INFLUENCE OF EDUCATION DEVELOPMENT ON POVERTY REDUCTION IN MOGADISHU, SOMALIA

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Accepted: January 29, 2017

ABSTRACT
The crucial influence of education development plays in the overall development of a nation cannot be overemphasized. It is not only seen as a key to economic growth and vehicle for promoting equity, fairness and social justice but also helps to supply the essential human capital which is a necessary condition for eradicate poverty or poverty reduction. Education development is a major concern for poverty reduction in developing countries including Somalia. More than 5million people are in the teaching process and education contributes to more than 60% of all development in the developing countries. This study investigated the influence of education development in poverty reduction, education policy, education infrastructures, and education technology in Mogadishu-Somalia. The specific objectives were: To determine the effects of education development level on poverty reduction in Mogadishu, Somalia, Evaluate the effects of entrepreneurship training on poverty reduction in Mogadishu, Somalia, and how to assess the availability and effects of skilled and semi-skilled labor on poverty reduction in Mogadishu, Somalia, and finally to promote success development in teaching and learning both within and beyond the classroom. The study involved a design for the collection, measurement and analysis of data. The population in study was 600, and its sample size was 240 and main data collection tool was a semi structured administered questionnaire. Qualitative data were analyzed on content matter of the responses. Quantitative data were coded and entered into Statistical Package for social Science (SPSS Version 22) using multiple Regression tool for analyzing the data. The result was presented in the form of summaries, such as statistical tables and discussions and illustrations. The study findings were useful for the education workers as reference in the determinants of education development for poverty reduction and the community at large. In addition to this, there should be an increase capacity in the distribution of distribution of education to the rural areas with particular attention on girls’ education. Education promotes the eligibility for paid employment in the formal sector and for their advancement once the people are employed.

Key terms: Education policy, Entrepreneurship education, Information and communication technologies, Access and Retention, Equity, Quality, Relevance, Action learning
INTRODUCTION

Education is a vital tool because its influence 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, 2016).

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 (Ssewanyana & Kasirye, 2013). 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 (Bass, 2012). A successful poverty eradication strategy would require full and proper development of human capital through equitable education policies (World Bank, 2016). 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.

The entire fabric of the Somali society has been damaged, the existence of the whole nation has sunk into a deep, dark sea of unimaginable human and material disaster, the result of the communal mind of the people is in a coma (Aden, 2017). Since the collapse of the Somali state in January 1991, Somalia has been a country without any level of organized systems of learning. This is obviously the result of the division of the country

Into clan-based fiefdoms (Ahmed, 2012) the secession of the northwest from the rest of the country (Ahmed, 2012), and the ensuing civil war that has claimed the lives of hundreds of thousands of Somalis (Moyi, 2012). In this process of social disintegration, schools, technical training centers and university facilities and resources become among the first casualties of the senseless mass destruction of the country’s total infrastructure. The physical destruction of the facilities was a, at times peculiarly coupled with targeting of the educated cadre among the factions. As a result, underdeveloped Somali seems to have embarked on the treacherous road of de-development, defined in this sense as reversing the limited trend of development by deliberately destroying everything that could function in, and sustain a civil society,

These observation, serious as they may sound to the concerned reader, will pale in comparison with the bleak future that waits Somalia’s children. The first and the most vulnerable victims of the civil war and war –triggered famine in post-state Somalia were and are still the children with an estimated 3000 of them dying every day in early 1992 (Moyi, 2012). This cruel trends was fortunately reversed with the launching of Operation Restore Hope by the USA under the auspices of the United Nation UN (Barkley, 2015). But as that under taking and all other UN operations are now derail, Somalia, along with any concern for the future of Somalia’s children, is no longer only active agenda of international community. In the case of the USA, and as (Moyi, 2012) points out in her article Retreat from Africa, Somalia may force fully its role in an Africa that is fast falling off the policy map in the US, State Department, the Executive Branch and Congress’s afar as the European Union (EU) is concerned, there may be some limited efforts such as the November 1996 Lake Nakuru (Kenya) Conference on Somalia. The EU’s initiative should have completed later by their reconciliatory schemes under taken by among other African countries Ethiopia and Egypt, for example. Apparently all these efforts which were limited in
scope in the first place, feel short of producing any tangible reconstruction and development program.

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 (Davis, 2013).

Davis, (2013) 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. (Davis, 2013) 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.

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 spillover 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. (Tabb, 2012).

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, 2016).

For several decades, development agencies have placed great emphasis on humanitarian aid in Somalia and, more recently, security as tools for poverty reduction. The Somalia described in this article is, technically speaking, a familiar one. People have seen the spectacle of the country’s horrors on television, in the printed media, and more importantly on the faces of the victims of the whole tragedy. Because of that, international aid efforts have been organized, military operations have been launched, and reconciliation talks among the warring factions have been held. But all these efforts, useful and, at times, life-saving as they were, did not incorporate into their agenda any
strategy to save the future of Somalia’s children. So by taking now a much needed break from the political debate, let us ask ourselves what should and could be done about the education situation? Definitely, the children deserve better, and the situation, if it continues as it is, may be ‘objectively’ signified as heralding the end of any foreseeable pragmatic hope for towing Somalia back to the waters of the community of nations.

But they have neglected education as a means to improve economic growth and mitigate poverty. The Dakar summit on Education for All in 2000, for example, advocated for primary education as a driver of broad social welfare, in Somalia however there is no government support for education. Because of a belief in Somalia that education plays a less role in poverty reduction, the international development community has encouraged Somali governments’ relative neglect of higher education (Ssewanyana & Kasirye, 2013).

Part of the reason for the inattention to education within development initiatives lies in the shortage of empirical evidence that it affects economic growth and poverty reduction. There is limited emphasis on and support for education in Somalia and part of the reason for the exclusion of education from development initiatives lies in the shortage of empirical evidence to show the impact of education on poverty in Somalia. It is of this shortage of empirical evidence on the role of higher in poverty reduction that the study intended to reveal the role of education in poverty reduction in Somalia as this would guide policy formulation on education.

Research Objectives

- To determine the influence of education policy development on poverty reduction in Mogadishu, Somalia.
- To find out the influence of entrepreneurship development on poverty reduction in Mogadishu, Somalia.
- To assess the influence of education infrastructure development on poverty reduction in Mogadishu, Somalia.
- To determine the influence of education technology development on poverty reduction in Mogadishu, Somalia.

RELATED LITERATURE

Theoretical Framework

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). (Matarrita-Cascante & Brennan, 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 (Saaty & Vargas, 2012). 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 (Saaty & Vargas, 2012). 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, Barnett, & Booth, 2013)

**Signaling Theory**

Signaling (or screening) theory recognizes that the positive effect of educational attainment on earnings may not result from enhanced productivity but because education signals innate personality characteristics such as ability and motivation (Kadushin, 2012). It suggests that education acts as a filter that identifies more able workers rather than enhancing productivity directly. Workers use education to signal their ability and motivation to potential employers, while employers use education to identify more able and highly motivated workers who will be more productive (Chevalier, Harmon, O'Sullivan, & Walke, 2013). Therefore, workers who obtain more education are more productive and earn higher wages yet by assumption education does not affect worker productivity. In the IT sector, for example, job requirements almost always entail knowledge of most recent developments acquired through informal and self-learning. Although this knowledge may not be taught through formal IT qualifications, and may not be relevant for the job, they are still used to select employees as they are seen as signals of the ability and willingness to learn (Kadushin, 2012).

Signaling and human capital theories are observationally equivalent in that they both indicate a positive association between earnings and education, but this arises for very different reasons (Oxaal, Barnett, & Booth, 2013). In both, those with higher educational attainment enjoy higher employment probabilities and higher earnings because they have higher productivity. The human capital model states that this higher productivity is a direct result of education, while the signaling model states that education instead allows employers to identify workers who would be more productive workers even in the absence of education.

The implications of signaling theory differ from those of human capital theory. Under signaling theory, improving the education levels of low-skilled workers may have no impact on their wages if high skilled workers acquire even more education to continue to signal to employers that they are different. Hence signaling theory raises the possibility that education has no impact on poverty or income inequality, as the least skilled would still not compete for jobs with higher earnings.

**Cognitive constructivist theories**

Constructivist learning theories often focus on extra-curricular learning to make clear/to demonstrate that learning is more than, and different from traditional school learning (Healey, 2013). Healey stresses the context-bound, tool-oriented, social, and situation-specific characteristic of learning outside the school. The model she, and many others with her, prefer is the cognitive apprenticeship model. In earlier/former days, apprenticeship meant that, for instance, one learnt to become a tailor by working at a master–tailor’s, most of the time with one or more fellow apprentices. Learning took place in a real–life context. The master–tailor assigned the tasks, at first rather simple, but gradually more difficult and complex. In the beginning, the pupils had limited responsibilities, but they gradually became increasingly responsible for their own work. They learned by doing, by observing and imitating the expert, and by getting/receiving feedback from him as well as from their fellow pupils.

Apprenticeship system for cognitive learning should be developed, especially when wanting to teach our students how to learn, how to think, and how to solve problems; the principles of the old apprenticeship systems should be rehabilitated: cognitive apprenticeship (Healey et al., 2013).
study by Healey et al. (2013) found the following program characteristics to be successful in the acquisition of school learning skills. They involve socially shared intellectual activities. Activities organized around the mutual accomplishment of tasks. Other elements of apprenticeship are: making usually hidden processes overt, subject to observation and commentary, and allowing skills to grow bit by bit, yet permitting participation of even the relatively unskilled. This is often enabled/achieved by the social sharing of tasks. Finally, the most successful programs are organized around particular bodies of knowledge rather than "general" abilities. Successful programs engage students in processes of meaning construction and interpretation, which has the effect of blocking the kind of symbol-detached-from-sense thinking that is a major problem in schools.

The model of cognitive apprenticeship has led to a revived pedagogical optimism: in the field of American instructional psychology, many researchers now believe that it is possible to improve such abilities as the self-regulation of learning, thinking, intelligence and problem solving. This optimism stems mainly from the remarkable results of training studies by (Potocki, Ecalle, & Magnan, 2013) of reading comprehension, by (Potocki, Ecalle, & Magnan, 2013) of mathematical reasoning, and by (Deane, Fowles, Baldwin, & Persky, 2011) of writing processes. In these three studies and their later replications, durable/sustainable, generalizable, and transferable results of training programs were realized.

This success was built on combining apprenticeship principles with metacognitive support. Ann Brown was important in the development of metacognitive theory. Sometimes, ‘metacognition’ refers to knowledge about one’s own and a third person’s/of: and third persons’ cognitive processes (Halford, 2014). In other instances, the concept of metacognition is used in the sense of steering one’s own cognitive processes (Bacon & Hoque, 2011). Though these two (knowledge and steering) might be closely related, in our opinion it is important to disentangle/separate the two (Garner, Ferdinand, & Lawson, 2016). When referring to the first meaning, we will use the term "metacognitive knowledge". This refers to the knowledge people have of their own (and other people’s) cognitions. This involves actions such as planning, testing one’s progress, monitoring the development of one’s understanding, and predicting the results. Research on metacognitive knowledge and regulation (overview in Simons, 1994a) has shown that both have important roles to play in successful learning. In her later research, Ann Brown and many others focused on the best ways to teach metacognition (Bacon & Hoque, 2011).

**Social Learning Theory**

A third form of constructivism in learning stems from the work of (Kiraly, 2014). We will call this ‘social learning theory’ in order to distinguish it from the cultural-historical approaches. The most influential approach is that of the community of practice (Kiraly, 2014). Typically solve problems, discuss insights, share information, talk about their lives, and ambitions, mentor and coach on each other, make plans for community activities, and develop tools and frameworks that become part of the common knowledge of the community. Over time, these mutual interactions and relationships build a shared body of knowledge and a sense of identity (Kiraly, 2014).

According to (Kiraly, 2014), people in organizations form communities of practice by helping each other out, and discussing the latest developments. Membership of these communities of practice is voluntary; the communities are not bound by organizational affiliations.

Social learning theory is also applied in the field of education, e.g. by (Shum & Crick, 2012). They try to
develop knowledge building communities in schools using computer supported collaborative learning (CSCL) programs, with their supporting tools. Knowledge Forum is the tool they developed for this purpose (Kiraly, 2014). Communities of learning together try to build knowledge, instead of taking in/absorbing information prepared by adults. Importantly, these communities are not tied to existing classrooms, but also expand outside of them: from the one classroom to another, from the one school to another (also internationally), and from schools to other institutions such as universities, museums, libraries, etc. Bereiter (in press) makes a distinction between two kinds of social learning: participation focusing on what Popper once called world 2 and world 3 knowledge. World 1 knowledge is the factual and conceptual knowledge. World 2 knowledge is the individual meaning construction, where people develop opinions and explore their views of reality. World 3 is the world of implicit cultural knowledge that is shared between members of a community or culture. According to Bereiter, meaning construction is different in world 2 and 3, and different kinds of learning are required for these two. He uses the word “knowledge building” for the last category and defines this as creating, articulating, and building different kinds of conceptual artefacts in world 3. Knowledge building is a practice of working for the production of cultural knowledge typical of scientific research groups or other expert communities.

In our view, a distinction should be made between communities of practice and communities of learning. In communities of practice, work is the dominant focus (the foreground) and learning (though very important) is the background. The members have a common interest in (the results of) working. In a community of learning, however, learning is the primary focus, and working is the background. Here members focus on the common interest in the outcomes of learning.

Conceptual Framework

![Conceptual Framework](image)

Figure 1: Conceptual Framework

Education Policy Development
- Education Curriculum Development
- Education System Development

Entrepreneurship Development
- Entrepreneurship Skills development
- Entrepreneurship Culture Development

Education Infrastructure Development
- Education Classes Development
- Education Playfield Development

Education Technology Development
- Digital Learning
- Education content development

Independent variables

Dependent variable

Education Policy Development
There will be equality of opportunity for all staff to develop their knowledge, skills and abilities through a blend of learning methods including mentoring, coaching, on the job learning, courses, conferences and seminars. The training needs of staff will be identified through Performance Management and Operational Planning in line with best practice and legislative guidelines. The Annual Training Plan, outlining planned in house training courses will be approved by the Operational Management Team (OMT) and communicated to all staff. And will facilitate externally accredited training and development opportunities for staff subject to the availability of funding. Also will be an approved
FETAC Centre in order to provide nationally recognized progression opportunities.

All training, i.e. courses, workshops, seminars, and conferences will be coordinated through the Training Department. All training will be evaluated to inform changes and improvements in training provision. The line manager will agree with staff member, how knowledge/skills learned will be shared to inform team/organizational learning. The line manager will facilitate the staff member to transfer the knowledge/skills learned in training to the workplace. Staff participating in training will satisfy all attendance, assessment and evaluation requirements within the required timeframes. The training will develop internal trainer capacity to facilitate delivery of training programs in line with organizational needs and to provide development opportunities for staff.

**Entrepreneurship Development**

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. Entrepreneurial education is considered central to the economic development of nations. Entrepreneurship education has to increase entrepreneurial self-efficacy, self-employment, and risk-taking attitude of the entrepreneur. Entrepreneurship education creates enormous business opportunities and trains people with innovative enterprise skills to grasp the opportunities for starting new entrepreneurial activities. (Hussain, Bhuiyan, & Bakar, 2014).

Entrepreneurship education is one way of addressing poverty reduction; Entrepreneurship boosts economic growth, enhances educational attainment and increases the rate of economic growth. The World Economic Forum in 2009 claimed that the three relationships are suggestive of productive outcomes emanating from education provision. For example, in eradicating extreme hunger and poverty even if developing countries focus on innovation, creativity, talent and resources to overcome poverty, they lack the infrastructure and the expertise to support such an objective. These deficiencies could be overcome through capacity building through entrepreneurship education to transform these assets into products and services, thereby creating more jobs, enhancing their global trade opportunities and reducing the incidence of poverty (Bruton, Ketchen, & Ireland, 2013).

Economic development and growth require shifts from low to high productivity, the creation and adoption of new goods and services, new skills and new knowledge. These shifts are made possible by entrepreneurs who are the architects of “capacity creation“ for productivity and growth. Mobilizing the specific factors of capital, labor and technology which are generally imperfectly marketed, may not otherwise be allocated to activities supplied where productivity could be the greatest. The creation of successful new ventures locally also helps to generate indigenous growth and reduce the reliance on the mercurial character of foreign direct investment (Hussain, Bhuiyan, & Bakar, 2014).

**Education Infrastructure Development**

Somalia is an Islamic society and Islamic educational institutions were prevalent in the past. During the colonial period, the British introduced an English educational system in the NW and the Italians introduced an Italian system elsewhere. These two systems were consolidated in 1960 and under the assistance of various donors including USAID an impressive basic educational system was established with some 1400 primary schools,
perhaps are many as 60 secondary schools (some of which were boarding schools to provide access for children from rural areas), several vocational technical institutes, a national teacher educational center and national university. Western assistance was abandoned in the mid-70s when the new government developed close relations with USSR. Subsequently, the nation plunged into conflict and the educational system began its decline. By 1991 when the civil war broke out, the education system in Somalia had already been severely crippled by the internal conflicts that created an increasingly unstable and insecure environment in Somalia. By 1994, school enrolment had reached lowest point, with most if not all schools destroyed, materials unavailable and teachers and students abandoning the educational process.

As stability and security has increased in the country, there has also been a corresponding rise in enrolment rates (See section 3.1.9 below). Observers report strong local interest with many communities taking initiative. Reflecting popular demand, donors are showing renewed interest in education believing it is both a force for reconciliation and an investment in the future. Donors have also begun to pay more attention to the education sector, indicating a shift away from an emergency’ mindset, towards a more development-oriented approach.

**Education Technology Development**

New information and communication technologies (ICT) provide exciting possibilities to enhance the quality of education. Interactive education software, open access digital libraries and new forms of interaction between students, teachers, education employees and the community are just a few ways in which education can be enriched by integrating such technologies into traditional classroom activities. These tools provide a rich and powerful resource for teachers to assist them with the teaching and learning processes. Teachers, academic staff, higher education researchers and other education employees play an increasingly important role in integrating technology into education as coaches or authorities in the technological and information-rich environment in which many students now live.

These new technologies are best used as supplements to, and not replacements for, in-class-instruction (Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). The use of ICT in education therefore requires more reflection on and improvement of teacher training and development programs, curricula, teachers’ workload and education institutions’ infrastructure. It also demands that issue of equity of access to such technologies across the globe is resolved. Unless it is harnessed effectively and made available widely it will contribute to the growing gap between the wealthier and poorer societies throughout the world. Moreover, technology should be harnessed as a tool for improving personal and professional development through the evolution of the relations between students themselves and between students and teachers and other education employees. New social media present ways of communicating across different cultures. Teachers realize that these media are an important tool to build a world based on equality, democracy and solidarity. In the classroom, social media can help humanity move forward by connecting students and teachers at different geographical locations. These tools should be used to teach students the value of different cultures, by stimulating language learning and intercultural exchange.

Social media have been harnessed to bring democracy to places previously ruled by dictatorship and corruption. Education unions embrace these as powerful means to connect with their members. Social media can strengthen democracy within unions, providing new forms of discussion and consultation. They can be important tools to strengthen involvement, as members can
be more engaged directly in the development of the union’s strategies, activities and services. Furthermore, they facilitate new forums of cooperation between unions and the wider civil society.

**METHODOLOGY**

This study adapted a descriptive survey method, in which both qualitative and quantitative approaches were used. (Vyas & Bapat, 2011)

The target population was 600 participants who are Formal private education network Somalia (FPENS), Formal education network for private schools (FENPS) Regional Education Official (REO) and Ministry of education. This population was chosen since the Formal private education network Somalia (FPENS), Formal education network for private schools (FENPS) Regional Education Official (REO) and Ministry of education are the ones who were involved in the day to day activities of the education in Mogadishu Somalia and thus they were well conversant with the information required in the study. The target population of this study was carried out at FPENS and FENPS networks for their educations in Mogadishu Somalia.

The total sample size for this study will be obtained using the formulae developed by Cooper and Schinder, (2013) together with Kothari and Gang, (2014). The sample size was 240.

\[ n = \frac{N}{1 + N \alpha^2} \]

Where: \( n \) = the sample size,
\( N \) = the sample frame (population)
\( \alpha \) = the margin of error (0.05%).

\[ n = \frac{600}{1+600(0.05)^2} = 240 \]

The researcher used a multiple regression analysis to show the influence of the independent variables on the dependent variables.

The multiple regression equation is as follows;

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

- \( Y \) = Represents the dependent variable, Poverty Reduction
- \( \beta_0 \) = Intercept of regression line
- \( \beta_1 - \beta_4 \) = Partial regression coefficient of the Independent Variables
- \( X_1 \) = Education Policy Development
- \( X_2 \) = Entrepreneurship Development
- \( X_3 \) = Education Infrastructure Development
- \( X_4 \) = Education Technology Development
- \( \varepsilon \) = error term or stochastic term.

**Table 1: Study Hypothesis & Analytical Models**

<table>
<thead>
<tr>
<th>Hypothesis Statement</th>
<th>Hypothesis Test</th>
<th>Decision Rule and Anticipated</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_0_1 ): Education policy development does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia</td>
<td>-Karl Pearson (Beta test) product moment. ( H_0 : \beta_1 = 0 ) ( H_A : \beta_1 \neq 0 ) -To conduct an F - test (ANOVA test) to assess overall robustness and significance of the regression model.</td>
<td>Reject ( H_0_1 ) if P- value ( \leq 0.05 ) otherwise fail to reject ( H_0_1 ) if P- value is &gt; 0.05. ( \text{POVERTY REDUCTION} = \alpha_1 + \beta_1 X_1 + \varepsilon ) ( \alpha = y - \text{Intercept.} ) ( \beta_1 = \text{Regression coefficient(beta)} ) Education Policy Development = aggregate mean score of POVERTY REDUCTION ( \varepsilon = \text{error term- random variation due to other} )</td>
</tr>
</tbody>
</table>

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HO2: Entrepreneurship development does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia.

- Karl Pearson (Beta test) product moment.

HO : $\beta_1 = 0$
HA: $\beta_1 \neq 0$

-To conduct an F - test (ANOVA test) to assess overall robustness and significance of the regression model.

POVERTY REDUCTION = $\alpha + \beta_1 X_1 + \varepsilon$

Where:
$\beta_1$= Regression coefficient(beta)
Entrepreneurship Development = aggregate mean score of POVERTY REDUCTION
$\varepsilon$ = error term- random variation due to other unmeasured factors.

Reject H0 if P- value ≤ 0.05 otherwise fail to reject H0 if P- value is > 0.05

RESEARCH FINDING
In the research analysis the researcher used a tool rating scale of 5 to 1; where 5 were the highest and 1 the lowest. Opinions given by the respondents were rated as follows, 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree. The analyses for mean, standard deviation were based on this rating scale.
Education Policy Development

Table 2: Education Policy Development

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>School have quality assurance officers who implement school curriculum</td>
<td>165</td>
<td>3.15</td>
<td>1.601</td>
</tr>
<tr>
<td>Schools have well established curriculum which fosters education policy</td>
<td>165</td>
<td>2.74</td>
<td>1.126</td>
</tr>
<tr>
<td>Our curriculum strengths is able to meet market demands</td>
<td>165</td>
<td>4.13</td>
<td>1.033</td>
</tr>
<tr>
<td>Schools have well trained teachers</td>
<td>165</td>
<td>3.79</td>
<td>1.152</td>
</tr>
</tbody>
</table>

The first objective of the study was to establish the effects of education policy development on poverty reduction in Somalia. Respondents were required to respond to set questions related to education policy development and give their opinions. The statement that schools have quality assurance officers who implement school curriculum had a mean score of 3.15 and standard deviation of 1.601. The statement in disagreement that schools have a well-established curriculum which fosters education policy had a mean score of 2.74 and a standard deviation of 1.126. The statement in agreement that our curriculum strengths is able to meet market demands had a mean score of 4.13 and a standard deviation of 1.033. The statement that schools have well trained teachers had a mean score of 3.79 and a standard deviation of 1.152.

Entrepreneurship Development

Table 3: Entrepreneurship Development

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>School curriculums include entrepreneurship</td>
<td>165</td>
<td>3.36</td>
<td>.891</td>
</tr>
<tr>
<td>There is a business studies class in schools</td>
<td>165</td>
<td>4.22</td>
<td>1.586</td>
</tr>
<tr>
<td>Business leaders give motivation talk to pupils and students</td>
<td>165</td>
<td>4.00</td>
<td>.716</td>
</tr>
<tr>
<td>There are vocational institutional providing entrepreneurship courses</td>
<td>165</td>
<td>3.59</td>
<td>.716</td>
</tr>
</tbody>
</table>

The second objective of the study was to establish the effects of entrepreneurship development on poverty reduction in Somalia. Respondents were required to respond to set questions related to entrepreneurship development and give their opinions. The statement that school curriculums include entrepreneurship had a mean score of 3.36 and a standard deviation of 0.891. The statement that there is a business studies class in schools had a mean score of 4.22 and a standard deviation of 1.586. The statement that business leaders give motivational talk to pupils and students had a mean
score of 4.00 and a standard deviation of 0.716. The statement that there are vocational institutional providing entrepreneurship courses had a mean score of 3.59 and a standard deviation of 0.716.

**Education Infrastructure Development**

**Table 4: Education Infrastructure Development**

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The schools in Mogadishu have well established infrastructure</td>
<td>165</td>
<td>3.59</td>
<td>.999</td>
</tr>
<tr>
<td>ICT infrastructure is not well established</td>
<td>165</td>
<td>3.97</td>
<td>1.155</td>
</tr>
<tr>
<td>There is library both physical and digital</td>
<td>165</td>
<td>4.45</td>
<td>.702</td>
</tr>
<tr>
<td>The school infrastructure is suitable for all ages of school going children</td>
<td>165</td>
<td>4.36</td>
<td>.833</td>
</tr>
</tbody>
</table>

Valid N (listwise) 165

The third objective of the study was to establish the effects of education infrastructure development on poverty reduction in Somalia. Respondents were required to respond to set questions related to education infrastructure development and give their opinions. The statement that the schools in Mogadishu have well established infrastructure had a mean score of 3.59 and a standard deviation of 0.999. The statement that ICT infrastructure is not well established had a mean score of 3.97 and a mean score of 1.155. The statement that there is library both physical and digital had a mean score of 4.45 and a standard deviation of 0.702. The statement that the school infrastructure is suitable for all ages of school going children had a mean score 4.36 and a standard deviation of 0.833.

**Education Technology Development**

**Table 5: Education Technology Development**

<table>
<thead>
<tr>
<th>Description</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of ICT in classrooms increases academic achievement</td>
<td>165</td>
<td>3.72</td>
<td>1.337</td>
</tr>
<tr>
<td>The use of ICT promotes the development of communication skills</td>
<td>165</td>
<td>3.90</td>
<td>1.091</td>
</tr>
<tr>
<td>Use of computers, laptops and other electronics helps motivate teachers</td>
<td>165</td>
<td>3.78</td>
<td>1.465</td>
</tr>
<tr>
<td>Schools are allowed to purchase their own equipment</td>
<td>165</td>
<td>4.25</td>
<td>.792</td>
</tr>
</tbody>
</table>

Valid N (listwise) 165

The fourth objective of the study was to establish the effects of education technology development on poverty reduction in Somalia. Respondents were required to respond to set questions related to education technology development and give their opinions. The statement that the use of ICT in classrooms increase academic achievement had a mean score of 3.72 and a standard deviation 1.337. The statement the use of ICT promotes the development of communication skills had a mean score of 3.90 and a standard deviation of 1.091. The statement that use of computer, laptops and other electronics helps motivate teachers had a mean score 3.78 and a standard deviation of 1.465. The
The statement that schools are allowed to purchase their own equipment had a mean score of 4.25 and a standard deviation of 0.792.

**Poverty Reduction**

Table 6: Poverty Reduction

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government provides school infrastructure both buildings and ICT</td>
<td>165</td>
<td>4.07</td>
<td>1.113</td>
</tr>
<tr>
<td>The government provides feeding programme to keep children in school</td>
<td>165</td>
<td>4.24</td>
<td>.540</td>
</tr>
<tr>
<td>Government provides free primary education to all school going children</td>
<td>165</td>
<td>4.27</td>
<td>.444</td>
</tr>
<tr>
<td>Government motivates teachers through performance best reward</td>
<td>165</td>
<td>4.14</td>
<td>.723</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>165</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The statement that the government provides school infrastructure both buildings and ICT had a mean score of 4.07 and a standard deviation of 1.113. The statement that the government provides feeding programme to keep children in school had a mean score of 4.24 and standard deviation of 0.540. The statement that government provides free primary education to all school going children had a mean score 4.27 and a standard deviation of 0.444. The statement that the government motivates teachers through performance best reward had a mean score of 4.14 and a standard deviation 0.723

**Correlation Analysis**

To establish the relationship between the independent variables and the dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient of determination.

**Coefficient of Correlation**

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (Poverty Reduction) and the independent variables (education policy development, entrepreneurship development, education infrastructure development and education technology development). According to Sekaran, (2015), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari and Gang, 2014).

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson’s coefficient of correlation (r). This is as shown in Table 7 below. According to the findings, it was clear that there was a positive correlation between the independent variables, education policy development, entrepreneurship development, education infrastructure development and education technology development and the dependent variable poverty eradication. The analysis indicates the coefficient of correlation, r equal to 0.679, 0.374, 0.451 and 0.607 for education policy development, entrepreneurship development, education infrastructure development and education technology development respectively. This indicates positive relationship between the independent variable namely education policy development, entrepreneurship development, education infrastructure development and education technology development and the dependent variable poverty reduction.
Table 7: Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>Poverty</th>
<th>Education Policy Development</th>
<th>Entrepreneurship Development</th>
<th>Education Infrastructure Development</th>
<th>Education Technology Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Policy Development</td>
<td>.679**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship Development</td>
<td>.374**</td>
<td>.530**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Infrastructure Development</td>
<td>.451**</td>
<td>.547**</td>
<td>- .209**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Education Technology Development</td>
<td>.607**</td>
<td>.409**</td>
<td>.486**</td>
<td>.183*</td>
<td>1</td>
</tr>
<tr>
<td>Technology Development</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Coefficient of Determination ($R^2$)

To assess the research model, a confirmatory factors analysis was conducted. The four factors were then subjected to linear regression analysis in order to measure the success of the model and predict causal relationship between independent variables (education policy development, entrepreneurship development, education infrastructure development and education technology development), and the dependent variable (Poverty Eradication).

Table 8: Coefficient of Determination ($R^2$)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.785a</td>
<td>.616</td>
<td>.606</td>
<td>1.07123</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Poverty Reduction
b. Predictors: (Constant), Education Infrastructure Development, Education Technology Development, Entrepreneurship Development, Education Policy Development

The model explains 61.6% of the variance (Adjusted R Square = 0.514) on poverty reduction. Clearly, there are factors other than the four proposed in this model which can be used to predict procurement performance. However, this is still a good model as Cooper and Schinder, (2013) pointed out that as much as lower value R square 0.10-0.20 is acceptable in social science research.
This means that 61.6% of the relationship is explained by the identified four factors namely education policy development, entrepreneurship development, education infrastructure development and education technology development. The rest 38.4% is explained by other factors in the poverty eradication not studied in this research. In summary the four factors studied namely education policy development, entrepreneurship development, education infrastructure development and education technology development, or determines 61.6% of the relationship while the rest 38.4% is explained or determined by other factors.

### Regression Analysis

**Analysis of Variance (ANOVA)**
The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model is as per Table 4.13 below with P-value of 0.00 which is less than 0.05. This indicates that the regression model is statistically significant in predicting factors of sustainable performance. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall Anova results indicates that the model was significant at \( F = 14.461, p = 0.000 \).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>294.008</td>
<td>4</td>
<td>73.502</td>
<td>64.053</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>183.604</td>
<td>160</td>
<td>1.148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>477.612</td>
<td>164</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Poverty Reduction  
b. Predictors: (Constant), Education Technology Development, Education Infrastructure Development, Entrepreneurship Development, Education Policy Development

### Multiple Regression

The researcher conducted a multiple regression analysis as shown in Table 10 so as to determine the relationship between sustainable performance and the four variables investigated in this study.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>11.247</td>
<td>1.598</td>
</tr>
<tr>
<td>Education Policy Development</td>
<td>.371</td>
<td>.051</td>
</tr>
<tr>
<td>Entrepreneurship Development</td>
<td>.152</td>
<td>.071</td>
</tr>
<tr>
<td>Education Infrastructure</td>
<td>.140</td>
<td>.067</td>
</tr>
</tbody>
</table>
Development Education Technology 0.316 0.041 0.444 7.747 0.000

a. Dependent Variable: Poverty Reduction
The regression equation was:
\[ Y = 11.247 + 0.371X_1 + 0.152X_2 + 0.140X_3 + 0.316X_4 \]
Where;
\( Y \) = the dependent variable (Poverty Reduction)
\( X_1 \) = Education Policy Development
\( X_2 \) = Entrepreneurship Development
\( X_3 \) = Education Infrastructure
\( X_4 \) = Education Technology Development
The regression equation above has established that taking all factors into account (Poverty reduction as a result of education policy development, entrepreneurship development, education infrastructure development and education technology development) constant at zero poverty reduction was 11.247. The findings presented also shows that taking all other independent variables at zero, a unit increase in education policy development would lead to a 0.371 increase in the scores of poverty reduction; a unit increase in entrepreneurship development would lead to a 0.152 increase in poverty reduction; a unit increase in education infrastructure development will lead to a 0.140 increase in the scores of poverty reduction; a unit increase in education technology development will lead to a 0.316 increase in the score of poverty reduction. This therefore implies that all the four variables have a positive relationship with education policy development contributing most to the dependent variable.
From the table we can see that the predictor variables of education policy development, entrepreneurship development, education infrastructure development and education technology development got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05.

Results of Hypotheses Testing

- **Hypothesis 1**
The first research hypothesis, H01: there is no statistically significant influence of education policy development on poverty reduction in Mogadishu, Somalia.
\( (\beta = 0.500; t = 7.236; p \leq 0.05) \) was rejected and conclusion made that there was a statistically significant influence of education policy development on poverty reduction in Mogadishu, Somalia. The result was consistent with

- **Hypothesis 2**
The second research hypothesis, H02: there is no statistically significant influence of entrepreneurship development on poverty reduction in Mogadishu, Somalia (\( \beta = 0.124; t = 2.106; p \leq 0.05 \) was rejected and conclusion made that there was a statistically significant influence of entrepreneurship development on poverty reduction in Mogadishu, Somalia. The result was consistent with

- **Hypothesis 3**
The third research hypothesis, H03: there is no statistically significant influence of education infrastructure development on poverty reduction in Mogadishu, Somalia (\( \beta = 0.331; t = 12.730; p \leq 0.05 \) was rejected and conclusion made that there was a statistically significant influence of education infrastructure development on poverty reduction in Mogadishu, Somalia. The result was consistent with

- **Hypothesis 4**
The fourth research hypothesis, H04: there is no statistically significant influence of technology on poverty reduction in Mogadishu, Somalia (\( \beta = 0.444; t = 7.747; p \leq 0.05 \) was rejected and
conclusion made that there was a statistically significant influence of education technology development on poverty reduction in Mogadishu, Somalia. The result was consistent with

Table 11: Hypotheses Testing

<table>
<thead>
<tr>
<th>Research Hypothesis</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀₁: Education policy development does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia.</td>
<td>.500</td>
<td>7.236</td>
<td>.000</td>
<td>Reject H₀₁</td>
</tr>
<tr>
<td>H₀₂: Entrepreneurship development does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia.</td>
<td>.132</td>
<td>2.129</td>
<td>.000</td>
<td>Reject H₀₂</td>
</tr>
<tr>
<td>H₀₃: Education infrastructure does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia.</td>
<td>.124</td>
<td>2.106</td>
<td>.000</td>
<td>Reject H₀₃</td>
</tr>
<tr>
<td>H₀₄: Education technology development does not have a statistically significant influence on poverty reduction in Mogadishu, Somalia.</td>
<td>.444</td>
<td>7.747</td>
<td>.000</td>
<td>Reject H₀₄</td>
</tr>
</tbody>
</table>

CONCLUSION

The study concluded the following:

Influence of Education Policy Development on Poverty Reduction
The study concluded that there was a statistically significant influence of education policy development on poverty reduction in Mogadishu, Somalia.

Influence of Entrepreneurship Development on Poverty Reduction
The study concluded that there was a statistically significant influence of entrepreneurship development on poverty reduction in Mogadishu, Somalia.

Influence of Education Infrastructure Development on Poverty Reduction
The study concluded that there was a statistically significant influence of education infrastructure development on poverty reduction in Mogadishu, Somalia.

Influence of Education Technology Development on Poverty Reduction
The study concluded that there was a statistically significant influence of education technology development on poverty reduction in Mogadishu, Somalia.

RECOMMENDATION

The study recommended the following:

- That Somalia government should implement education policy for the benefit of all.
- That Somalia government should encourage people to start entrepreneurship through funding’s.
- That Somalia government to build enough infrastructure for schools and colleges.

Suggestion for Further Studies
This study focused on the influence of education development on poverty reduction in Mogadishu, Somalia. Since only 61.6% of results were explained by the independent variables in this study, it is recommended that a study be carried out on other factors on poverty reduction in another country. The research should also be done in other...
The government corporation or private sector and the results compared so as to ascertain whether there is consistency on poverty reduction.

REFERENCES


