movements of labour out of the area (Coleman, 2010).

The principal role of transport is to provide access between spatially separated locations for the business and household sectors, for both commodity (freight) and person movements. For the business sector, this involves connections between businesses and their input sources, between businesses and other businesses, and between businesses and their markets. For the household sector, it provides people with access to workplaces and education facilities, shops, and social, recreational, community and medical facilities (Garcia & Levy, 2008).

The direct effects of transport investment are to reduce transport time and costs through reducing travel times, decreasing the operating costs of transport and enhancing access to destinations within the network. In particular, lower costs and enhanced accessibility, due to better transport links and services, expand markets for individual transport-using businesses and improve their access to supplier inputs. Increased access and connectivity create increased opportunities for trade, competition and specialization, which can lead to longer-term productivity gains (Hummels, 2007)

Research Design

The researcher used a survey design method for the study. Survey design is a design in which data is collected using questionnaires. The researcher used the above design to enable him describe or present a picture of the problem under study. According to (Owens 2002), survey research design is unique as it gathers information not available from other sources as information is collected from respondents. Individual respondents are never identified and the survey results are presented in the form of summaries, such as statistical tables and charts

For this study, the survey design was preferred because surveys are relatively less costly, easily accessible and also useful in describing the characteristics of a large population and making the results statistically significant even when analyzing the variables. Also surveys are flexible in deciding how the questions are to be administered. Survey method is best used when the researcher wants to collect a lot of data within a limited period of time as was the case with this study.

This study was conducted in Mogadishu City, the capital of Somalia. The target population of this study was 1,280,939 residents of Mogadishu from the different segments of the society including; general public, University students, government officials and civil society members (UNFPA, 2014).

Research Findings

Statement on the Role of education infrastructure in Sustainable Development

The survey findings indicated that a large number of the respondents agreed to the statement that education increases the chances of employment as shown by mean value of 3.93. This is a clear indicator that people in Somalia have embraced education because of its role in securing employment.

The study found that majority of the respondents agreed to the statement that education lowers income inequality in

the community. This is shown by the mean response of 3.92 from the table below. Equal access to education by members of the community help to reduce inequalities in the community, Education, primary, secondary and tertiary – is perhaps the most critical means of improving the welfare of disadvantaged populations, particularly as more and more of the world enters into the global knowledge society.

It is a cornerstone for improving both social justice and economic productivity. Education, however, should be viewed as inextricably linked to the health, social, economic and security status of individuals and societies. As such, education is not the responsibility of governments and the education sector alone, but is better positioned as a core concern of the entire community, including families, business and other organizations. To reduce the gap between the haves and the have-nots, we need to embrace broad access to quality education as our strongest social value.

The survey findings revealed that majority of the respondents agreed to the fact that education promotes creativity and innovation which facilitates sustainable development. This is shown by the mean response value of 3.85 and small standard deviation in the responses. School or University is a place that promotes creativity through arts, music, play and research and problem solving in various parts of curriculum. Most people connect creativity in schools to subjects that naturally invite one's creative talent to be utilized.

Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Entrepreneurship education is known as a specialized knowledge that inculcates in learners the traits of risk-taking, innovation, arbitrage and co-ordination of factors of production for the purpose of creating new products or services for new and existing users within human communities.

Results from the study indicated that a large number of respondents agreed to the statement that education increases the productivity of the educated as shown by the mean response value of 3.83 and a standard deviation of response of less than one. It can equally be argued that education enhances people's productivity. No one would doubt that education gives people some necessary skills that would increase their capacity to produce more effectively and efficiently.

Education can thus directly reduce poverty through the contribution that productivity enhancement makes to economic growth, and that could indirectly help to alleviate poverty through its positive spill-over effects (externalities) on society more broadly (Sulle & etal, 2013)

The study findings revealed that majority of the respondents agreed to the statement that Education facilitates the transformation of post conflict areas which makes peace possible. This was revealed by the mean response value of 3.99 and lower standard deviation value between the respondents.

Equitable educational inclusion within the formal education system can redress motivations and eliminate opportunities to engage in armed conflict. School socialization processes can impact social acceptance of and constraints regarding the use of violence. As a result of improved quality and safer, protective learning environments, individuals may have less motivation, as well as fewer opportunities, to engage in armed conflict.

Building up trust and cooperation (social capital) through school-based organizations can rectify grievances over lack of participation and improve relationships between individuals and groups. The various social benefits of education (including hope and possibilities for the future, as well as improved levels of socio-economic development) can raise the social, direct, and opportunity costs of engaging in armed conflict.

Educational inclusion lowers motivation and raises opportunity costs for participating in armed conflict. Government investment in formal education systems is critical for building peace. Quality education delivered in violence-free, cooperative learning environments teaches children critical lessons about nonviolent conflict resolution. The curriculum is a critical element in efforts to heighten constraints against the use of violence and promote human rights. Participatory education systems can raise the social costs of and constraints against engaging in armed conflict. Education that fosters positive socio-economic development can help prevent armed conflict.

Table 4.7. Statement on the Role of education infrastructure in Sustainable Development.

	N	Mean	Std. Deviation
Education increase the chances of getting employment	384	3.93	1.017
Education lowers income inequality in the community	384	3.92	.859
Education promotes creativity and innovation	384	3.85	1.044
Education increase the productivity of the educated	384	3.83	.770
Education facilitates transformation of post conflict areas which makes peace possible	384	3.99	.876
Valid N (listwise)	384		

Statement on the Role of Health care infrastructures in sustainable Development

The study findings indicate that a large number of respondents agreed to the statement that the presence of health care facilities in the community improve on individual development. This is represented by the mean response value of 3.76 in the table below; Health is a key determinant of economic growth and development, while ill health is both a cause and effect of poverty. Increasing the number of Health Centers and Community Health Centers has been proved to be a successful way to provide care to the underserved (Wolf, 2011)

Results from the survey revealed that majority of the respondents agreed to the statement that good health play a substantial role in economic growth of a country. This was revealed by the mean response value of 3.85 in the table below.

Health improvements can contribute to economic development through improved productivity as Better health can make workers more productive, either through fewer days off or through increased output while working. Improved health of family members will have a similar impact through reducing time lost to caring for dependants, Improved learning: Improved nutrition and reduced disease, particularly in early childhood, leads to improved cognitive development, enhancing the ability to learn. Healthy children will also gain more from school, having fewer days absent due to ill health. Enhanced learning through either of these mechanisms will add to human capital which is an important determinant of economic growth (Lewis, 2009).

Findings from the study indicated that a large number of respondents agreed to the statement that investing in Health care facilities increases productivity of the country as shown by the mean response value of 3.93 in the table below. Aside from the serious consequences for social welfare, ill health deprives developing countries of human resources and the high cost of ill health reduces economic growth and limits the resources governments have available for investment in public health. As a result, improving health in developing countries is essential in order to reduce poverty.

Good health boosts labour productivity, educational attainment and income, and so reduces poverty. When poor people know their children are more likely to survive and be healthy, they tend to have smaller families and so higher incomes per family member. So programmes that aim to protect and improve the health of people below and just above the poverty line in developing countries could greatly help in the battle against global poverty.

The survey findings indicated that a large percentage of the respondents agreed to the fact that the presence of health care infrastructure increases the stock of human capital. This is represented by the mean response value of 3.71 in the table below. Human capital theory predicts that more educated individuals are more productive and obtain higher earnings. Good health in childhood enhances cognitive functions and reduces school absenteeism and early drop-out rates. Hence, children with better health can be expected to attain higher educational levels and therefore be more productive in the future. Moreover, healthier individuals with a longer lifespan in front of them would have more incentives to invest in education and training, as they can harvest the associated benefits for a longer period.

The survey findings indicated that majority of the respondents agreed to the statement that a higher life expectancy is a result of good health care infrastructures. This is indicated by the mean response value of 4.08 in the table below. Health care expenditure has been low over the years in developing regions of the world. A majority of countries in these regions, especially sub-Saharan Africa (SSA), rely on donor grants and loans to finance health care. Such expenditures are not only unsustainable but also inadequate considering the enormous health care burden in the region.

This has resulted into lower life expectancy for the population. Developed countries, Americans in particular saw an unbelievable explosion in quality of life, which in turn has resulted in an equally large jump in life expectancy. Access to health care and other essential services is promoting high life expectancy statistics overall.

The survey findings further indicated that a large proportion of the respondents agreed to the fact that good health promotes social capital because of absence of premature deaths in the community. This was represented by a mean response value of 3.92 as shown in the table below. The respondents attributed this to the improved access to health care which increases the life expectancy of the community members and turn social bonds are developed in the community because of premature deaths.

Statement on the Role of Transport Infrastructure in Sustainable Development

The study findings indicated that majority of the respondents agreed to the statement that transport infrastructure stimulates investment. This is represented by a mean response value of 3.89 in the table below.

Table 4.8. Statement on the Role of Health care Infrastructure in Sustainable Development.

	N	Mean	Std. Deviation
The presence of health care facilities in your community improve on your development	384	3.76	.888
Good health play a substantial role in economic growth	384	3.85	.892
Investing in Health care increases productivity of the country	384	3.93	.948
Health Care infrastructure increases the stock of human capital	384	3.71	1.001
Higher Life expectancy is a result of good health care infrastructure	384	4.08	.902
Good health promotes social capital because of absence of premature deaths in the community	384	3.92	.727
Valid N (listwise)	384		

Infrastructure investments are prescribed to stimulate the economy in the short term by creating construction employment, and to foster longer-term economic growth by making the transportation system more efficient and reliable. Investment in transport drives further investment and economic growth through four key routes. It unlocks new sites for development, such as accessing logging opportunities, provides access to new, better quality, or cheaper resources, as businesses tap into international supply chains to source lower cost inputs for manufactured, goods allows access to a wider labour market to allow better suited and potentially lower cost labour, opens up new and larger markets, allowing economies of scale, specialization and increasing competition

The survey findings further revealed that many of the respondents agreed to the statement that productivity increases as the transport costs for goods and services go down. This is indicated by the mean response value of 3.64 in the table below.

Sound transportation investments lower the costs of moving people and goods. This increases economic productivity, which roughly can be measured as the output of goods and services per dollar of private and public investment. And improved productivity leads to a higher standard of living.

Results from the study indicated that majority of the respondents agreed to the statement that transport links between places increases trade. This is evidenced by a mean response value of 3.86 in the table below.

Transportation specialists agree that investments in transport infrastructure can generate large developmental payoffs throughout society. Typical transport infrastructure improvements reduce effective distances between origins and destinations by reducing congestion, thereby lowering travel times. Travelers gain directly from travel time savings and lowered vehicle-operating costs. Companies enjoy direct efficiency gains from cheaper and more reliable freight services and reduced assembly and delivery costs

Transport investments that connect regions to other markets can have a two way effect. New connections can allow the development of economic activity in a region or they can allow that economic activity to be drawn away from a region. The impact is dependent on the competitiveness of the regions being connected. In regions which are growing, investing in the transport system can reduce costs and increase relative competitiveness. However, in regions which are declining, investment in new transport systems on their

own is unlikely to reverse that decline. While local transport investments might help to create jobs in the short term, in the medium term their maintenance costs may become an additional burden for a declining region.

The study findings indicated that majority of the respondents agreed to the statement that transport ensures everyday mobility of people and improves on the social wellbeing and cohesion of populations as shown by the mean response value of 3.88 in the table below.

Social cohesion can be understood as the ability of a social, economic and political system to achieve three complementary objectives: promoting citizens' empowerment and social participation, creating social and institutional networks that generate social capital and promote social inclusion and contributing to the implementation of social rights in their broadest sense. Thus, social cohesion can be understood as forming the basis for people to access the necessary resources produced by society and in turn determines the degree of integration among individuals within a group and the values associated with the connections between them

The findings from the study further revealed that a large percentage of the respondents agreed to the statement that transport connectivity between dispersed areas reduces income inequality among those areas, this indicated by a mean response value of 3.89 in the table below.

Improving connectivity between and within countries can bridge stark differences in economic development by strengthening interregional trade. Improved transport can help to reduce inequalities between rural and urban areas. Transport can play a crucial role in enhancing food security and agricultural productivity in rural areas but farmers will need better access to roads to trade their products. Africa's current food insufficiency is not surprising given the deficiencies in its road infrastructure.

Improving rural road connectivity has been shown to increase agricultural productivity by reducing the travel time to agricultural markets, inducing farmers to adopt modern farming techniques and favor cash crops, and raising market participation. Improving road quality has also been shown to induce migration and shift workers from agriculture to manufacturing.

Results from the study indicated that majority of the respondents agreed to the statement that improved transport network facilitates exploitation of resources; this is indicated by a mean response value of 3.89 in the table below.

Good transport infrastructure and highly connected networks are commonly associated with high levels of development. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multipliers effects such as better accessibility to markets, employment and additional investments.

Transportation has been a tool of resource exploitation, particularly during the colonial era where resource-based transport systems supported the extraction of commodities in the developing world and forwarded them to the industrializing nations of the time. The goal to capture resource and market opportunities was a strong impetus in the setting and structure of transport networks.

Regression Analysis

This section presents a discussion of the results of inferential statistics. The study conducted a multiple regression analysis so as to predict the role of social infrastructures in Sustainable of Somalia.

Table 4.9. Statement on the Role of Transport Infrastructure in Sustainable Development.

	N	Mean	Std. Deviation
Transport infrastructure stimulate Investment	384	3.89	.822
Productivity increase due to low transport costs for goods and people	384	3.64	1.061
Transport links between places increases trade	384	3.86	1.047
Transport ensures everyday mobility of people and improves social wellbeing and cohesion of populations	384	3.88	1.054
Transport connectivity between dispersed areas reduces income inequality among those areas	384	3.89	1.061
Improved transport network facilitates resource exploitation	384	3.89	1.063
Valid N (listwise)	384		

In the regression analysis the study aimed at determining the effect of the three independent variables on the dependent variable. The coefficient of determination (R squared) which indicates the extent of variation in the dependent variable that is explained by the independent variables indicates that the independent variables explain the variation in the dependent variable by 76 percent. The study used multiple regression analysis using indicators for each of the independent variables in order to determine the effect of the independent variables on dependent variable as indicated by the table below

Model Summary

Table 4.9.1. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.873 ^a	.763	.657	.644

a. Predictors: (Constant), Transport links between places increases trade, Good health play a substantial role in economic growth, Education increase the productivity of the educated

ANOVA

ANOVA was used to test the associative hypothesis between the dependent and independent variable. From ANOVA test the study indicated that there is no significant differences in the variables studied indicating that the model was significant in explaining the relationship between the dependent and independent variables as shown by level of significance of 0.23 which is less than 0.05. The study used provision of social services as the indicator of the dependent variable and three independent variables.

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	4.090	3	6.249	1.522	.023 ^b
Residual	254.533	380	.712		
Total	258.622	383			

Table 4.9.4. Correlation analysis between independent variables.

		Education increase the productivity of the educated	Good health play a substantial role in economic growth	Transport links between places increases trade
Education increase the productivity of the educated	Pearson Correlation	1	.000	.001**
	Sig. (2-tailed)		.911	.721
	N	384	384	384
Good health play a substantial role in economic growth	Pearson Correlation	.000	1	.002*
	Sig. (2-tailed)	.911		.820
	N	384	384	384
Transport links between places increases trade	Pearson Correlation	.001**	.002*	1
	Sig. (2-tailed)	.721	.820	
	N	384	384	384

a. Dependent Variable: Providing social services is about responding to the needs of the poor without compromising the ability of future generations to meet their own needs.
b. Predictors: (Constant), Transport links between places increases trade, Good health play a substantial role in economic growth, Education increase the productivity of the educated.

Regression coefficients

According to the regression analysis, the model indicates that there is a significant relationship between sustainable development (Providing social services is about responding to the needs of the poor without compromising the ability of future generations to meet their own needs) and the belief that provision of education increases the productivity of the educated. This is indicated by a level of significance of 0.036 which is lower than 0.05. Respondents believed that provision of education responds to the needs of the poor and contributes to the wellbeing of the future generation and this is what sustainable development is all about. So it can be concluded that at a 5% level of significance the provision of education contributes to sustainable development of the communities.

The study also revealed that there is a significant relationship between good health care and sustainable development. This is indicated by a level of significance of 0.035 which is lower than 0.05. Majority of the respondents believed that existence of health care infrastructures contribute to good health and economic growth which in turn facilitate economic sustainability of the communities. So it can be concluded that at a 5% level of significance health care infrastructure contributes to sustainable development.

Table 4.9.3. Regression Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
(Constant)	4.286	.321		9.527	.000
Education increase the productivity of the educated	.321	.042	.026	5.023	.036
Good health play a substantial role in economic growth	.444	.048	.048	.445	.035
Transport links between places increases trade	-.098	.060	-.087	.126	.103

a. Dependent Variable: Providing social services is about responding to the needs of the poor without compromising the ability of future generations to meet their own needs (sustainable Development).

From the regression analysis, the substitution of the regression values into the model is;

$$Y = 4.286 + 0.26X_1 + 0.048X_2 - 0.087X_3$$

Where Y is the dependent variable (Sustainable Development), X₁ is the Role of Education infrastructure, X₂ is role of Health care infrastructure and X₃ is role of transport infrastructure. Correlation Analysis

The correlation analysis between the independent variable indicated that there is no significant relationship between the independent variables. This indicates that the independent variables were significant enough to predict the dependent variable. This provides relevancy to the regression analysis above indicating that estimates of the predictors (B and Beta) are good estimators and can be used to predict the effect of change of independent variable on the dependent variable. This fulfills the Gauss Markov assumption of no perfect relationship between the independent variables.

Conclusion

In light of the findings it can be concluded that provision of social infrastructure plays a significant role in the sustainable development of the country. The study showed that a large percentage of the respondents in Somalia agreed that offering quality education to the people of Somalia increases the productivity of the country and facilitates sustainable development of Somalia.

From the findings of the study it can be concluded that health care infrastructure contributes to sustainable development. Findings indicated that a large number of respondents agreed that the presence of health care facilities in the community improve on individual and community development.

The inadequate social infrastructure can hinder the economic progress and sustainable development of the community. In order to attain sustainable economic growth consistent attention needed to be paid for the development of social infrastructure.

Recommendation

Based on the findings from this research project, it is valid to recommend that education and healthcare are the two important variables, which policymakers should embrace when seeking to revitalize the social infrastructure in Somalia. The primary of these two variables, education, provides the necessary knowledge to advance industries and make the country competitive on a global level. The second variable, healthcare, ensures that all individuals remain healthy and that the workforce is protected against adverse conditions.

Equal access to education by members of the community help to reduce inequalities in the community, Education, primary, secondary and tertiary – is perhaps the most critical means of improving the welfare of disadvantaged populations, particularly as more and more of the world enters into the global knowledge society.

Health improvements can contribute to economic development through improved productivity as Better health can make workers more productive, either through fewer days off or through increased output while working. Improved health of family members will have a similar impact through reducing time lost to caring for dependants, Improved learning: Improved nutrition and reduced disease, particularly in early childhood, leads to improved cognitive development, enhancing the ability to learn. Healthy children will also gain more from school, having fewer days absent due to ill health.

Reducing the direct costs of schooling, the traditional way in which school systems have reduced the direct costs of schooling has been to lower or eliminate user fees. These policies have increased enrollments in primary school. Barrera-Osorio, Linden, & Urquiola (2007) evaluated the impact of an initiative in Bogotá, Colombia that reduced school fees for low-income families in 2004.

They found that the program increased the enrollment of primary school children in the poorest households by 3% and the enrollment of children in the next-poorest households by 6%.

Reducing the costs of complements, another strategy to increase school enrollments is to lower the costs of complements to schooling. Such interventions have had positive impacts on students who take advantage of these cost reductions. Evans, Kremer, & Ngatia (2009) found that primary school students who received free uniforms in Busia, Kenya in 2002 were 44% more likely to attend school and they performed .25 SDs better on math, English, and Kiswahili tests after one year. For each USD 100, the program yielded a .71 years increase in student participation.

This dissertation has identified several key findings that provide impetus for future research. First, the value of healthcare, transport and education cannot be effectively quantified using such a broad scale research method as that introduced in this analysis. Therefore, it is recommended that future studies narrow the focus to a few social indicators of economic growth and study them in depth.

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