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COVERAGE

The areas covered by *Annals of Spiru Haret University. Economic Series* include topics related to Economic Sciences, such as: marketing, management, finance, banking, accounting, audit, international economic relations, trade, business, tourism, administrative data processing, politic economy, commercial law, cybernetics, environmental economics, statistics, ethics in economics, insurance, advocacy & lobby, economic philosophy, econometrics etc.

Each issue has a specific topic that is a subtopic of major journal coverage.

FREQUENCY

The frequency of the journal *Annals of Spiru Haret University. Economic Series* is quarterly.

JOURNAL HISTORY

The journal *Annals of Spiru Haret University. Economic Series* was founded in 2000 at the initiative of two professors from Spiru Haret University: professor Ph.D. Gheorghe Zaman – also corresponding member of the Romanian Academy and professor Ph.D. Constantin Mecu – one of the University's founders and vice-rector.

Between 2004-2010, the journal is headed by professor Ph.D. Constantin Mecu, as editor-in-chief, and associate professor Ph.D. Aurelian A. Bondrea, as deputy editor, both of them vice-rectors of the university.

In 2011, associate professor Ph.D. Aurelian A. Bondrea, rector of the university, takes over the presidency as editor-in-chief and leads the journal until present.

The *Annals of Spiru Haret University. Economic Series* was issued annually, once a year, starting 2000, until 2009.

Since 2010, the *Annals* have a new format, with a four-annual issuance exclusively in English, with both redaction and review conditions comparable to the most rigorous international requirements.

In 2007, *Annals of Spiru Haret University. Economic Series* obtained the B+ quotation from The National Council of Research in Higher Education in Romania, becoming a publication of real scientific interest.

Starting 2009, the review is indexed in REPEC, SSRN and Google Scholar and beginning with 2016 our Journal is under a process of rebranding, the new team trying to rethink the journal indexing strategy in international databases, suggesting a greater external visibility.

Along the years, in the journal pages, the members of the teaching personnel – professors, associate professors, lecturers and teaching assistants – active in six economics faculties and distinct specialty departments, as well as in the Central Scientific Research Institute, functioning within Spiru Haret University, present the results of their scientific research. The journal also hosts many studies of professors, researchers or Ph.D. students from other universities and research institutes all over the world.

The subject of the publication firstly reflects the concern for the modernization of teaching economic science in University: marketing, management, finance, banking, accounting, audit, international economic relations, trade, business, tourism, administrative data processing, politic economy, commercial law, cybernetics, environmental economics, statistics, ethics in economics, insurance, advocacy & lobby, economic philosophy, econometrics etc.

In the published materials, there are analyzed theoretical and practical issues of edification and consolidation of the Romanian market economy, as well as the fundamental directions of the technical and scientific progress, the actual state and ways of its promotion in the Romanian economy, the issue of developing the new world economy, the directions of globalization and contemporaneous

economic integration and Romania's participation to these processes. Also, there are hosted articles that refer to different aspects of economic phenomena from all over the world.

The editing team and the scientific advisors are Romanian intellectual personalities – members of the Academy, professors, and specialists in different fields of the practical economic and social activities. In scientific committee have been engaged as reviewers different professors and personalities in economic field coming from economics and academic institutions in our country, such as Academy of Economic Studies Bucharest, West University from Timisoara, The National Scientific Research Institute for Labour and Social Protection Bucharest, The Romanian Court of Auditors, The Body of Expert and Licensed Accountants of Romania – CECCAR, Institute of National Economy and The Economic and Legal Sciences Department from Romanian Academy, etc. Among them, we also find members of the academia, professors and researchers from other countries of the world: Australia, Azerbaijan, Bosnia & Herzegovina, Bulgaria, France, Germany, Greece, Iceland, India, Indonesia, Italy, Lithuania, North Ireland, Norway, Poland, Republic of Macedonia, Republic of Serbia, Russia, Slovenia, The Netherlands, Turkey, Ukraine, United Kingdom, etc.

As a response to the public interest, the publication is sent to the libraries in Bucharest and Romania, as well as to other universities and economic faculties abroad.

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FOREWORD

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The damage to the global economy in 2020 will be less than previously expected, but still unprecedented. The Organisation for Economic Cooperation and Development predicts a decline of 4.5% in 2020, versus the 6% drop forecast in June 2020. It means it no longer expects the UK to have the deepest contraction of the major G20 economies this year. Nevertheless, the 10.1% drop would still make Britain one of the hardest hit.

The revision for 2020 is favourable, but even so, the global economy is facing damage that the OECD describes as “unprecedented in recent history”.

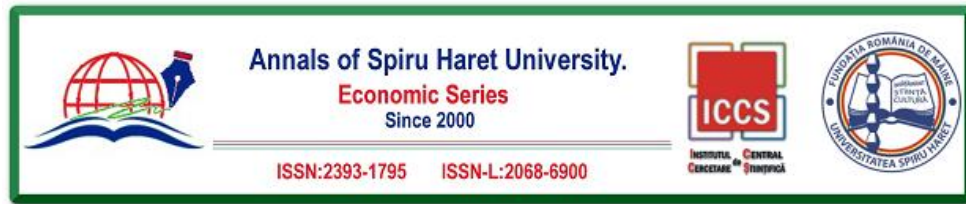
The new revised figures of OECD predict several countries, including Italy, India and South Africa, will experience contractions larger than the UK’s.

Consumer spending on durable goods, including cars, has rebounded quite strongly, the OECD says. However, it has been subdued for services, which involve social interaction or international travel.

We must use the COVID crisis to reshape our society and economy. Policy-makers must seize on progress in medical innovation, the environment, work and elsewhere. For companies, governments, households, and multilateral institutions navigating this unsettling period, the basic task is the same: to overcome pandemic-induced disruptions in ways that also emphasise the silver linings of the crisis. Now is the time to look to lock in trends and conditions that will reshape our society and economy for the better over the long term. Here are the top six silver linings that can be seen in order to reshape the world economy, as they are seen as well by professor Mohamed A. El-Erian, president of Queens’ College (Cambridge University).

The first is represented by the unprecedented medical invention and innovation in history, capable to produce a host of other discoveries, many of which will yield significant, durable benefits. This crisis is forcing us to confront with issues concerning drug pricing and distribution, both domestically and globally, as well as the range of social and other inequalities that we have allowed to worsen.

Second is represented by deeper cross-border private-sector collaboration, often outside the purview of governments. In mobilising against the coronavirus, scientists



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around the world are sharing information like never before, and pharmaceutical companies are collaborating in unprecedented ways. These collective efforts are being supported by dynamic public-private partnerships that are seen as “win-win” instruments.

Third, the economic disruptions resulting from the pandemic have contributed to multiple private-sector efforts in order to collect and analyse a broader range of high-frequency data in domains extending far beyond medicine. In the economics discipline, for example, there is a massive surge of interest in innovative new methods of measuring economic activity through granular high-frequency indicators such as mobility (smartphone geolocation), electricity consumption, and retail traffic, as well as credit card usage and restaurant reservations. These metrics are now supplementing the official statistics compiled by governments, providing considerable scope for compare-and-contrast exercises that can improve the quality and policy relevance of data-collection efforts.

Fourth, the COVID-19 shock has raised the collective awareness and sensitivity to low-probability, high-impact “tail risks”. Suddenly, many in the private and public sectors are thinking more in terms of the full distribution of potential outcomes, whereas in the past they focused only on the most likely events. Policymakers have become more open to scenario analyses.

In the case of climate change, the sharp reduction in harmful emissions during the current crisis has provided clear evidence that a new way is possible. And it is now widely accepted that governments have an important role to play in under-writing a durable and inclusive recovery.

The fifth silver lining is about pandemic that has led country after country to run a series of “natural experiments”, which have shed light on a host of issues that go well beyond health and economics. Systems of governance and modes of leadership have come under scrutiny, revealing a wide divergence in their capacity to respond to the same large shock. Corporate responsibility has also been brought to the fore as company after company scrambles to respond to what was once unthinkable. And multilateral cooperation has been shown to be lacking, increasing the threats to all.

Finally, the crisis has required many companies to hold candid conversations about work-life balance, and to devise innovative solutions to accommodate employees’ needs. There have already been far-reaching changes in how we work, interact with colleagues, and consume goods and services, and only some of these are likely to be reversed after the pandemic has passed.

These six silver linings constitute only a preliminary list of the opportunities offered by the pandemic. The point is not to discount the severity of the shock and

uncertainty that have confronted the majority of the world's population. The pandemic has lasted much longer than many expected, and continues to leave tragedy and destruction in its path.

The challenge now is to expand and refine this list, so that we can seize the opportunities on offer and lock in more positive trends for the long term. By acting together, we can transform a period of deep adversity into one of shared wellbeing for us and for future generations.

In the current context, the authors who have written articles for the current issue have tried, as far as possible, to look at some solutions for the current problems facing the world economy. Whether or not they succeeded in responding to the challenges, we leave it to you to determine.

In the first article of this issue entitled *Circular Economy: An Inevitability Issue for the Sustainable Human Civilization*, the author **Haradhan Kumar MOHAJAN** is talking about the negative effects from the traditional linear economy (LE) that become threat to the stability of the economies and natural ecosystems. Strength of climate change, reduction of environment pollution and integrity of ecosystems are essential issues for survival of the global humanity. According to LE, resources for production are easily available and unlimited, and, after use, wastes are disposable. The circular economy (CE) is an alternative to the LE where the resources may be used for as long as possible. It tries to capture the value of existing products and materials, and decreases the use of primary materials in industries. The CE is a part of environmental economics and beneficial to the society. It keeps products, components, and materials at their highest utility and maximum value at all times. At present, CE is one of the most focused terms among environmental economic scientists. The aim of this study is the implementation of the sustainable development strategies and the transition from LE towards CE.

The second academic paper called *Entry and Survival Strategies Adopted by Chinese Small Scale Entrepreneurs in Sri Lanka: A Case Study* is written by **R.N. WEERASINGHE** and **S.A.S.S. PERERA**. This study followed the 'Investigation research model' with the two main research aspects, 'success of the Chinese small businesses in Sri Lanka' and 'affecting factors for the success' as the conceptual model of the research, and authors used the qualitative research approach by collecting data through in-depth interviews conducted with the Chinese entrepreneurs who are currently operating their businesses in Sri Lanka and the BOI officers who supporting to promote FDIs in Sri Lanka. For the data collection purpose, researchers used the snowball sampling technique and the unstructured,

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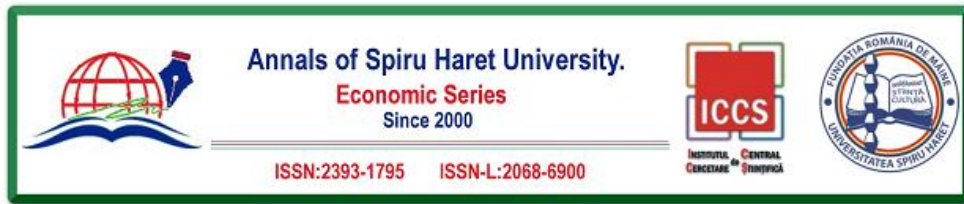
open-ended questionnaire. Thus, this research followed ‘case study method’ and ‘conversation-based content analysis’ to analyse the collected data. Finally, the affecting factors were identified under these four main dimensions viz.: statutory and legal requirements, market related factors, financial related factors and strategy of investments. Moreover, this study concluded that the success of the businesses can be assessed by using the seven success factors under four key dimensions such as operational performance, market performance, wealth of the business and growth of the business. The findings of the study will be useful for the investors mainly from China and also other foreign investors who are planning to invest in Sri Lanka. Further, policy makers need to consider study findings for future initiatives in crafting policies in business development, trade and investment.

Ugo Chuks OKOLIE and Afonughe Irikefe OMAMUYOVWI, in their paper entitled *Developing the Human Resources Effectiveness through Training and Development*, are talking about the environment of business is increasingly becoming more volatile and unpredictable and this randomness and disorder is draining potency from the over a century old bureaucratic paradigm that has dominated management practices across the globe. The fast pace of change is driving, obsolescence into yesterday’s breakthroughs and today’s success techniques cannot be extrapolated to solving tomorrow’s problems with guarantee. Organizations must find a way of embracing the 21st century paradox of keeping everything running and at the same time changing everything. To be able to achieve this, organizations must create the capacity for continuous change, learning and improvement. The permanence of change demands a permanence of adaptive and creative behaviour on the part of organizations and requires managers to continually upgrade the skills and performance of employees and their own. Such constant improvement increases both personal and organizational effectiveness. Developing the human resources (employee) in this way involves training and development activities. It is against this backdrop that this paper underscores the indispensability of training development on human resources effectiveness in organizations. This paper relies on secondary data collected from books and journal articles, and was content analysed in relation to the scope of the paper. The paper concludes that the reasons organizations train and develop their workforce continually are to maintain effective performance, improve the quality of decision-making and raise the quality and timeliness of service delivery in today’s competition business environment.

The authors **Marinel Cornelius DINU, Nicolae GOGA, Ana Maria NEAGU** and **Robert ANCUCEANU**, in their academic paper called *Education for Work Related to Lifestyle Health* examined the studies which were performed in various

countries, including Romania, have shown that a number of factors are negatively impacting the health of the population at the workplace and in the household. The connection between health and work has been researched for a number of years as an important driver towards wellbeing. Several studies have been conducted in order to identify problems and to find solutions to harmonize the balance between wealth and health. Increased globalization, the chase for competitive advantage and the reduction of costs (especially labour costs) moved employers' attention from the wellbeing of employees to higher profits. We discuss about such situations mainly in the East European Countries since the labour force is cheaper than in Western Europe. We should not forget that this current trend started in the US and was adopted also by European companies in order to increase profits. In West Europe, there are quite a number of studies regarding the relation between work and health, while in East Europe the number of such studies is quite small. The present paper proposes as an objective the study of several working factors and the relationship to health in Romania. Some of the results in our study reveal the concordance between the propensity of individuals to sacrifice from their one time and time for work without significant discrepancies between genders. Also, the more people invest in their time to rest, the more they are able to work hard without injuries. When it comes to gender characteristics, we determined slight changes in behaviour with almost the same labour pattern for both participants. Another interesting finding was that rural and urban areas are clearly determining the type of stress exposure for participants with a higher impact for workers coming from the urban area. Physical exercise and labour can be channelled in good order according to the gender capabilities.

Another interesting paper is written by **Olawale Olufemi AKINRINDE** and **Seun TEGBE**, and is entitled *Boko-Haram Terrorism and the Futurology of Nigeria's Development*. This study interrogates the continued manifestation of the Boko Haram terrorism that inheres in the prevailing human securities challenges in Nigeria, and why the Nigerian developmental quests had failed and are bound to fail in the future should the human insecurity challenges that accounted for the Boko Haram terrorism are left unabated in Nigeria. Collected qualitative and archival data lend credence to the centrality of the proposition of this study that Boko Haram terrorism would remain as long as the human security challenges such as poverty, inequalities, social injustice, unemployment, illiteracy remain unaddressed. This study therefore recommends a human-based approach to addressing the Boko Haram terrorism.



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We hope that our journal issue caught your attention and made you read it. Also, we strongly believe that all the articles are interesting and deserve to be appropriated by those who are interested in understanding the specific issues of the global economy.

If you've liked our articles, please visit our website at **<http://anale-economie.spiruharet.ro/>**. If you want to write an article in our journal, we are waiting for you to expose your ideas in new studies published by us.

Finally, hoping that you found interesting Issue 3/2020, I strongly invite you to address your comments and suggestions at ashues@spiruharet.ro and, of course, to submit your own paper via online submission system, using the following link: **<http://anale.spiruharet.ro/index.php/economics/login>**.

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***Associate Professor Elena GURGU, Ph.D. in Economics
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CIRCULAR ECONOMY: AN INEVITABILITY ISSUE FOR THE SUSTAINABLE HUMAN CIVILIZATION

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Abstract

Since the start of the Industrial Revolution about 260 years ago, the negative effects from the traditional linear economy (LE) become threat to the stability of the economies and natural ecosystems. Strength of climate change, reduction of environment pollution and integrity of ecosystems are essential issues for survival of the global humanity. According to LE resources for production are easily available and unlimited, and after use wastes are disposable. The circular economy (CE) is an alternative to the LE, where the resources may be used for as long as possible. It tries to capture the value of existing products and materials, and decreases the use of primary materials in industries. The CE is a part of environmental economics and beneficial to the society. It keeps products, components, and materials at their highest utility and maximum value at all times. At present, CE is one of the most focused terms among environmental economic scientists. The aim of this study is the implementation of the sustainable development strategies and the transition from LE towards CE.

Keywords: *circular economy; economic growth; recycling; reuse; reduction; sustainable development; SWOT analysis.*

JEL Classification: A1, O1, P2

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1. Introduction

Recently, global production and consumption of various commodities have increased due to the rising of global population and economic development. As a result, environment pollution increases alarmingly. The circular economy (CE) substantially can reduce the environmental pollution. It is an economic system that rethinks to use raw materials and resources for the creation of a sustainable economy; free of waste and emissions. It converts the waste into valuable resources in the economy. The CE mainly emerges from 3R's principles: Reduction, Reuse and Recycle [Preston, 2012]. It means shifting from the traditional unsustainable linear economy (LE) (Figure 1) of “take, make, waste” (i.e., goods are manufactured from raw materials, sold, used and then incinerated or discarded as waste) to a sustainable economy (Figure 2) of “reduce, reuse, recycle”. It is an industrial system that restores renewable energy and eliminates toxic chemicals and wastes from the environment. Recently, CE attracted increased attention to the major global companies, policymakers and environment economic scientists [Ellen MacArthur Foundation, EMF, 2013]. According to CE “Nothing is lost, everything is transformed” [Alexandru & Taşnadi, 2014].

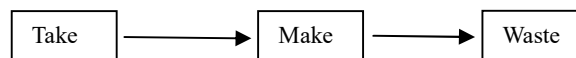


Fig. 1. Linear economy
Source: EMF, 2016

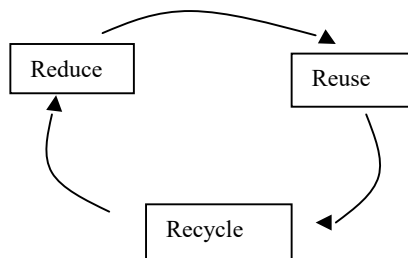


Fig. 2. Circular economy
Source: EMF, 2016



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Actually, CE cannot ensure 100% implementation of 3R's principles in the society [Andersen, 2007]. Everything as much as possible is reused, remanufactured, and recycled back into a raw material and used as a source of energy. The negative effects of waste are threatening to economies and ecosystems [Park & Chertow, 2014]. The CE also requires water and energy to come from renewable resources and that biological materials, such as food wastes, are returned to the soil [Natural Scotland, 2013].

The CE can be classified into upcycling and downcycling [Cullen, 2017]. Upcycling (creative reuse) refers to converting a waste material into something of better quality or better environmental value [Sung *et al.*, 2014; Braungart *et al.*, 2014]. For example, conversion of waste plastics into carbon nanotubes, such as graphene indicates upcycling [Zhuo & Levendis, 2013]. On the other hand, downcycling indicates that materials are recovered and converted into materials of lesser quality. For example, i) a plastic computer case conversion into a plastic cup, which then becomes a park bench, and ii) steel scrap from end-of-life vehicles is often contaminated with copper from wires and tin from coating becomes lower quality steel and mostly applied in the construction sector indicate downcycling [Cullen *et al.*, 2012]. The terms *upcycling* and *downcycling* were first used by Reiner Pilz in an interview by Thornton Kay in SalvoNEWS in 1994 [Kay, 1994]. Downcycling can help keep materials in use, reduce consumption of raw materials, and avoid the energy usage, greenhouse gas (GHG) emissions, air pollution, and water pollution of primary production and resource extraction [Pires *et al.*, 2019].

The transition to CE does not only amount to adjustments aimed at reducing the negative impacts of the LE, but also reflects a systemic shift that builds long-term resilience, generates business and economic opportunities, and provides environmental and societal benefits [EMF, 2013]. Recently, urbanization, industrialization, and globalization have increased globally. More than two-thirds of the world's energy is consumed in cities. Various activities of cities emit more than 70% of global CO₂. Between 1900 and 2015, the urbanized population increased from 14% to 54%. Natural extraction of resources has increased 12-fold between 1900 and 2015. The global materials use has increased from 26.7 billion tons in 1970 to 84.4 billion tons in 2015, and it is expected that the use will be about 184 billion tons by 2050 [Circle Economy, 2019].

During the last five decades, global population, food production, and energy consumption have increased approximately 2.5-fold, 3-fold and 5-fold, respectively.



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Global material extraction became more than doubled from 36 billion tons in 1980 to 85 billion tons in 2013. Human activities are already affecting climate change, biodiversity, biogeochemical flows and land system [Mohajan, 2015; Steffen *et al.*, 2015]. The CE ensures renewable, reusable, and non-toxic resources to utilize materials and energy in an efficient way, which provides economic, environmental, and societal benefits. It causes gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system [Geissdoerfer *et al.*, 2017]. It aims to keep products, components, and materials at their highest utility and value at all times to keep resources in use for as long as possible, extracting the maximum value from them whilst in use, and recovering and regenerating products and materials at the end of their service life [Benton & Hazell, 2013].

Since the Industrial Revolution, humankind has been using raw materials for the production and consumption of goods and wastes are unconsciously discarded [Mohajan, 2019b, 2020]. The CE is an industrial model that is regenerative by intention and design, and aims to improve performance of resources. **It offers a new chance of innovation and integration between natural ecosystems, businesses, our daily lives, and waste management** [EMF, 2014]. The world population and middle classes in every nation are increasing very rapidly, the total demand for materials are increasing in parallel. To feed the global population, about 60-70% more food will be needed by 2050, redesigning our economy and protecting and regenerating biological systems can meet these challenges that are provided by CE. Therefore, CE is necessary, as it leads to lower material needs [EMF, 2012].

To achieve CE, recycling, efficient use of resources, refurbishment and reuse of products and components, utilization of renewable energy sources, remanufacturing, product life extension, product sharing, and waste prevention are needed [Rizos *et al.*, 2017].

2. Literature Review

Kenneth E. Boulding claimed that circular systems within the global economy are unavoidable in order to guarantee human life on the earth in the long run [Boulding, 1966]. David W. Pearce and R. Kerry Turner agreed that the traditional LE without recycling elements cannot be sustainable and, consequently, must be replaced by a circular system [Pearce & Turner, 1989]. According to Robert Meril, Michele Preziosi, and Alessia Acampora, CE is a concept that shares many common



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principles of recycling with others, which are beneficial to the society [Merli *et al.*, 2017]. Walter R. Stahel and Genevieve Reday conceptualized a loop economy to describe industrial strategies for waste prevention, regional job creation, resource efficiency, and dematerialization of the industrial economy [Stahel & Reday, 1976].

Sylvie Geisendorf and Felicitas Pietrulla propose a revised definition of the CE after having analyzed and compared the most prominent related concepts [Geisendorf & Pietrulla, 2018]. The Ellen MacArthur Foundation, a non-profit organization, developed the refinement and development of the concept of CE as regenerative design, performance economy, cradle to cradle, biomimicry and blue economy. According to it, CE is the transformation and use of the natural resources in such a manner as to maintain and preserve the ecologic equilibrium and the economic growth [EMF, 2013]. In a review paper, Patrizia Ghisellini, Catia Cialani, and Sergio Ulgiati have discussed the origins, basic principles, advantages and disadvantages, modelling and implementation of CE globally [Ghisellini *et al.*, 2016].

Mikael Skou Andersen realizes that CE provides a beneficial and inclusive economy by focusing on minimizing resource consumption and waste disposal [Andersen, 2007]. Shan Zhong and Joshua Pearce stress on enhancing the CE in plastic recycling. According to them, plastic waste is upcycled into 3-D printing filament with a recyclebot, which is an open source waste plastic extruder. This process benefits the environment and sustainability as well as the economic stability of consumers [Zhong & Pearce, 2018]. William McDonough and Michael Braungart have pleaded for a new way of designing our material goods and for going beyond the concept of eco-efficiency which only focuses on reducing the negative impacts of human activity on the environment [McDonough & Braungart, 2002]. Felix Preston suggested that industrialized nations and companies must take several practical steps, such as best practice and knowledge sharing, smart regulation, standardization, raising public awareness, and support for development of nations in pursuit of CE [Preston, 2012].

Luc Alaerts and his co-authors briefly discuss the monitoring frameworks based on macro indicators that summarize the progress at national level, and micro indicators tailored towards assessing circularity at the level of products. They have developed a conceptual approach that aims to bridge the gap between the micro and macro level with meso level indicators [Alaerts *et al.*, 2019]. Marco Pesce and his co-authors have discussed SWOT analysis and implementation principles of CE sustainability practices in companies, different industries, and territories for the development of the green energy industry in China [Pesce *et al.*, 2020].



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World Health Organization (WHO) shows that the transition to a CE provides a major opportunity to obtain substantial health benefits. It also indentified the risks of adverse and unintended health effects in processes involving hazardous materials during the implementation of CE [WHO, 2018]. Vasileios Rizos, Katja Tuokko, and Arno Behrens developed a framework consisting of eight main processes of the CE: i) recycling, ii) efficient use of resources, iii) utilization of renewable energy sources, iv) remanufacturing, refurbishment and reuse of products and components, v) product life extension, vi) product as a service, vii) sharing models, and viii) a shift in consumption patterns [Rizos *et al.*, 2017].

3. Methodology of the Study

Research methodology indicates the logic of development of the process used to generate theory, which is the procedural framework within which the research is, conducted [Remenyi *et al.*, 1998]. It provides us the principles for organizing, planning, designing and conducting a good research. Hence, it is the science and philosophy behind all researches [Legesse, 2014]. The methodology of this article is to discuss CE in some details. Linear economy is one directional economy where produced materials become wastes after consumption, which is sometimes called “cradle to grave” economy. On the other hand, circular economy is sometimes called “cradle to cradle” economy. Source of CE are from 3R’s principles: Reduction, Reuse and Recycle [Preston, 2012].

The CE becomes essential for the sustainable economic development and for the welfare of the global humanity. In this study, secondary data are used to develop this article. For the collection of secondary data, we have used both published and unpublished data sources. The published data are collected from: i) national and international journals, ii) various publications of foreign governments or of international bodies and their subsidiary organizations, iii) various research reports of research scholars, iv) books of famous authors, research note books, hand books, theses, magazines, and newspapers, v) websites, and vi) public records and statistics, historical documents, and other sources of published information. The unpublished data are collected from diaries, letters, unpublished biographies and autobiographies, and also from scholars and research workers, trade associations, and other public/private individuals and organizations.

4. *Objective of the Study*

Main objective of this study is to represent the aspects of CE against the traditional LE. In addition, it will be carried out under the following specific objectives:

- to provide a basic understanding of CE;
- to show the procedure of CE among different nations;
- to highlight different levels of CE;
- to describe in brief benefits, importance and barriers of CE, and its SWOT analysis.

5. *Concepts of CE*

The CE in area development is still in its infancy. It is considered a possible solution to mitigate problems, such as the increasing global demand for resources, climate change and worldwide pollution. The CE has links to many of the 17 Sustainable Development Goals (SDGs), such as no poverty, responsible consumption and production, sustainable cities and communities, and the promotion of inclusive and sustainable industrialization and innovation, approved by the UN in 2015 [Berg *et al.*, 2018]. The CE is a model of production and consumption, which involves sharing, renewing, leasing, reusing, repairing, dematerializing, upgrading, refurbishing and recycling existing materials and products as long as possible. Recently, CE became popular worldwide for the sustainable economic development and making a harmonious society [Naustdalslid, 2014].

There is no unequivocal definition of CE. There is a close link between the concepts of the CE and sustainability [Whalen *et al.*, 2018]. Julian Kirchherr, Denise Reike, and Marko Hekkert defined CE as, “*an economic system based on business models that replace the concept of end-of-life with reducing, reusing and recovering raw materials in production, distribution and consumption processes, by operating at different levels of scale and with the aim of achieving sustainable development for present and future generations*” [Kirchherr *et al.*, 2017]. The Ellen MacArthur Foundation defined the CE as, “*one that is restorative and regenerative by design and aims to keep products, components, and materials at their highest utility and value at all times, distinguishing between technical and biological cycles*” [EMF, 2016].

The Chinese CE promotion laws define CE as, “*A generic term for the reducing, reusing and recycling activities conducted in the process of production, circulation*

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and consumption” [China Council for International Cooperation on Environment and Development, CCICED, 2008]. The World Economic Forum defined CE as, “an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems and business models” [Schwab, 2019]. The EU Action Plan defined the CE as, “In a circular economy the value of products and materials is maintained for as long as possible; waste and resource use are minimized, and resources are kept within the economy when a product has reached the end of its life, to be used again and again to create further value” [European Commission, EC, 2015].

In a CE, economic activity builds and rebuilds overall system of sustainable economy. The CE indicates the importance of the economy to work effectively in large and small businesses, organizations and individuals locally and globally. The aim of CE is to use less the natural resources, reduction of pollution, tackle the climate change, enhance consumer satisfaction, and improve the bottom line. It aims to design out waste. The products are designed and optimized for a cycle of disassembly and reuse. Biological ingredients could be at least non-toxic and possibly even beneficial, and safely be returned to the biosphere. The energy required to fuel should be renewable by nature to decrease resource dependence and increase systems resilience [McDonough & Braungart, 2002].

Other related approaches of CE are as follow: cradle-to-cradle [McDonough & Braungart, 2002; Bjorn & Strandesen, 2011], symbiosis [Lombardi & Laybourn, 2012], laws of ecology [Commoner, 1971], looped and performance economy [Stahel, 2010], blue economy [Pauli, 2010], closed-loop supply chains [Bhattacharjee & Cruz, 2015], regenerative design [Lyle, 1994], natural capitalism [Hawken *et al.*, 2000], industrial ecology, reverse logistics [Agrawal *et al.*, 2015], resource efficiency [Birat, 2015], low waste production, biomimicry [Benyus, 1997], and sustainability [Charonis, 2012].

6. *Origin of CE*

The discourse on the CE originated in the early 1970s. Ecological economist Kenneth E. Boulding considered the economy as a closed and circular system with limited assimilative capacity for the maintenance of the sustainability of human life



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on the earth in the long run, but he did not use the phrase ‘circular economy’. He called the LE as “cowboy economy” and proposed the “spaceman economy” for CE [Boulding, 1966]. In 1989, British environmental economists David W. Pearce and R. Kerry Turner primarily introduced the concept of circular economic system depending on the studies of K. E. Boulding. According to them, the traditional LE without recycling elements cannot be sustainable. They identified four economic functions of the environment as: i) provision of resources, ii) amenity values (e.g., the beauty of landscapes), iii) life support system, and iv) sink for waste and emissions [Pearce & Turner, 1989].

Origins of CE are mainly rooted in ecological and environmental economics and in industrial ecology. Essence of CE is found in General Systems Theory and Industrial Ecology (IE) [Preston, 2012; Ghisellini *et al.*, 2016]. General Systems Theory supports holism, system thinking, complexity, organizational learning and human resource development, which are grounds of CE [Senge *et al.*, 2010]. The elements of IE are the biological analogy, system perspectives, technological modifications, cooperation, dematerialization, eco-efficiency, and research and development [White, 1994]. The IE analyzes the industrial system and its environment as a joint ecosystem characterized by flows of more material, energy and information as well as by the provision of fewer resources and services from the biosphere [Erkman, 1997; Merli *et al.*, 2017]. The CE promotes the transition from open to closed cycles of materials and energy, and leads to less wasteful industrial processes [Andersen, 2007]. The CE builds concepts on IE to analyze industrial systems operation and optimization to establish a new model of economic development, production, distribution and recovery of products [Iung & Levrat, 2014]. It is restorative on renewable energy to minimize, track, and eliminate the use of toxic chemicals and eradicate waste through careful design. It includes the activities of contribution to zero waste and keeping materials in use for as long as possible [EMF, 2014].

7. Principles of CE

The main principles of CE are “*reduction, reuse and recycle*”. The reduction principle tries to minimize the input of primary energy, raw materials and waste through the improvement of efficiency in production and consumption processes that reduces resource and increases economic and social wellbeing. It promotes system effectiveness by revealing and designing out negative externalities [EMF, 2012; Su *et al.*, 2013]. The reuse principle indicates to use resources again in

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production for the same purpose that provides environmental benefits, as it requires fewer primary resources, less energy, and less labour, compared with the manufacture of new products. It preserves and enhances natural capital by controlling finite stocks and balancing renewable resource flows [EU, 2008; Castellani *et al.*, 2015]. The recycle principle refers to reprocess waste materials into products that benefit the still usable resources and reduce the quantity of waste. It optimizes natural and manmade resources by circulating products, components, and materials [EU, 2008; Birat, 2015]. Some waste materials are recyclable for a limited times and some for unlimited times. For example, cellulose fibres may be recycled 4-6 times, but metals are recyclable unlimitedly [Reh, 2013].

The CE is based on following three principles [EMF, 2012]:

i) Waste and pollutions are designed out. These indicate that the products of today can become the resources of tomorrow and the negative impacts of economic activity that cause damage to human health and natural systems must be eliminated. For example, the release of GHGs, the use of toxic and hazardous substances, the pollution of air, water, and land, incineration of waste, etc. are harmful for environment. Hence waste and pollutions must be redesigned [EMF, 2013].

ii) Products and materials are kept in use. This includes favouring activities that increase product utilization, and reuse to preserve the embedded energy, labour, and materials. For example, designing for durability, repair, reuse, remanufacturing, and ultimately recycling of products and materials are necessary [EMF, 2014].

iii) Natural systems are regenerated. It involves, for example, deploying agricultural practices that not only avoid degrading soil, but actually rebuild soil health over time [EMF, 2012].

The CE is founded in several principles as follows [EMF, 2012, 2013]:

Eco-design: It tries to reduce the environmental impacts throughout the life cycle of a product. It circulates products, components, and materials at their highest utility at all times, in both technical and biological cycles [Erkman, 2001].

Energy from renewable sources: It eliminates fossil fuels to produce the product, reuse and recycle. It favours technologies and processes that use renewable or better performing resources [Geng *et al.*, 2014].

Industrial and territorial ecology: It establishes an industrial organizational method in a territory characterized by an optimized management of finite stocks and balancing renewable flows of materials, energy and services. The CE enhances natural capital by encouraging flows of nutrients within the system and creates the



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conditions for regeneration of soil and other living systems [Erkman, 1997; Preston, 2012].

Functionality economy: It aims to eliminate the sale of products in many cases to establish a system of rental property [EMF, 2013].

Waste becomes a resource: All the biodegradable material returns to the nature and the not biodegradable is reused. Resources, wastes and by-products of one company can become the inputs of another industrial process, which reduces the use of raw materials, waste and environment pollution [Frosch & Gallopoulos, 1989].

Second use: It reintroduces in the economic circuit those products that no longer correspond to the initial consumers needs [EMF, 2012].

Reuse: It reuses certain products or parts of those products that still work to elaborate new artifacts [Geng *et al.*, 2014].

Reparation: It finds damage products a second life. It reveals and design out negative externalities, such as land degradation, air, water, and noise pollution, release of toxic substances, and GHG emissions [Steffen *et al.*, 2015].

Recycle: It makes use of materials founded in waste [Preston, 2012].

Valorisation: It harnesses energy from waste that cannot be recycled [Mirabella *et al.*, 2014].

8. *The CE Model*

The CE predicts an economy that has no net effect on the environment, restoring any damage in resource acquisition and minimizing waste generation in manufacturing and the product life cycle [Murray *et al.*, 2015]. The aim of CE is not proposing an absolute decrease in the levels of material use or a reduction in personal consumption levels, but continuing economic growth by utilizing resources more efficiently [Llanwarne, 2016].

The CE enables to create a circular supply chain in which residual outputs from one process feed into another process, to recover the resource value of materials in a manner that creates new value from these same materials, to extend the work life of a product, and improve the usage rates of products through shared use [World Economic Forum, 2018].

The following models of CE are necessary to make the world sustainable for the future generation [Accenture, 2015]:

Resource Recovery: This model enables a company to eliminate material leakage and maximize economic value of product return flows. Recovery of useful



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resources/energy out of disposed products [Accenture, 2015]. For example, waste management company of Singapore, Tes-Amm connects seamlessly with its clients' manufacturing processes to help dispose electronics scrap.

Circular Supplies: This model is based on supplying fully renewable, recyclable, or biodegradable resource inputs that strengthen circular production and consumption systems [Accenture, 2015]. For example, tyre manufacturer Omni United in Singapore has tied up with US footwear company Timberland to make a special line of tyres that can be easily recycled at the end of life into crumb rubber. The rubber is then used by Timberland for making shoe outsoles.

Product as a Service: This model offers an alternative to the traditional model of buy and own. Products are used by many customers through a lease or pay-for-use arrangement [Accenture, 2015]. For example, Sunlabob, a solar enterprise based out of Lao People's Democratic Republic (Lao PDR), has created a service-based approach to sustainable lighting in rural areas.

Product Life Extension: This model indicates to extend the working life cycle of products and components by repairing, upgrading, and reselling [Accenture, 2015]. For example, in Singapore, the Sustainable Manufacturing Centre and the Advanced Remanufacturing and Technology Centre have been working with companies to improve the longevity of products through topics, such as green manufacturing, remanufacturing, repair and restoration, and product verification.

Sharing Platforms: This model promotes a platform for collaboration amongst product users, either individuals or organizations. It facilitates the increase of utilization rate of products by making possible shared use [Accenture, 2015]. For example, car sharing is one of the earliest sharing platform models.

9. *The Nations on the CE*

In the last two decades, many countries of emerging economies have achieved impressive environmental improvements. Nevertheless, over production, consumption, and trade remain dangerously unstable globally yet [Preston, 2012].

Germany followed CE in the early 1976 with the Waste Disposal Act. It implemented CE in 1996 accompanied with an enactment of a law: "*Closed Substance Cycle and Waste Management Act*" which provided for managing waste in a closed cycle and ensuring environmentally compatible waste disposal [Su *et al.*, 2013]. In 2015, the European Commission announced a CE package that marks a milestone towards a modern conception of economic growth fit for the 21st century [The Centre for European Policy Studies, CEPS, 2018].



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Japan followed CE since 1991 with the Law for Effective Utilization of Recyclables and the Japanese CE initiative [The Institution of Environmental Sciences, IES, 2015]. In 2000, Japan became the second country that issued a law to promote CE nationally. The government tried its best for high production, high-consumption and high waste into a “*recycle-oriented society*”. It aimed to promote waste measures and recycling comprehensively and systematically [Zang, 2006].

Rapid economic development of China has increased wealth and has provided employment and business opportunities. The rapid economic growth pushed the country in serious natural resource depletion and environmental pollution. China is the third country engaged in serious efforts to implement CE on a large scale. China started CE in 1998 and the government of China (GoC) has accepted CE since 2002 [Yuan *et al.*, 2006]. Initially, it likes to retain competitiveness and intends to initially introduce the CE framework on a smaller scale through several pilot studies so that it has a better basis for assessing its large scale and full coverage in the long run. This policy is like economic liberalization, which started with coastal free economic zones [Heshmati, 2015]. In 2009, China adopted “*Circular Economy Promotion Law of the People’s Republic of China*” [Lieder & Rashid, 2016]. Recently, China strongly followed CE because of the huge problems on environment and human health due to its very rapid and continuous economic development pattern. The CE is identified in China within the ecological economics framework. It introduced a new development model to help China leapfrog into a more sustainable economic structure [Su *et al.*, 2013]. The CE emphasizes the benefits of reusing and recycling residual waste materials in energy, water, different by-products, etc. For example, Dalian city in China is an important pilot study where the CE strategy was implemented during 2006-2010 [Park *et al.*, 2010]. Concept of Chinese CE vibrates with the concept of IE, which emphasizes the benefits of utilizing residual waste materials, including energy, water, different by-products as well as information [Yuan *et al.*, 2006].

The waste and resource sector in the UK has followed the recycling, composting, anaerobic digestion, etc. Therefore, other CE activities, such as repair, refurbishment, and remanufacture are not followed significantly [Chartered Institution of Waste Management, 2014]. Recently, Europe is a pioneer when it comes to CE policy development. Many members of EU states including Finland, the Netherlands, Scotland and France have launched CE strategies and initiatives [Sitra, 2016]. The USA partially adopted CE since 1980s as a solid waste management, minimum



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content laws, labelling laws, selective landfill bans on specific materials, beverage containers recycling, and green labelling [He *et al.*, 2013]. Very recently, Australia and New Zealand are evaluating and accelerating an action agenda for the CE [Jewell, 2015]. A non-EU member state and a small economic power, Switzerland is trying to achieve CE policy in national and international levels [Alexandru & Taşnadi, 2014].

10. Levels of CE

There is a three-layer approach to implement CE in the society: i) micro level, ii) meso level, and iii) macro level. The CE can control production, consumption and waste in these three levels. Recently China, Europe, Japan, the USA, and BRICS (Brazil, Russia, India, China, and South Africa) are substantially benefited from the partial implementation of CE.

10.1. Micro Level

The micro level indicates the company or consumer level (single process). At this level, a company is either required or encouraged to conduct CE auditing. Here all enterprises are divided into five categories; green, blue, yellow, red, and black, according to their environmental performance. A company follows different strategies, such as production processes, green design, cleaner production (pollution prevention, toxic use reduction, and design for environment), etc. to improve the circularity of its production system. It also cooperates with other companies over the supply chain to achieve a more effective circular pattern. They are encouraged to design more environment friendly products and adopt cleaner technology in their manufacturing processes [Yuan *et al.*, 2006; Wrinkler, 2011].

Green consumption is an important policy that takes more environment friendly products and services. The green consumers' responsibility is to purchase and use of food, non-food sustainable products and services [European Commission, EC, 2010; Su *et al.*, 2013]. The implementation of CE practices reverse supply chains and enables products at the end of their life cycle to re-enter the supply chain as a production input through recycling, reusing or remanufacturing [Genovese *et al.*, 2017].



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10.2. Meso Level

The meso level indicates the eco-industrial parks, industrial symbiosis districts and networks [Su *et al.*, 2013]. At this level, the main objective is to develop an eco-industrial network that will benefit both regional production systems and environmental protection. It monitors frameworks that reports CE achievements in systems that fulfil needs of a society. The purpose of it is to achieve economic and environmental benefits [de Wit *et al.*, 2018].

Industries work as separate entities and engage in complex interplays of resource exchange (material, water, energy and by-products), a think called industrial symbiosis. The industrial ecology cares at all levels of analysis (facility level, inter-firm level, regional and global level). However, the industrial symbiosis refers at inter-firm level, as it involves physical exchanges among several organizations [Lowe *et al.*, 1995; Chertow, 2000]. The international experiences of industrial symbiosis can be mainly traced back to both top down (eco-industrial parks) and bottom up (industrial symbiosis districts) strategies [Cutaia & Morabito, 2012].

10.3. Macro Level

The macro level indicates regions, provinces, cities, and nations. The CE development in macro level can be formed by four systems as [Ness, 2008]: i) the industrial system, ii) the infrastructure system, iii) the cultural framework, and iv) the social system. The eco-city, eco-municipality, or eco-province is one of the most prominent environmental movements. The concept of eco-town was developed in the 1980s in the USA, and since 1997, a number of 26 eco-towns were created in Japan [van Berkel *et al.*, 2009]. About 100 of eco-cities were formed in Europe, such as in Germany, Sweden, and UK, and also in China [EU-ASIA, 2014; Marion, 2012].

Every year, about 2.5 to 4 billion metric tons of wastes are collected worldwide and 1.3 billion tons of solid waste per year is generated in cities. Dangerous chemicals and metals, such as mercury, cadmium, lead, etc. are included in electrical and electronic wastes (e-wastes) and may leach into the environment and local eco-system [Circle Economy, 2019].

10.3.1. E-Wastes

E-waste refers to all electronic equipments that have been discarded without the intent of reuse [Solving the e-Waste Problem, STEP Initiative, 2014]. Recently, e-waste is one of the fastest growing waste flows in all nations. Production of e-



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waste increased from 20 million tons in 1998 to 41 million tons in 2010 globally [Kuehr, 2012]. In 2016, about 45 million tons of e-wastes were produced worldwide, and only 20% of it was collected and recycled appropriately. By 2020, e-waste from old computers in South Africa and China will have jumped by 200-400% and by 500% in India from 2007 levels [EMF, 2016].

10.3.2. *Plastics Waste*

Used plastic is considered as one of the elements of waste. More than last 50 years plastics use has increased due to their versatility, low cost and durability. Recently, plastic has improved standards of living of the people [Shen *et al.*, 2009]. Between 1964 and 2015, the production of plastics increased by more than twenty-fold. In 2015, the global plastic production was roughly 322 million tons; two-thirds of which were contributed jointly by China (23%), EU (21%), the USA (16%), and Japan (5%). The production is growing 3.86% per annum, and is expected to increase about 850 million tons per year by 2050 [Gu & Togay, 2016].

Plastic is used in many sectors, such as packaging, baggage, financial transactions (Debit/Credit cards, plastic money), food containers, stationary items, toys, shoes, storage, electrical and electronic goods, household appliances, construction, automotive manufacture, furniture, agriculture, etc. At the beginning, it was mostly produced in Europe and the USA, but recently China became the leading producer with 28% of global production, and Japan 21% [Gopal *et al.*, 2014].

About 4,900 million tons of the estimated 6,300 million tons totals of plastics ever produced have been discarded either in landfills or elsewhere in the environment. Plastics usually need more than 20 to 500 years to break down in landfill; incineration of plastic emits large quantities of harmful compounds and GHGs [Tansel & Yildiz, 2011].

Plastic production is highly dependent on natural gas and oil (6% of global oil). It takes about 185 litres of water to make one kg of plastic. Some plastics contain toxic chemical additives, including persistent organic pollutants (POPs), which have been linked to health issues, such as cancer, mental, reproductive, and developmental diseases. Plastic is also harmful for the environment, such as climate change, marine pollution, biodiversity, and chemical contamination [Barra & Leonard, 2018].

A new plastic recycling 3D printing filament with a recyclebot can recycle waste plastic, and then the postconsumer plastics can be turned into useful and



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more valuable products. A 3D print-based manufacture can save materials, reduce energy consumption and decrease GHG emissions [Baechler *et al.*, 2014; Redlich & Moritz, 2016]. In 2011, recycling rate were 78% in Japan, 59% in EU, 48% in China, and 8% in the USA [Zhuo & Levendis, 2013].

It is estimated that only 9% of the 6,300 tons of plastic waste generated between 1950 and 2015 was recycled. India has probably the highest plastic recycling rate with estimates ranging from 47 to 60% [Plastic Europe, 2016]. Waste management policy is crucial for the CE, so that the best overall environmental outcome is obtained.

11. *Business Facilities in CE*

Recently, global resources and the climate faced heavy pressures due to human activities and CE can help reduce these global sustainability pressures [Intergovernmental Panel on Climate Change, IPCC, 2014; EMF, 2014]. The CE activities, such as boosting recycling, save valuable materials, create new jobs, develop expertise, enhance eco-design, move towards zero-waste, reduce GHG emissions, etc. As a result, global business can improve smoothly [EC, 2014]. The CE can create a new business, which is expected to lead to a more sustainable development and a harmonious society [Mathews & Tan, 2011]. It can create a more appropriate and environmentally sound use of resources that can develop a new business model and innovative employment opportunities by implementing greener economy [EMF, 2012]. It reduces material costs and diminishes resource dependence, and saves billions of dollars [Sariatli, 2017].

12. *Effects of Knowledge Sharing in CE*

The CE enhances natural capital, optimizes total resources, and minimizes system risks by the efficient management of finite stocks and renewable flows [de Man & Friege, 2016]. Knowledge (explicit and tacit) sharing (KS) in CE can enhance the global sustainable economic development. The CE can save massive costs of production by recycling the wastes. Social innovation associated with sharing, eco-design, reuse and recycling can create sustainable consumer behaviour and improve human health, and KS can increase the CE more rapidly. Public awareness on negative effects of waste (e.g., open dumping, littering and waste segregation) can expand among mass people with the help of KS [Wysokinska, 2016; Mohajan, 2019a].

KS is essential for every company and every industry to face the global economic competition. It also can improve the principles of CE. Germany, China,



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Japan, BRICS, and other nations who initiated CE must share knowledge among them and with other nations to implement CE globally.

13. *SWOT Analysis for CE*

SWOT is acronym of strengths, weaknesses, opportunities and threats. It is a tool used by companies to understand and improve their operations. It is a scientific analysis method that combines the internal resources and external environment of a company or an organization. It helps the companies face the current challenges efficiently and discover new technologies to develop them. To survive in a competitive market, a company has to handle different internal and external strategies and SWOT analysis can help in this regard. Of the four branches of SWOT analysis, strengths and weaknesses are internal factors, and opportunities and threats are external factors [Humphrey, 2005].

There are enormous benefits or strengths and opportunities of CE but it also has huge challenges, such as weaknesses and threats. The CE reduces wastes, recyclables resources, increases profit, creates new jobs, provides sustainable environment, etc. On the other hand, it is in quite infancy and has to pass a thorny way. Governments spend minimum amount for the implementation of CE. More campaigns, R&D, and collection of capital are needed to implement CE in the society. The SWOT analysis of CE is given as follows [Sariatli, 2017; Pesce *et al.*, 2020]:

Strengths: These are positive internal factors to the organizations, which are favourable quantities to the management and performance of a company. Strengths of CE are:

- using the R&D activities in CE, a company can produce higher quality and more durable articles,
- proper guidance, principle, target and strategy can implement CE into the organizations,
- proper waste management policies can enhance the CE in all nations,
- elimination of municipal wastes CE can present cleaner environment,
- innovation can help organizations find new opportunities by studying both internal and external factors,
- due to the closed-loop processes, price fluctuations of the materials can be stabilized,
- there are many scopes for the involvement of experts and experienced people in CE projects,



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- reinforces leadership and motivates the implementation of CE,
- CE can reduce the use of raw materials and can present sustainable society, and
- it reduces the risk for an organization if it operates in a wrong way.

Weaknesses: These are negative internal factors to the organizations that work against the development of functioning management practices and performance of a company. Weaknesses of CE are:

- no precise guidelines and management system for implementation of CE are given yet,
- depends on the availability of information (e.g., sustainability-related, safety-related, CE-related, end-of-life-related information),
- there is still no internationally recognized standards institution to regulate the CE,
- lack of guided processes for improving stewardship,
- employees have limited knowledge to run the CE activities efficiently,
- there is a gap between theory and practice,
- knowledge of CE is not efficiently transformed to common people,
- lack of knowledge on how to implement transparency,
- social marketing campaigns are not sufficient to develop CE,
- lack of methods to implement systems thinking in a profitable way,
- highly dependent on top management's decision-making,
- investments and supports, such as money, human resources, training and attention from management team are not enough to implement CE in all sectors, and
- if organizations face uncertainty about their activities and decisions with wider sense, it will be difficult to implement CE.

Opportunities: These are positive external factors to the organizations, which implement the principles that can bring fortune to the company. Opportunities of CE are:

- CE can reduce the use of raw materials in industries during the production and can save costs,
- CE can strengthen relationships with stakeholders, such as public, government, and customer,
- CE can inspire organization in the search for technological innovation and implementation of new tools to enhance competitiveness,
- By the use of upcycling technologies in CE we can develop our economies and can reduce environment pollutions,



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- By the development of CE we can achieve business opportunities globally,
- CE can create business opportunity for the entrepreneurs,
- it can lead the management team to support and improve management processes, and
- it can improve internal performance, such as leadership, teamwork, work efficiency, etc.

Threats: These are negative external factors to the organizations, which are harmful for the existing principles of the company that have been taken into consideration. Threats of CE are:

- the projects may loss fast-changing market due to rapid competition,
- if companies control entire life cycle then prices of products will increase and CE cannot be applied properly,
- innovative ideas could be easily copied by other competitors,
- financial disruptions in the CE can cause unpleasant outcomes,
- if it becomes difficult to benefit from waste management, CE processes can be abandoned,
- projects may be abandoned due to incapacity of efficient staff turnover,
- at the beginning CE cannot bring enough economic benefit to meet the business expectations,
- if labour cost increases, companies can fail,
- modernization of CE may not bring enough economic benefits, and
- it is difficult to manage the use of products at end-of-life if the customers lack education on how to use and dispose them.

14. *Benefits and Importance of CE*

A CE has possible benefits in terms of competitive advantage, employment, waste reduction, and the environmental protection [Llanwarne, 2016]. The CE promotes a more appropriate and environmentally sound use of resources aimed at the implementation of a greener economy, characterized by a new business model and innovative employment opportunities. The CE favours activities that preserve value in the form of energy, labour, and materials [EMF, 2012]. By conserving materials of high-value products and high-quality secondary raw materials, CE would reduce demand for primary raw materials. At present, the existing technology maximum potential of CE strategy is estimated to be 10-17% [EC, 2011].



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More regenerative farming practices, such as organic farming, closing nutrient loops and reducing food waste in food sector; factory-based industrial processes, smart urban planning, sharing of residential and office space, and energy-efficient buildings in construction, more sharing of cars and better integration of different transport modes in mobility can implement CE in the society [EMF and McKinsey Center for Business and Environment, 2015].

A CE reveals and designs out the negative impacts of economic activity that causes damages to human health and natural systems. It decreases the negative externalities; optimizes agricultural productivity, measures waste prevention and eco-design, and reuses of raw materials by reducing GHG emissions and hazardous substances. For example, emissions from industry in the EU would fall about 56% by 2050 if the CE is to become a reality [European Union, 2013]. The European Commission estimates that different combinations of more ambitious targets for recycling of municipal and packaging waste and reducing landfill could lead to a reduction in GHG emissions of around 424–617 million tons (48%) of CO₂ equivalent over 2015–2035 [European Environmental Agency, EEA, 2016]. It is realized that if the EU manufacturing sector adopted CE business models, can save about \$630 billion per year by 2025 [EMF, 2012].

CE reduces waste, drives greater resource productivity, delivers a more competitive economy, better addresses emerging resource security/scarcity issues in the future, and helps reduce the environmental impacts of production and consumption. It is estimated that CE for food could generate \$2.7 trillion in benefits annually for the society and the environment by averting an estimated 5 million deaths every year by 2050. The CE reduces energy intensity, material intensity, and dispersion of toxic substances; enhance the ability to recycle, increase service intensity, extend product durability, and maximize the use of renewable resources [EMF, 2013].

CE has benefits that are operational as well as strategic and brings together a huge potential for value creation in the economics, business, environment, and social spheres. The residues are seen as valuable and these are absorbed as much as possible in order to be reused in the process. Sharing, eco-design, reuse and recycling can develop sustainable consumer behaviour that is benevolent for human health [EEA, 2016]. The CE could provide significant cost savings for various industries. For example, food, beverages, textiles and packaging can save \$700 billion per year globally. It can create an opportunity of \$630 billion a year for only a subset of the EU manufacturing sectors and also can create about 500,000 new jobs in the UK [EMF, 2013].

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A CE avoids the use of non-renewable resources and preserves or enhances renewable ones. Application of CE in agricultural system ensures that important nutrients are returned to the soil through anaerobic processes or composting that softens the exploitation of land and natural ecosystems. In this process, waste is returned to the soil and the soil gets healthier and more flexible, a thing that reduces cost of fertilizer. Hence, CE in farming is useful for both the soils and the economy [Ghisellini *et al.*, 2016].

The development of CE model, together with a new regulation and organization of the labour markets, can bring greater local employment in entry-level and semi-skilled jobs. For example, in recycling and repairing practices new designers and mechanical engineers can find new jobs and new businesses employees are needed. Economies need to benefit from the EC through major savings in net materials, mitigation of volatility and supply risks, drivers for innovation and job creation, regeneration and improved land productivity, and path to a strong economy [Cholifihani, 2018]. It promotes virgin material minimization and adoption of cleaner technologies. For example, reuses and cycles of waste are profitable for environment [Andersen, 1999].

In brief, some benefits of CE are as follows [EMF, 2012]:

- creation of new green industries and jobs,
- provision of more return and lower risk to investors,
- avoid of environmental damage caused by resource extraction,
- reduction of raw materials, reduces energy use and reduction of CO₂ emissions,
- save business, customers, and suppliers money,
- less pollution enters in the earth's life support systems,
- use of renewable energy that in the long run is less polluting than fossil fuels,
- reuse and dematerialize of fewer materials and production processes are needed to provide of good and functional products,
- energy-efficient and non-toxic materials and manufacture and recycle processes will be selected, and
- reduction in litter efficiently.

15. *Barriers to Implement CE*

The CE faces economic, social and environmental challenges, such as resource-related challenges for business and economies [Preston, 2012]. There are many



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challenges in achieving high value, such as skills, training, and design implications in manufacturing [Llanwarne, 2016]. The main barriers in the CE are on technological, legal, economic, and behavioural levels. Technological barriers are the processes and technologies that are needed to establish closed loops and create technical and biological materials cycles. It is the need for changing and re-designing products and production systems. Legal barriers are the management of products, materials, and waste. Economic barriers are the complexities between regulations and business operations, international discrepancies, and outdated status of regulations. These are due to social and environmental externalities and are not considered in prices. Costs of raw materials are fickle and at low prices, good quality secondary resources are not competitive, and the demand for circular products and alternatives is still small [Betchel *et al.*, 2013].

Institutional barriers to CE are new business models that may be challenging to implement and develop because of laws and regulations. Many companies have short-term value creation goals and appraisal systems, whereas the CE is a long-term value creation model, the GDP index does not consider social and environmental externalities [EMF, 2014].

According to a Swedish study conducted in 2017, the main five barriers to moving towards the CE are financial, structural, operational, attitudinal and technological. Measuring of the financial benefits of CE and its profitability is a great challenge, the structural barrier is unclear within companies, the operational challenge is the difficulty of dealing and staying in control of processes within the value-chain, the attitudinal barrier is from the lack of knowledge about sustainability issues, and the technological barrier is the need for changing and redesigning products and production systems [van Ewijk, 2018].

Finally, a successful transformation to a circular model involves a new way of thinking, acting, plus communicating with others in the chain. However, an internal reluctance to move away from business as usual and to challenge current paradigms in a corporation is another risk [Rossi *et al.*, 2016].

16. *Conclusions and Recommendations*

In this study, we have seen that the linear economy (take-make-dispose) is not sustainable for mankind. At the life end of a product if it is used again and again, then economic value is created. We have observed that CE adds value to a product as much as possible and tries to eliminate the waste. In CE, waste of one process becomes



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the input for another process. In the study, we have tried to show the implementation of CE at various levels of companies and organizations. The CE has become a high-profile issue not only in developed countries but also in developing countries. After implementation, CE will be beneficial to the society and economy as a whole. The CE can be developed by strengthening waste and e-waste management policies, establishing smart cities, improving public awareness and participation in activities related to CE.

In the 21st century, the world faces serious environment pollution and global climate changes due to global warming. We have to improve the 3Rs in all sectors of every nation to implement CE in the society. Europe, China, Japan, the USA and some other nations are trying to implement CE in their own societies and globally. We have tried to discuss concepts, origin, principles, and model of CE. We further highlight business facilities and effects of knowledge sharing in CE. The study also discusses the importance and benefits, barriers, and SWOT analysis of CE.

The study will help the researchers, practitioners, environmental experts, and policymakers. From this study, future researchers will find preliminary guidelines of CE. From the weak points of this study, they can criticize and develop the CE in their researches.

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ENTRY AND SURVIVAL STRATEGIES ADOPTED BY CHINESE SMALL SCALE ENTREPRENEURS IN SRI LANKA: A CASE STUDY

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Abstract

The main aim of this research is to identify the factors that are affecting the success of Chinese small businesses, which are currently operating in Sri Lanka. This study followed the 'Investigation research model' with the two main research aspects, 'success of the Chinese small businesses in Sri Lanka' and 'affecting factors for the success' as the conceptual model of the research, and authors used the qualitative research approach by collecting data through in-depth interviews conducted with the Chinese entrepreneurs who are currently operating their businesses in Sri Lanka and the BOI officers who supporting to promote FDIs in Sri Lanka. For the data collection purpose, researchers used the snowball sampling technique and the unstructured, open-ended questionnaire. Thus, this research followed 'case study method' and 'conversation-based content analysis' to analyze the collected data. Finally, the affecting factors were identified under these four main dimensions viz.: statutory and legal requirements, market related factors, financial related factors and strategy of



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investments. Moreover, this study concluded that the success of the businesses can be assessed by using the seven success factors under four key dimensions such as operational performance, market performance, wealth of the business and growth of the business. The findings of the study will be useful for the investors mainly from China and also other foreign investors who are planning to invest in Sri Lanka. Further, policy makers need to consider study findings for future initiatives in crafting policies in business development, trade and investment.

Keywords: *affecting factors; success of the business; key success factors; Chinese small businesses in Sri Lanka.*

JEL Classification: D02, D2, D9

1. *Introduction*

Foreign investors have recognized Sri Lanka as one of the emerging investment destinations in the world due to the facts of its unique geographical location, socio-economic condition, hospitality of the people as well as the beauty of the nature and the serendipitous discoveries. After the civil war, which was experienced for 30 years, most of the foreign investors are looking for investing in Sri Lanka expecting the growth potentiality. However, the investors should be aware of those factors that are affecting the success of their investments before they make their investment decisions in any geographical location, which is new to the particular investor. Identification of such factors will support to identify and forecast the future risks and rewards associated to the planned investment.

According to the Investment Guide published by Board of Investment of Sri Lanka (2017), it has mentioned that Malaysia, China, Hong Kong, United Kingdom, India, Netherlands, Mauritius, United Arab Emirates, Singapore, United States of America are the top 10 foreign investment nations for hosting Sri Lanka. Currently, China has been positioned as one of the most influential host country that plays a vital role in the Sri Lankan investment sector among these foreign nations. Furthermore, China has already invested in massive investment projects in Sri Lanka such as Colombo Port City project, Hambantota Port project, Shangrila Hotel project, Southern Highway project and some other industries such as plantation, tourism and construction industry. Therefore, Chinese investors have much closer attraction



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on investments in Sri Lanka with good understanding on its climate and business environment compared to those of other foreign investors.

Besides concurrent situation for the Chinese investments, still individual Chinese investors who are operating businesses in Sri Lanka are facing many problems. This is due to the fact that Chinese investors are not sufficiently aware of the factors that affect the success of their business in Sri Lanka. As a result of the lack of awareness, these businesses do not achieve expected level of business performance. Therefore, potential Chinese investors should clearly understand the factors that affect the success of Chinese businesses operating in Sri Lanka, in order to make investment decisions effectively.

2. Aims and the Significance of the Study

This study focuses on the research problem of ‘What are the factors affecting the success and survival of Chinese small business in Sri Lanka’. The main research objective is ‘to find out the factors that are influencing the success of the Chinese small business in Sri Lanka paying attention to the economic, political, social and cultural conditions in the country’.

Most of the studies conducted in Sri Lanka relate to factors affecting the business concerned about the factors that are based on local businesses such as the SME sector. There is a limited amount of information in extant literature and research findings in terms of the business success factors, especially for the Chinese businesses in Sri Lanka. Accordingly, this research will fill this knowledge gap by finding the most significant factors that are affecting the foreign investments in Sri Lanka.

This study provides a clear understanding about the factors affecting the success of Chinese business investors in Sri Lanka. Further, this study also serves both the existing as well as potential Chinese businesses by providing information required to their investment decisions. Existing Chinese businesses need to realize whether their businesses are running on the correct track while achieving the expected business performance. Meanwhile, the potential investors who plan to invest in Sri Lanka need to get a clear idea about the affecting factors on the success of Chinese business investments before making their investment decisions. Further, this research study works as a promotional tool to invite and encourage Chinese entrepreneurs to start their businesses in Sri Lanka. This is a timely necessity as Chinese government is presently searching for alternative overseas marketplaces for



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moving their existing production facilities to other countries with the purposes of increasing their production capacity, reducing the cost, capturing new markets and securing their work environment.

On the other hand, China recognizes Sri Lanka as a *'pendent'* of their new silk road initiated with the title of 'One Belt One Road' strategy. This OBOR strategy will help obtain cost advantages to Chinese investors through reducing their transport, logistics and labour costs mainly by using the Hambantota Port and the industrial zone planned nearby the Port. Apart from the Chinese investors, this study will provide the practical implications on the factors affecting the success of foreign investments in Sri Lanka.

Therefore, this knowledge can be used to develop domestic enterprises managed or planned by both Chinese and other foreign entrepreneurs, but also to evaluate investment decisions in Sri Lanka.

3. *Literature Review*

China-Sri Lanka business relationship has more than twenty centuries history in sharing religious and cultural values between the two countries. The historical story of this relationship begins with the arrival of Chinese seaman, *With Zheng He*, who had visited Sri Lanka several times, setting the initial foundation for the trade and cultural exchange between China and Sri Lanka [Kelegama, 2014]. Historical evidence support that there have been ongoing relations of cultural sharing and involvement in trade between the two countries. As a landmark of bilateral ties between the two countries, Sri Lankan and Chinese governments signed the Rubber-Rice pact in 1957. According to this formal agreement, Sri Lanka imported 270,000 metric tons of rice per annum from China and China agreed to import 50,000 tons of rubber per annum [Kelegama, 2014]. This agreement was one of the important active bi-lateral agreements presented in Sri Lanka.

With the success of the Rubber-Rice pact, China and Sri Lanka signed another economic and technical cooperation agreement in 1962, which ensured maritime cooperation covering the functions of all merchant ships engaged in cargo and passenger services between the two countries. As a result of progressive bilateral trade agreements between China and Sri Lanka, the two countries agreed to construct of Bandaranaike Memorial International Conference Hall (BMICH) in 1972, which was proposed in the visit of Prime Minister Sirimawo Bandaranaike to China. Meanwhile, 'Sino-Lanka Joint Commission for Economic and Trade



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Cooperation' was established in 1991 by combining the two agreements of 'Sino-Lanka Joint Trade Committee' which was signed in 1982 and the 'Sino-Lanka Economic and Trade Cooperation Committee' that was signed in 1984 to strengthen the economic relations between two countries. The committee was re-named 'Sri Lanka-China business Cooperation Council' in 1994.

Then, the former government of Sri Lanka (2005-2015) entered into main eight bilateral agreements and MOUs with China. The purposes of these agreements cover economic and technological cooperation, construction and urban development, city development, investment promotions, film and television, healthcare, agriculture and agricultural education and academic exchanges between both countries. The present Sri Lankan government is also maintaining strong relations with China.

4. Conceptualization: Affecting Factors of Chinese Business in Sri Lanka and Its Determinants

It is difficult to find a commonly accepted list of factors that affect the success or survival of the business in foreign contexts. However, some scholars have identified several such factors. In their studies and in the researches they have been already conducted, they revealed such factors that are affecting businesses success.

Wigley, Moore and Birtwistle (2005) mentioned that the brand name, long term planning, product differentiation, financial capacity, technical skills, psychic distance, market size of the business are the key affecting factors that affect the success of a business. In addition, Zeng, Xie, Tam and Wan (2009) introduced technology level, cost control, innovation capacity, management system, internationalization business experience, financing capacity, senior managers with management expertise, labour availability, brand consciousness, expanding overseas markets as factors that affect the business. Meanwhile, Zhang, Duysters and Filippov (2012) stated that acquisitions and strategic alliances also influence operation of a business in a successful manner. Lin and Chang (2017) added that the IT infrastructures, sales teams, customer relationships, customer needs, customer support, customer satisfaction, government regulations, geographical proximity, market potential, service differentiation, overseas networks and international experience also support timely necessities for the success of the business in addition to the traditional considerations such as financial capacity, top management support, business expansion, cost-efficiency, strategic alliances and timing of internationalization indicators.

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We can conclude, based on previous studies, that the selected factors that affect business success are those that need to be considered in this study. Accordingly, authors selected the four affective dimensions viz.: ‘Statutory and legal requirements on the business’, ‘Market related factors’, ‘Financial related factors’ and ‘Strategy of investment’ to operationalize the study. Those affecting factors are described in the sections below.

Statutory and legal requirements on the business

Lin and Chang (2017) stated that the government of a host country plays a critical role on the decision making process of business internationalization. According to the study, there are both positive and negative impacts from the government regulations (directly limit the market access of foreign firms, unfair treatment on foreign investments to protect domestic suppliers and subsidize domestic suppliers to compete with foreign businesses, tax policies).

Market related factors

Lin and Chang (2017) explained the acceptance by the customers and market potentiality determinants of a business in international market development. Furthermore, Zeng *et al.*, (2009); Lin and Chang (2017) highlighted that the sub factors: ‘Customer’ (customer relationships, customer needs, customer support, customer satisfaction), ‘Market potential’ (market size, market growth), ‘Experiences in the international markets’ and ‘Brand consciousness’ are consistent with market related factors.

Financial related factors

Lin and Chang (2017) stated that the financial support and cost efficiency are key determinants of this dimension. All the international markets have faced the problems with the inadequate financial resources to invest in the overseas market development. Foreign investments can be in main two forms as business investments and capital market and portfolio investments.

Strategy of investment

There are several strategies in investing internationally in order to mitigate the risk associated with the investment. Strategic alliances (cooperative efforts between two or more organizations), timing of internationalization (internationalization of



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business at optimum time period) are best strategies to enter into any kind of international market [Lin & Chang, 2017]. Moreover, Zhang *et al.*, (2012) have suggested that acquisitions, contractual agreements, co-production, contractor, co-marketing, joint distribution and licensing and equity alliances are also better options for the success of the international businesses.

Success of the Businesses and Its Determinants

Success of a business has multiple meanings and it is associated with complexity in measuring. However, it can be addressed using multiple criteria. Ibrahim and Goodwin (1986) stated that success of a business is explained through the two main dimensions such as 'operational performance' and 'age/longevity'. Further, they explained that operational performance is measured by using only 'rate of return on sales' and simply this is net profit ratio of an organization. In addition, the study stated that the successful businesses are those operated in a longer period of time in the market compared to other ordinary businesses. Lu and Beamish (2004) stated that there are multidimensional methods to define and measure the success of a business.

Overall Performance of a Business

Extant literature on the determinants of success of a business by different scholars [Ahmad & Schroeder, 2002; Jayapal & Omar, 2017; Davis *et al.*, 2007] assisted in developing the conceptual model for this study. Accordingly, the conceptual model that consists of four main dimensions for assessing the 'overall performance of the businesses' is used. Those four dimensions are viz.: 'Operational performance', 'Market performance', 'Wealth of the business' and 'Growth of the business'.

Operational performance

Ahmad and Schroeder (2000) mentioned that operational performance measures basically deal with measuring profit, productivity, unit cost, quality, delivery, flexibility and speed of new product introduction. Furthermore, these authors highlighted that they use human resource management practices such as security of the employees, hiring the new staff members, decentralizing the power through developing work teams, redesigning organizational structure, implementing a performance-based reward system, providing the extensive training as operational performances. However, these factors are associated with humans and their behaviours. Hence, it is not an easy task to measure and present as the exact values.



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Market performance

The market performance of a business can be measured by sales revenue, market share, profitability, competitive advantage, customer satisfaction and loyalty. Furthermore, the capability and ability of the business towards the market orientation also affect the market performance [Jayapal & Omar, 2017]. Moreover, Pujari (2006) stated that market performance can be measured with the market share of the business, new product development, market focused production, supplier involvement and life cycle analysis.

Wealth of the business

Venkatraman (1985) explained that wealth of business is determined by the value of the assets generated by a business. Further, wealth can be classified into two main categories such as ‘assets which can be measured in monetary terms’ and ‘assets which cannot be measured in monetary terms’.

Growth of the business

Davis *et al.* (2007) characterized the growth of business with the main two dimensions such as monetary growth and non-monetary growth. In terms of monetary growth, it is identified as the positive improvement of the sales and profits of a business, and the non-monetary growth can be explained by increasing the number of branches, employees, et cetera.

5. Methodology

This research study can be identified as an explanatory study followed by qualitative research approach to identify and describe the factors affecting the success of Chinese businesses in Sri Lanka due to the fact that this study does not rely on development of a hypothesis and testing it and instead it develops some propositions to identify the available influences and affecting factors on the success of Chinese businesses in Sri Lanka.

5.1. Conceptual Framework

The concept developed based on the literature reviewed, as presented in the previous section. The authors identified two dimensions – ‘Affecting Factors’ and ‘Success of the Chinese Business in Sri Lanka’ – to meet study objectives and they operationalized them as depicted in Fig. 1.

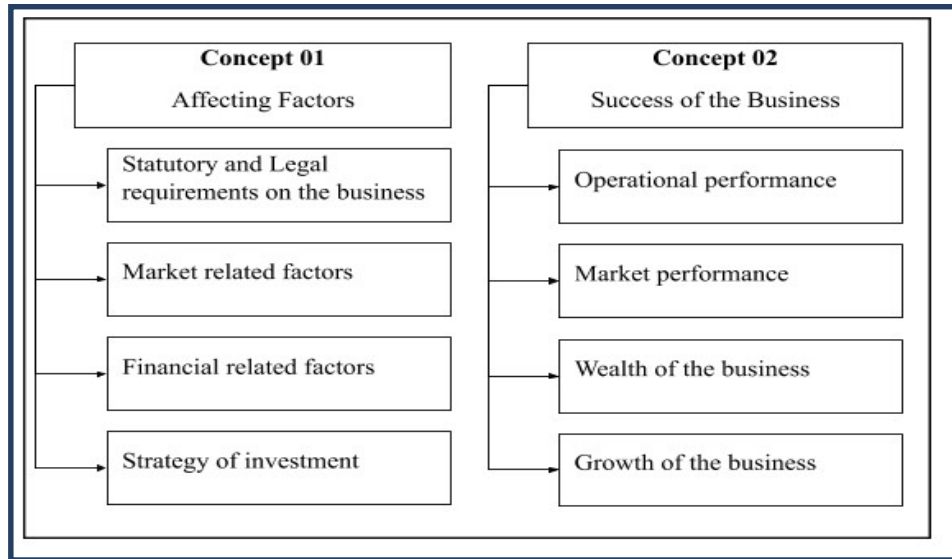


Fig. 1. Investigation Model

Source: Compiled by authors based on Wigley, Moore & Birtwistle (2005), Zeng, Xie, Tam & Wan (2009), Lin & Chang (2017)

According to the investigation model in Fig. 1, the Concept 01 of ‘Affecting Factors’ is assessed by (i) Statutory and legal requirements on the business (Registration procedure, Economic policies applicable, Other government laws and regulations), (ii) Market related factors (Market competition, Acceptance of the product, Global recognition of the brand), (iii) Financial related factors (Investment, Loans obtainability, Cost of Capital) and (iv) Strategy of investment (Integrations, Strategic alliances, Direct investments, Industry diversification). Then, the Concept 02 of ‘Success of the Chinese businesses in Sri Lanka’ is investigated using (i) Operational performance (Profits, Unit cost, Cash flows), (ii) Market performance (Sales revenue, Customer loyalty, Market share, No. of competitors), (iii) Wealth of the business (Value of non-current assets, Value of net assets, No. of employees) and (iv) Growth of the business (Growth in sales and profits, Increased No. of branches, Increased No. of employees).



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5.2. Data Collection

The target population of this study was the Chinese-owned small businesses operating in Sri Lanka. It was difficult to find a proper sampling frame as a result of the unavailability of data sources in Sri Lanka in this regard. Hence, the authors followed Snowball technique to approach the sample items. Due to the limitation confronted, it was decided to limit the sample size to five Chinese owned businesses and used case study methodology to collect data. In addition to these five Chinese entrepreneurs, authors conducted the interviews with a few officers working in the Board of Investment (BOI) of Sri Lanka to identify contents of interviews and verify study findings.

Researchers used both the primary and the secondary data for the research. Primary data was collected using the in-depth interviews conducted with the owner or the owner representative of the selected Chinese small businesses. The authors constructed the open ended, unstructured questionnaire as an interview guide by referring to the studies of Elo and Kynga (2008) and Wetherell (1998) to conduct interviews.

Further, the secondary data such as reports on economic policies, budgetary policies, investment policies and investment climate was obtained through different sources that included documents and reports of Board of Investments, Ministry of National Policies and Economic Affairs, Inland Revenue Department, Department of Registrar of Companies, Ministry of Industries and Commerce and other relevant institutions.

5.3. Data Analysis and Presentation

This study is a non-experimental research and is mainly focused on the performance of Chinese-owned small business in Sri Lanka and determinants associated with their performance. Based on the conceptual model in Figure 1 (Investigation Model), Case study method is used as data collection and reporting instrument in this qualitative research that presents the real situation of the businesses investigated. There were themes identified through the literature according to the conceptual model and interviews conducted to facilitate organize the responses according to those themes. This method facilitates detailed contextual analysis, and it enabled the researchers to apply a combined method of 'conversation-based content analysis'. This method is a combination of 'content analysis' and 'conversation analysis' [Elo & Kynga, 2008]. The content analysis is



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mainly used to analyze the data collected in case studies while using the predetermined themes or indicators. In the conversation analysis, it should be transcribed or summarized the collected data and analyzed in a tabulated form based on the identified themes or indicators which can give more effective output.

5.4. Summary of the Data

There are five case studies, which are considered in this study. The first case presents a business, which was established in 2004 with a single ownership and engaging in providing Chinese seafood to Sri Lankans in Colombo area, Chinese community in Sri Lanka and other foreigners. The second case relates to the artificial tooth binding industry and the business was established in 1960 in Sri Lanka by the father of current owner of the business mainly aiming at local customers. The third case refers to the Chinese fabric and apparel enterprise, which was established in 1994 in Colombo. Initially, the business was providing fabric materials required for the apparel industry and now it is diversified to provide ready-made apparels as well. This business is a sole proprietorship and currently operates two main branches in Colombo with 12 permanent staff including two Chinese persons and 10 Sri Lankans.

The business explained in the fourth case engages in importing and distributing of printing equipment and it was established in 2006 as a private limited company. Business engages in importing and distributing of printing equipment around the Sri Lanka, specially the used and brand-new photocopy machines. Final case is a business in importing and distributing of automobile spare parts and it was established in 2004 as a sole proprietorship business and converted to a private limited company recently.

The interviews were conducted with the officers of BOI to make a general understanding about investment climate in Sri Lanka for migrant entrepreneurs. Based on the interviews and the discussions with the officers at BOI, there can be identified challenges and issues faced by the investors as follows.

5.5. Challenge and Issues Faced by the Investors

- Chinese investors have less awareness about the role of BOI Sri Lanka.

Chinese investors do not have a proper knowledge about the formal investment procedure of Sri Lanka and who are the key organizations, institutions that promote foreign investments. BOI is a prior organization who handles the foreign

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investments. However, unfortunately most of the investors are not aware of this key figure, what is its role, what are the services, benefits it is providing etc.

- Investors are dealing through informal connections such as friends, ministry and other informal ways.

Chinese and other foreign investors do not come through the formal BOI procedure for their investment purposes because they consider that BOI investment procedure is too expensive and time-consuming. Therefore, Chinese investors chose informal strategies such as to start-up the business with Sri Lankan friends, work out with unnecessary politicians and ministries. Finally, those investors are being fed up with those informal strategies, relationships and leave the country without investing.

- Sri Lankan government cannot be biased or discriminate any country because of the restrictions of WTO.

Sri Lanka does not have any China specialized investment agreements or policies and BOI neither discriminates nor favours China under the existing BOI investment policy. According to the WTO rules, any member country cannot discriminate against another country and Sri Lanka is a member nation of WTO.

- BOI may take 2-3 months to give the final approval with the completion of total project.

After completing the BOI investment application form set by Chinese investor, the BOI needs to check and evaluate the information provided by the investor. BOI has to send those documents to other investment related government organizations to get their approvals for this checking purpose. Thus, it is common for the process to take two to three months to fully complete the procedure.

- Effects of international politics, pressure on investment decisions of investors.

When Sri Lankan government provides an investment opportunity to one country, other favourable countries may influence the future investment options in Sri Lanka. Some countries are directly affecting the internal problems of Sri Lanka.

- Sri Lanka's political instability.

Investors have doubts about investing in Sri Lanka due to the instability of the political situation of the country. It is because, when a political party or the government is changing, all the policies, rules and regulations are changing according to their political vision.

- Impact on sustainability caused by Chinese projects.



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Chinese natural environment is being polluted day by day due to the typical manufacturing factories established in China. Because of this reason, most of the Chinese manufacturers are interested to move to other countries and invest rather than stay in China with this condition. Therefore, BOI and Central Environmental Authority in Sri Lanka are more concerned about the environmental sustainability perspectives of the investment and the impact of the businesses on the environment.

The other data collected on each case are categorized in the next sections aligning with the study framework suggested in Figure 1 (Investigation Model).

5.6. Dimension 1 – Affecting Factors of the Chinese Business in Sri Lanka

Statutory and Legal Requirements of the Business

All the five respondents mentioned that the *business registration procedure* of the sole proprietorship business is more complex than registering a business as company and it is a time-wasting process in provincial government offices in Sri Lanka. They went on to say that *Sri Lanka's tax policies* are more complex than in previous years, due to various tax debts, such as income tax, value added tax (VAT) and national building tax (NBT). Further, they pointed out that they always need to maintain the balance between the 1:5 foreign employees and local employees in accordance with *the labour policy of Sri Lanka* regarding the employment of foreign labourers.

Then, especially the third respondent said that he experienced a complexity of registering the business as sole foreign owner, but again he registered his business as a sole owner due to higher costs (fees of the qualified secretary) involved with the registration of a limited liability company. However, the fourth and fifth respondents both revealed that the process of *obtaining an import license* is very laborious, especially for bulk stocks.

Market Related Factors

Regarding the market competition, the first respondent explained that the competition available in the Sri Lankan market does not have a large impact, as they produce higher quality products than others. Moreover, the third respondent described that market competition is critical, but they are providing products with different qualities for low prices when compared to the local competitors in Sri Lanka. The second, fourth and fifth respondents also experienced the high competition in Sri Lanka as a result of the local competitors with their different brands.



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In relation to the acceptance of the product, all five respondents indicated that the quality of the products is very important, and Sri Lankan customers are looking for high quality products at a low price. Therefore, all companies maintain lower price schemes than competitors, which are based on low unit cost of production.

According to the globally recognized brand, the first, third, fourth and fifth respondents that participated in the interview said that globally recognized brand supported them to capture new markets with high quality products at reasonable price. In fact, the second respondent mentioned that their brand is not globally recognized. However, Sri Lankan people have a positive intention towards the slogan 'Chinese'. Therefore, even without a globally recognized brand, a business can achieve success using this branding.

Financial Related Factors

The first and second respondents stated that they started their business using their own funds, but all five respondents do not have a favourable opinion about the procedure for obtaining a loan from Sri Lankan banks due to the complexity of obtaining it, which is time consuming and involves a higher interest rate on business loans. At the same time, the second respondent's belief is that it allows independent decisions to be taken and hence, is debts free. Despite these notions, the fourth respondent mentioned that there is a high risk associated with a high initial investment. Therefore, he does not like to invest higher amounts of money in the business. Furthermore, he contracted two leases for the purchase of two lorries, but stated that the interest rates associated with the leases are higher than normal business loans. The fifth respondent believed that the high initial investment can lead the business to success, and he pointed out that interest rates on business loans are comparatively higher than those on personal loans.

Strategy of Investment

The first, second and third respondent applied the 'Direct investment strategy' to start their business due to the security of their business secrets, easiness of starting the business and continuing the business. Then, the third respondent especially mentioned that he does not like strategic alliances and mergers due to the probability of occurring conflicts in the future, but the fourth and fifth respondents used both direct investments and strategic alliance strategies to obtain the business premises. The data described in above sections can be summarized as in Table 1.

Table 1. Affecting Factors for Foreign Investments

Dimension	Case One	Case Two	Case Three	Case Four	Case Five
Statutory and legal requirements	Complexity and time wastage in registration process demotivate investors.	Registration process is complex and has to fulfil many requirements. There are language barriers, especially for foreigners who do not speak English.	Secretarial fees are higher for companies and process of registering a company is complex. Language barriers have appeared in registration process as well.	Company registration procedure is much easier than registering a single owner business or partnership due to the availability of third parties to handle the registration process. But language barriers appeared with them as well.	Private limited company registration is easier than registering another form of business. There are agents who are handling the overall registration process by saving the business's time and money.
	Tax policy is much complex including income taxes, NBT and VAT.	High personal income tax ratio up to 24%, therefore, businessmen are motivated to hide their real income.	Taxes and duties on imports are gradually increased year-by-year; higher income taxes.	Different types of taxes are available on imports: VAT, NBT, PAL, SESS addition to the income tax.	Import taxes and income taxes affect more the company's profits.
	Labour law is highly affecting amongst the other regulations. Have to maintain the 1:5 ratio between foreign and local	Inability to hire Chinese employees without having several worthless local staff.	Difficult to employ Chinese people without maintaining the 1:5 ratio. The import license required for imports of materials is a	Import license is required for the import process and had to face language barriers when obtaining the license.	Import license is required for the import and he faced problems when obtaining it as a foreigner. Employing foreign people is difficult due the requirement of keeping the

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	employees.		little difficult to obtain.		1:5 ratio.
Market related factors	Market competition is irrelevant when the business in providing quality goods.	Competition from the local competitors is considerable issue. Language barriers and trust are the main reasons that make customers move to local businesses.	Competition from local competitors is the main problem due to the availability of different qualities at low prices.	High competition is available due to the availability of different brands in the market from different countries.	High competition is available in the market from local businesses in the same industry. Trust of the retail customers leads the business into success which can minimize the impact of competition.
	The price and quality of the product were identified as the main factors of the market. Loyal customer base is needed.	Sri Lankans are looking for high quality goods for low price. Offering the goods at lower prices as much as possible.	Low prices are the main strategy that can be used to attract customers from Sri Lanka and the demand for clothing is determined by their culture, especially during the festival seasons.	Sri Lankans are looking for low priced goods. Therefore, providing durable products for low prices is the main strategy used to attract the customers.	Have to allow credit periods for commercial buyers as well as the discounts. Durability of the goods is much important when attracting the customers.
	Even without a global recognized brand, a business can reach success.	Not connected to an international brand, but high aged brands have good reputation in	Sometimes 'Made in China' brand negatively affects on the sales revenue of the business due	Global recognition of the brands is playing critical role behind the success of business via increasing	In this industry, globally recognized brands play critical role behind the success of the business via

		Sri Lanka.	to the intention of customers.	customer satisfaction as well.	customer satisfaction.
Financial related factors	Says single-person investments have been made, but high-value investments can expand the business at a higher rate.	Ownership has been received from father, no such investment being made. Believes that the way of doing the investments decides the success of the business.	Higher initial investment was used to open a branch in Colombo and to import material. High investments can gain high returns.	High risk is associated with the higher initial investment. However, strong investment can guide a business towards success.	Higher investment can push the business into better position. However, the investment should be properly managed by an experienced team.
	Loan obtaining process is much complex, which limits the business expansion.	Bit difficult to obtain loans for foreign people, but they must be obtained in order to improve the facilities of the business.	Obtained loans to expand the business by opening another branch in Colombo. Loan process consumes much time.	Bank loans have been obtained to expand the distribution channel of the business with 2 vehicles, which helps increase the customer satisfaction.	The loan process is a bit complex for foreign-owned businesses, but loans help businesses expand their activities.
	Interests rates are higher for business loans.	Obtained loans are personal loans due to a high interest rates of business loans.	Interest rates are considerably higher, but they do not affect too much negatively.	Interest rates of business loans are comparatively higher than for personal loans.	Comparatively high interest rates are applicable for the business loans.
Strategy of investment	Direct investment strategy has been used due to the easiness of	Direct investment made by the father of current owner of the	Direct investment has been made in business.	Monetary investments have been made as a single person investment.	Initial investment has been made as direct investment.

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	decision making.	business.			
		Marriage of owner’s father can be identified as a strategic alliance used to get the business premises.	Currently, the business is diversifying products into the same industry.	Engaged a strategic alliance agreement with a Sri Lankan person to obtain the storing and showroom facility.	Acquired a retail shop in the same industry as a forward integration.

5.7. Dimension 2: Success of the Chinese Businesses in Sri Lanka

Operational Performance

All these five interviewed Chinese entrepreneurs explained that they are earning profits and cash flow at a satisfactory level by maintaining low cost structure and high quality in their production process. At the same time, the third, fourth, and fifth respondents mentioned that they are maintaining their cost of sales through the direct imports from China, Japan and the USA.

Market Performance

The five Chinese business owners who participated in these interviews said that their sales revenue is at a satisfactory level and their profits are mainly based on loyal customers, but do not maintain a system of identifying and retaining customers and loyal competitors. As a result, companies have no idea about their market share, and the level of competition is irrelevant to their business. Further, the third, fourth and fifth responders indicated that they are facing this competition by using the strategy of low cost and high quality.

Wealth of the Business

All five interviewed Chinese entrepreneurs have their business premises in Colombo, and the third responder has two branches in Colombo 10 and in Colombo 01. Then, in addition to the business premises, the fourth respondent has two lorries. Therefore, all these Chinese entrepreneurs have positive value of net assets, but this positive value of net assets is not equal to the value of total assets due to some loan agreements. On the other hand, the first responder’s business has

a total of 30 employees including five Chinese employees, eighteen permanent employees (local) and seven temporary employees (local), and the second respondent's company has five permanent employees, all of whom are local. Next, the third respondent has 12 permanent employees including two Chinese people and ten Sri Lankans and the fourth and fifth respondents have seven and five permanent employees respectively.

Growth of the Business

According to the growth of sales and profit, all five respondents emphasized that they have positive profit growth and sales revenue, but compared to the last 3-4 years it has been considerably lower. Nevertheless, in terms of growth in the number of branches, only the third respondent opened a new branch in Colombo, and others do not expect to expand their business. However, 1st, 2nd, 3rd, 4th and 5th respondents increased their permanent employees up to twenty-three, five, twelve, three and seven employees respectively. Table 2 below has presented the data discussed in this section in a tabulated format.

Table 2. Factors Determine the Success of a Business

Dimension	Case 01	Case 02	Case 03	Case 04	Case 05
Operational performance	The unit cost of production is much higher due to the supply of high quality products, and businesses maintain positive profits and cash flows.	The company keeps the unit cost low with an acceptable quality of their products, which determines the business to keep positive cash flows and profits.	Cost of sales in fabrics and unit cost of apparels are maintained at a lower level. Cash flow of the business was bit negative in 2017. However, it has profit.	The unit cost of products is maintained at a lower level with high quality. Cash flows and profits are favourable to the business. But cash flows are not much equal to the	Due to the lower purchasing cost, cost of sales is maintained at lower level and generating both positive cash flows and profit.

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				profits.	
Market performance	Made the impact of competition irrelevant by providing high quality goods to the customers and having loyal customer base. Therefore, business is generating sales at their satisfactory level.	Companies are successfully facing high market competition from local companies, offering products at lower prices and generating sales at their satisfactory level.	Business is facing the competition using the price strategy and it can supply bulk stocks within shorter period via direct imports. Maintains sales at their satisfactory level.	The company generates satisfactory sales due to the company's ability to face competition based on the low price of high quality products.	Company is generating sales revenue at a satisfactory level due to lower price scheme comparing with the competitors and the company has a loyal customer base of retailers of products.
Wealth of the Business	The company owns a business premises in Sri Lanka's main commercial city and has 23 permanent employees. Moreover, the value of net assets is much equal to the value of assets due to the unavailability of loans.	The company has its own business premises in Colombo and 5 permanent employees. Further, the value of net assets is positive but not much due to the availability of loan repayments.	There are two business premises owned by the business. One is still under a loan agreement and has 12 permanent employees. Value of the net assets is positive, but it's around 50% of total assets value due to the	Only three local employees are working and have their own business premises. Value of the net assets is positive but not much greater than the liabilities due to the availability of bank loans. 2	Seven employees are working and 2 motor lorries are owned by the business. Value of the net assets is positive but not much equal to the value of assets due to the availability of bank loans.

			loan repayments.	motor lorries are owned.	
Growth of the business	Value of the non-current assets is increased and profit growth is at a positive rate. The number of employees has increased up to 30 over the last 14 years.	Sale and the profits are gradually increasing year by year, as well as the value of non-current assets.	Sales, profits and the value of fixed assets have increased over the years, and the number of permanent employees has increased to 12 in 2018.	Sales, profits and value of non-current assets have increased, but in a lower percentage over the last 3-4 years.	The company has a growth rate in all sales, profits and non-current assets, but the growth rate has declined over the past 3-4 years.

In addition to these data, apropos of both the ideas of BOI and Chinese investors, Chinese entrepreneurs due to a language barrier stated that currently Sri Lanka does not have political and economic stability. Furthermore, the BOI mentioned that Chinese investors follow informal investment methods, rather than directly visiting the BOI with their business proposals.

6. Discussion of Findings

Both the findings and discussion of the research are presented based on the two concepts of the investigation model used in this study: (i) Concept 01 – Affecting factors of Chinese small business and (ii) Concepts 02 – Success factors of the business. Further, findings reveal the identified factors effect on the success of the Chinese small businesses. On the other hand, the discussion section of this study is supported by the findings recognized in the previous literature and by the findings of other researchers.

According to investigated affecting factors, the authors of this research found that (i) the flexible, quick and easy business registration procedure and import licence obtaining process without any language barrier between Chinese investors



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and local parties, (ii) reasonable rates of income taxes, value added tax (VAT), nations building taxes (NBT) and Cess tax and (iii) favourable labour law requirements in terms of FDI are positively affecting the success of the business under the statutory and legal requirements of Chinese small business in Sri Lanka. Then, (v) the lower market competition, (vi) acceptance of the product via low price and high quality, (vii) availability of globally recognized brands in the business and (viii) business ability to create a new brand towards the market are recognized as the market related factors that are positively affecting the success of Chinese businesses in Sri Lanka.

Further, (ix) a higher initial investment with proper management, (x) low complexity in loan obtaining process without language barriers and (xi) low interest rates on loans and lease agreements can be identified as positive financial conditions, which are affecting the success of the Chinese small business in Sri Lanka. Moreover, (xii) the business's ability to integrate upgrading the business, (xiv) positive attitude and willingness towards the strategic alliances, (xv) owner's ability of making correct decisions due to the direct investments can be presented as the affecting factors, which positively affect the success of Chinese business under the strategy of investment.

Regarding the Concept 02 – Success of the business, the (i) positive cash flows with profits and (ii) lower unit costs are favourably affecting the success of the Chinese small business in Sri Lanka under the operational performance. Then, (iii) higher sales revenue, (iv) loyal customer base, (iv) high market share and (v) low number of competitors belong to market performance conditions; there is also a positive effect on the success of the Chinese business in Sri Lanka. Next, under the conditions of business wealth, (vi) higher valued non-current assets with positive net assets value is favourably impacting the Chinese businesses in Sri Lanka. Finally, (vii) growth in sales combined with profits has revealed the positive impact on the Chinese businesses in Sri Lanka relating to the growth condition.

In addition to the above findings, the authors of this study found language barrier as the main issue faced by Chinese investors in Sri Lanka, and this is negatively affecting the success of their investments due to the lack of communication with the Sri Lankans. Moreover, in practice, when starting a business in Sri Lanka, many Chinese investors rely on informal connections, such as friends, ministry and other informal ways, rather than contacting BOI directly. As a result, Chinese investors are less aware of the role of BOI (the strongest



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organization in terms of foreign investment) in Sri Lanka, and this has adverse effects on foreign affairs.

7. Recommendations and Implications

According to the above findings, relevant Sri Lankan government organizations should pay attention to simplifying the procedures for registering businesses and obtaining import licenses, while reviewing fiscal policies, which have severely affected the recruitment and satisfaction of foreign investors. In particular, Sri Lanka's fiscal policy should be modified by a logical introduction of logical tax rates, introducing simple and stable systems. Further, government should minimize the restrictions available on foreign labour employment because for most of the time foreign businesses are not able to get the expected output from the local employees mainly due to the language barriers and skill shortages. Meanwhile, in order to solve the language barrier, the government can promote Chinese language learning in the school and university system, while helping investors, providing Chinese language partners and employees, as well as language interpreters. Moreover, the government should formulate policies for motivating the foreign entrepreneurs to develop their private businesses in order to contribute to increasing the national production of the country, employment opportunities and government income.

Since the findings of the study are underpinned by previous literature and discoveries of scholars, it suffices to state that recommendations can be made to the Chinese investors. Chinese entrepreneurs need to analyze the Sri Lankan market, customers and statutory obligations before investing in Sri Lanka. For this purpose, they can refer several academic and industrial researches, conduct interviews with the Sri Lankan people, local entrepreneurs and especially the existing Chinese investors in Sri Lanka. Based on this analysis, the potential Chinese investors should decide the feasibility of starting the new business ventures in Sri Lanka. However, Chinese entrepreneurs can get many benefits if they can invest in the untouched markets or industries in Sri Lanka.

Apart from that, the existing Chinese entrepreneurs in Sri Lanka should provide more innovative products and services to the Sri Lankan market considering both the Chinese and the Sri Lankan culture. Furthermore, the Chinese entrepreneurs need to use different marketing strategies such as targeting the niche market segments and introduce new competitive strategies rather than just depending on



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the existing customer base and competing with only the price and quality. Consequently, they should promote their business among the local and foreign customers by using the promotional and advertisement strategies to make people aware of these trends. On the other hand, Chinese entrepreneurs who are currently operating in Sri Lanka should further expand their businesses in the different urban cities in Sri Lanka. It is possible to get effective collaborations from these expansions and can get support from local entrepreneurs or people in Sri Lanka.

Limitations of the Study

This is an initiative research study that was conducted within Sri Lanka to identify the factors affecting success of the Chinese small businesses in Sri Lanka. As a result of that, the main limitation confronted by the researchers is the lack of the literature relating to this research area. The researchers encountered difficulties in pursuing the predetermined study framework. Therefore, they used the snowball technique to find literature through the list of references in the articles. Furthermore, there was a language barrier between the group of researchers and the owners of Chinese small businesses especially in the data collection process. Therefore, researchers used an online translator to clarify the misleading matters. On the other hand, most Chinese entrepreneurs in Sri Lanka were reluctant to participate in this study because of their belief in confidentiality threat, the leak of information to others, and the unavailability of ready-made information.

Conclusion

The purpose of this study was to identify the factors that are affecting the success of the Chinese small business in Sri Lanka. This research followed the style of qualitative research with the “Investigation Model” as a conceptual framework. Based on the available literature, there were large numbers of affecting factors in this research without agreements of authors on specific study frame. As a result, this research tested the main four affecting factors, namely Statutory and legal requirements of the business, Market related factors, Financial related factors and Strategy of investment. On the other hand, the Success of the businesses was measured by four determents viz, Operational performance, Market performance, Wealth of the business and Growth of the business.

Following the research design, the authors collected the primary data through interviews with the five Chinese entrepreneurs in Sri Lanka and found that the



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pointed out indicators: statutory and legal requirements on the business, market related factors, financial related factors and strategy of investment, are acting as most important affecting factors on the success of the Chinese businesses in Sri Lanka. Furthermore, the authors identified that language barrier is also a major issue faced by the Chinese entrepreneurs. This study finding suggests that Sri Lankan government can create required infrastructure to attract Chinese individual investors to Sri Lanka. In particular, the simplification of statutory and legal requirements is a key requirement, paying attention to the introduction of professional Chinese language courses for people who are committed to supporting Chinese investors in Sri Lanka. Further, these identified affecting factors should be considered in policymaking initiatives to attract the foreign investors in Sri Lanka. Chinese entrepreneurs must also be market-ready with a sufficient understanding of the market, culture, finance, politics and legal environment in Sri Lanka. Moreover, this study sought to develop a study framework by reviewing the literature and drawing conclusions for the development of the future hypothesis in studies related to migrant entrepreneurs.

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DEVELOPING THE HUMAN RESOURCES EFFECTIVENESS THROUGH TRAINING AND DEVELOPMENT

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Abstract

The environment of business is increasingly becoming more volatile and unpredictable and this randomness and disorder is draining potency from the over a century old bureaucratic paradigm that has dominated management practices across the globe. The fast pace of change is driving, obsolescence into yesterday's breakthroughs and today's success techniques cannot be extrapolated to solving tomorrow's problems with guarantee. Organizations must find a way of embracing the 21st century paradox of keeping everything running and at the same time changing everything. To be able to achieve this, organizations must create the capacity for continuous change, learning and improvement. The permanence of change demands a permanence of adaptive and creative behaviour on the part of organizations and requires managers to continually upgrade the skills and performance of employees and their own. Such constant improvement increases both personal and organizational effectiveness. Developing the human resources (employee) in this way involves training and development activities. It is against this backdrop that this paper underscores the



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indispensability of training development on human resources effectiveness in organizations. This paper relies on secondary data collected from books and journal articles, and was content analysed in relation to the scope of the paper. The paper concludes that the reasons organizations train and develop their workforce continually are to maintain effective performance, improve the quality of decision-making and raise the quality and timeliness of service delivery in today's competition business environment.

Keywords: *training; development; human resources; effectiveness; organizational performance.*

JEL Classification: J24, M5, M53

Introduction

The emerging world of the 21st century is that of chaos and change. Too much is changing for anyone to be complacent [Peters, 1987]. The environment of business is increasing becoming more volatile and unpredictable and this randomness and disorder is draining potency from the over a century old bureaucratic paradigm that has dominated management practices across the globe. The fast pace of change is driven obsolescence into yesterday's breakthroughs and today's success techniques cannot be extrapolated to solving tomorrow's problems with guarantee. The fundamental paradigm in the 21st has been a belief in equilibrium – that things can be stable and efficient. But the 21st century management paradigm is based on a far from equilibrium thinking. Far from equilibrium means that in a chaotic world, where technology, trends and workforces are in a constant state of flux, things will never stabilize. Everyday springs with new surprises and challenges, such that it becomes impossible for top management or managers to try to control things back into stable equilibrium. Rather, the new paradigm is to get comfortable with change.

Thus, organizations must find a way of embracing the 21st century paradox of keeping everything running and at the same time changing everything. To be able to achieve this, organizations must create the capacity for continuous change, learning and improvement. The permanence of change demands a permanence of adaptive and creative behaviour on the part of organizations and requires managers to continually upgrade the skills and performance of employees and their own. Such constant improvement increases both personal and organizational effectiveness.



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It makes organization members more useful in their current job and prepares them for new responsibilities and it helps the organization as a whole to handle new challenges and takes advantage of new methods and technologies that emerge [Bateman, & Snell, 2011]. Developing the human resources (employees) in this way involves training and development activities.

Training and development have become increasingly vital to the success of modern organizations. This supports the assertion of Oluwaseun (2018:181) who posits that training and development is “an important activity that increases the performance of employee in an organization and is a building block which enhances the growth and success of an organization”. Armstrong (2009) affirmed that organizations could benefit from training and development through winning the ‘heart and minds’ of their employees to get them to identify with the organization, to exert them more on its behalf and to remain with the organization. It is in this context that this paper underscores the indispensability of training and development on human resources effectiveness in small, large and complex organizations.

Review of Related Literature

Training and development are the processes of investing in people so that they are equipped to perform well and are part of an overall human resource management approach that hopefully will result in people being motivated to perform [McDowell, & Saunders, 2010; Jehanzeb, & Bashir, 2013]. The term “training” is often used casually to describe almost any effort initiated by an organization to foster learning among its members. However, many experts distinguish between training, which tends to be more narrowly focused and oriented toward short-term performance concerns, and development, which tends to be oriented more towards broadening an individual’s skills for future responsibilities [Bohlander, & Snell, 2007]. The two terms tend to be combined into a single phrase ‘training and development’ – to recognize the combination of activities organizations use to increase the skill base of employees. Training and development according to Oluwaseun (2018:182) is “an educational process that involves the sharpening of skills, concepts, changing of attitude and gaining of more knowledge to enhance the performance of employees”.

Today, the rapidly changing technologies require employees to continuously hone their knowledge, skills and abilities (KSAs) to cope with the new processes and systems. Jobs that require little skills are rapidly being replaced by jobs that require technical, interpersonal and problem-solving skills. Other trends toward



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empowerment, total quality management (TQM), teamwork, and international business make it necessary for managers, as well as employees, to develop the skills that will enable them to handle new and more demanding assignments. However, we cannot engage in any far-reaching and grounded discussion or proceeding any further without first explaining the concepts of education, training and development.

Education

Education is defines as the process of learning and training [Webster Dictionary, 2010]. Thus, to educate means to develop knowledge, skill or character of a person. In the light of the above, education therefore means a process by which an individual gains knowledge, insight, develops attitudes or skills [Achugbue, & Ochonogor, 2013]. To educate the mind is to liberate it from the shackles of fear, prejudice, ignorance, superstition, and to develop free, independent and responsible citizens. Cole (2002) sees education as nay long-term learning activity aimed at preparing individuals for a verity of roles in society; as citizens, workers and members of family groups. The focus of education is primarily on the individual and his needs and secondly on the community as a whole, i.e., on society's needs, thus, society's needs can include the need for respect for law and order, the need for a variety of talents to sustain economic activities and the need to protect itself from external aggression. In today's competitive and changing business environment, it is imperative that management constantly educate their employees about upcoming changes before they occur. It should communicate not only the nature of the change but its logic, thereby it should provide an environment in which management can explain the rationale for the change and perhaps improve it.

Training

Training is said to be a practical education which can be used to enhance skills, experience, and knowledge and to overcome inefficiencies [Shakeel, & But, 2015]. According to Bateman and Snell (2011: 357), training refers to "teaching lower-level employees how to perform their present jobs." Training is "any learning activity which is directed towards the acquisition of specific knowledge and skills for the purposes of an occupation or task" [Cole, 2002]. Examples of training needs include the need for efficiency and safety in the operation of particular machines or equipment, the need for an effective sales force and the need for competent management in the organization, etc. Therefore, Berge, Vermeil, Berge, Davis and



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Smith (2002) see training as the planned and systematic modification of behaviour through learning events, activities and programmes which results in the participants achieving the levels of knowledge, skills, competencies and abilities to carry out their task effectively. To enhance job performance, training skills and behaviours have to be transferred to the workplace, maintained over time and generalized across contexts [Holton, & Baldwin, 200; Khan, Khan, & Khan, 2011]. Training is a systematic process, which helps people to learn how to be more effective at work by modifying knowledge, skills or attitudes through learning experience to achieve effective performance [Buckley, & Caple, 2000]. Effective training programmes help in building a supportive and conducive learning environment to the employees and at the same time help them to deal effectively with foreseeable challenges, easily and in time. Improved capabilities, knowledge and skills of the talented workforce have been proved to be the main source of competitive advantages in a global market [McKinsey, 2006; Samwel, 2018]. Also, training methods include lectures, role playing, business simulation, behaviour modelling, conferences, vestibule and apprenticeships, etc.

Types of Training

i. *Orientation training*: It is typically used to familiarize new employees with their new jobs, work units and the organization in general. It is a training designed to familiarize new employees with policies, procedures and culture of the organization. If well done, orientation training has a number of benefits, including lower employee turnover, increased morale, increased productivity, lower recruiting and training costs, facilitated learning and reduced new employee's anxiety [Bertagnoli, 2000].

ii. *Team training*: It teaches employees the skills they need to work together and facilitates their interaction [Gordon, 2007]. It is a training that provides employees with the skills and perspectives they need to collaborate with others [Bateman, & Snell, 2011]. Today, organizations rely on teams to attain strategic and operational goals. The contributions of the individual members of the team are not only a function of the KSAs of each individual but of the interaction of the team members. Team training not only increases quality and customer satisfaction, but has also helps decrease costs and sets up a model for preparing employees for the future [Phillips, 1996].

iii. *Cross training*: It is the process of training employees to do multiple jobs within an organization. Cross-trained employees learn how to do different jobs



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within an organization as well as their own. Part of the motivation for cross-training is that it gives organizations flexible capacity. Employees can be dynamically shifted when and where they are needed, unlike specialized workers and equipment which cannot. Cross-training increased productivity, decreased turnover, pares down labour cost and laid the foundation for careers rather than dead-end jobs [Bohlander, & Snell, 2007]. Cross-training gives employees the ‘big picture’, makes them more creative and better problem-solvers [Lorraine, 2004].

iv. *Diversity training*: It focuses on building awareness of diversity issues and providing the skills employees need to work with others who are different from them. According to Bateman and Snell (2011:359), diversity training focuses “on identifying and reducing hidden biases against people with differences and developing the skills needed to manage a diversified workforce”. They further noted that diversity training often seek to improve managers’ skills – their ability to delegate effectively, increase the motivation of their subordinates, communication and inspire the achievement of organizational goals. Diversity training, when done well, can enhance communication, improve responsiveness to social issues, reduce lawsuits, create a climate of fairness, improve productivity on complex tasks, increase revenues and profits and support the competitive capability of the organization [McLean, 2004].

Development

Development involves teaching managers and professional employees broader skills needed for their present and future jobs [Bateman, & Snell, 2011]. “The focus of development tends to be primarily on an organization’s future manpower requirements, and secondary on the growth needs of individuals in the workplace. Examples of development needs might be the need for managers and professional employees to be able to utilize the facilities offered by microcomputers in the operation of the business, the need for replacing senior staff with potential candidates from within the organization and the need for preparing employees to accept change” [Cole, 2002].

In the view of Antonacopoulou (2000), development is the capacity and capability building on an employee and, thus, for the whole organization to meet the standard performance level. Thus, employee development means to develop the abilities of an individual employee and organization as a whole [Hameed, & Waheed, 2011]. Employee development is “an integrated set of planned programmes, provided over a

period of time, to help assure that all individuals have the competence necessary to perform to their fullest potential in support of the organization's goals" [Jacobs, & Washington, 2003]. Thus, development focuses on building the knowledge and skills of organizational members to take on new and future responsibilities.

Table 1. Difference between Training and Development

S/N	Training	Development
1	Training focuses on technical, mechanical oriented operations	Development focuses on theoretical skill and conceptual idea
2	Meant for operatives	Meant for executives
3	It is short term process	It is continuous process
4	It focuses on present need of an employee	It focuses on future need of an employee
5	It is for non-managers	It is for managers and executives
6	Meant for job-oriented process and is vocational in nature	Expansion is general in nature strives to inculcate initiative, creativity, dedication, loyalty amongst executives
7	Motivation is extrinsic	Motivation is intrinsic
8	Assessment for training is considered to be essential	No assessment for development
9	It is concerned with specific job skills and behaviour	It is concerned with related enhancement of general knowledge and understanding of non-technical organization function.

Source: Hiregoudar & Patil (2019). *Contemporary issues and trends in training and development*

Training Methods for Management Development

i. **On-the-job Experiences.** Some skills and knowledge can be acquired just by listening and observing or by reading. But others must be acquired through actual practice and experience. By presenting managers with the opportunities to perform under pressure and to learn from their mistakes, on-the-job development experiences are some of the most powerful and commonly used techniques [Bateman, & Snell, 2011]. Methods of providing on-the-job experiences include the following:

1. *Coaching:* This refers to a form of management development in which a manager through direct discussion and guided activity helps a subordinate to learn to



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solve a problem or to do a task better [Megginson, & Boydell, 1979]. Coaching also involves a continuing flow of instructions, comments and suggestions from the manager to the subordinate.

2. *Understudy Assignments*: It grooms an individual to take over a manager's job by gaining experience in handling important functions of the job.

3. *Job Rotation*: It provides, through a variety of work experience, the broadened knowledge and understanding required to manage more effectively. According to Bateman and Snell (2011), job rotation is a process where employees are assigned to different jobs in the organization to broaden their experience and improve their skills. It is frequently applied to managers as well as lower-level employees.

4. *Lateral Transfer*: This involves horizontal movement through different departments, along with upward movement in the organization.

5. *Special Project and Junior Boards*: This provides an opportunity for individual to become involved in the study of current organizational problems and in planning and decision-making activities.

6. *Action Learning*: This gives managers time to work full-time on projects with others in the organization, in most cases; action learning is combined with classroom instructions, discussions and conferences.

7. *Planned Career Progressions*: It is the process of utilizing all these different methods to provide employees with the training and development necessary to progress through a series of jobs requiring higher levels of knowledge and skills [Alutto, 1999].

ii. **Management Games**. Training experiences have been brought to life and made more interesting through the development of management games, in which players are faced with the task of making a series of decisions affecting a hypothetical organization. The effects that every decision has on each area within the organization can be simulated with a computer programmed for the game. A major advantages of this technique is the high degree of participation it requires [Bohlander, & Snell, 2007].

iii. **Case Studies Analysis**. Case study is a useful method used in classroom learning situations, participants learn how to analyse (take apart) and synthesize (put together) facts, to become conscious of the many variables on which management decisions are based and in general, to improve their decision-making skills [Whitcomb, 1999]. Thus, the method is useful for giving participants an opportunity to experience problem-solving in a relevant context.

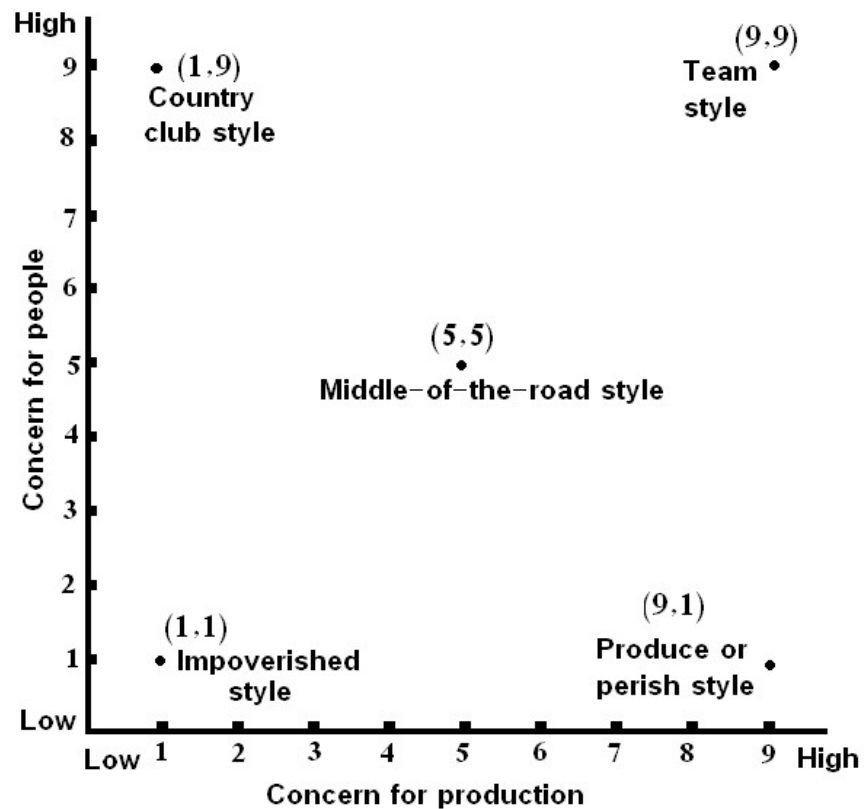


Figure 1. Managerial Grid Model

Source: Blake, R.R., & Mouton, J.S. (1964). *The Leadership Grid*, London: Gulf Press

iv. **Seminars and Conferences.** In management development, seminars and conferences are used to communicate ideas, policies or procedures, but they are also often used when attitude change is a goal. By participating in seminars and conferences, managers and supervisors learn to identify necessary personal and organizational changes and to become more effective in their interpersonal relationships and their work groups. Outside seminars and conferences are often conducted



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jointly with universities and consulting firms. One such programme that focuses on management development is the leadership grid. The seminars and conferences focus on two dimensions of effective leadership: concern for people and concern for production [Blake, & Mouton, 1964]. These two dimensions are represented in the grid shown above.

v. **Role Playing.** Consists of assuming the attitudes and behaviour – that is, playing the role of others, often a supervisor and a subordinate who are involved in a particular problem. By acting out another's position, participants in the role playing can improve their ability to understand and cope with others [Bohlander & Snell, 2007]. Role playing is used widely in training managers to handle employee issues relating to absenteeism, performance appraisal and conflict situations. It is also used widely in training healthcare professional to be empathic and sensitive to the concerns of patients.

vi. **Behaviour Modelling.** This is an approach that demonstrates desired behaviour and gives trainees the chance to practice and role-play those behaviours and receive feedback. It is one technique that combines several difference training methods, and therefore multiple principles of learning. Behaviour modelling helps managers interact with employees, handle discipline, introduce change and increase productivity [Stanley, 2004].

Importance of Training and Development

Today's technological development and organizational change have caused some top management to realize that success lie on the skills and abilities of their workforce. Thus, this means considerable and continuous investment in training and development. This has been brought to light by the rise in human resources management, with its emphasis on the importance of people and the skills they possess in enhancing organizational efficiency. According to Cole (2002), the potential benefits of organization's investment in training and development include the following:

- i. Maintenance of a sufficient and suitable range of skills amongst employees.
- ii. The development of knowledge and skills in the workforce.
- iii. The harnessing of work experience and other forms of on-the-job development in a planned way.
- iv. Achievement of improved job performance and productivity.
- v. Improve product quality.

- vi. Improved service to customers.
- vii. Increased motivation amongst employees.
- viii. Increased job satisfaction.
- ix. Increased value of employee in the labour market.
- x. Improved prospects of internal promotion.
- xi. Improved earnings and profitability.
- xii. Reduced costs and wastage.
- xiii. Public recognition and competitive advantage.

Also some of the key benefits for organizations that make employees' training and development a priority as suggested by Oluwaseun (2018) include increased productivity, return on investment, increased employee satisfaction, employee performance, market growth, organizational performance and employee retention. Similarly, Younas, Farooq, Khalil-Ur-Rehman and Zreen (2018) affirm that training and development enhanced employees' performance and organization's performance. Therefore, in today's competitive business environment, feedback from employee is very essential for organizations and the more knowledge the employee acquires, the better he or she performs and is able to surmount the challenges of the global market.

Training and Development Process

Training and development is a continuous process as the skills, knowledge and quality of work needs constant improvement. Since businesses are changing rapidly, it is critical that organizations focus on training their employees after constantly monitoring them and developing their overall personality. Thus, organizations adopting a systematic approach to training and development will usually set about defining their needs for training in accordance with a well-organized procedure. Such a procedure will entail looking at training needs from a number of different perspectives:

- i. The organization, i.e., cooperate requirements;
- ii. The department, or function of 'the job or occupational group';
- iii. The individual employee;
- iv. Steps for training and development processes are;
- v. Determine the need for training and development for individuals or teams;
- vi. Established specific objectives and goals which needs to be achieve;
- vii. Select the methods of preparation;



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- viii. Conduct and implement the programmes for employees;
- ix. Evaluate the output and performance post the training and development sessions;
- x. Keep monitor and evaluate the performance and formerly see more training id required.

Challenges of Training and Development

Training and development of employees is an issue that has to be faced by every organization. Closing the skills gap is now a critical area of human resource development for organizations to continuously penetrate the market. Skills gap basically threatens the productivity and competitiveness both in organizational and operational levels [Alemu, 2017]. According to Abdullah (2009), the major challenges to training and development include shortage of intellectual HR development professionals, coping with the demand for knowledge workers and fostering learning and development in the workplace. Abba and Dawha, 2009 cited in Asante and Alemna (2015) indicate that inadequate funding, lack of written training and development polices, lack of professional personnel, time, individual needs and the inability to fulfil rising expectations and lack of support from the top management are the major challenges of training and development. Other possible constraints include failure of management to accept responsibility for employee training and development, lack of knowledge and skills by managers in directing and executing training and development, lack of information concerning the nature of the training and development process required and there is a risk that after the training and development session, the employee can quite the job.

Empirical Review

If employees are to experience flexibility and effectiveness on the job, they need to acquire and develop knowledge and skills, and if they are to believe that they are valued by the organization they work for, then they need to see visible signs of management's commitment to their training and career needs [McDowell, & Saunder, 2010]. In their study in banking sector of Pakistan, Younas *et al.* (2018) found that training and development have positive and significant relationship with employee performance. Also, Khan *et al.* (2011) in their survey study of 100 employees of different organizations of Islamabad, Pakistan found that training and development have significant effect on organizational performance, the study by



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Samwel (2018) in Shinyanga and Mara Regions of Tanzania revealed that employee training has a significant effect on the performance of drilling companies. In addition, a study of public and private sector organizations in South Africa revealed that training and development is a motivational variable for retention. The result delivered strong indication of a relationship between training and development and employee retention [Samuel, & Chipunza, 2009].

Conclusion

The availability of an employees' access to training and development programmes are critical in facilitating growth in organizations, particularly in areas of technological improvements and performance. Training and development is an essential role in human resources development. It is assumed to be an important role in the awakening of the advancement of technology which has resulted in growing competition, increase in customer's expectation of product quality and service delivery and a subsequent need to lower costs. In conclusion therefore, employee training and development is becoming an increasingly critical and strategic imperative for organizations in the current, volatile and unpredictable business environment. Today, training and development increase the efficiency and effectiveness of both employees and the organization and much of an organization's investment can be wasted if training and development programmes are often misdirected, poorly designed and inadequately evaluated and these problems directly affect organizational performance and effectiveness.

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**DOCTORAL AND POSTDOCTORAL
PAPERS**

EDUCATION FOR WORK RELATED TO LIFESTYLE HEALTH

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Abstract

Studies performed in various countries, including Romania, have shown that a number of factors are negatively impacting the health of the population at the workplace and in the household. The connection between health and work has been researched for a number of years as an important driver towards wellbeing. Several studies have been conducted in order to identify problems and to find solutions to harmonize the balance between wealth and health. Increased globalization, the chase for competitive advantage and the reduction of costs (especially labour costs) moved employers' attention from the wellbeing of employees to higher profits. We discuss about such situations mainly in the East European Countries since the labour force is cheaper than in Western Europe. We should not forget that this current trend started in the US and was

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adopted also by European companies in order to increase profits. In West Europe, there are quite a number of studies regarding the relation between work and health, while in East Europe the number of such studies is quite small. The present paper proposes as an objective the study of several working factors and the relationship to health in Romania. Some of the results in our study reveal the concordance between the propensity of individuals to sacrifice from their one time and time for work without significant discrepancies between genders. Also, the more people invest in their time to rest, the more they are able to work hard without injuries. When it comes to gender characteristics, we determined slight changes in behaviour with almost the same labour pattern for both participants.

Another interesting finding was that rural and urban areas are clearly determining the type of stress exposure for participants with a higher impact for workers coming from the urban area. Physical exercise and labour can be channelled in good order according to the gender capabilities.

Keywords: *innovation; technology; education; lifestyle change; research projects.*

JEL Classification: I12, I15, I18, I31

Introduction

Studies performed in various countries, including Romania [Bartel, MacEachen, Reid-Musson *et al.*, 2019; Mitra, Gao, Chen, & Zhang, 2020; Brate, 2014], have shown that a number of factors are negatively impacting the health of the population at the workplace and in the household. The connection between health and work has been researched for a number of years as an important driver towards wellbeing. Several studies [Rohlman, Parish, Hanson, & Williams, 2018; Verra, benzerger, Jiao, & Ruggeri, 2019] conducted focused on identifying problems and finding solutions to harmonize the balance between wealth and health.

Increased globalization, the chase for competitive advantage and reduction of costs moved employer's attention from the wellbeing of employees to higher profits. Such situations occur mainly in the Eastern Europe Countries since the labour force



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is cheaper than in Western Europe. We should not forget that this current trend started in the US and was adopted also by European companies in order to increase incomes. Nowadays US dropped such policies of long lasting working hours and promoted a friendlier approach. Unfortunately, in Europe we still have to struggle with such policies and these influences the health of workers. Among them we discuss about difficulties in adapting to the work place and taking into consideration the region – rural/urban – where they work.

According to Eurostat data, Romanian employees work an average of 39.8 hours per week (2019), which is slightly greater than the European average of 37.1 hours. By gender, the discrepancy is higher with 39.3 hours worked by women compared to EU average of 34.1 hours¹ [Pașnicu, & Ghinararu, 2019]. Almost 21.71% of the employed population work in agriculture in Romania, which is the highest proportion in the EU and significantly greater than the European average of 4.36%.

At the opposite end of the scale, Romania has the lowest percentage of employees working in service sector market – 48.2%, compared to a European average of 70.75%² [William, & Turton, 2014]. There are differences between people who work in rural and urban areas and having different levels of education. Also it is known that people who do not have a healthy lifestyle suffer difficulties in adapting to the workplace which causes people to quit their job, or be laid off. These situations create disturbances in social and professional life.

In West Europe there are quite a number of studies regarding relation between work and health, while in East Europe the number of such studies is quite small. The present paper proposes the study of several working factors and the relationship to health in Romania.

Literature Context Review

The term stress is referred as: “name given to any environmental factor (factors) that is causing an abnormal reaction of the human body” (DEX: stress definition). Unfortunately, for humans it is almost impossible to avoid this disturbance factor

¹ <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

² <https://tradingeconomics.com/european-union/employment-in-services-percent-of-total-employment-wb-data.htm>



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that affects the health and also the wellbeing of individuals. “We can say nowadays that the term ‘stress’ is part of our daily existence, it is used by most people, whether they carry out an activity in an organizational framework or not, being either employees, employers, self-employed or unemployed persons. In fact, people try to describe in just one word their reaction when they cannot adapt to the different demands and pressures that may arise at the level of personal and family life or at work” [Popescu, Iancu, Vasile, & Popescu].

In what follows we will discuss first the situation at an international level – in order to place our research in an international context – and after that come down to the situation in Romania.

In a study regarding the analysis of mental health risks caused by overwork, the author look to the correlations between the psychosocial state of the individual and the workplace. It was concluded that occupational hazards are risks for physical and mental health. The author proposes laws to regulate the relationships between the stress caused by work and human health. Exposure factors have been identified that are making workers’ health worse. Methods and strategies for eliminating these factors are preventive measures for human health with potential benefits especially if they are backed by legal framework. For sure, psychological health disorders can be caused by work with negative consequences for the entire life of individuals, personal and professional. Strategies must be developed to eliminate stress in the workplace. Another study has a similar conclusion. Research into exploring the health risks of drivers [Potter, O’Keeffe, Leka, Webber, & Dolland, 2019] has shown that stress related to traffic or passengers are leading to mental and physical illness for drivers. Driving is a very risky job. They are exposed to driving stress.

The relationship between health and work in urban versus rural area is analysed in another study [Bartel, MacEachen, Reid-Musson *et al.*, 2019]. The study looks at how work affects young and old individuals in health. Several categories of consequences related to overwork were analysed. These adverse consequences include health problems related to heart disease, cancer, and depression. There were a higher percentage of those with health problems who work in the city. A lower percentage was registered for individuals working in rural areas. Among middle aged workers from the rural area, health decrements are significantly associated with a lower likelihood of working and reduced work hours, earnings, and income. These areas



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have been recommended and identified as low risk areas. It seems that working for women in the city does not affect as much as it does for men.

In another study regarding the degree of influence of mental health due to certain types of work [Sato, Kuroda, & Owan, 2020], the author noted some work characteristics with negative effects on human health. Some illnesses were due to the work performed over the normal program, i.e. above the maximum allowed limit. Others were responsible for the work done during the weekend. Some diseases have their origin in non-alternating work with rest or even its absence. Another cause of health problems was due to long working hours.

The correlation between level of education and the decision to work is discussed in another study. The article suggests that both health and employment status are closely linked to socioeconomic status, especially educational level. Studies of workers' health status have shown the importance of education as a strong predictor of health [Jung, Choi, Myong, Kim, & Kang, 2020]. The aim of the study was to analyse whether or not the degree of education of the population influences the decision to work. The sample for these studies was a South Korean group aged between 30 and 79 years. Generally, people will choose to work to a greater or lesser extent due to the influence of others. At the same time, people still make the decision to work based on the level of education. The results showed that people with higher education are more willing to work and take the initiative much faster compared to those who do not study and tend to give up looking for a job more quickly. The results of the study suggest that there is a negative association between Unable to work due to ill-health (UWdIH) and educational level; the less the educational level, the more likely to be UWdIH.

The relationship between theory and practice, in terms of health at work is discussed from the perspective of Labour management [Verra, Benzerga, Jiao, & Ruggeri, 2019]. The study proposes to complement the protection of work by promoting a healthy lifestyle. Health and safety strategies at work should be improved with practice at European level. A study was initiated to identify the percentage of measures against personal injury, psychosocial risks and measures to promote health. The results showed that 73% of the measures are against personal injury, 36% prevention of psychosocial risks and only 29% for the promotion of a healthy lifestyle. The solution would be to promote strategies and laws to encourage a



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healthy lifestyle that will improve the health and well-being of the worker at the workplace.

At European level, stress is also an important factor that is related to work [Thorvaldsen, Kongsvik, Holmen *et al.*, 2020]. This condition is well known as a main driver for physical and mental illness. Romania faces also a substantial level of work stress. A study [Brate, 2014], developed a questionnaire that identifies the level of stress regarding employees at work. In the Romanian organizations, the workers face different stressful situations. The study showed that from a health point of view, stress is the most common problem especially by gender. Women's are much more reactive than men and they cope with all kinds of worries, lack of confidence and a higher degree of stress than men. In order to counteract stress, certain managerial measures must be used like an intervention program focusing on individual, organizational or for specific socio-professional categories.

We can conclude after a short literature review that different studies provide in the end similar conclusions. Stress is the most common incriminated factor that causes work illness along with bad nutrition and a correlation with the level of education. Overwork also causes a lot of health problems. Also there are differences between rural and urban areas regarding work factors and their influence on health. Internationally, working in rural areas causes less healthy problems as compared to urban areas. Lifestyle plays an important role in the performance at work. Work and health influence each other. Studies undertaken suggest a higher attention towards legislation to support the work-leisure balance.

Materials and Methods

The objectives: The main objectives of the study are the following:

- To look at the differences between work in rural areas and urban areas in Romania, workers' opinion.
- To study the relation between stress, health and work, via data obtained from the survey conducted.
- To draw relevant conclusions and to encourage policies regarding the balance between health, lifestyle and work.

The Methodology: The purpose of our study is to determine differences among rural and urban areas in work attitudes and level of implication (number of hours

and effort). The study comprised 239 subjects from rural and urban area in Romania. We used a convenience sampling method. The study was based on a questionnaire with closed questions. The questionnaire was administrated through face-to-face contact.

The study was done in rural and urban areas from Romania on both genders and with an age range between 20 and 65. We analysed different factors that are related to work and the relation between work and health in Romania from the respondents' perspective.

Statistical analysis was performed in the R computing and programming environment [Team, 2013]. 95% confidence intervals for proportions were computed using the Clopper-Pearson exact method, as implemented in the "PropCIs" R package [Scherer, 2018]. Chi-square test was used to compare proportions. A significance level of 0.05 was used in the analyses.

Results

Urban and rural population mobility: The first question referred to urban and rural population mobility in order to determine the degree of openness of respondents and the connection with the homeland. Respondents were asked whether or not they *live* now in the same area where they grew up. The largest part of the respondents (58.64%, 95% CI 51.83-65.06%) answered affirmative. This was true for both urban and rural environment; the proportion of those living in the same area was only slightly higher for the respondents from the rural environment than for those from the urban environment (63.92% vs. 57.02%, $p=0.379$).

Mobility of work as compared to the origin area: For the second question we were interested to understand whether the respondents *work* in the same area in which they grew up or in a different area. 37.44% of the respondents work in the same area, 37.90% work in an area different from the one in which they grew up, whereas 24.66% do not work at all. As shown in Fig. 1, less respondents from the urban environment were not working at all in comparison with those from the rural environment; otherwise, the proportion of those working in the same area in which they grew up was roughly equal with that of those working in a different area ($p=0.164$, chi-squared).

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The mobility of work as compared to the origin area shows slightly the same propensity of respondents from rural and urban area. The belonging sentiment seems stronger for Romanians and the tendency towards change is not amongst their preferences.

Attitude: When it comes to determining the attitude towards physical work, we were interested to probe the attitude of the respondents as a whole and also by residence. Our data shows that about half of them (46.73%, 95 % CI 38.75%-52.28%) are rather indifferent in their attitude, one third of the respondents (32.71%) are rather satisfied about physical work, whereas only 20.56% (95% CI 14.92%-25.90%) perceive the physical work as rather a tiring drudgery (chi-square $p=0.081$).

Mobility of work as compared to the origin area

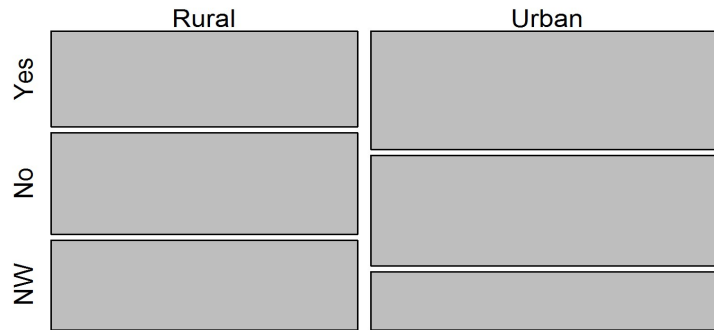


Fig. 1. Mosaic Plot Representing the Proportions of Respondents Working in the Same Area They Grew Up in, Split by the Urban/Rural Environment of the Respondents

Source: Personal contribution

When examining these perceptions against the rural or urban origin of the respondents, we find that most of the respondents from the country tend to express indifference towards physical activity, and a larger minority is rather satisfied with it. Because the proportion of those with neutral feelings in the urban environment

was lower, relatively more of them were satisfied with the physical works, but also relatively more when perceiving work as a fatiguing donkeywork (Fig. 2).

Attitude towards physical activity

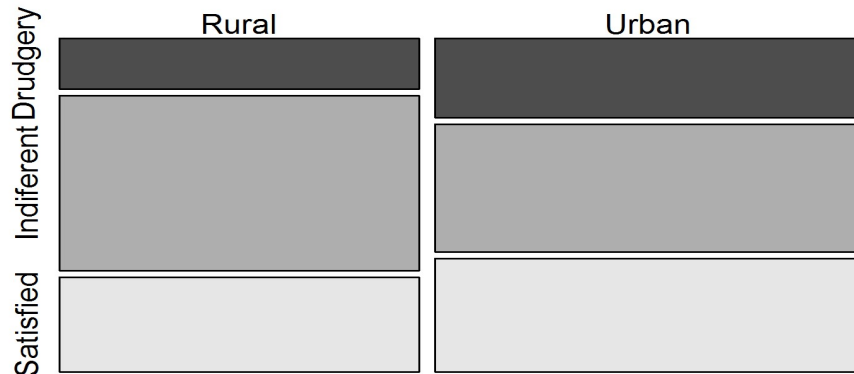


Fig. 2. Mosaic Plot Representing the Proportion of Respondents Satisfied about the Physical Work, Depending on Their Rural or Urban Origin
Source: Personal contribution

Daily working hours: In order to gauge the length of time the respondents work every day, they were asked to estimate the working hours in each day as an interval between a minimum and a maximum number of hours. About one in every five respondents from both rural and urban environment either they do not work at all or work one hour a day at most (21.00% in the rural environment, 18.92% in the urban environment).

About half of the respondents work at least 6 hours every day (41% in the rural environment, 47.75% in the urban environment). 2-4% of the respondents work every day at least nine hours, and about half of the respondents report working up to 10 hours a day (42% of the respondents from the rural environment, 49.55% of the respondents from the urban environment). 1% of the rural respondents and

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about 2% of the urban respondents reported working up to 20 hours in some – hopefully few – days.

Data collected proves that work hours, especially for the urban area, represent a challenge for individuals. If half of respondents work up to 10 hours per day than the stress and fatigue level for sure are important factors that affect individual’s health. The difference coming from belonging environment is not substantial – 42, compared to 49, but probably the type of labour makes the difference between working life with mental stress or working life with physical stress. (Fig. 3)

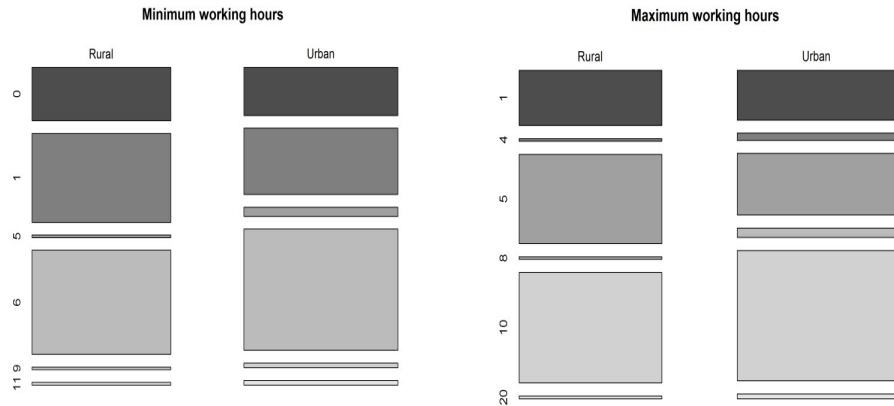


Fig. 3. Comparative Mosaic Plots Representing the Daily Working Hours of the Respondents, Depending on Their Rural or Urban Provenance
Source: Personal contribution

Examining the distribution of working hours by gender shows that whereas the minimum or maximum number of hours varies (most respondents indicating 0.1 or 6 hours as a minimum and 1.5 up to 10 hours as a maximum, with modal values of 6 and 10 hours, respectively), there seems to be little difference between the two genders ($p > 0.62$ for both minimum and maximum working hours, chi-square) (Fig. 4).

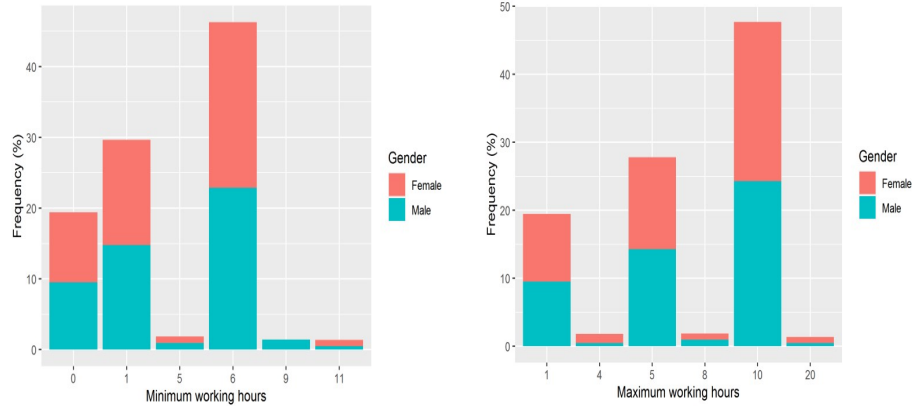


Fig. 4. Bar Plots Showing the Proportion by Gender of the Minimum and Maximum Working Hours Per Day among Respondents
Source: Personal contribution

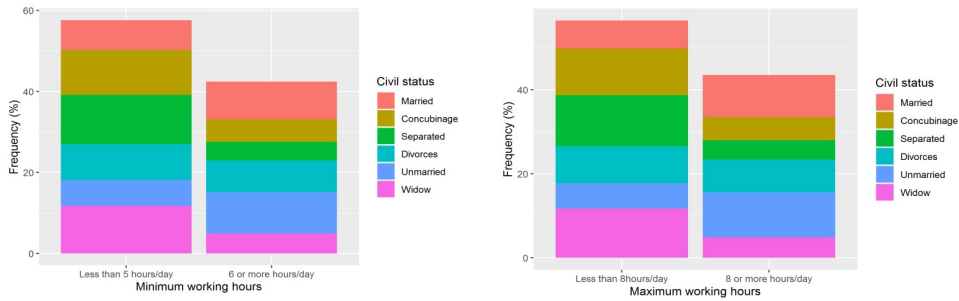


Fig. 5. Stacked Bar Plots Illustrating the Variation of Minimum and Maximum Daily Working Hours by Respondents' Marital Status
Source: Personal contribution

Looking at the relationship between the working hours and civil status, it tends to indicate that unmarried or married respondents work more hours, whereas those divorced, separated, living in concubinage or widows work less hours. This was

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seen when examining both minimum and maximum working hours, but with our sample size the differences were not significant ($p=0.184$ for the minimum daily working hours and $p=0.0629$ for the maximum working hours, chi-square). For easier visualization we binarized the number of working hours (Fig. 5).

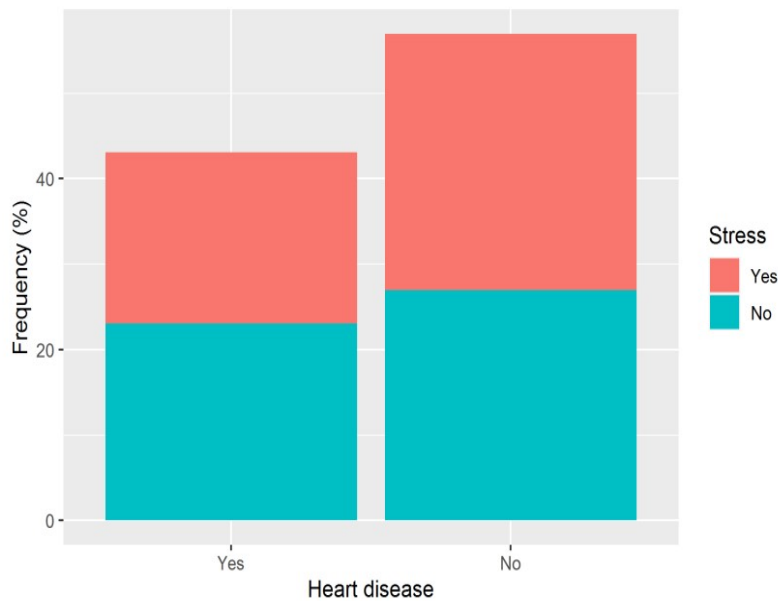


Fig. 6. Distribution of Heart Disease among the Respondents according to the Stressful Character of Their Job
Source: Personal contribution

Stressful work and health: In order to probe the perception of the respondents on the stressful character of their job, they were asked to state whether or not their job was stressful. Only 7.66% of the participants labelled their job as such, whereas the large majority of respondents did not consider their job “stressful”. About half of the respondents (46.33%, 95% CI 39.19%-52.74%) acknowledged suffering

from various heart diseases (such as high blood pressure, ischemic heart disease etc.). We were interested to assess if there was any association between the stressful job and heart disease amongst the respondents, but no such association could be detected ($p=0.85$, Fig. 6).

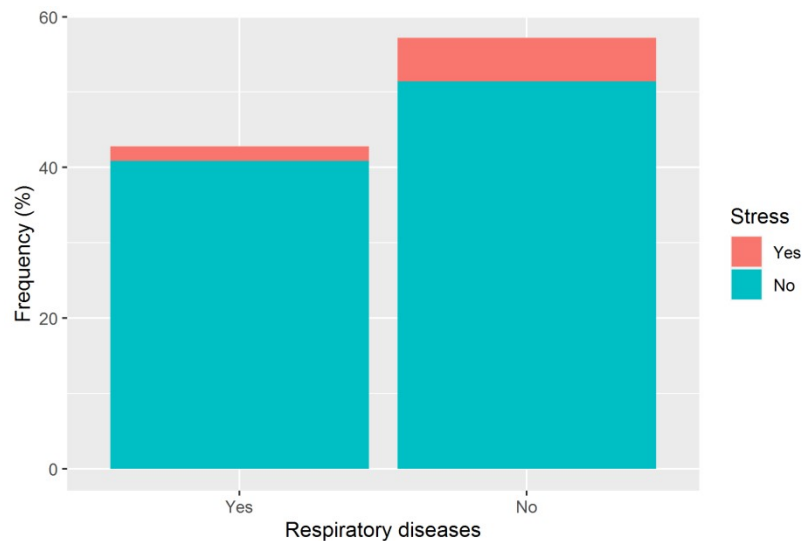


Fig. 7. Distribution of Respiratory Diseases among the Respondents according to the Stressful Character of Their Job
Source: Personal contribution

It has long been known that work-related stress is a risk factor for cardiovascular disease and that prolonged stress at work or at home may increase the probability of developing coronary heart disease by 40-50% [Steptoe, & Kivimäki, 2012]. The studies performed up to date have mainly been concerned with males and the limited data regarding women have been considered insufficient to draw firm conclusions on the relationship between work stress and ischemic heart disease [Eller, Netterström, Gyntelberg *et al.*, 2009]. Our study did not find such an association, but several

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factors might explain this finding. As it has been recognized in the literature, evaluating “work stress” is particularly difficult, because of the “subjectivity” of the concept and the problems associated with blending its main components in meaningful metrics [Sara, Prasad, Eleid, Zhang, Widmer, & Lerman, 2018]; ours was a simple cross-section study, and we only assessed “work related-stress” based on the perception of the respondents, and not through a more objective metrics (i.e. there may be a high proportion of misclassification with respect to work-related stress). Secondly, the proportion of participants describing their jobs as “stressful” was fairly low (less than 10%), and therefore it is likely that the law of small numbers [Rabin, 2002] may operate and explain the results. Thirdly, other sources of stress amongst the participants reporting as having non-stressful jobs could also cause confusion and lack of an apparent relationship between the two variables. Finally, additional confounding variables may both increase the heart disease risk in the group without stressful jobs and decrease the risk in those with stressful jobs, explaining the absence of any apparent relationship between the two.

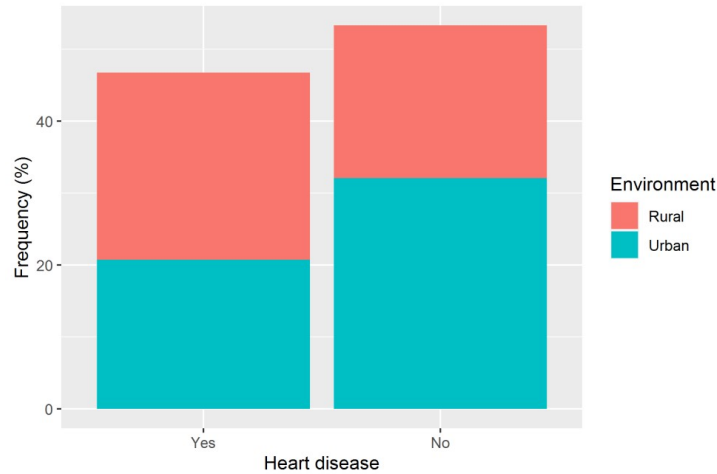


Fig. 8. Distribution of Heart Diseases among the Respondents according to Their Living Environment (Rural/Urban)

Source: Personal contribution

The proportion of respondents acknowledging as suffering from various respiratory diseases was similar to that recorded for the heart disease (40.83%, 95% CI 36.98%-50.47%). No direct association was seen between the work-related stress (more accurately the self-reported stressful jobs) and the respiratory disease (the proportion of the respondents with stressful jobs was rather higher amongst those with no respiratory diseases, than those suffering from such health issues – $p=0.217$, chi-squared, Fig. 7).

Living environment and health: We analysed the relationship between the presence of heart disease among study participants and the rural or urban environment in which they reported living. Our findings indicate that respondents from the rural environment have a higher frequency of heart diseases than their counterpart from the urban environment ($p=0.031$, Fig. 8).

A similar relationship was found for the distribution of respiratory diseases. Respondents from the rural environment tended to report disproportionately more diseases of this nature, unlike those from the urban environment ($p=0.033$, Fig. 9).

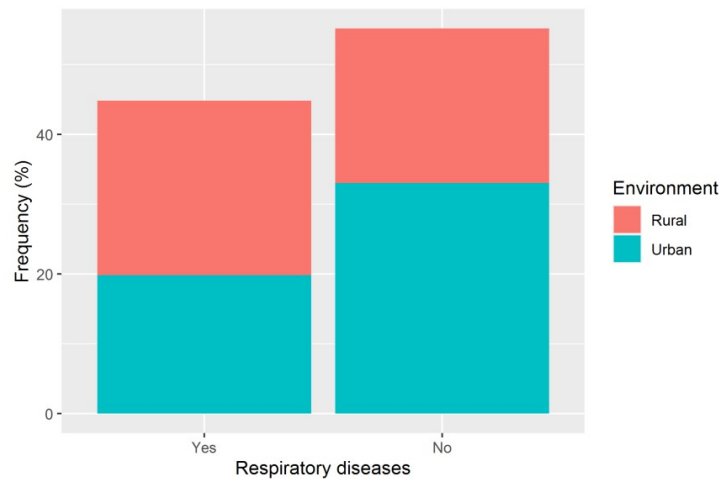


Fig. 9. Distribution of Respiratory Diseases among the Respondents according to Their Living Environment (Rural/Urban)

Source: Personal contribution

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Conclusions

The quantitative study reveals the concordance between the propensity of individuals to sacrifice from their one time and time for work without significant discrepancies between genders. Also the more people invest in their time of rest, the more they are able to work hard without injuries. When it comes to gender characteristics, we determined slight changes in behaviour with almost the same labour pattern for both participants.

Another interesting finding was that rural and urban areas are clearly determining the type of stress exposure for participants with a higher impact for workers coming from the urban area. Physical exercise and labour can be channelled in good order according to the gender capabilities. Balancing the connections between physical conditions and mental adaptability can produce an equilibrium situation between stress and work time. Rural and urban areas can favour health opportunities for individuals as long as they work plenty of time without extenuation. The attitude towards work can be a determinant factor regarding the implications of work results and health characteristics.

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BOKO HARAM TERRORISM AND THE FUTUROLOGY OF NIGERIA'S DEVELOPMENT

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Abstract

This study interrogates the continued manifestation of the Boko Haram terrorism that inheres in the prevailing human securities challenges in Nigeria, and why the Nigerian developmental quests had failed and are bound to fail in the future should the human insecurity challenges that accounted for the Boko Haram terrorism are left unabated in Nigeria. Collected qualitative and archival data lend credence to the centrality of the proposition of this study that Boko Haram terrorism would remain as long as the human security challenges such as poverty, inequalities, social injustice, unemployment, illiteracy remain unaddressed. This study therefore recommends a human-based approach to addressing the Boko Haram terrorism.

Keywords: *human insecurities; Boko Haram terrorism; the human security model; development; Nigeria.*

JEL Classification: J28, O11, O19, P46, P48, Z12



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1. Introduction: Understanding the Logic of Boko Haram Insurgencies

Terrorism has grown to become the most dreaded nightmare of the entire world. Nigeria has not been exempted from the deadly scorch of terrorism and other forms of organized crimes against humans. As a societal pathology, terrorism has accounted for more than half of the entire security challenges the world is currently being confronted with. However, recent manifestations of contemporary terrorism had made it difficult to distinguish terrorism from all other forms of societal menaces and violence. A cursory review of the Boko Haram Sect's activities in Nigeria has however revealed that 21st century terrorism is now technically anchored on the precipitation of multifaceted human security challenges. The Boko Haram terrorism and/or insurgency remain undefeated and continue to linger in Nigeria in spite of the government's efforts to eradicate and banish the insurgency. This therefore calls into question the deficiency of the Nigerian government's understanding and approach in addressing the insurgency, and how it has affected Nigeria's development and her capacity to futuristically sustain her development. The inability of the Nigerian government to reckon with the new development surrounding the Boko Haram insurgency, as regards its empirical causes and link with her development objectives.

The term "Boko Haram" comes from a Hausa word, Boko meaning "western or non-Islamic education" whilst "Haram" an Arabic word that largely connotes Sin. Boko Haram, which literally means "Western or non-Islamic education is a sin", remains a controversial Nigerian militant Islamist terrorist group that seeks the imposition of Sharia law on the northern states of Nigeria such as Borno, Yobe, Adamawa, Gombe, Taraba and some other states in the north. This group is known for bombing, explosion, killing, maiming and massive destruction and the use of religion as a weapon of terror in wreaking havoc in some states of the Federal Republic of Nigeria [Abolurin, 2011]. As a peaceful Islamic group, in 1995, under the name Shabab and led by Abubakar Lawan, Boko Haram has grown to become one of the deadliest terrorist groups in Africa. The migration of Lawan abroad to further his studies gave Mohammed Yusuf the opportunity of taking over the leadership of the group. During the course of leading the group, Yusuf was alleged to have opened up the group to political influence and popularity. He later built a mosque named Ibn Taymiyyah Mosque. And according to Abolurin (2011), it was in this mosque that Yusuf Mohammed and his then deputy Abubakar Shekau began to build an imaginary state within the Nigerian state. Founded in 2002 in Maiduguri by Mohammed Yusuf with the aim of establishing a Sharia government in Borno state,



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the terrorist group moved to Kanamma village in Yobe state, Nigeria years-after. In Bauchi, the group was reported to have refused to socialize with the local people. Following his death, a new leader emerged for the group in person of Abubakar Shekau, a former deputy to the late Mohammed. Under the leadership of Shekau, the violence perpetrated by the group became unprecedented in frequency and intensity, as the group continually attacked security formations, churches, mosques and other institutions of government.

It is important at this juncture to chronicle some of the activities of this dreaded group who have continued to terrorize the Nigerian state with bombings, kidnappings and wanton destruction. Prominent among the immediate triggers of the Boko Haram insurgency that have been espoused is succinctly captured in the Crisis Group Africa Report of 2014 where the issues of politics, political violence, bad governance, poverty, economic inequalities, social injustice, and corruption rank highest. The report explains further that Nigerian politics is largely driven by money and elected public officials are hardly accountable to the citizens, as a result, Nigeria experiences a wide range of corruption that has contributed to every known social problem in the country. Crisis Group Africa Report (2014) revealed that, in Nigeria, 112.5 million people, representing over 70% of the population, are classified as poor and absolutely poor. Sokoto state in the North West had, as at 2014, the highest poverty rate (86.4%) while the North East where Boko Haram operates has the worse poverty rate of all the six geo-political zones in Nigeria (Crisis Group Africa Report, 2014). The Boko Haram insurgency, for some scholars and observers, sprouted and continues to boomerang mostly in the North-Eastern part of Nigeria due to low level of literacy and education. Till date, millions of *Almajiri* children (children that are usually enrolled in Islamic literacy centres, and rely on street alms-begging to eat and get clothed) continue to litter the streets of most northern states in Nigeria. Many of these *Almajiris* usually graduate Yandaba, an adolescent group, that later become a gang which serves as a good recruitment pool for extremist and terrorist groups such as the Boko Haram terrorist sect.

This study is therefore an attempt to understand how and why the continued manifestation of the Boko Haram insurgency poses a great challenge to Nigeria's present and future development quests. Logical attempts would be made also to examine the failure of the Nigerian government to civically and democratically underlie intersections between rising human security challenges and the continued manifestation of the Boko Haram insurgency, and the implication of this causality for Nigeria's developmental capacity.



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2. Boko Haram and the Future of Nigeria's Development: The Causal and Theoretical Premise

The Nigerian state now sits almost hopelessly on the threshold of discontinuity whilst the future of her developmental aspirations looks rather unconvincing and bleak due to the pervasiveness of insecurity that is characterized by, among many, more than a decade of Boko Haram insurgency. The spontaneity of the manifestations of the Boko Haram continues to test the resolve of, and the preparedness of the Nigerian state to stem the tide of this terror and other insecurities. With thousands of innocent Nigerians killed and internally displaced owing to the continued manifestation due to the terroristic activities of Boko Haram, several attempts had been made to understand the dynamics of this scourge, its causes, connection with Nigeria's development quest, and why it has remained almost unshakable and indestructible with no end in sight despite the amount of efforts, resources and policies and strategies that had been committed to its eradication by the government. Whilst various paradigmatic and tested hypothetical rationalizations have been advanced to explain the wave of Boko Haram Insurgency, little or no attention has been given to the theorization of its relationship with Nigeria's development aspirations. The Human security approach, following the end of the Cold War and the end of certainty that came with it, became the bedrock of security discourses; strategy and even a security paradigm that seeks to extol the primacy of human basic need as security measures itself, to forestalling insecurities [Hough, 2004].

The failure of governments to, through the usual traditional security paradigm, address the emerging human insecurities that threatened the existence of humanity led to the emergence of an alternative approach, that is, the Human security paradigm to approaching and understanding the rising profile of human-related insecurity issues. More recently, analysts, following the United Nations Development Programmes (UNDP) 1994, Human Development Report and their notion of security as "freedom from fear and want" [Hough, 2004], have settled on the phrase "human security" to emphasize the people-centred aspect of security efforts, strategies and paradigms. Thus, human security takes the individual as primary referent, and also concentrates on how best to protect them. Emphasis is therefore on the quest to actualizing the well-being of individuals, and responding to the people's needs in dealing with sources of threats. Furthermore, the Human Security paradigm aims to finding means to protect the nation from external aggression, and also, to safeguard it from a range of menaces, such as environmental pollution, infectious diseases and



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economic deprivation. Environmental destruction, poverty, famines and diseases are huge threats to the lives of millions of people all around the world and indeed, in Nigeria.

In Nigeria and more specifically in the Northern region, most of the human security needs have become practically non-existent. These human security needs are contextualized here to mean food, clothing, shelter, economic and health security, inclusion, freedom, religious tolerance and respect, as well as fundamental human rights, availability and ease of access to these human needs in Nigeria were visibly low. The Nigerian state now prides itself as the capital of world's poverty [World Poverty Clock, 2020]. This is in addition to World Bank report on human needs that is already spiking up. According to the proponents of the Human Security approach, Boko Haram insurgency and other forms of insecurities persist not entirely as a result of weak institutions or structures of government as scholars of Institutional approach would have argued, but of course, convincingly as a result of the absence of basic human securities provisions in the land. Since its attainment of statehood in 1960, the Nigerian state has remained one of the states that have consistently struggled to meet the human needs of their citizenries. Not only that Nigeria is now regarded as the poverty capital of the world, outmatching India, but now Nigeria harbours the highest numbers of children that are out of school and suffer of malnutrition across the globe. The World Poverty Clock has revealed Nigeria as the poverty capital of the world with 86.9 million out of its 180 million population still living in extreme poverty [World Poverty Clock, 2020].

Further to the above, poverty is often regarded as most significant threat to life and human security. Through famine and hunger, poverty has heightened the vulnerability to other threats by creating unfavourable structural economic conditions. Therefore, poverty can kill directly huge numbers when people are unable to secure sufficient food, as well as precipitate and motivate the poor into taking up terrorism, banditry and monstrous herdsmen killings as a means to surviving economically. Poverty therefore, as it were, does not simply mean a lack of material possessions, but, more generally, the deprivation of the three basic economic needs: Food, Water and Shelter [Akinrinde, 2016a; Akinrinde, 2016b].

Historically, the immediate economic threat to food security, over time, has always been famine. Famines chiefly occur due to the combination of both natural and economic factors. Since, it is manmade phenomenon, they are sometimes economically motivated [Hough, 2004]. An inadequate political response of



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governments to challenge of food insecurity has also been a critical issue. It seems though that the overall accessibility of food is not the problem, but rather poor distribution and the lack of the economic means or access to affordable food. The implications of food insecurity or famine are multifold. The desperate attempt by victims of food insecurity to resort to profitable criminal activities with a view to meeting their food needs. Nearly, 100 million Nigerians live on less than one US dollar a day. In January 2012, Nigeria's National Bureau of Statistics released a report showing that the percentage of Nigerians living in absolute poverty had increased nation-wide from forty-five to sixty-one between 2004 and 2010 (NBS Report, 2012). Finally, Nigeria, according to World Poverty Reports (2019), is the poverty capital of the world, having taken over the status from India.

This phenomenal rise in the country's poverty profile was particularly notable given that in 2011, Nigeria was the world's fourth largest exporter of oil [HRW, Report, 2012; Akinrinde, 2018]. Poverty has been unevenly represented in Nigeria with the north being the worst off. The National Bureau of Statistics' Report (2012) showed that 70% of Nigerians in the north-eastern part of the country (Boko Haram's traditional stronghold) lived on less than one US dollar a day compared to 50 and 59% in the south-western and south-eastern Nigeria respectively. Also, government's demographic and health survey in 2008 cited in Human Right Watch Report (2012) revealed that less than 23% of women and 54% of men in the north-east Nigeria could read and write compared to more than 79% of women and 90% of men in the south. Furthermore, chronic malnutrition among children has also become endemic in Nigeria. Infrastructural development is scarcely available. In the north-east, for instance, only 24% of households have access to electricity compared with 71% of households in the south-west [Wakil, 2013]. Unemployment, lack of economic opportunities, and wealth inequalities are sources of deep frustration across the country, especially in many parts of the north [Odo, 2013]. This explains why the Nigerian state has the highest number of Almajirs (a group of northern children and teens whom have been abandoned by their parents and, consequently, resorted to street-begging). The key to finding the solution is to tackle the issues regarding access to resources, employment and secure revenue. Furthermore, an underfed population is mostly prone to diseases, creating considerations concerning health care closely associated with the problem of poverty, particularly in third world countries. Against the backdrop of the aforementioned human security threats and variables that readily precipitate the triangle of insecurity in Nigeria, some

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proponents of human security also include various other issues, such as natural disasters, bad leadership, and electoral violence.

The failure of successive Nigerian governments to comprehensively address the roots of poverty in Nigeria has been particularly consequential for two reasons: the rising profile of poverty level and the role the high poverty level has been playing in the making of insecurity. The poorly catered for and trained citizens that are mostly teenagers and youths have thus become ready-made tools for the breeding of terrorism, insurgency and other forms of organized crimes like banditry and herds-men terror. For instance, current leader of the Boko Haram terrorist sect, Ibrahim Shekau, was formerly an Alma-Jiri who wandered the streets of Yobe state in Nigeria before he came in contact with the late Mohammed Yusuf, the supreme founder of the Boko Haram sect who introduced him to radical Islamism. Ibrahim Shekau, like most members of the deadly Boko Haram terrorist sect, was a victim of the failures of successive Nigerian governments to meet the basic human security needs of the citizens. Shockingly, eighty per cent of nearly half of the population living below the poverty line are domiciled in the Northern region. This explains why the Northern region of the Nigerian state, especially, the North-Eastern region (the least developed region) continues to account for the highest rate of insecurity in the Nigerian state at the moment. Whilst the other parts of the country are not exempted in the precipitation of the terrorist network, activities and effects in the country, the Northern part remains the major contributor in the breeding haven for Boko Haram and other forms of organized crimes.

Another human insecurity that has contributed to the emergence and consistent rise of organized crimes like terrorism world over, such as the case of Boko Haram in Nigeria, is environmental degradation. Some of the threats caused by environmental degradation seem less clear-cut and direct than other dangers to human life. However, the potential threat of global warming and ozone depletion and other environmental conditions have increased people's vulnerability to other threats, such as disease and loss of livelihood, making them largely indirect threats to human existence. Studies have further revealed that close to a third of deaths related to diseases world-wide have some environmental causes, such as air or water pollution [Hough, 2004] which are indirectly aiding the rise of terroristic activities, most especially, from those that have been badly affected by the harsh effects of the emerging environmental challenges. Furthermore, human induced environmental degradation, and the resulting scarcity of resources have also been some of the



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motivators of insecurity and insurrections in Nigeria, and most parts of the globe [Terriff, 1999].

Similarly, one of the major threats is air pollution, caused by vehicles, factories and power plants, which can seriously damage people's health. Developing countries, on the other hand, mostly face the threat of scarce water resources, as well as water pollution. Thus, for example, a recent study has revealed that close to 2 million children each year die from diarrhoea, largely because of the contamination of their drinking water and the lack of sanitation in developing countries [The Economist, November 11, 2006]. Water scarcity is also increasingly becoming a factor in ethnic conflicts and political friction. Nigeria is not shielded from the harsh realities of human insecurities. In fact, these human insecurities have thus placed individuals at the mercy of desperate and survivalist actions and activities that could in most instances precipitate the youths and teenagers into taking up arms against the state through terrorism or banditry and the killers-herdsman. Environmental issues coupled with poverty and underdevelopments, which are both serious threats to the individual's security as well, have become ready-made motivators of insecurities in Nigeria.

Corruption has also become the catalyst for the Boko Haram to continue to fester. The terrorist group would have found it difficult to gain a lot of its current members if it was operating in a functional state where corruption is seen as an abomination, and then taken as such. Boko Haram's teaching and indoctrination was easily accepted because the environment, the frustrations, the corruption, and the injustice made it fertile for his ideology to grow fast, very fast, like wildfire in the North-Eastern part of the country. The Boko Haram sect, for instance, has continued to emphasize corruption and injustice as the motivating factors for their desire to institutionalize Islamic government based on the principles of Sharia, which they saw as anti-dote to corruption, lack of basic social services such as health-care, education, water, electricity, good housing, roads, amongst others, for the ordinary citizens in Nigeria. As the Human Rights Watch Report (2012) noted, while professing to oppose corruption, Boko Haram has, at times, openly exploited the failings of the Nigerian state to advance its cause. For example, the Report observed that Boko Haram claimed that it succeeded in carrying out a car bomb attack on the United Nations Office in Abuja, in August, 2011 by bribing government security personnel at check points along the 800 kms route from Maiduguri to Abuja [Human Rights Watch Reports, 2012]. According to Boko Haram's spokes-

man quoted in the Report, “luckily for us, security agents were not out to work diligently but to find money for themselves, and N20.00 or N50.00 that was politely given to them gave us a pass” [Human Rights Watch Report, 2012].

The implication of these human insecurities is the rising prevalence, among other security threats, of Boko Haram insurgency that has severely affected Nigeria’s march towards present and future developments. The Boko Haram insurgency has created an inhibitive atmosphere that is cantankerous to any meaningful development. Economically, all economic and industrial productions are the hotbeds of the Boko Haram attacks. The implication of this is the incapacitation and robbing of the Nigerian economy the opportunity to draw on productions of good and services from the North-Eastern part of Nigeria. This is coupled with scores of loss of lives and the destructions of small businesses that constitute to the fulcrum of the Nigerian economy. Access to basic health by citizens and residents of areas that have been overrun by Boko Haram in North-Eastern Nigeria has become a top priority. Security is development, and in an atmosphere that is insecure, development becomes a fleeting mirage.

To buttress the relevance and appropriateness of the Human Security in understanding why the Boko Haram insurgency has remained constant and the implications it poses to Nigeria’s present and future developmental objectives, the table below reinforces Human Security Approach’s position by depicting that areas, where the Boko Haram insurgency has become commonplace, are areas with the worst human security indexes.

Table 1. Boko Haram Attacks in Nigeria from 2009 to 2019

S/N	Dates	State in Nigeria	Location of Attack and Numbers of Death
1	July 27, 2009	Yobe	Terrorist Attack on Potiskum, Yobe State Divisional Police Headquarters with three policemen and one fire service officer killed.
2	September 8, 2010	Bauchi	Boko Haram set ablaze Bauchi Central Prison and freed many of its members from the prison.
3	March 13, 2010	Plateau	Boko Haram killed 300 people in the northern part of Plateau State.
4	October 1, 2010	Federal Capital Territory,	Boko Haram detonated bombs near the Eagle Square, Abuja claimed 12 lives, leaving many injured.

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		Abuja	
5	December 24, 2010	Plateau	Boko Haram detonated bombs in Barkin Ladi, Plateau State, killing eight people.
6	December 31, 2010	Federal Capita; Territory, Abuja	Bombing of Mogadishu Mammy Market, in Abuja, killing about 10 lives.
7	January 21, 2011	Borno	The Borno state governorship candidate of all Nigeria Peoples Party ANPP for the 2011 election, Alhaji Modugubio, a brother to former governor of the state, Modu Sheriff, was killed with six others by members of Boko Haram in Maiduguri, Borno State.
8	March 2, 2011	Kaduna	Two policemen attached to the residence of the divisional police officer, Mustapha Sandamu, at Rigasa area of Kaduna State, were killed by members of the Boko Haram sect.
9	March 30, 2011	Yobe	A bomb planted by Boko Haram in Damaturu, Yobe State, exploded whilst injuring a police officer.
10.	April 8, 2011	Niger	Boko Haram bombed the Independent National Electoral Commission's office in Suleja, Niger State, killing eight corps members and the suicide bomber too.
11	April 9 2011	Borno	Bomb explosion at a polling unit in Unguwar Doki Maiduguri, Borno State, killing the suicide bomber only.
12	April 26, 2011		Three people killed and scores injured in bomb attack.
13	April 29, 2011	Bauchi	The bombing of Army Barracks in Bauchi by the Boko Haram group with no casualty recorded.
14	May 19, 2011		Three policemen were killed, with two soldiers injured in bomb attack executed by Boko Haram.
15	May 29, 2011	Bauchi	Bomb explosion at Mammy/military market of Shandawanka barracks in Bauchi State by Boko Haram claiming lives while leaving many injured.
16	May 30, 2011	Borno	Bombs explosion carried out by Boko Haram along Baga road in Maiduguri, Borno State, leaving 13 dead and 40 injured.
17	June 16,	Abuja	Nigerian Police Headquarters, Abuja, was bombed by

	2011		a suspected suicide bomber of the Boko Haram group with three casualties and many vehicles damaged.
18	June 16, 2011	Borno	Four children were killed in a bomb attack carried out by Boho Haram at Damboa town in Maiduguri, Borno State.
19	June 20, 2011	Katsina	Seven policemen were killed by Boko Haram in a Boko Haram attack on Kankara Police station in Kastina state, with two of the security men instantly killed.
20	July 9, 2011	Borno	A gun duel between Boko Haram and the Nigerian military in Maiduguri, Borno State, left 31 people dead. On the same day also, in Suleja, Niger State, a bomb targeted at a church by the Boko Haram group killed four and injured many others.
21	July 11, 2011	Kaduna	Bomb explosion at a relaxation spot in Fokados street, Kaduna left many injured.
22	July 12, 2011	Borno	Boko Haram Group threw an explosive device on a moving military patrol vehicle in Maiduguri.
23	July 15, 2011	Borno	Boko Haram bomb attack in Maiduguri injured five people.
24	July 23, 2011	Borno	Boko Haram bomb attack close to the palace of the Shehu of Borno, Abubakar Garbai Elkanen, injured three soldiers.
25	July 25, 2011	Maiduguri	A bomb explosion near the palace of traditional ruler in Maiduguri claimed eight lives.
26	August 25, 2011	Maiduguri	Members of the Boko Haram group killed four policemen, one soldier and seven civilians while carting away undisclosed sum of money in a bank robbery.
27	August 26, 2011	Abuja	A Boko Haram suicide bomber rammed into the United Nations building in Abuja, killing 25 while injuring 60.
28	September 12, 2011	Bauchi	Four policemen with three others were killed during a Boko Haram bomb attack on a police station in Misau, Bauchi State.
29	September 13, 2011	Borno	Boko Haram members shot and injured four soldiers in a terrorist attack in Maiduguri, shortly after the arrest of fifteen of its members, during military raids

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			on Boko Haram hideouts in Bauchi State.
30	September 17, 2011	Borno	Brother-in-law of Mohammed Yusuf, the slain leader of Boko Haram, Babakura Fugu was shot dead in front of his house in Maiduguri by two members of the Boko Haram group two days after he was visited by former President Olusegun Obsanjo.
31	October 3, 2011	Borno	Boko Haram Group attacked Baga Market in Maiduguri in a terrorist attack and killed three people.
32	November 4, 2011	Yobe	About one hundred and fifty people were killed by Boko Haram in a single terrorist attack in Damaturu, Yobe State.
33	November 27, 2011	Yobe	Seven people were killed by Boko Haram attacks in Geidam, Yobe State.
34	December 18, 2011	Borno	Three members of Boko Haram were killed following the detonation of explosives in Shuwari, Maiduguri, Borno State by the Boko Haram sect.
35	December 22, 2011	Borno	Boko Haram explosives and gunshots claimed four people's lives, leaving several persons injured in Borno.
36	December 24, 2011	Plateau	Eighty people were killed in a Boko Haram bombing in Jos, Plateau State.
37	December 25, 2011	Niger	Fifty people died on a Christmas Day bombing carried out by Boko Haram in Madalla, Niger State.
38	December 30, 2011	Borno	Seven persons were killed in Maiduguri, Borno State by Boko Haram.
39	January 5, 2012	Gombe	About six people died in a church in a Boko Haram attack led in Gombe, Gombe state.
40	January 6, 2012	Adamawa	Seventeen persons were killed in a terrorist attack in Christ Apostolic Church, Yola, Adamawa State. Another twenty people of Nigerian Igbo nationality were also killed by the Boko Haram terrorist group in Mubi Local Government Area of Adamawa state.
41	January 20, 2012	Kano	More than two hundred and fifty people were killed in a multiple Boko Haram attacks in Kano state.
42	January 22, 2012	Bauchi	Two churches were destroyed in Bauchi State whilst a military personnel, a divisional police officer, and eight civilian were also killed by members of the

			Boko Haram terrorist group at the headquarters of Tafawa Balewa Local Government Area in Bauchi state.
43	January 26, 2012	Kano	The Sabon Gari of Kano State witnessed another bomb explosion that was orchestrated by the Boko Haram terrorist group. Many were injured whilst some luxury buses were damaged in the explosion.
44	January 28, 2012	Gambiru Ngala, (Borno)	Another Boko Haram terrorist attack in Gambiru Ngala, Borno state, with one casualty.
45	January 29, 2012	Gambiru Ngala, (Borno)	A Boko Haram attack in Gambiru Ngala, Borno state, leaving two civilians dead.
46	January 30, 2012	Borno	Six people were killed in Maiduguri, leaving two Air force officers.
47	February 4, 2012	Borno	Two civilians killed in Damboa, Borno State by the Boko Haram terrorist group.
48	February 5, 2012	Yobe,	An officer of the Department of State Security was killed by the Boko Haram sect in Yobe.
49	February 07, 2012	Kaduna (Kano Market, Military Barrack)	Five civilians were killed by the terrorist group in Kano Market.
50	February 07, 2012	Kano	Ten persons were killed in Kano by Boko Haram.
51	February 10, 2012	Borno	Four persons were killed in a gun duel between Boko Haram sect and the Nigerian military in Maiduguri, Borno State.
52	February 10, 2012	Kano	The Boko Haram group attacked a police station and engaged the police in gun duel in Shagari Quarters, Kano. No casualty recorded.
53	February 12, 2012	Borno	Some members of the deadly terrorist group were killed in Maiduguri by the Nigerian military.
54	February 15, 2012	Kogi	Jail break masterminded by suspected members of the Boko Haram group occurred in Koton Karfi Prisons, Kogi State. A warder was killed and 199 prisoners

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			including some Boko Haram members escaped.
55	February 15, 2012	Niger	Two police men were killed and many injured by Boko Haram in Minna, Niger State.
56	February 17, 2012	Yobe	Two People were killed by Boko Haram in Geidam, Yobe State.
57	February 17, 2012	Borno State	Five people were killed in Maidugri metropolis by the Boko Haram, Borno State.
58	September 29, 2013	Yobe	A terrorist attack carried out by the Boko Haram at the College of Agriculture in Gujba, Yobe resulted in the death of forty male students.
59	January 14, 2014	Borno	Thirty one people were killed with over fifty people injured by a Boko Haram suicide bombing in Maiduguri, Borno State.
60	February 25, 2014	Yobe	A terrorist attack on Federal Government College in Buru-Yadi, Yobe state, by Boko Haram resulted in the death of twenty-nine teenage boys.
61	April 14, 2014	Borno	The renowned and popular 2014 Chibok girls' kidnapping was masterminded by the Boko Haram terrorist group. More than two hundred and thirty-four female students of the Chibok Secondary School were kidnapped by the terrorists and remain missing.
62	April 14, 2014	Abuja	Another Boko Haram bombing in Abuja in 2014 at a crowded bus station in Abuja, Nigeria, killed at least 90 people whilst injuring more than two hundred persons.
63	May 1, 2014	Abuja	A car bomb masterminded by the Boko Haram terrorist group exploded, killing at least nineteen people whilst leaving more than sixty persons injured.
64	May 5, 2014	Borno	The 2014 Gamboru and Ngala terrorist attacks perpetrated by the Boko Haram left more three hundred and thirty-six dead.
65	May 18, 2014	Kano	A Boko Haram suicide car bomb killed five civilians.
66	May 20, 2014	Plateau	Twin bomb explosions claimed by Boko Haram killed 118 people.
67	May 30, 2014	Borno	Assassination of a Muslim leader Alhaji Idrissa Timta the Emir of Gwoza in Borno by the Boko Haram sect.

68	July 4 – July 10, 2014	Borno	Four simultaneous Boko Haram attacks resulted into the death of eleven civilians, one vigilante, thirty-three soldiers, four police and fifty-three Boko Haram members were killed. On the same day, the Boko Haram group captures a military base and police station in Borno whilst on the 6 th the Nigerian military killed a Boko Haram kingpin and his brother at their home in Kaduna. Similarly, forty-four Boko Haram members were killed in two military operations in Borno on the 6 th July, 2014.
69	January 2, 2015	Borno	Boko Haram members razed down the entire town of Baga in North-East Nigeria. As many as 2,000 persons were killed in the terrorist attacks.
70	January 25, 2015	Borno	Boko Haram members launched offensive terrorist attacks against Nigerian forces in Maiduguri, the capital of Borno State, leading to the deaths of at least eight civilians, and fifty-three terrorists, and an unknown number of soldiers.
71	April 5, 2015	Borno	Some Boko Haram members disguised as preachers to launch a terrorist attack in Borno, killing at least twenty-four residents of Kwafaja Village in Borno State.
72	April 9, 2015	Borno	Members of Boko Haram attacked the village of Dile in Borno State, killing twenty innocent civilians.
73	June 22, 2015	Borno	Boko Haram masterminded Maiduguri Mosque Bombing and claimed thirty lives, including two young female suicide bombers. The terrorist group also attacked a mosque in the first day of the commencement of the Ramadan Fast of 2015.
74	November 17, 2015	Yobe	A terrorist bombing of a marketplace in the north-eastern Nigerian city of Yola left thirty-two people dead and over eighty persons wounded.
75	January 28, 2016	Borno	A weekend terrorist rampage by the Boko Haram terrorist in Dalori, an outskirts of Maiduguri, Borno state, left at least sixty-five people dead and twice the aforesaid number injured.
76	August 21, 2016	Borno	Another Boko Haram attack on a village called Kuburwva (between Chibok and Damboa, Borno State) was reported to have left at least eleven people

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			dead with countless women raped.
77	January 7, 2017	Yobe	At least five soldiers were killed during an attack by Boko Haram fighters on the Nigerian forces in the Counter-Insurgency theatre in Yobe.
78	January 8, 2017	Borno	Two people were killed in residential areas in the Kaleri area of Gwange following an attack by two female suicide bombers of Boko Haram.
79	January 13, 2017	Borno	Three soldiers were killed whilst ten Boko Haram insurgents died in a gun duel between the Nigerian forces.
80	January 28, 2017	Borno	Boko Haram launched an attack on Maiduguri-Biu highway, resulting into the death of seven civilians.
81	February 5, 2017	Borno	Troops of Operation Lafiya Dole of Nigerian COIN operations fell into a Boko Haram ambush in Ajiri village of Dikwa Local Government Area of Borno state, resulting into the killing of seven Nigerian soldiers.
82	March 15, 2017	Borno	Boko Haram terrorists launched an attack on Magumeri village in Borno state, killing seven people.
83	March 25, 2017	Borno	Boko Haram terrorists in a gestapo manner kidnapped eighteen girls and four women from Pulka village in Gwoza, Borno.
84	April 5, 2017	Borno	Boko Haram terrorists killed seven men in a farming community outside Maiduguri, and stole an estimated 360 herds of livestock.
85	April 12, 2017	Borno	A Nigerian soldier was killed during a suicide and gun attack on a military checkpoint on the outskirts of Maiduguri.
86	May 4, 2017	Borno	A Boko Haram attack by two female suicide bombers was launched on Mandarari ward in Konduga LGA in Borno which resulted in the death of five civilians.
87	May 20, 2017	Borno	Boko Haram members invaded remote villages in Mussa, Borno and shot dead villagers in Askira-Uba LGA, Borno state, resulting in the death of many, with scores kidnapped.
87	June 7, 2017	Borno	Boko Haram attacks rocked the east senatorial district of Maiduguri, with at least ten people killed.

88	June 18, 2017	Borno	Boko Haram suicide bombers detonated explosives in multiple attacks on Kofa, a village that's only 8 kilometres from Maiduguri, killing twelve civilians.
89	June 25, 2017	Borno	A security guard working with the University of Maiduguri was killed by a Boko Haram suicide bomber, while eight other civilians died in another attack by four suicide bombers in Zannari community in Maiduguri.
90	July 17, 2017	Borno	Eight civilians were killed by a Boko Haram female suicide bomber through detonated explosives at a mosque in Maiduguri.
91	July 28, 2017	Borno	Eight people were killed with fourteen others injured in a Boko Haram suicide bomb attack on an IDP camp in Dikwa LGA, Borno.
92	August 1, 2017	Borno.	Following a Boko Haram attack on Mildu village in Madagali Local Government Area of Adamawa state, the Boko Haram terrorists launched another attack that claimed seven civilians' lives and many injured.
93	August 9, 2017	Adamawa	One civilian was feared dead from an attack by Boko Haram members in Ghumbili community in the Madagali Local Government Area of Adamawa State.
94	August 12, 2017	Borno	At least four civilian persons were killed in an attack carried out by Boko Haram terrorist sect at Wanori-Amarwa community of Konduga LGA of Borno.
95	August 20, 2017	Yobe	Two people killed following an ambush by Boko Haram terrorists along Damaturu-Biu road in Yobe state.
96	2018	Zamfara	At least three hundred and seventy-one people were feared dead following a coordinated and concurrent terrorist attacks masterminded by the Boko Haram group in Zamfara state in 2018 alone. The total casualty recorded from the terrorist killing and attacks by Boko Haram for the year 2018 stood at 6,562.
97	January 28-29, 2019	Borno	Sixty innocent people were killed in Rann, Borno State, in a terrorist attack by Boko Haram.



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98	April 29, 2019	Adamawa	Boko Haram fighters reportedly killed 21 people when they stormed into Kuda village in north-eastern Nigeria and set it on fire.
99	May 1, 2019	Borno	The Boko Haram terrorists killed fourteen men who had gone to collect firewood near Monguno in the Lake Chad area of Nigeria's Borno state.
100	May 2, 2019	Adamawa	The Boko Haram terrorists went from door to door, killing as many as 25 people in Christian community of Kuda, near Madagali, in Adamawa State, in north-eastern Nigeria.

Source: Compiled by the Author, 2019

3. Boko-Haram and Nigeria's Future Development: Impacts Analysis

To aver that terrorism has so much reaching implications for national security is to state the obvious. This is anaphoric considering the devastating effects of terrorism in Nigeria recently. Aside from creating an ambiance of desolation and displacement, it further exacerbates the spate of instability in such an area and threatens peaceful coexistence. The resultant public security volatility in the region has been an impediment to trade and investment, peaceful co-existence and stability, as well as sustainable livelihood and development. This scenario has since complicated and accentuated the plight of the region as a developmentally challenged section of Nigeria. In respect of the implications of terrorism for the broader polity of Nigeria, it is to be noted that the Boko Haram insurgency has led to negative perception of Nigeria as an unsafe country by the wider world. This has damaged Nigeria's profile as a favourable international destination for investment, travel, tourism, scholarship, and migration. The implication of this is that Nigeria is gradually drifting into the status of an ostracized nation. This does not augur well for the sustenance of the country's national security. Furthermore, the extent of violence and destruction that has been associated with the Boko Haram insurgency in Nigeria has been horrific. The advent of suicide bombing as a strategy for prosecuting terrorism by members of the sect has since signalled a new dimension to the national security challenge in Nigeria. To say the least, the rising incidence and prevalence of terrorist attacks in Nigeria have exposed the country to serious levels of humanitarian and territorial vulnerabilities. In the face of this situation, the sustenance of Nigeria national security is at best problematic.



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Aside from this, terrorism in Nigeria increases public insecurity, threatens livelihood, increases human right abuses, amplifies population displacement and refugee debacle and swells human casualties/fatalities. To be sure, desiring for development amidst terrorist attacks is illusory, as no real development can be attained in a war prone society characterized by incessant bombings and attacks, considering that Nigerian democracy is nascent and can be easily disrupted by unrest. Nigeria's National Security Adviser, Ali Mungono was informed that "people no longer go out for their normal business in daytime and they cannot also sleep in the night, yet people are hungry but they are afraid of going out to look for survival, whereas, they are also weary of staying at home [Sun Newspaper, July 2, 2013]. Going by the logic that no economic development could take place in an atmosphere of fear, anarchy and insecurity, it therefore implies that Boko Haram insurgency is a bane to the present and future Nigeria's economic development.

In trying to understand the impacts of the terrorists' activities on Nigeria's development from a global perspective, one would begin to see that the Boko Haram terrorism has whipped up fear in the minds of would-be foreign investors in Nigeria since it is logical for anyone to not risk his or her investment in an unstable environment. Similarly, in many of the attack-ridden areas, economic activities have come to a halt and this traumatic experience has affected mostly the petty traders who earn their meal on daily routine. Banking sector have equally suffered setback as some commercial banks were closed in some of these areas. More so, humongous amounts of money meant for development and projects such as good roads, electricity and other vital amenities, have been diverted to security issues. Thus, while the country is striving towards capacity building, the Boko Haram insurgency is crumbling these laudable efforts. Hence, the impacts of the Boko Haram terrorism on Direct Investment (FDI) and the development of the Nigerian economy can never be over emphasized. This justifies Omenma's thesis that there is no gainsaying the fact that no man and by extension no state is an Island. This means that states need the relationship and partnership of one another to pursue development goals but the quest for foreign direct investment in Nigeria has been compromised by the level of insecurity in the country [Omenma, 2014]. The Nigerian government long before now understands the importance of attracting foreign investors and with such an awareness, that the limitation and incapability of the local investors could be best remedied through FDI, it wasted no time in vigorously and financially making provision for the injection of foreign capital in the



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form of investments in the country. This it did through the use of shuttle diplomacy, especially during Former President Olusegun Obasanjo's regime. This was protected and facilitated by the country's confidence in its new found democracy which most foreign firms have pointed out as the basis for investigation.

More than 97 per cent of businesses were negatively affected by the security problem whilst some of them had to close down, some of them had to retrench their workers, and others had to cut down in the number of hours of operation [The Nation Newspaper, 2013]. Also the insurgencies and terroristic activities of Boko Haram have reduced drastically.

This explains why the 2011 World Investment Report of the United Nations Conference on Trade and Development reported that slope in business activities caused by insecurity in Kano State alone has cost the Nigerian economy N1.3 trillion (\$6 billion) as a result of attacks by the Boko Haram group. It was further reported that the report monitored on the Voice of America (VOA) also shown that Centre for Research and Documentation in Kano attributed the development to a drop in earnings for nearly all businesses in the state [The Nation Newspaper, 2013].

Diplomatically, very regrettably in the area of diplomatic relations, the Boko Haram terroristic activities in Nigeria have negatively affected the relationship between Nigeria and other nations of the world as a result of bombing coupled with kidnapping and hostage taking of foreign expatriates and professionals working in the North-Eastern part of Nigeria that has resulted to the demise of some of them, and other gory experiences. As a result, some European and North American countries have repeatedly warned their citizens to refrain from going to some states within the Nigerian state, especially states with high terrorism volatilities. It could be recalled how, few years ago, the United States warned its nationals not to go to some states in Nigeria whilst The United Nations once included Nigeria on the world terrorist watch list before it was subsequently removed.

Also it has been reported that there are strong indications that Nigeria may be blacklisted by international anti-money laundering watchdogs called Financial Action Task Force (FATF) over its inability to track the source of funds of Boko Haram and curb terrorism financing in general [Onuoha, 2014].

In sum, the Boko Haram terrorism has impeded Nigeria's development and future prospect in the following:

- a. Social dislocation and population displacement.



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- b. Social tensions and new pattern of settlements which encourages Muslims/Christians or members of an ethnic group moving to Muslim/Christian dominated enclaves.
- c. Heightens citizenship question which entrenches hostility between indigenes and settlers.
- d. Dislocation and disruption of family and communal life.
- e. General atmosphere of mistrust, fear, anxiety and frenzy.
- f. Dehumanization of women, children, and men especially in areas where rape, child abuse and neglect are used as instruments of war.
- g. Deepening of hunger and poverty in the polity.
- h. Discourages local and foreign investment as it makes investment unattractive to business people.
- i. Halts business operations during period of violence and outright closure of many enterprises in the areas or zones where incidence of insecurity is rife and occurs daily.
- j. Increases security spending by business organizations and governments.
- k. Migration of people from area or region where there is prevalence of insecurity.

Conclusion and Recommendations

To conclude, it is an undeniable fact that, finally, no socioeconomic development could ever take place in an atmosphere of fear, anarchy and insecurity that normally characterizes a terrorized environment. The rising incidence and prevalence of terrorist attacks in Nigeria have, no doubts, exposed the country to serious levels of humanitarian and territorial vulnerabilities.

In the face of this situation, the sustenance of Nigeria national security has, at best, become problematic. It therefore implies that Boko Haram terrorism is a colossal bane to Nigeria's present development quests and its futurological development prospects. Viewed from a global worldview therefore, the Boko Haram terrorism has compounded the security fear and challenges usually experienced by foreign investors and expatriates in Nigeria. In many of the attack-ridden and terrorized areas, economic activities have been grounded and come to a halt with severe untold traumatic experiences on the part of the locals, who usually are the petty traders who earn their meal on daily routine. To say the least, it is then



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obvious to state here that the emergence of Boko Haram in Nigeria has served as some cog in the wheel of socioeconomic development in Nigeria.

It is therefore glaring that the Boko Haram crisis now affects the continued union of Nigeria as a nation and all hands must be on deck to finding a possible solution to this menace while the iron is still hot. To achieve this, this study therefore recommends the introduction of true federalism in Nigerian governance system in order to ensure that each state develops at its own pace [Oladeji, 2006]. If true federalism had been unambiguously enshrined in the 1999 constitution, issues of religious tolerance, allocation of resources and power sharing would have been taken care.

It is also recommended that Nigeria moves beyond the use of lethal force by improving on its intelligence gathering system whilst building healthier civil-military relations. Sending tanks to the street and declaring a state of emergency as President Jonathan did may appease the angry public but it is not an effective counter terrorism policy worldwide. The Nigerian government must, as a matter of urgency, address the human needs such as the political, economic and religious needs and concerns of the people, especially, the teeming youthful population that gave rise to Boko Haram.

Also, it is recommended that the universally accepted “carrot and stick approach” should be used in solving the Boko Haram terrorism since it has been proven that the “stick approach” has failed to curb the violence perpetrated by Boko Haram despite the declaration of emergency rule. According to the former Chief of Defence Staff, General Martin Luther Agwai (rtd), for instance, “you can never resolve any of these problems with military solution. The military can always be an enabling force” [Crisis Group Africa Report, 2014]. For him, “the terrorists will sensitize; they will stabilize the area but it is a political issue; it is a social issue; it is an economic issue, and until these issues are addressed, the military can never give you a solution” [Crisis Group Africa Report, 2014]. To salvage whatever is left of Nigeria’s present development gains and its futurological development prospects, the Nigerian government would need to do more by doing the recommendations suggested here while realizing that the long run strategy to preventing foreseeable occurrences of terrorism is to develop, as NC Namara has once remarked that security is development, and development is security.



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