

**MULTILINGUALISM AND ITS
CONTRIBUTION TO
SUSTAINABLE SOCIO-ECONOMIC
DEVELOPMENT**

EVERLYN A. OLUOCH – SULEH

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MULTILINGUALISM AND ITS CONTRIBUTION TO SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

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Dedication

This book is dedicated to:

Our biological and religious families.

Our Students.

Promoters of diverse cultures and sustainable development.

Preface

Multilingualism and Its Contribution to Socio Economic Development establishes the benefits of multilingualism to societal development. Today, the world has a multitude of languages. These are the product of historical and political movements such as imperialism and colonialism as well as economic dynamics like migration, and increased communications between nations and regions. Another catalyst of multilingualism is the need by individuals to be competent in languages to broaden their capacity to communicate. The many languages are also the result of social and cultural identity and the quest to maintain and revive minority languages. Furthermore, the multiplicity of languages is the result of education and religious movements that result in people migrating to new countries.

The use of one or more languages has led to linguistic hyper diversity. Linguistic hyper diversity has led to multilingualism, which refers to human competence in several languages. Multilingualism is benefitting the world by developing economies, preserving biodiversity, enhancing creativity and innovation and promoting cultural diversity.

This book is based on an empirical study. The study assessed the effects of linguistic diversity and multilingualism on economic development in Kenya. The population of study was Nairobi County; the central business district (CBD), with a concentration on University Way. The study targeted a population of 1000 persons. This population is categorized as Students, Business Persons and Professionals. The study used cross-sectional survey research design. Stratified and random sampling techniques were used to

determine the study population. Data were collected by use of questionnaires and then analysed quantitatively.

Multilingualism is a global reality. It is motivated by the need to communicate across speech communities. Learning or speaking another language can open up new worlds, people's horizons and bring one in contact with many new cultures. This is because languages mould worldviews and by association, influence people's experience of life.

Today, there is growing awareness that languages play a vital role in development, in ensuring cultural diversity and intercultural dialogue, and in attaining quality education for all and strengthening cooperation. Furthermore, languages play a vital role in building inclusive knowledge societies and preserving cultural heritage. Additionally, they play a vital role in mobilizing political will for applying the benefits of science and technology to sustainable development (UNESCO, 2003). This may not be true to the likes of D.P. Pattanayak, the first Director of the Central Institute of Indian Languages, who in 1985 said that in the developed world two languages are considered a nuisance, three languages uneconomic and many languages absurd. This book addresses this confusion by focusing on the importance of linguistic hyper diversity and its effect on multilingualism and societal development.

This book contains seven chapters. Chapter One looks at the general overview of multilingualism and sustainable socio-economic development. It explains the concepts multilingualism and socio-economic development. Chapter Two establishes the variables of linguistic hyper diversity and how they contribute to multilingualism and development. Chapter Three ascertains that linguistic diversity promotes economic development. Chapter Four focuses on the concept of biodiversity and maintains that there is a relationship between language and the environment. Chapter Five explains how innovation, creativity, and the development of

human capital through language promote economic development. Chapter Six brings out multilingualism as a vehicle for cultural diversity. Finally, chapter Seven summarises the study and makes recommendations to stakeholders.

Dr. Everlyn A. Oluoch – SULEH
Rev. Br. Osuji Gregory Ekene,
April 2017, Nairobi, Kenya

Foreword

This book aims to raise awareness of the role of language as an economic entity that permeates all known areas of human life. Anyone with an interest in how language (and more specifically multilingualism) functions as a human resource in the socio-economic world will find the discussions both stimulating and accessible and the explanations of concepts easy to follow. Well-known scholars in the field are quoted and referred to, lending an authoritative voice to this research, which is based on a case study of language diversity on socio-economic development in Kenya. Reading each chapter, one becomes aware of the fact that there is hardly any area in life that is not affected by language and language policy (education, communication, economy and foreign trade, science, society, culture, politics, tourism and the environment). The authors have succeeded in giving a comprehensive account of the benefits and disadvantages of multilingualism, though it is clear that the benefits outweigh the negative effects by far. Whereas some scholars might reason that language is a unifying force of a nation and that multilingualism is therefore a barrier to national integration, the authors of this work convincingly argue that linguistic diversity has become a fact that counteracts economic isolation and impoverishment. It is an economic asset that must be exploited in a manner that will not compromise the needs of future generations. Languages as carriers of culture sustain biodiversity and are able to build bridges between cultures. Businesses have a responsibility to invest in their employees by providing foreign language teaching and in that way build intercultural capacities. International trade will benefit, since knowing multiple languages

broadens people's worldviews and perceptions, giving rise to innovation and creativity and facilitating creative responses to social, political and economic affairs.

The value of multiple linguistic skills in today's economic globalisation cannot be underestimated. Multilingualism should consciously be supported and practised. Wright (2000) cautions that "the notional acceptance of the value of multilingualism doesn't guarantee its implementation in practice" (p. 2). Readers will therefore do well to take careful note of the practical recommendations that are advanced in this book.

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To the family of Dr. Everlyn, especially her husband, Dr. Andrew Juma Suleh and her children Dorothy Aluoch Suleh, Dr. Audrey Atieno Suleh and Gerald Odhiambo Suleh, thanks a lot for your encouragement and support during this endeavour. Her siblings were also a great source of encouragement. We also thank her late parents George Oluoch and Petronilla Oluoch for giving her the gift of education and inculcating in her (and her siblings) the virtue of hard work.

To the biological and religious families of Rev. Br. Ekene, we cannot thank you enough for your constant encouragement and support. To his late father Mr Benedict Ahamefule Osuji and his mother Mrs Josephine Onyemaonyeuba Osuji, we appreciate your parental role in the early formation he received from the family. To his siblings, thanks a lot for being supportive of his educational pursuit. To the Marist Brothers of the Schools (Catholic Mission), Province of Nigeria especially to the Provincial Superior; Very Rev. Br. Joachim Ezetulugo, fms, the immediate past Principal of Marist International University College, Nairobi, Kenya; Rev. Br. Dr. Joseph Udejah, fms, thanks a lot for your financial and moral support. Further, to the current Administration of Marist International University College, thanks very much for your moral support and the provision of a serene working environment.

We appreciate the support of many other unnamed people who contributed to the success of this book, especially the participants of the study. We ask the God of goodness to bless you abundantly.

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CHAPTER ONE

Concepts of Multilingualism And Socio-Economic Development

Overview of Multilingualism

The movement of people into different urban areas has an effect on language in that new dialects are formed through a process known as *koineisation*. Trudgill (1998) explains that *koineisation* is composed of the mixing of elements from different dialects, followed by levelling, which refers to a process whereby, in a dialect mixture situation, those elements disappear which are marked either universally or in terms of the particular language undergoing *koineisation*. He adds that through *koineisation*, new varieties of a language are brought about because of contact between speakers of mutually intelligible varieties of that language. Typically, this occurs in new settlements to which people, for whatever reason, have migrated from different parts of a single language area. Typical examples are what we know today as new dialects or immigrant koines.

A variety of languages was birthed into the world in the 19th and 20th centuries. The major population movements of the late 19th and early 20th centuries where people were shipped from the Indian subcontinent to work as indentured labourers in the European colonies resulted in new varieties of Indian languages. Particularly, Bhojpuri is in the process of being established across a wide region ranging from the West Indies and the Caribbean to

South Africa and Fiji. Today the world enjoys between 5,000 and 7,000 languages. This approximation is because it is difficult to know the exact number of languages since the distinction between a language and a dialect is not always clear. Furthermore, languages are not isolated entities; in most cases there are no clear boundaries between them. Rather, languages are a continuum that extends along a geographical area.

Multilingualism can be defined as the act of using or promoting the use of multiple languages, either by an individual speaker or by a community of speakers. Multilingualism can be as a result of historical or political movements such as imperialism or colonialism; economic movements in the case of migration; increasing communications between different parts of the world and the need to be competent in languages for wider communication; social and cultural identity and the quest to maintain and revive minority languages; education and religious movements that result in people moving to a new country.

The diversity of languages, in other words linguistic diversity has been defined in a broad sense as the range of variations exhibited by human languages. Linguistic diversity has become an issue of tremendous importance to many governments, specialized organizations and professional linguists in the world in recent times. Several nation states, for example, the UK, Australia and Canada have made specific national policies to revitalize minority languages that are perceived to be under threat. These countries allocate a lot of money to research projects, description, codification, publication, dictionary projects, just to mention a few, to ensure revitalization.

United Nations Educational, Scientific and Cultural Organization (UNESCO) is very concerned with maintaining or ensuring linguistic diversity in the world today and in the future (Ansah, 2008). UNESCO (2003) says it is urgent to take action to encourage

broad and international commitment to promoting multilingualism and linguistic diversity involving all programme sectors: education, culture, science, communication and information and social and human sciences. The need to promote linguistic diversity is stressed further by Orban (2009) who says that the existence side by side of many different languages has been a constant feature of the European continent. Stroud (2003) appreciates multilingual societies and says that mastery of many languages is an economic asset to be cultivated and passed on to successive generations.

Multilingualism in Kenya

Kenya is officially recognized as a multilingual State (Orao, 2009; Wachira, 2006; Michieka, 2012, Mwangi et al., 2014). According to Muaka (2011), Kenya is pervasively multilingual both at the societal and individual levels. He recognizes that an average person speaks at least three languages. This stems in part from the different ethno linguistic groups found in the country and their daily need to communicate with different people in different contexts. Muaka estimates that there are between 41 and 61 languages spoken in Kenya. Appel and Mysken (1987) are of the opinion that in Kenya as in many other African countries, there are people of different ethnic backgrounds who have different cultures and speak different languages as their mother tongue. By virtue of this fact alone, Kenya is a multilingual country.

Wachira (2006) says that multilingualism in Kenya consists of the use of English (official language), Kiswahili (national language) and a mother tongue (an indigenous Kenyan language). The national and official languages serve as unifying media of communication in the country as they are understood by a broad cross-section of the people. Kiswahili is the general lingua franca spoken by all irrespective of educational or regional background,

while English is the official language, normally used as medium of instruction in institutions of learning. Wachira (2006) reiterates that apart from these two languages, there are a score of native indigenous languages that are normally acquired as mother tongues. The immediate result of this pattern of language acquisition is therefore that the average Kenyan is multilingual, that is, having knowledge of three languages.

Mwangi et al. (2014) emphasise the importance of language diversity in Kenya. They note that the newly promulgated constitution of the Republic of Kenya states that the state shall promote and protect the diversity of language of the people of Kenya; and promote the development and use of indigenous languages, Kenyan sign language, Braille and other communication formats and technologies accessible to persons with disabilities (Constitution of Kenya 2010, chapter 2, article 7).

Meaning of Socioeconomic Development

Socio economic issues are a major concern of citizens in all countries. Poverty, unemployment, health care, education, and political instability, just to mention a few, always take centre stage in both local and national discourse within nations. Politicians always use these issues to woo voters. However, when they are voted into office, some of them forget the promises they made to the electorate (Osuji, 2015). Improvement in the quality and standard of life is what every citizen needs and socioeconomic development is the answer to this. In order to understand what socioeconomic development means, it is imperative to note that the layman definition of development is a state in which things are improving.

In the socioeconomic context, development means improvement of people's lifestyle through improved education, incomes,

skills development and employment. It is the process of economic and social transformation based on cultural and environmental factors (National Institute of Open Schooling, 2014). Social development implies a qualitative change in the way the society shapes itself and carries out its activities. That is, it is the process that results in the transformation of social institutions in a manner which improves the capacity of the society to fulfil its aspirations. Economic development, on the other hand, is the qualitative change in the economic wealth of a country for the wellbeing of her inhabitants. Here, the economic, political and social wellbeing of the citizens is always taken into consideration.

WiseGeek (2015) views socioeconomic development as a process that seeks to identify both the social and economic needs within a community and strives to develop strategies that will address those needs in ways that are practical and in the best interests of the community over the long run. The general idea in this definition is simply finding ways to improve the standard of living within an area while also making sure the local economy is healthy and capable of sustaining the population.

According to Olaifa (2012), development involves “the progressive improvement on the existing socioeconomic status of a people based on a cohesive effort of the political class, the elites and the entire polity” (p. 88). He further looks at it as an all-inclusive movement which aims at improving the lifestyle and the quality of life of citizens in a creative manner. In support of this creative dimension, Babawale (2007) asserts that development implies creative responses to social, political and economic affairs. His assertion calls for sustainable development which has to do with preservation.

Sustainable development is defined as development which meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations,

2010). It has been conceived by various authors in terms of vision expression, value change, moral development, social reorganization or transformation and process towards a desired future or better world (Gladwin, Kennelly & Tara-Shelomith, 1995; Okah & Wali, 2014). Adekeye (2013) views it as an ethical framework for using the nation's resources efficiently, creating effective infrastructures and relationships, protecting and enhancing the quality of lives, and creating new business channels to strengthen the economy.

Sustainable development is also referred to as the state of maintaining and ensuring constant development of the people, or the socio-economic, political, and cultural survival of a nation from one generation to the other. Everything about sustainable development is geared towards the future generation. It asks this question: how can we use the natural resources at our disposal bearing in mind our children, grandchildren, great grandchildren, just to mention a few? We need to meet our needs without compromising the needs of the future generation.

We can define sustainable socioeconomic development as the quantitative and qualitative changes in the social and economic dimensions of the society measured through indicators such as life expectancy, personal dignity, personal safety, freedom of speech and participation in the society, literacy level, freedom of worship, levels of employment, respect for the rule of law and Gross Domestic Product (GDP) or Gross Domestic Income (GDI) in respect to the survival of the present and future generations.

CHAPTER TWO

Framework of Variables**Concept of Variable**

A variable is a characteristic being measured that can take different values from one area to the other or from one item to another. Creswell (2014) conceptualises a variable as “a characteristic or attribute of an individual or an organisation that can be measured or observed and that varies among the people or organisation being studied” (p. 52). It is simply considered as a measurable characteristic that assumes different values amongst subjects.

There are different types of variables: independent, dependent, intervening, control, extraneous and moderating variables. This study used three variables, that is, independent, dependent and intervening variables.

An independent variable is the variable that the researcher manipulates in order to determine its influence on the dependent variable. Independent variables are also called treatment, manipulated, antecedent or predictor variables. They probably cause, influence or affect outcomes (Creswell, 2014, p. 52). The independent variable in this study was *multilingualism*, which was manipulated to ascertain its effect on the dependent variable.

The dependent variable is the response variable because it changes due to the presence of the independent variable. Creswell (2014) calls this variable the criterion, outcome, effect and response variable. This is because it depends on the independent variable. It is actually the outcome or results of the influence of the inde-

pendent variable. *Societal development* is the dependent variable in this study.

This study also had some intervening variables. These stand between the independent and dependent variables and mediate the effects of the independent variable on the dependent variable. Creswell (2014) calls these variables mediating variables. This is because intervening variables are recognised as being caused by the independent variable and as being a determinant of the dependent variable. The intervening variables in this study are *economic development, preservation of biodiversity, creativity and innovation, and promotion of cultural diversity*.

Conceptual Framework

A *Conceptual Framework* simply refers to the diagrammatic representation of the relationship between variables in a given study. It is often informed by theories and review of related literature of the phenomenon under study. The researcher develops the conceptual framework as a hypothesised model that helps him or her identify the concepts under study and their interrelationships.

The purpose of this conceptual framework is to enable our readers to see quickly the relationship between the independent, dependent and intervening variables in the study. Figure 1 shows the conceptual framework of the benefits of multilingualism to societal development.

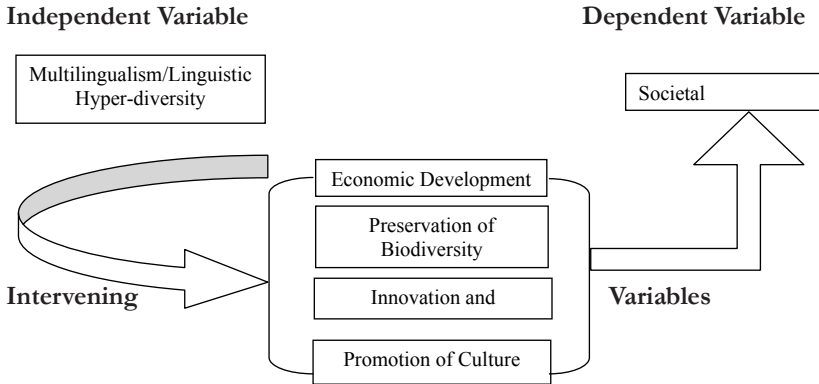


Figure 1: Benefits of Multilingualism to Societal Development

Economic Development in this framework is simply the actions of policy makers and communities that promote the standard of living and economic health of given areas. Preservation of biodiversity is the prevention of the destruction of a variety of life on planet earth. The variety of life could be all species of plants, animals and micro-organisms and the ecosystems within which they live and interact. Creativity is the ability to think and act in ways that are new and novel, whereas innovation is thinking creatively in order to improve on something that already exists. Promotion of culture is the deliberate act of keeping cultural heritage (the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations) from destruction for the future.

Methodology

This simply means the ways in which the researchers planned and conducted the study. The study adopted a quantitative para-

digm and specifically used cross-sectional survey design. A design is the blue print that guides the planning and implementation of the research. The cross-sectional survey design enabled the researchers to identify the essential components of the population and randomly sample the research subjects from each of the components at the same time. The survey design was appropriate for the study because it did not only describe the state of affairs as they existed but was also useful in collecting information about people's attitudes, opinions and habits (Kerlinger, 1986).

The study targeted a heterogeneous population of Nairobi County with a concentration on the Central Business District, University Way. The study chose this population as it houses the University of Nairobi and other institutions of higher learning, as well as banks, legal firms, hotels and restaurants. The study randomly picked 426 students, 343 formal business proprietors and 231 professionals; for a total population of 1000. This population was found to be rich in the category the study sought; that is, formal businesses, professionals and students. The target population is shown in Table 1.

Table 1

Target Population of the Study

Category of Population	Frequency	Percentage
Students	426	43
Formal Businesses	343	34
Professionals	231	23
Total	1000	100

The study used stratified random sampling technique to select the participants. The researchers chose this sampling technique because as Orodho (2004) argues, when the target population is

heterogeneous, then stratified random sampling is the best sampling technique to be applied. Mugenda and Mugenda (1999) also emphasised that stratified random sampling gives all the population an equal chance of being picked as a sample for the study. The study used 30% of the target population to obtain the right sample size (Dessel, 2013). This information is summarized in Table 2.

Table 2

Sample Size

Category of Population	Frequency	Sample Size 30% of Target Population	Percentage
Formal Business	426	128	43
Professionals	343	103	34
Students	231	69	23
Total	1000	300	100

The researchers used questionnaires to collect data. This method was found appropriate because as Woods (2006) pointed out, questionnaires are appropriate as a means of collecting information from a wider sample than can be reached by personal interview. Kothari (1985) noted that questionnaires can be used to collect large amounts of information at a low cost per respondent and respondents may give more honest answers to personal questions. The questionnaires had both open and closed ended questions. The former allowed respondents to provide elaborate answers in their own way, whereas the closed-ended questions or statements required the respondents to choose between a number of alternatives. Closed-ended questions or statements elicit standard answers that can be analysed statistically. The data collected were analysed quantitatively using Statistical Package for Social Sciences (SPSS).

Demographic Information

This describes the characteristics of the study participants. Data were collected between the months of January and March 2016. Table 3 shows a summary of the response rate.

Table 3

Response Rate

Category	Frequency	Percentage
Duly Completed Questionnaires	231	77
Incomplete Questionnaires	11	4
Questionnaires Not Received	58	19
Total	300	100

The researchers distributed 300 questionnaires, out of which 242 were returned; this translated to 81% response rate. Out of the 242 questionnaires, only 231 or 77% were duly completed; the remaining 11 or 4% were incomplete. The questionnaires which were not received were 58 or 19% of the total number distributed. The study opted to work with the response rate of 231 duly completed questionnaires which translated to 77%. This response rate was found appropriate since, as Rogelberg and Stanton (2007) argue, when cross-sectional studies of survey design are conducted at the individual level, a response rate is 50% is acceptable.

The demographic characteristics of the participants in terms of sex, age, and education level are presented in Table 4.

Table 4*Responses According to Gender*

Gender	Frequency	Percentage
Female	135	58
Male	96	42
Total	231	100

Table 4 summarizes the frequency distribution and percentages of the gender of the participants. Out of the 231 participants, 135 or 58% were female and 96 or 42% were male. This indicates that there was almost a balance between the two genders, hence the robust findings.

The age distribution of the participants is summarised in Figure 2.

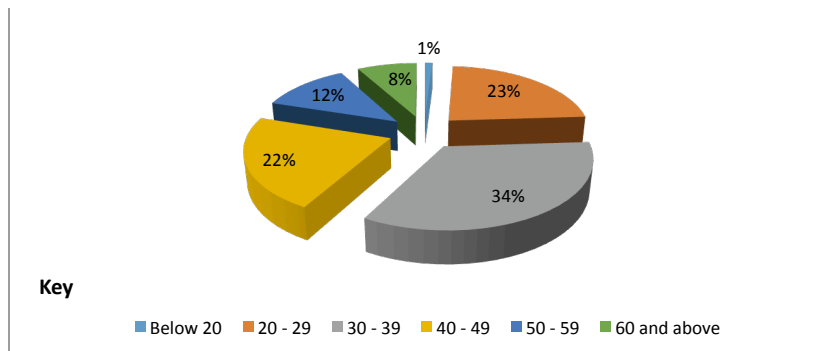
*Figure 2: Age Distribution of the Participants*

Figure 2 shows the distribution in percentages of the ages of the participants. 34% were aged between 30 and 39 years, while those aged below 20 were 1%. The implication of this is that the participants were in their active age.

Table 5 shows the designation of the participants.

Table 5

Designation of Participants

Designation of Participants	Frequency	Percentage
Business Person	32	14
Professional	52	23
Student	97	42
Total	231	100

Table 5 presents the frequency distribution and percentages of the designation of the participants. The findings indicate that 42% of the participants were students, 23% professionals and 14 % business people. This implies that the participants were actively engaged in formal activities.

Figure 3 summarises the highest educational level of the participants.

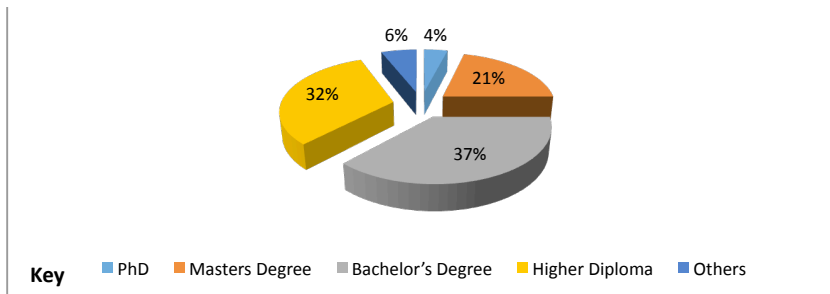


Figure 3: Highest Educational Level of Participants

Figure 3 indicates the distribution in percentages of the highest education level of the participants. 37% had Bachelor's degree while 4% had doctorates. This is an indication that the respondents were largely learned.

CHAPTER THREE

Linguistic Hyper Diversity And Economic Development

Relationship between Linguistic HyperDiversity and Economic Development

Grauwe (2006) brings out clearly the relationship between linguistic hyperdiversity and economic development. He explains that economic development is based on specialization and trade. He is of the opinion that individuals who specialize in trade must develop a common means of communication, which in turn leads to the use of a common language. He argues that as countries move up the ladder of economic development and increase the network of trade both within and outside the country, a common language will impose itself and will be used by an increasing number of individuals.

Thus, it is quite clear that for one to trade well, one should learn the language of the trade. This leads to language diversity in situations where one has to learn more than one language. Noguer and Siscart (2003) are of the opinion that language barriers may restrict international trade. Ku and Zussman (2008) support this idea by emphasising that acquiring a foreign language can mitigate the impact of historically determined language barriers.

Role of Language Policy in Economic Development

Language policy in this book simply means the guiding principles a nation gives in the area of communication that enable

people to understand each other easily and exchange goods and services without any hindrance. Language policy and practice can either stimulate or impede economic efficiency, labour productivity, economic growth and development (Alexander, 2005). This is because as pointed out by Pinker (1994), human beings are dependent on one another for the production of subsistence. Therefore, they have to cooperate in labour processes. For them to do so, they must communicate with one another; language plays a very big role in this process of communication.

The importance of language for communication is supported by Funaru (2004) who says that language is particularly important in promotion and communications. In addition, it helps the people involved to understand the messages without losing their essential meaning. Therefore, participants from different regions will have to learn the relevant languages of their business partners in order for any meaningful exchange of goods and services to take place.

Language and International Trade

According to Funaru (2004), several research studies have shown that a variety of languages are required on the international markets. This is alongside the cultural competence that is usually acquired with the command of linguistic skills. The lack of these language skills in enterprises may lead to the loss of concrete business opportunities, especially for small and medium enterprises. This idea is further supported by the Goethe Institute (2012 when it says that companies are missing out on business opportunities by not investing in the foreign-language and intercultural capacities of their employees. The institute reiterates that whether companies are holding conferences with international business partners, dealing with suppliers, selling products and services abroad, or trying to approach new target groups in a domestic market, they must

be willing and able to deal with different languages and cultural scenarios.

Drawing from the assertion of the Goethe Institute (2012), it is quite clear that entrepreneurs engaging in international trade must invest a lot in different languages, more so, the language of the consuming market. This idea is supported by Habiba (2011) who argues that the use of a specific language of the export market by entrepreneurs provides a larger number of export countries and a higher export turnover share. Babatunde (2014) concurs, noting that businesses have benefited greatly from building cultural and linguistic skills across borders because languages open new markets for business traders. The Goethe Institute cites the example of Germany as a country that may need people in management positions who are able to deal with customers and partners from all over the world.

Globalisation and Linguistic HyperDiversity

Globalization has played a key role promoting linguistic hyper diversity. Onuko (2011) observes that since the world has become a global village people of diverse cultures have realized the need for mutual and peaceful co-existence. This has resulted in the formation of international organisations such as the United Nations (UN), European Union (EU), African Union (AU), Economic Community of West African States (ECOWAS) and other agencies that promote meaningful co-operation and integration.

The effect of globalization and a rapidly changing economic environment have forced businesses to look for new survival or development strategies, fight for new markets, and adapt to turbulent circumstances. Access to new countries and expansion into new markets increasingly determine success and affect overall economic development. Factors such as growing volumes

of export and import, increasing tourism flows, and intensifying international territorial mobility increase people's motivation to learn foreign languages. Such knowledge not only extends conditions of economic operation, but also increases the efficiency and reliability of communication; for example, it facilitates the acquisition of foreign organizational culture. Therefore, it can be concluded that the processes of economic globalization increase the need for foreign languages as well as the value of linguistic skills (Moskvina & Gruževskis, 2014).

The labour market is also feeling the effect of globalization in that it is characterized by a globalized economy with increasing immigration and mobility. The current economic, social and technological conditions have lent multilingual practices greater importance and thus, the demand for multilingual skills represents an added challenge for employees (Duchêne et al., 2014). This explains why knowledge of languages has become a key factor in finding a job and for citizens' mobility; it is also an important element of success in business. A workforce equipped with language and intercultural skills oriented to a practical use contributes to a competitive environment on the global market for European businesses (Funaru, (2014).

Benefits of Linguistic HyperDiversity

Linguistic hyper-diversity is advantageous to business communities for it helps them in growing a larger share in foreign markets. Habiba (2011) agrees, noting that countries rich in higher language skills will automatically have a larger number of foreign customers and a larger proportion of foreign-based establishments. This is good for the business and as suggested by the Goethe Institute (2012), employees do not just need to know foreign languages; they also need to realize that they have customers in different countries, thus the need for linguistic diversity.

According to Funaru (2014), a workforce equipped with language and intercultural skills oriented to a practical contributes to a competitive environment more effectively on the global market. This competitiveness in the market has led to the development of linguistic markets in the modern world. This development is directly related to the economic functions of a language or set of languages. Languages in which the major economic transactions of a society take place function like a key to power, money and status (Alexander, 2005). Prah (1995) takes this further when he explains that Africa may have been left behind in terms of development because most of the development aid is invariably packaged in a foreign language, usually English, and that this fact necessarily excludes the vast majority of Africans from being integral participants in the development process.

English is clearly an extremely important language for international exchange and it is increasingly regarded as a basic skill. However, according to Davignon et al. (2008), English only is not enough because companies in countries with a generally high level of English can experience communication problems when trying to do business with countries with a much lower level of English. So, such businesses need to recruit employees with language skills beyond basic English; something they find challenging (Funaru, 2014). The effect is that English is no longer dominant in world trade and internet traffic and is competing with other local languages. Habiba (2011) concurs with this when she argues that the role of English as the sole language for world trade and internet has declined and other languages like Chinese, French, Spanish and German are being used increasingly. The decline is attributed to the tendency of small and medium-sized companies to prefer the local language of the market, where this is possible.

It is evident that small and medium-sized enterprises (SMEs) are increasingly using the specific language of the export market

to establish themselves in new emerging markets (Habiba, 2011). Therefore, businesses can no longer be comfortable with just one language if they want to remain competitive. Habiba (2011) stresses that in countries where companies are highly diversified in languages, firms may miss export contracts due to language barriers being lower and vice versa. She adds that the higher the multilingual skills among SME companies, the greater the proportion of firms exporting to emerging markets and the better the export geography. High multilingual skills also provide a larger number of export countries. The world has become heavily digital and most business transactions are done over the internet. Habiba (2011) points out that when small and medium-sized enterprises (SMEs) are looking to expand their businesses globally, a multilingual website comes in handy to help them reach a global audience. Enterprises which incorporate a multilingual website have increased their chances of capturing more businesses.

Findings on Linguistic Diversity and the Promotion of Economic Development

The study participants were asked to indicate their level of agreement or disagreement with the link between linguistic diversity and the promotion of economic development. The responses were rated on a scale of 1 to 5; 1 being strongly disagree and 5, strongly agree. The findings are presented in Table 6.

Table 6*Linguistic Diversity and the Promotion of Economic Development***Responses in Scale 1-5**

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Approximate Percentage
Language policy and practices can either stimulate or impede economic growth	50.6	43.2	4.7	0.8	0.4	99.7	100
A workforce equipped with languages and intellectual skills helps to establish a competitive environment	69.2	30.3	0.4	0	0	99.7	100
The role of English as the sole language for world trade is declining and other languages are being used increasingly	62.3	33.3	3.8	0.4	0	99.8	100
For any meaningful trade to take place in different regions, the traders must learn different languages	72.7	26.4	0.8	0	0	99.8	100

Responses from Table 6 show that 51% and 43% of the participants were of the opinion that policies and practices on language can either stimulate or impede economic growth. 5% were neutral whereas the remaining 1.2% strongly disagreed and disagreed. From this, it is quite clear that policies and practices on language can either impede or stimulate economic growth. These findings correspond to the findings of Alexander (2005).

Table 6 further reveals that a workforce equipped with languages and intellectual skills helps to establish a competitive environment in any economy. This can be deduced from the fact that the majority of the participants, that is, 69.2% and 30.3% strongly agreed;

0.4% were neutral. This means that most organizations aspire to have a workforce with diversified languages and intellectual skills in order for them to remain competitive in the market. Indeed, Funaru (2014) argues diversified languages and intellectual skills can contribute to economic development. Also in agreement with this thinking is Huo (2016), who avers that as a tool of exchange and communication, a foreign language plays an essential role in the field of economic development. He adds that foreign language talents are inseparable from regional economic development.

The participants said that English has declined as the sole language for world trade. This was the view of 62.3% and 33.3% of the respondents who either strongly agreed or agreed. 3.8% were neutral while 0.4% disagreed. This sentiment is supported by Habiba (2011) who says that this decline has been brought about by more people opting to learn languages like Chinese, French, Spanish, German and others. The learning of these many languages automatically promotes linguistic hyperdiversity which, according to Habiba (2011), benefits business entities by enlarging their share of foreign markets. A large market share increase can allow a company to achieve greater scale in its operations and improve profitability and thus lead to economic development.

The survey also revealed that for any meaningful trade to take place in different regions, the traders must learn different languages.

72.2% and 26.4% of the participants strongly agreed and agreed respectively on the importance of traders learning different languages. 0.8% of them were neutral. The finding is in agreement with the thinking of Funaru (2004), that language is particularly important in promotion and communications, and that it also helps the people involved to understand the messages without losing their essential meaning.

The findings in Table 6 are summarized in Figure 4.

*Figure 4: Linguistic Diversity and the Promotion of Economic Development***Responses in Scale 1-5**

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Approximate Percentage
Language policy and practices can either stimulate or impede economic growth	50.6	43.2	4.7	0.8	0.4	99.7	100
A workforce equipped with languages and intellectual skills helps to establish a competitive environment	69.2	30.3	0.4	0	0	99.7	100
The role of English as the sole language for world trade is declining and other languages are being used increasingly	62.3	33.3	3.8	0.4	0	99.8	100
For any meaningful trade to take place in different regions, the traders must learn different languages	72.7	26.4	0.8	0	0	99.8	100

CHAPTER FOUR

Linguistic Diversity And Preservation of Biodiversity

Concept of Biodiversity

Biodiversity is an integral part of human existence and not just an object to be conserved (Posey, 1999). This is because the relationship between all living species on earth needs to be respected. This relationship needs to be interdependent. Cadman (2010) points out that it is widely accepted that biodiversity, which is seen as the variety of genes, species, ecosystems and landscapes on earth, is a critical foundation of human well-being and economic activity. It also has enormous value for all societies. He adds that healthy, functioning ecosystems provide the basic necessities of life through delivery of a variety of ecosystem goods and services, which are the by-products of ecological processes useful to humans. This idea is furthered by Sukhdev (2008) who argued that biological diversity represents the natural wealth of the earth and provides the basis for life and prosperity for all mankind.

Cadman (2010) brings out the importance of biodiversity to the economy when he compares the natural resources, living systems and ecosystem services with natural capital and other forms of capital, such as manufactured goods, human and financial capital, needed for development. He argues that natural capital supports many socio-economic activities that enable human communities to build sustainable livelihoods and attain an adequate quality

of life. He notes further that rural communities depend directly on biodiversity for food, fuel, shelter, medicines and livelihoods. Similarly, urban communities also rely on forests, wetlands, and other natural areas to provide clean water and to protect against natural disasters (Cadman, 2010).

Relationship between Language and Environment

The relationship between language and the environment has been of interest for many years and many studies have been carried out to determine this link (Loh & Harmon 2005; Maffi, 2005). Klinkenborg (2012) has identified a close relationship between biological diversity and linguistic diversity. He says that biological hotspots are likely to be linguistic hotspots because most languages are habitats, linked closely to the physical habitats in which they occur. Simply put, there are more human languages where there are more species. They add that there is a strong linkage between language and traditional knowledge related to biodiversity.

In his study of the association between biodiversity and linguistic diversity, Mittermeier (2012) discovered that as the world grows biologically diverse, it becomes more linguistically and culturally diverse as well. He goes further to say that, there has always been an assumption by conservation scientists of a strong linkage between diversity and human cultural diversity. He cites prior studies which have shown that biological and linguistic diversity often occurs in the same places. He refers to the works of Nettle et al.(1996), Steppet et al.(2004, 2005) and Tolledo (1994),who were all of the opinion that research conducted at both continental and regional scales showed patterns of co-occurrence of linguistic and biological diversity in broad regions, such as West Africa, Melanesia, Mes-oamerica, and in the mountainous regions, especially New Guinea.

Hammon (1995, 1996), Nettle (2000) and Loh (2005) are of the opinion that previous inquiries have noted that nations with high

biological diversity also tend to contain high linguistic and cultural diversity. According to a report by Oviedo et al.(2000), research using geographic information system technology and examining locations of languages as geographic points saw eco regions as essential for conserving the planet's habitat types, ecosystems, and representative species often; also as containing large numbers of languages. Maffi (2001, 2005) points that such studies have given rise to the notion of bio-cultural diversity, the tendency for biological, linguistic, and cultural diversity to co-occur. According to Klinkenberg (2012), sometimes it may be tempting to look at the correlation between biodiversity and linguistic diversity in a negative way because high linguistic diversity occurs where conditions of biological diversity, that is, dense forests, harsh terrain, and other barriers like disease force small human societies to remain separate. He says that this can still be looked at in a positive way, that high biological diversity also affords linguistic diversity. The richness of one sustains the richness of the other.

The fundamental linkage between language and traditional knowledge is related to biodiversity. This is because the locals (indigenous) in any community have elaborated complex classification systems for the natural world. Therefore, it makes it easier to understand plants and animal species, ecological relations and ecosystem dynamics. This study reckons that other studies have also shown that environmental knowledge embedded in indigenous names, oral traditions and taxonomies are often lost when a community shifts to another language, thus the need to preserve language for the sake of biodiversity.

Role of Linguistic Diversity in Preserving Biodiversity

Linguistic hyper diversity plays a very big role in the preservation of the biodiversity of a given region. It is widely acknowledged

that the degradation of the natural environment in particular traditional habitats entails a loss of cultural and linguistic diversity. New studies suggest that language loss, in its turn, has a negative impact on biodiversity conservation. Nabhan (2001) concurs; he points out that with the death of languages, traditional ecological knowledge about relationships between plants and animals is lost as well. He goes on to say that indigenous minority communities are reservoirs of considerable knowledge about rare, threatened, and endemic species that has not to date been independently accumulated by Western-trained conservation biologists. This knowledge, which is encoded in the many indigenous and minority languages, can be used both to “promote sustainable use of land and natural resources” (Nations, 2001, p. 470) and to “help guide the identification, management, protection, or recovery of habitats” (Nabhan, 2001, p. 151) for threatened species.

The importance of linguistic hyper diversity in the preservation of the environment is further highlighted by Gell-Man (1994). According to him, if the long lasting co-evolution which people have had with the environment since time immemorial is abruptly disrupted as it is happening today, then human beings are undermining their chances of survival on planet earth. Linguistic hyper diversity enhances the survival of human species. This idea is supported by Gorter (2012) who avers that evolution is aided by diversity. In fact, he says that the strongest and most stable ecosystems are those which are the most diverse.

Baker (2001) argues that diversity has the potential for adaptation whereas uniformity can endanger a species (including the human species) by embedding inflexibility and inadaptability. He argues that the success of any human being on this planet has been due to an ability to adapt to different kinds of environments and cultures over thousands of years. Therefore, language and cultural diversity maximizes chances of human success and adaptability.

This idea is furthered by Sukhdev (2008) who argued that biological diversity represents the natural wealth of the earth and provides the basis for life and prosperity for the whole of mankind. Linguistic and cultural diversities are the storehouses of historically developed knowledge and are connected to biodiversity.

Challenges of Biodiversity and Linguistic Diversity

Both biodiversity and linguistic diversity are under threat of extinction. Gorenflo et al. (2012) point out that global biodiversity and linguistic diversity are experiencing an extinction crisis. This fear of extinction of both linguistic diversity and biodiversity is echoed by Pimm et al. (1995) and Mace et al. (2005) who opine that global diversity in the early 21st century is experiencing an extinction crisis, with annual losses of plant and animal species estimated to be at least 1000 times greater than historic background rates. They add that linguistic diversity is experiencing a similar crisis. The fear of extinction is strong; it is estimated that, unless something is done the world will lose over 6000 plus languages spoken today by the end of this century.

Whilst human-made changes to ecosystems have often generated large economic gains, biodiversity loss damages the functioning of ecosystems and leads to a decline in essential services, which may have severe economic consequences, particularly in the longer term (Stern, 2006). This correlation is supported by Toledo (2000) who points out that over time, humans interact with their environment, modifying it and developing specialized knowledge about it. This specialized knowledge is related to biodiversity because the local and indigenous communities have an elaborate and complex classification system for the natural world which reflects a deep understanding of their local environment.

This environmental knowledge is embedded in indigenous names, oral traditions and taxonomies. The indigenous names become very important especially in the recovery of endangered species and restoration activities. In order to convey ecological knowledge and practices, Maffi (2005) notes that humans have developed specialized ways of talking about the environment. These eco-linguistic relationships have developed through the course of thousands of years and the continued use of these local languages in turn promotes the continuity of local ecological knowledge and practices among people. Relationships between local languages and their socio-ecological environment are particularly apparent in indigenous communities that maintain close material and spiritual ties with their regional ecosystems and biodiversity (Maffi, 2005).

Findings on Linguistic Diversity and Preservation of Biodiversity

The participants of the study were asked to indicate their level of agreement or disagreement towards linguistic diversity and the preservation of biodiversity. The responses were rated on a scale of 1 to 5, 1 being strongly disagree and 5 strongly agree. The results are given in Table 7.

Table 7*Relationship between Linguistic Diversity and the Preservation of Biodiversity*

Statements	Response in Scale 1-5					Total	Approximate Percentage
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
There is a close relationship between linguistic diversity and biological diversity	38.9	37.6	4.7	14.7	3.8	99.7	100
There is a strong relationship between Biodiversity and Economic Development	46.4	40.1	10.8	1.7	0.8	99.8	100
Linguistic diversity plays a big role in the preservation of the biodiversity of a given region	48.9	48.0	2.1	0.8	0	99.8	100
Linguistic diversity enhances the survival of human species on earth	46.3	44.5	7.3	1.2	0.4	99.7	100

Response from Table 7 shows that there is a close relationship between linguistic diversity and biological diversity. This is supported when 38.9% and 37.6% strongly agreed and agreed respectively. This totals to 76.5% of those in agreement with the above. 4.7% of the respondents were neutral and the remaining 14.7% and 3.8% disagreed and strongly disagreed respectively. The finding concurs with Klinkenborg (2012) who is of the opinion that biological hotspots are likely to be linguistic hotspots.

Table 7 also shows that there is a strong relationship between biodiversity and economic development. This is proved when 46.2% and 40.1% strongly agreed and agreed. 10.8% were neu-

tral whereas the remaining 1.7% and 0.8% disagreed and strongly disagreed respectively. The finding agrees with Sukhdev (2008) who cites the importance of biological diversity when he argued that biological diversity represents the natural wealth of the earth and provides the basis for life and prosperity for the whole of humanity. In line with this, Cadman (2010) also brings out the importance of biodiversity to the economy clearly when he compared the natural resources, living systems and ecosystem services with natural capital and other forms of capital, such as manufactured, human and financial capital, needed for development. He argues that natural capital supports many socio-economic activities that enable human communities to build sustainable livelihoods and attain an adequate quality of life. He notes further that rural communities depend directly on biodiversity for food, fuel, shelter, medicines and livelihoods. Similarly, urban communities also rely on forests and wetlands and other natural areas to provide clean water and to protect against natural disasters.

The survey also revealed that linguistic diversity plays a big role in the preservation of the biodiversity of a given region. Table 7 also shows that 48.9% and 48.0% of the participants of the study strongly agreed and agreed on this while 2.1% were neutral. The remaining 0.8% of the participants of the study disagreed. This finding is supported by UNESCO (2003) which points out that while it is widely acknowledged that the degradation of the natural environment, in particular traditional habitats, entails a loss of cultural and linguistic diversity, new studies suggest that language loss, in its turn, has a negative impact on biodiversity conservation.

The survey further revealed that linguistic diversity enhances the survival of human species on earth when 46.3% and 44.5% of the participants of the study strongly agreed and agreed respectively. On the other hand, 7.3% of the participants of the study were neutral and the remaining 1.2% and 0.4% the participants of the

study disagreed and strongly disagreed respectively. The finding is in line with that of Baker (2001) who argues that diversity contains the potential for adaptation whereas uniformity can endanger a species (including the human species) by providing inflexibility and inadaptability.

The findings in Table 7 are summarized in Figure 5.

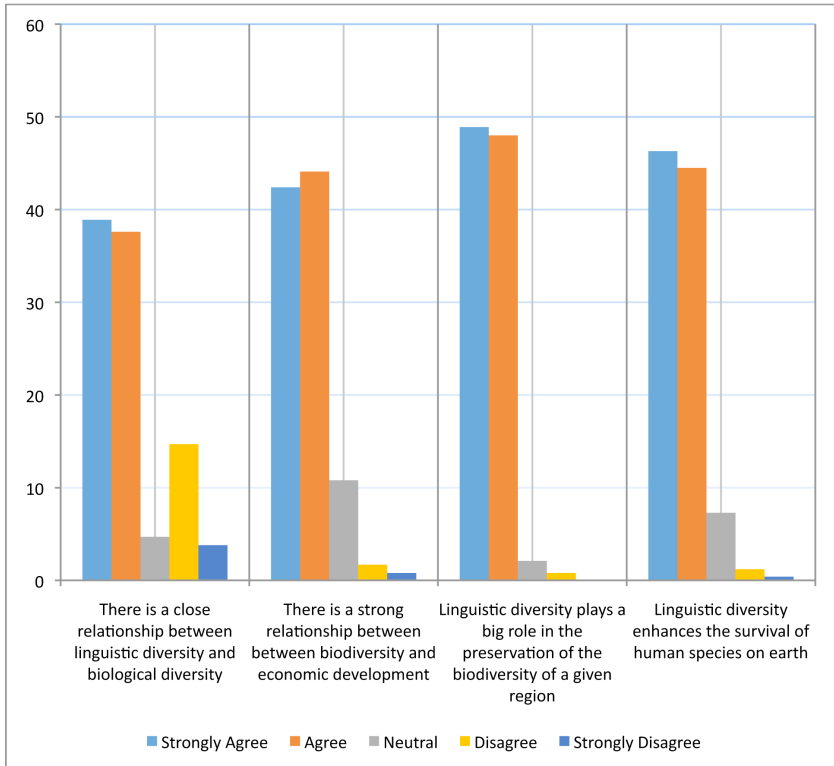


Figure 5: Linguistic Diversity and the Preservation of Biodiversity

CHAPTER FIVE

Linguistic Diversity And Economic Creativity & Innovation

Innovative Activity

A person who speaks multiple languages has a stereoscopic vision of the world from two or more perspectives. This enables him or her to be flexible in his or her thinking and to learn to read more easily. Multilinguals, therefore, are not restricted to a single world-view; they also have a better understanding that other outlooks are possible. Indeed, this has always been seen as one of the main educational advantages of language teaching (Cook, 2001).

According to Rosenberg (2004), innovative activity has been the single most important component of long-term economic growth. There is a relationship between linguistic diversity and the promotion of creativity and innovation. This view is supported by Shapiro (2015) who points out that linguistic diversity is a competitive strength that encourages new ideas, strategic thinking and innovation. Kruger (2010) is of the opinion that learners who are exposed to a multilingual environment are more comfortable engaging with creative thought. Also supportive of this idea are Kangas (2002) and Saez (2013) who observe that learning a new language increases the potential for creative thought and that linguistic diversity promotes creativity and innovation.

The idea that linguistic diversity has an effect on economic growth is supported by LeBel (2008) who opined that innovation

bears most directly on technical change, and thus is a major determinant of economic growth. This relationship is further advanced by Gerguri and Ramadani (2010) who argue that innovation is essential for sustainable growth and economic development. They add that several major conditions enable innovation and encourage economic growth.

Influence of Human Capital on Economic Development

Creativity and innovation are now key focus areas across the globe. This can be attributed to the need to further develop human capital, which includes competences such as innovation and possessing knowledge that contribute to economic performance and social cohesion (Marsh, 2009).

The main products of industrial societies are commodities and services (Kangas, 2002). Kangas (2002) and Saez (2013) point out that in industrial societies, those who do well are those who control access to raw materials and means of production. However, in the information society, the main commodities are knowledge and ideas. To them, these are mainly transmitted through language(s) and visual images. This calls for the learning of new languages for those who are in the industries. They argue that the learning of a new language not only increases the potential for creative thought, but also helps in the promotion of creativity and innovation.

Countries with mega diversities have had more varied micro-environments to observe, analyse, describe and discuss than countries with less diversity and all of this knowledge has been encoded in their many languages. This means that countries rich in linguistic and cultural diversity, embodying diverse knowledge, have in this sense access to more varied knowledge, ideas and cosmo-visions than countries with few languages and cultures (Kangas, 2002). Saez (2013) agrees, saying that multilingualism widens access to

information, induces mental flexibility and enhances learning and problem-solving capabilities. It also creates an innovation-enabling environment.

Relationship between Multilingual Skills and Economic Development

Taylor (2010) argues that individuals endowed with double linguistic skills perceive a second culture in a way similar to that of a native, as opposed to a monolingual or monocultural person. Kangas (2002) advances this idea further by arguing that plurilingualism enhances creativity. The idea that creativity and innovation results from linguistic hyper diversity finds support in Marsh (2009) who says that there is an increasing body of evidence pertaining to a wide variety of people, in various cultural environments, and using different languages, revealing enhanced functioning of individuals who use more than one language, when compared to monolinguals.

This suggests a greater potential for creativity amongst those who know more than one language, when compared with monolinguals. Kangas (2002) adds that high-level plurilinguals as a group do better than corresponding monolinguals on tests measuring several aspects of intelligence, creativity, divergent thinking, and cognitive flexibility. Taylor (2010) points out that this creativity stems from an ability to reconfigure information and knowledge from more than one language and culture and to utilize them in novel ways.

Marsh et al. (2009) suggest that the multilingual mind may be better at multitasking than the monolingual mind. This is partly attributed to attention and inhibitory control. Multitasking can be considered as the simultaneous handling of more than one task and is directly linked to executive control. He adds reports that knowing more than one language may help the brain sharpen its ability to focus.

Stolarick and Florida (2006) further point out the benefit of a multilingual mind. They recorded that a respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions. It is good for the brain to have to learn how to work and think in multiple languages. Marsh (2009) supports this assertion when he concludes that having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. Multilingualism therefore enhances knowledge of scientific and technological expertise. Suzanne (1995) concurs with this idea by saying that sometimes, multilingual children perform better than the monolinguals on both verbal and non-verbal intelligence.

Findings on Linguistic Diversity and Economic Creativity and Innovation

The study participants were asked to indicate their level of agreement or disagreement about the association between linguistic diversity and promotion of creativity and innovation. The responses were rated on scale of 1 to 5; 1 being strongly disagree and 5 strongly agree. The findings are given in Table 8.

Table 8*Linguistic Diversity and Promotion of Creativity and Innovation*

Statement	Response in Scale 1-5				Strongly Agree	Total	Approximate Percentage
	Strongly Agree	Agree	Neutral	Disagree			
A person who speaks multiple languages has a stereoscopic vision of the world	43.2	48.9	4.7	0.8	2.1	99.7	100
Learning a new language increases the potential for creative thought	61.9	32.9	3.8	1.2	0	99.8	100
Countries rich in linguistic diversity embody diverse knowledge	60.6	34.6	2.1	2.1	0.4	99.8	100
There is a great potential for creativity amongst those who know more than one language	65.3	32.0	1.7	0.8	0	99.8	100
Multilingual mind may be better at multitasking than the monolingual mind	66.2	29.0	3.0	1.2	0.4	99.8	100
Multilingualism also enhances knowledge of scientific and technological expertise	44.5	47.6	6.9	0.8	0	99.8	100

According to Table 8, 43.2% and 48.9% of the participants were of the opinion that a person who speaks multiple languages has a stereoscopic vision of the world. 4.7% of them were neutral while 0.8% and 2.1% disagreed and strongly disagreed with this view. This finding agrees with the view of Cook (2001) who noted that this stereoscopic view does not restrict multilinguals to a single worldview.

The survey also revealed that learning a new language increases the potential for creative thought. 61.9% and 32.9% of the participants strongly agreed and agreed with this view. However, 3.8% were neutral while 1.2% disagreed. This view is supported by Kangas (2002) and Saez (2013). They concur that learning a new language increases the potential for creative thought and linguistic diversity promotes creativity and innovation.

The majority of the participants were of the opinion that countries rich in linguistic diversity embody diverse knowledge.

60.6% and 34.6% of the participants strongly agreed and agreed with this view respectively. On the other hand, 2.1% of them were neutral and 2.1% and 0.4% disagreed and strongly disagreed with this view. This finding confirms the study of Kangas (2002) and Saez (2013) that diverse knowledge is embodied in countries rich in linguistic and cultural diversity.

The survey further revealed that there is great potential for creativity amongst those who know more than one language. This is supported by 65.3% and 32.0% of the participants who either strongly agreed or agreed respectively. 1.7% of the participants remained neutral and 0.8% disagreed. This finding is in agreement with that of Marsh (2009), who said there is a body of evidence pertaining to a wide variety of people, in various cultural environments, and using different languages, that reveals enhanced functioning of individuals who use more than one language, when compared to monolinguals.

It was also discovered that a multilingual mind may be better at multitasking than the monolingual mind. 66.2% and 29.0% of the participants supported this view by strongly agreeing and agreeing to it. However, 3.0% of the participants chose to remain neutral and 1.2 % and 0.4% disagreed and strongly disagreed respectively. This finding confirms the work of Marsh et al. (2009) that the multilingual mind may be better at multitasking than the monolingual mind.

Finally, the survey found that multilingualism enhances knowledge of scientific and technological expertise. 44.5% and 47.6% of the participants strongly agreed and agreed with the statement. 6.9% of the participants were neutral and 0.8% disagreed. This finding concurs with that of Romaine (1995) that sometimes, multilingual children performed better than monolinguals on both verbal and non-verbal intelligence. Figure 6 summarises this information.

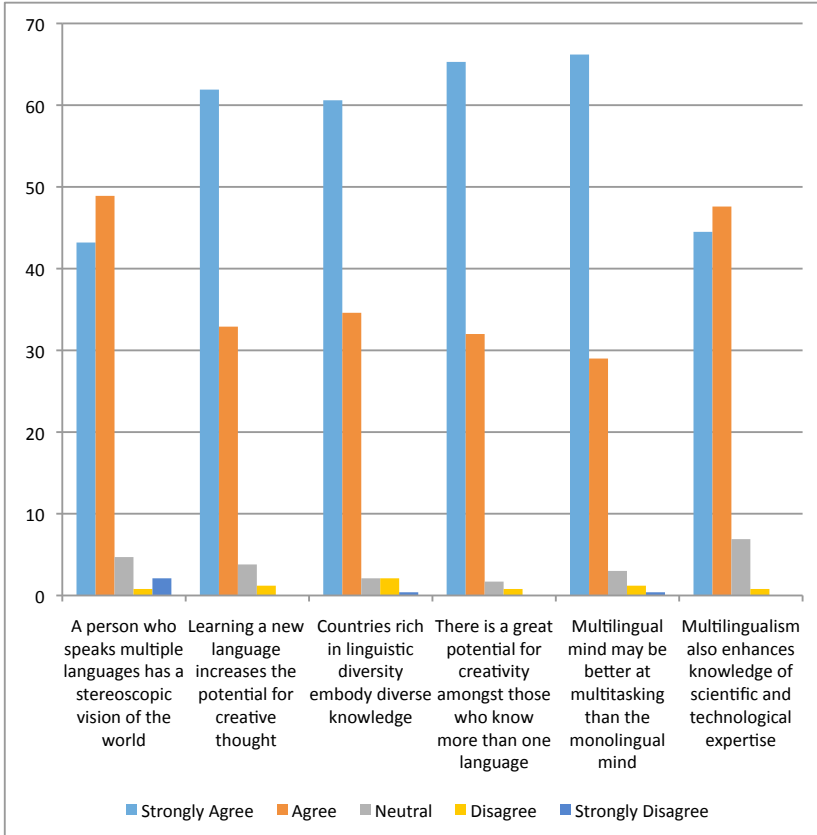


Figure 6: Linguistic Diversity and Promotion of Creativity and Innovation

CHAPTER SIX

Linguistic Diversity and Promotion of Cultural Diversity

Contributions of Multilingualism to Cultural Diversity

Cultural diversity widens the range of options available to individuals; it is one of the roots of development. It is understood not simply in terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral and spiritual existence (UNESCO, 2003).

Multilingualism and linguistic hyper-diversity contribute to cultural diversity. Orban (2009), the European Commissioner of multilingualism, admitted that they have always been aware of this multilingual reality in Europe but perhaps not aware enough of the strength it can give their society because languages are crucial bridges between cultures. To learn a new language is to explore new ways of thinking, new value-systems, to open our horizons to the richness of other cultures and ideas. Cook (2001) advances this idea further when she argues that multilinguals are not restricted to a single world-view, but also have a better understanding that other outlooks are possible. Orban (2009) admits that in this age of globalization, it is crucial for Europeans to understand each other's languages and cultures in order to strengthen the bridges between different continents.

A language is a crucial part of the heritage of a specific community; it shapes and builds its identity. Kwaw (2010) noted that

before the advent of formal education, the forefathers of the nation used mother tongue to train their children using proverbs and folktales. However, this was lost at the advent of formal education which focused mostly on the lingua franca of the country and relegated indigenous languages to the background, leading to their death and thus of culture itself.

Effects of Cultural Diversity on Economic Development

Cultural diversity plays a very big role in the economic development of countries. Berliant and Fujita (2012) considered the positive effects of cultural diversity on the production of new knowledge. This (positive) effect is attested to by Lazear (1999) who argues that workers from different cultural backgrounds may bring skills, abilities, and creativity that are complementary to each other in the production process. By complementing each other's skills, the workers may have a positive externality effect on one another; this increases productivity.

Findings on Linguistic Diversity and Promotion of Cultural Diversity

The participants were asked to indicate their level of agreement or disagreement towards linguistic diversity and the promotion of cultural diversity. The responses were rated on a scale of 1 to 5; 1 being strongly disagree and 5 strongly agree. The findings are given in Table 9 as follows:

Table 9*Linguistic Diversity and Promotion of Cultural Diversity*

Factor	Response in Scale 1-5				Total	Approximate Percentage
	Strongly Agree	Agree	Neutral	Disagree		
Multilingualism helps in the promotion of cultural diversity	45.4	43.7	9.9	0	99.8	100
Multilinguals are not restricted to a single worldview	72.2	27.7	0	0	99.9	100

Table 9 shows the responses of the participants on the contributions of linguistic diversity to promoting cultural diversity. The majority of participants were of the view that multilingualism promotes cultural diversity. 45.4% and 43.7% of the participants supported this view by strongly agreeing and agreeing respectively. 9.9% of the participants remained neutral. This finding is in agreement with Orban (2009) who says that languages are crucial bridges between cultures.

The survey further revealed that multilinguals are not restricted to a single worldview. This view was supported by 72.2% and 27.7% of the participants; they either strongly agreed or agreed respectively. The finding also concurs with Cook (2001) who argues that multilinguals are not restricted to a single worldview. She adds that multilinguals also have a better understanding that other outlooks are possible.

Figure 7 summarises the information in Table 9.

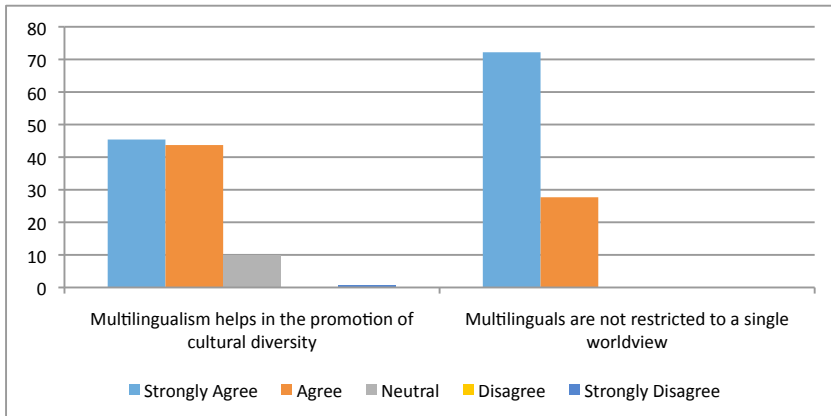


Figure 7: Linguistic Diversity and Promotion of Cultural Diversity

CHAPTER SEVEN

Conclusion

In determining the extent to which linguistic diversity affects economic development, the study found that policies and practices on linguistic diversity can either promote or impede economic development. This was supported by 50.6% and 43.2% who strongly agreed and agreed respectively to this view. These participants formed the majority whereas 0.8% remained neutral and the remaining 0.8 % and 0.4% both disagreed and strongly disagreed with this view respectively.

It was found that a workforce equipped with languages and intellectual skills contributes to establishing a competitive environment. Of the participants, 69.2% and 30.3% concurred with this view, while 0.4% were neutral. The survey also found that the role of English as the sole language for world trade is declining and other languages are being used. Of the participants, 62.3% and 33.3% strongly agreed and agreed with this view; 0.4% were neutral. None disagreed or strongly disagreed.

The survey revealed that for any meaningful trade to take place in different regions, traders had to learn different languages. 72.2% and 26.4% strongly agreed and disagreed with this view while the remaining 0.8% was neutral. None disagreed or strongly disagreed. On the relationship between linguistic diversity and the preservation of biodiversity, the study established that there is a relationship. 38.9% and 37.6% of the participants strongly agreed and agreed respectively with the view that there is an association between linguistic diversity and biodiversity. 4.7% remained neutral whereas

14.7% and 3.8% disagreed and strongly disagreed with this view. It is worth mentioning that there is a strong relationship between biodiversity and economic development. This view was supported by 46.4% and 40.1% of the participants who strongly agreed and agreed respectively that indeed there is a strong relationship between biodiversity and economic development. 10.8% were neutral and the remaining 1.7% and 0.8% disagreed and strongly disagreed respectively with this view.

The survey found that linguistic diversity plays a big role in the preservation of the biodiversity of a given region. 48.9% and 48.0% of the participants strongly agreed and agreed with this assertion while 2.1% were neutral; 0.8% disagreed with the view. Further, it was found that indeed linguistic diversity enhances the survival of human species on earth. 46.3% and 44.5% of the participants strongly agreed and agreed with the view whereas 7.3% remained neutral and 1.2% and 0.4% disagreed and strongly disagreed respectively.

In determining the extent to which linguistic diversity affects creativity and innovation, the study found that people who speak multiple languages have a stereoscopic vision of the world. 43.2% and 48.9% of the respondents strongly agreed and agreed with this view respectively. 92.1% of the participants accepted this view while 4.7% were neutral; 0.8% and 2.1% of the participants disagreed and strongly disagreed with this notion.

The survey also revealed that learning a new language increases the potential for creative thought. This is evidenced by the high percentages of 61.9% and 32.9% of the participants who strongly agreed and agreed with this view respectively. However, 3.8% of the participants were neutral and the remaining 1.2% disagreed. Furthermore, the majority of the participants were of the opinion that countries rich in linguistic diversity embody diverse knowledge, with 60.6% and 34.6% of the participants strongly agreeing and

agreeing with this notion respectively. 2.1% of the participants were neutral whilst 2.1% and 0.4% disagreed and strongly disagreed with this view.

The study further revealed that there is great potential for creativity amongst those who know more than one language. This was supported by 65.3% and 32.0% of the participants who either strongly agreed or agreed respectively. However, 1.7% of the participants remained neutral and the remaining 0.8%, disagreed. It was also discovered that a multilingual mind may be better at multitasking than the monolingual mind. This was expressed by 66.2% and 29.0% of the participants who supported this view by strongly agreeing and agreeing to it. However, 3.0% of the participants chose to remain neutral and the remaining 1.2 % and 0.4% disagreed and disagreed respectively.

Finally, the survey found that multilingualism enhances knowledge of scientific and technological expertise. 44.5% and 47.6% of the participants strongly agreed and agreed with the notion. 6.9% of the participants were neutral whereas 0.8% did not support this view.

Does linguistic diversity promote cultural diversity? In determining the effect of linguistic diversity on the promotion of cultural diversity, the study found that multilingualism promotes cultural diversity. 45.4% and 43.7% of the participants supported this view by strongly agreeing and agreeing respectively. The remaining 9.9% returned a neutral view. The findings of the survey further revealed that multilinguals are not restricted to a single worldview. This view was supported by 72.2% and 27.7% of the participants who either strongly agreed or agreed respectively with the view.

Recommendations

Linguistic Diversity and Economic Development

Linguistic diversity plays an important role in economic development. Therefore, in order to maximize the positive use of linguistic diversity for economic development, the Government of Kenya should formulate policies and practices on linguistic diversity that will stimulate economic growth. Organizations should encourage a diversified workforce equipped with languages and intellectual skills as this will contribute to a competitive environment in the market place.

Since the use of English has declined in international trade, countries or communities should be encouraged to learn as many languages as possible in order to remain relevant in international commerce and grow their market share. Languages like Chinese, French, Spanish and German can be introduced in primary and secondary schools and post-secondary institutions.

Lastly, for meaningful trade to take place in different regions, citizens should be encouraged to learn different languages apart from their mother tongues, the national and official language.

Linguistic Diversity and the Preservation of Biodiversity

There is a close relationship between linguistic diversity and biological diversity. Because of this, therefore, every individual is encouraged to preserve biodiversity as it represents the natural wealth of the earth. Also, it provides the basis for life and prosperity for the whole of mankind. Biodiversity is a critical foundation of human well-being and economic activity and has enormous value for all societies. The importance of biodiversity is compared to any form of capital needed for development.

There is need to promote linguistic diversity because it plays a very critical role in the preservation of biodiversity which in turn

stimulates economic development. Different countries and communities are encouraged to promote linguistic diversity for it helps in the survival of human species. For any economic development to take place, the role of human capital must not be ignored.

Linguistic Diversity and Economic Creativity and Innovation

Linguistic diversity affects economic creativity and innovation. Therefore, communities should encourage their members to learn multiple languages. This will be beneficial since people who speak multiple languages have a stereoscopic vision of the world from two or more perspectives, enabling them to be more flexible in their thinking. Multilinguals, therefore, are not restricted to a single world-view, but also have a better understanding that other outlooks are possible.

Additionally, every individual is encouraged to learn more languages as learning a new language increases the potential for creative thought and linguistic diversity. It also helps in promoting creativity and innovation which are all key to economic development. People should be encouraged to learn new languages as countries rich in linguistic and cultural diversity, embodying diverse knowledge, have in this sense access to more varied knowledge, ideas and cosmo-visions than countries with few languages and cultures.

Governments should craft policies to promote multilingualism because there is a greater potential for creativity amongst those who know more than one language, when compared with monolinguals. Further, different societies should encourage linguistic hyper-diversity as multilinguals are known to be very good at multitasking. The modern economy will require human resource personnel who can multitask. This helps organizations in reducing costs as they make maximum use of human resources. Finally,

organizations or communities should encourage multilingualism as it enhances knowledge of scientific and technological expertise.

Linguistic Diversity and the Promotion of Cultural Diversity

Since multilingualism helps in promoting cultural diversity, communities should formulate policies that aid the promotion of culture. Societies are to be encouraged to learn more than one language as this will improve their worldview from single to a wider view. This will help in the promotion of economic development as people will be looking at things from different angles.

References

- Adekeye, D.O. (2013). An alternative platform for sustainable development: A social reform agenda for Nigerian intellectuals. *Africa TODAY*, 60 (3), 103-117.
- Ansah, G. N. (2008). Linguistic diversity in the modern world: Practicalities and paradoxes. *The International Journal of Language Society and Culture Issue*, 26 (2), 1-8.
- Appel, R. & Pieter, M. (1987). *Language contact and bilingualism*. Newcastle: Atheneum Press Ltd.
- Babawale, T. (2007). *Culture, politics and sustainable development: Lessons for Nigeria*. Lagos: Concept Publications.
- Berliant, M. & Fujita, M. (2012). *Culture and diversity in knowledge creation*. MPRA Paper No. 36996. Retrieved from <http://mpra.ub.uni-muenchen.de/36996/>
- Cadman, M. (2010). *Biodiversity for development: South Africa's landscape approach to conserving biodiversity and promoting ecosystem resilience*. Cape Town: South African National Biodiversity Institute.
- Cook, J. V. (2001). *Requirements for a multilingual model of language production*. Retrieved from [homepage.ntlworld.com/vivian./Writings/Papers/RequirementsForMultilingual Model.htm](http://homepage.ntlworld.com/vivian./Writings/Papers/RequirementsForMultilingualModel.htm)
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. Los Angeles: Sage.
- Davignon, L. (2008). *Companies work better with languages: Recommendations from the business forum for multilingualism*. Brussels: The European Commission.

- Dessel, G. V. (2013). *How to determine population and survey sample size*. Retrieved from <https://www.checkmarket.com/2013/02/how-to-estimate-your-population-and-survey>.
- Duchêne, C. (2014). *Access to the labour market, unemployment and language skills*. U.K: Research Centre on Multilingualism.
- Funaru, M. (2014). *Economic growth element and social cohesion in the EU*. Brasov: Christian University of Brasov.
- Gladwin, T. N., Kennelly, J. J. & Tara-Shelomith, K. (1995). Shifting paradigms for sustainable development: Implications for management theory and practice. *The Academy Management Review*, 20 (4), 874-907.
- Gorenflo, L. J. (2012). *Co-occurrence of linguistic and biological diversity in biodiversity hotspots and high biodiversity wilderness areas*. Arizona: Arizona State University.
- Grauwe, P. (2006). *Language diversity and economic development*. London: University of London.
- Habib, I. B. (2011). *Multilingual skills provide export benefits and better access to new emerging markets*. Sens Public. Retrieved from http://www.senspublic.org/IMG/pdf/SensPublic_Ingela_Bel_Habib_Report_Multilingual_Skills.pdf
- Harmon, D. (1995). The status of the world's languages as reported in 'Ethnologue.' *Southwest Journal of Linguistics*, 14 (1), 1-28.
- Harmon, D. (1996). Losing species, losing languages: Connections between linguistic and biological diversity. *Southwest Journal of Linguistics*, 15 (2), 89-108.
- Huo, C. (2016). A study on the demand of foreign language talents based on regional economic development. *Journal of Service Science and Management*, 9(1), 119-124.
- Jixian, P. (2002). English for international trade: China enters the WTO. *World Englishes*, 21(2), 10-17.

- Johnson, A. (2009). The rise of English: The language of globalization in China and the European Union. *Macalester International*, 22 (12), 10-17.
- Kangas, T. S. (2002). *Why should linguistic diversity be maintained and supported in Europe? Some arguments. Guide for the development of language education policies in Europe: From linguistic diversity to plurilingual education*. Strasbourg: Council of Europe Language Policy Division
- Kerlinger, F. (1986). *Foundations of behavioural research* (3rd ed.). New York: Holt Rinehart, Rinehart and Winston.
- Klinkenborg, V. (2012). *Linking twin extinctions of species and languages*. Yale: Yale Environment Publication.
- Kothari, C. R. (1985). *Research methodology: Methods and techniques*. UK: Willey Eastern Limited.
- Kwa, F. E. (2010). *Promoting cultural diversity and multilingualism: The international mother language day*. Accra: Ghana National Commission for UNESCO.
- Lazear, E. P. (1999). Globalization and the market for team-mates. *Economic Journal*, 109 (1), 15-40.
- LeBel, P. (2008). The role of creative innovation in economic growth: Some international comparisons. *Journal of Asian Economics*, 19(4), 334-347.
- Loh, J. & Harmon, D. (2005). A global index of bio-cultural diversity. *Ecol Indic*, 5 (2), 231-241.
- Mace, G. M. (2005). *Ecosystems and human well-being, millennium ecosystem assessment. current state and trends: Findings of the condition and trends working group*. Washington DC: Island Press.
- Maffi, L. (2001). *On bio-cultural diversity: Linking language, knowledge, and the environment*. Washington DC: Smithsonian Institution Press.

- Maffi, L. (2002). Endangered languages, endangered knowledge. *International Social Science Journal*, 54 (3), 385-393.
- Maffi, L. (2005). *Linguistic, cultural, and biological diversity*. *Annual Review of Anthropology*, 34 (2), 599-617.
- Marsh, D. (2009). *Multilingualism and creativity: Towards an evidence-base. Study on the contribution of Multilingualism to creativity compendium*. Brussels: European Commission.
- Mesthrie, R. (1992). *Language in indenture: A sociolinguistic history of Bhojpuri Hindi in South Africa*. London: Macmillan.
- Michieka, M. (2012). *Language maintenance and shift among Kenyan University Students*. Nairobi: Cascadilla Press.
- Mittermeier, R. A. (2015). *Language diversity is highest in biodiversity hotspots*. NY: Royal Society.
- Moskevina, J. & Gruževskis, B. (2014). *Multilingualism as a business development factor*. *Business Theory and Practice*, 15 (1), 22–31.
- Muaka, L. (2011). *Language perceptions and identity among Kenyan speakers*. Winston Salem: University of North Carolina.
- Mugenda, O. M. & Mugenda, A. G. (1999). *Research methods: Quantitative and qualitative approaches*. Nairobi: Acts Press.
- Mwangi, P. W. (2014). *Multilingualism and education in Africa: The state of the art*. Cambridge: Scholars Publishing.
- Nabhan, G. P. (2001). *Cultural perceptions of ecological interactions: An endangered people's contribution to the conservation of biological and linguistic*. Washington DC: Smithsonian Institution Press.
- National Institute of Open Schooling (2014). *Socio-economic development and empowerment of disadvantaged groups*. Retrieved from <http://www.nios.ac.in/media/documents/SecSocSciCour/English/Lesson-25.pdf>
- Nettle, D. (1996). *Language diversity in West Africa: An ecological approach*. United Kingdom: Merton College.

- Nettle, D. (2000). *Vanishing voices*. New York: Oxford University Press.
- Okah, R. I. & Wali, W. (2014). Insecurity in Nigeria: Implications for sustainable national development in Nigeria. *International Journal of Academic Research*, 6 (4), 244-250.
- Okal, B. O. (2014). *Benefits of multilingualism in education*. Maseno: Maseno University.
- Olaifa, T. (2012). Corruption and sustainable peace in Nigeria: Equipping youth for reconstruction. *International Journal on World Peace*, 19 (3), 85-101.
- Onuko, T. (2011). *Multilingual education for Nation Building: The case for French Language*. Retrieved from <http://dx.doi.org/10.4314/ujah.v12i1.5>
- Orao, J. (2009). The Kenyan indigenous languages and the mass media: Challenges and opportunities. *Stellenbosch Papers in Linguistics PLUS*, 38 (2), 10-17.
- Orban, L. (2009). *The benefits and challenges of linguistic diversity in Europe*. London: European Commission.
- Orodho, J. A. (2004). *Techniques of writing research proposals and reports in education*. Nairobi: Masda Publishers.
- Osuji, G. E. (2015). Corruption: A threat to sustainable socio-economic development in Nigeria. *International Journal of African and Asian Studies*, 13 (1), 37-44.
- Oviedo, G. (2000). *Indigenous and traditional peoples of the world and eco-region conservation: An integrated approach to conserving the world's biological and cultural diversity*. Switzerland: World Wildlife Foundation International.
- Pang, L. (2002). English for international trade: China enters the WTO. *World Englishes*, 21(2), 201-216.

- Pimm, S. L., Russell, G. J., Gittleman, J. L. & Brooks, T. M. (1995). The future of biodiversity. *Science*, 269 (1), 347-350.
- Pinker, S. (1994). *The language Instinct*. New York: Harper Perennial Modern Classics.
- Posey, D. (1999). *Cultural and spiritual values of biodiversity. A complementary contribution to the global biodiversity assessment*. New York: UNEP.
- Prah, K. (1995). *African languages for the mass education of Africans*. Germany: Deutsche Stiftung.
- Saez, C. (2013). *Linguistic diversity essential for innovation, development*. N.Y: Intellectual Property Watch.
- Shapiro, G. (2015). *How diversity fosters economic growth*. Retrieved from <http://www.1776.vc/profile/gary-shapiro/>
- Short, J. R. (2001). Cultural globalization. *The Professional Geographer*, 53 (1), 15-22.
- Stapp, J. R. (2004). Development of a GIS for global bio-cultural diversity. *Policy Matters*, 13 (2), 267-270.
- Stapp, J. R. (2005). Mountains and bio-cultural diversity. *Mt Res Dev.*, 25(1), 223-227.
- Stern, N. (2006). *Stern review on the economics of climate change*. London: HM Treasury.
- Stolarick, K. & Florida, L. (2006). Creativity, connections and innovation: A study of linkages. *Montréal Region Environment and Planning*, 38 (10), 1799-1817.
- Sukhdev, P. (2008). *The economics of ecosystems and biodiversity*. U.K: Oxford University Press.
- Suzanne, R. (1995). *Bilingualism*. Britain: Blackwell Publishers.
- Toledo, V. M. (1994). Biodiversity and cultural diversity in Mexico. *Different Drummer*, 1(3), 16-19.

- Trudgill, P. (1998). "The chaos before the order: New Zealand English and the second stage of new-dialect formation." In E. H. Jahr (Ed.), *Advances in historical sociolinguistics*. Berlin: Sage.
- UNESCO. (2003). *Cultural and linguistic diversity in the Information Society*. Paris: UNESCO.
- United Nations. (2010). *Sustainable development: From Brundtland to Rio 2012*. New York: United Nations.
- Vertovec, S. (2010). Towards post-multiculturalism? Changing communities, conditions and contexts of diversity. *International Social Science Journal*, 199(1), 83-95.
- Wachira, A. W. (2006). *Multilingualism in Kenya: Focus on language use and its implications*. München: Ludwig Maximilians-Universität.
- Woods, P. (2006). *Qualitative research*. USA: Plymouth State University.
- WiseGeek. (2015). *Socioeconomic development*. Retrieved from www.wisegeek.com/what-is-socio-economic-development.htm#comment
- Wright, L. (2000). Language as a 'resource' in South Africa: The economic life of language in a globalising society. *English Academy Review*, 19 (1), 2-19.