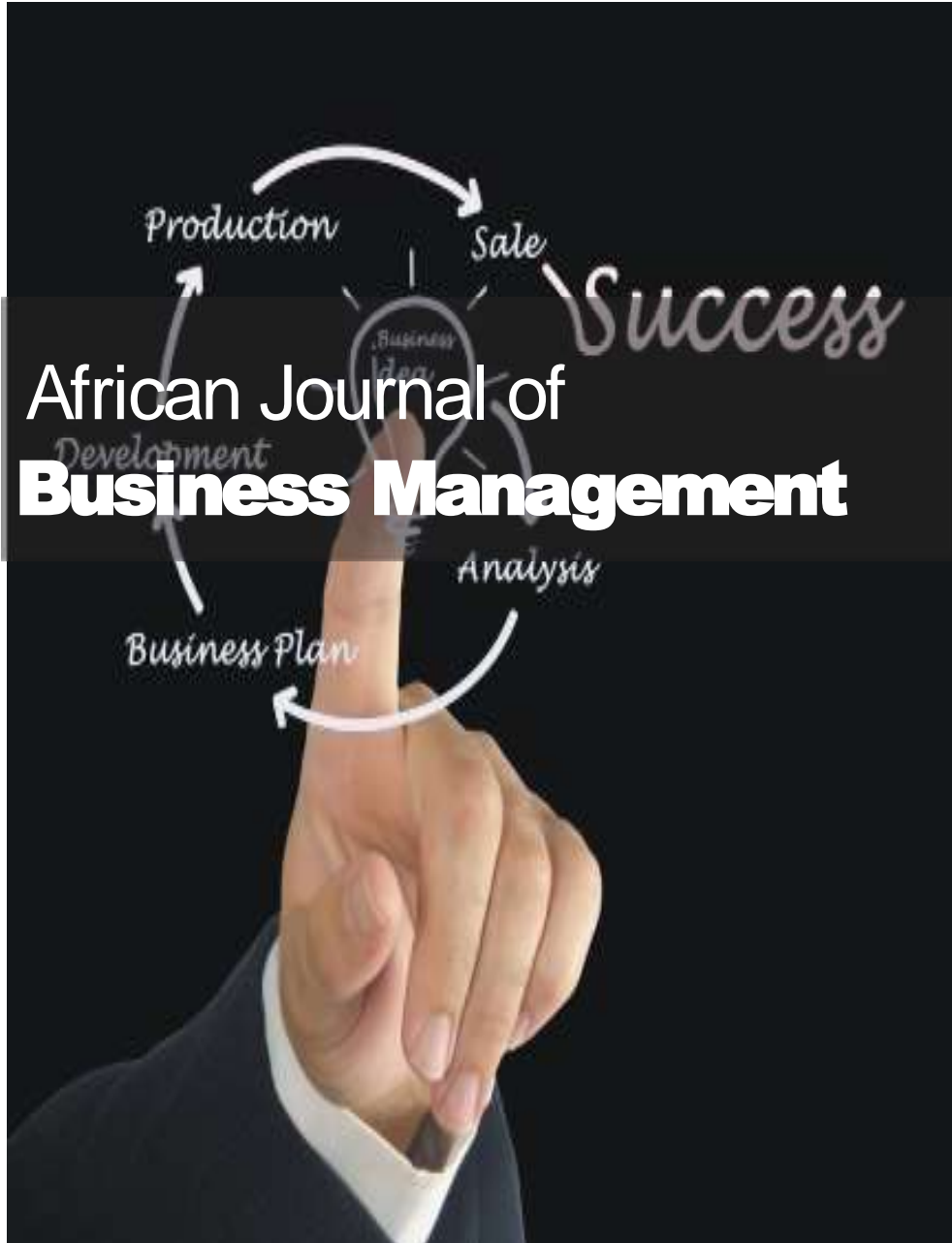


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# **Factors influencing project selection in the renewable energy sector of Zambia**

**Percy Jennings Saili\* and Balimu Mwiya**

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**The purpose of this paper is to investigate the factors that influence decision making in the selection of projects in renewable energy sector of Zambia. Project selection and development of a portfolio of projects in line with corporate strategy is an important task of decision makers in the renewable energy sector of both public and private organizations. The selected projects have to meet the appropriate time frame for completion and delivery, a suitable risk profile and other distinct factors in order to pursue corporate objectives successfully. A modified Delphi approach was applied in this study to investigate the factors that contribute to optimal selection of projects in the renewable energy sector of Zambia. The significance of the findings in this research established which critical factors decision makers must be considered when building up their project portfolio and considering the value of their investment.**

**Key words:** Project selection, renewable energy, strategic decision making, Zambia.

## **INTRODUCTION**

The renewable energy sector in Zambia is one of the areas identified by government under the seventh national development plan (7NDP) as key for Zambia's economic growth and development. It is a sector that offers immense opportunities for private investment participation.

A keen interest in this sector when it comes to the type of projects being selected and the factors that influence those tasked with making such decision makes this study appropriately especially considering what is at stake.

With the national electrification rate standing at 45% for urban area and 3% for rural area, a specific focus has been placed on enhancing national access to electricity to 90 and 51% access by 2030 in urban and rural areas, respectively (Ndhlukula et al., 2015). The huge goal of providing access to energy for development to the

productive population is top priority not only for Zambia but for the SADC region. With an estimated population of 280 million and a combined gross domestic product (GDP) of USD 575.5 billion as reported in 2018, the southern Africa development countries (SADC) region is growing at 5.14% (SADC, 2018). In 2008, the SADC primary energy supply was estimated around 9,552 pet joules (PJ) (International Energy, 2011). Coal dominated the primary energy mix with a large share of 44%, followed by renewable energy (39%), oil (14%), gas (2%), and nuclear (1%). The 39% share for renewable energy is distributed among traditional biomass (36.66%), primarily used for cooking and heating, hydro (1.95%), and modern biomass (0.39%). Other renewable energy sources include solar, geothermal, wind and biofuels (Dastgeer et al., 2011; UNIDO, 2011). The SADC has

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drawn up many energy access goals. Access to adequate and reliable energy services for the entire SADC region is a key in achieving a regional growth and reducing poverty on a sustainable basis (REN21, 2018). The region has established an operational goal to reduce the number of SADC inhabitants who do not have access to energy services by 50% by 2020, and reduce the number of those remaining without access by 50% every five years until the strategic goal of full access is achieved. Efforts to increase access to energy focus on the expansion of distribution networks, often implemented by the national utilities, and the use of small-scale distributed generation, often implemented through rural electrification agencies. Furthermore, SADC put in place a regional renewable energy and energy efficiency agency. The preliminary goal was to create an enabling environment for the uptake of renewable energy and energy efficiency through energy planning and policies, business models and technical innovation (Ndhlukula et al., 2015).

SADC member countries have signed several inter-governmental memorandum of understanding (MoUs) like the southern African power pool (SAPP) established 1995 and the Regional Energy Protocol (REP) of 1996. These agreements ensure consumers in each member country optimize the use of available energy resources in the region, and support inter-country co-operation during emergencies and recognize the need for a coordinated approach to energy strategy formulation and planning for the SADC. As of June 2018, the installed capacity of the total energy shared among SAPP members was estimated at 60,719 megawatts (MW) with an available capacity of 67,190 MW, against a peak demand plus excess of 55,009 MW (SAPP, 2018); most of the energy coming from coal (74% of the total), followed by hydro (20%) with nuclear and diesel covering 4 and 2% respectively. To meet rising demand and support economic growth, it was estimated that about 7,000 megawatts (MW) of new generation capacity must be installed each year (African Development Bank, 2010). The report estimates the cost of such investment at USD 41 billion per year, which represents 6.4% of the region's GDP. This cost is in exclusion of the cost for clean energy (African Development Bank, 2010).

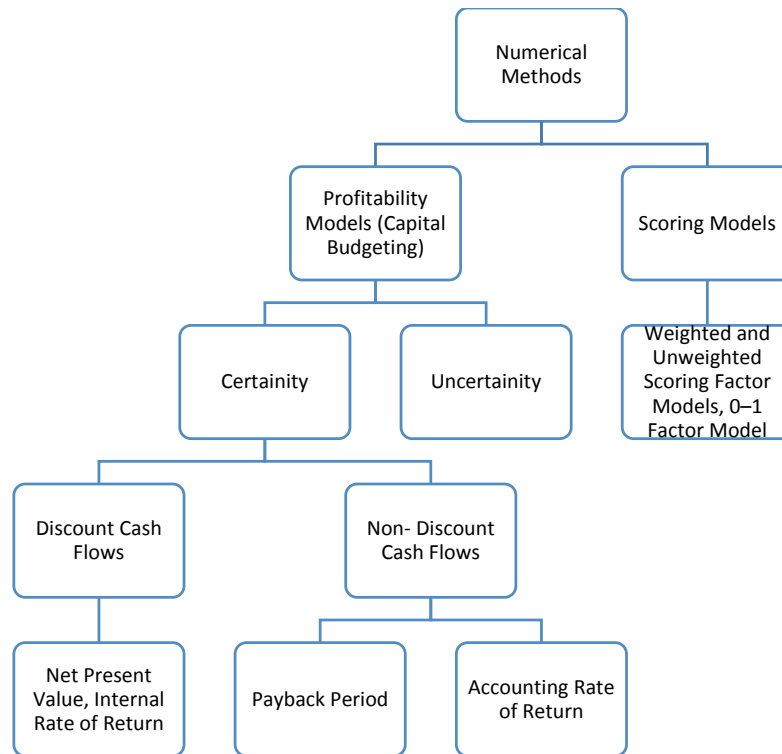
With the barrage of projects to achieve all this, no single sector requires huge financial investments. Potential investors in the field of renewable energy have vested interest which they must protect by all means and will only put their stakes on investment for which they are sure to reap benefits. Whereas the government may be politically motivated (driven) by the need to improve the social economic status of its citizens, private investors may be interested in having a return on their investment. The question is: how do they decide on what project to invest in? What are some of the factors to consider in arriving at their choices? Organizations use the concept of project portfolio management to answer these

questions. Project portfolio management focuses on making sure organizations are selecting the right project to execute. The foundation of project portfolio selection starts with a solid strategic plan. Objectives are evaluated and prioritized because objectives are not all equally important – some have greater strategic importance than others. All project proposals or business cases are measured against how well they support strategic objectives. Those projects that best align with corporate strategy are chosen for further evaluation in the selection process. The purpose of the project portfolio management process is to find the best mix of projects that makes the most efficient use of constrained resources while driving strategic objectives forward. In order to help decision makers with this important task, models are usually employed, either in their most simplified form of complex form (Henriksen and Trynor, 1999. Linstone, 1999, Murray et al, 2009).

## LITERATURE ON PROJECT SELECTION

Experts in the subject of decision making recognize six important issues that managers ought to consider when evaluating project screening models (Souder, 1984). These critical factors are: realism; capability; flexibility; ease of use; cost and comparability.

- i. Realism: An effective model must reflect organizational objectives, strategic goals, and mission. It must take into account the constraints on resources such as money and availability of personnel. The model must also consider the existing commercial and technical risks, including performance, cost, and time.
- ii. Capability: A model should be flexible enough to respond to changes in the conditions under which projects are carried out. It should be robust enough to accommodate new criteria and constraints and should be able to simulate different scenarios and optimize the decision to cover the greatest possible range of project types.
- iii. Flexibility: The model should be easily modified if trial applications require changes. It must have ability to provide valid results within a range of conditions.
- iv. Ease of Use: A model must be simple enough to be used by people in all areas of the organization, both those in specific project roles and those in related functional positions. The choices made for project selection, and the reasons for those choices should be clear and easily understood by organizational members. The model should allow users to generate the screening information rapidly and assimilate that information without any special training or skills.
- v. Cost: The screening model should be cost effective, the cost of obtaining selection information and generating optimal results should be low enough to encourage use of the models rather than diminish their applicability.



**Figure 1.** Breakdown of Numerical Models.  
Source: (Author, 2018).

vi. Comparability: It must be broad enough to be applied to multiple projects. If a model is too narrowly focused, it may be useless in comparing potential projects or foster biases toward some over others. A useful model must support general comparisons of project alternative.

Selection models identified in literature can broadly be classified as non-numerical and numerical. Non-numerical models consider broader aspects such as market share, political issues and client perception. Their focus is on social benefit. This means projects are undertaken for the good of society. Due to their subjective and unscientific in nature, these models are less relied upon in decision making.

Numerical models are objective and scientific in nature and are broadly classified as profit and profitability models and scoring models (Meredith and Mantel, 2009). They are the most used in decision making as they are non-subjective. These models can be broken down as illustrated in Figure 1.

The standard for project portfolio management (Project Management Institute, 2013) identifies seven strategic consideration for project authorization which can be taken individually or in combination. These seven strategic considerations are:

i. Market demand: this well describes consumer driven

projects. These projects are executed to satisfy the market that is willing to pay for them.

ii. Strategic opportunity/business need: exploring new frontiers through product research and development which will set the company apart from its competitors.

iii. Social need- looking at the benefits of the project to the people for who it is done. Generally such projects are done by the government or non-governmental organizations such as churches

iv. Environmental consideration: eco-friendly projects such as clean energy production

v. Customer request- similar to the market demand driven projects, these projects are carried out at the behest of the customer.

vi. Technological advance: technology is used to mass produce components and optimize the use of resources.

vii. Legal requirement: new legislation may necessitate the authorisation of projects to effect the changes for compliance.

Various authors have also tried to re-categorize these factors in literature (Klein, 1998; McClung, 2002; Adams, 2006; Meredith and Mantel, 2009; Khadija and Laila, 2015). Their work is captured and summarized in Table 1. The list, though not exhaustive, highlights generic factors that can influence decision making in this critical industry.

Adams (2006) recognizes as important the knowledge



**Table 1.** Factors for project selection identified in literature.

Author	Factor	Comment
Adams (2006)	Social, political and environmental issues, Personnel resources/capabilities, Job creation/wealth creation, Governance, Process, Policy in place, Strategic alignment/Leverage	Risk and Tacit Knowledge
Meredith and Mantel (2009)	Value add/Net Present Value/Internal Rate of Return, Payback period, Available budget, Project Cost	Capital Budgeting methods
Khadija and Laila (2015)	Synergy effects between projects, Balance between business units served, Period for Implementation, Time pressures	Governance
Klein (1998)	Risk profile of portfolio, Project/technical risk, Intellectual property issues, Culture, Selection of players	Risk Factors
McClung (2002)	Knowledge of the business, Knowledge of the work, Education, Experience, Preconceptions	Leadership, Tacit Knowledge and Experience

Source: author (The table was developed by the research by consolidating the various factors looked at in literature from different authors).

acquired through experience and the level of risk associated with the projects during selection of projects.

When it comes to carrying out projects whose unknowns are not in the text books or documented anywhere, the value of tacit knowledge is superior. Seasoned project managers who have acquired this skill often make better choice for projects. McClung (2002) further adds to this the leadership factor and experience in the field as crucial in choosing projects. Businesses are more comfortable choosing projects over which they have knowledge as opposed to new ones which might present new challenges that could be difficult to go around. Availability of personnel with project knowledge, experience and business knowledge might sway the decision makers to favor particular types of projects. Many private businesses are profit oriented; their goal is to make profits within specified periods of time. They have to weigh the risks associated with undertaking such projects against the benefits. These risks could be in the form of time, finance, political even environmental risk (Klein, 1998; Adams, 2006). Whereas Meredith and Mantel (2009) mainly focus on the financial returns, Swanson (2011) reveals that management now not only considers return on investment (ROI) but also strategic contribution, resource limitations, and non-numeric factors, such as regulatory mandates and operating necessities when selecting and evaluating projects for portfolio management.

A combination of these criteria when it comes to evaluating projects is more desirable as it gives a good balance to meet the multiple objectives of organizations. Other perspectives included in the evaluation of projects to meet or align with different organizational objectives, project types, and social contexts have been identified by various experts. These perspectives include strategic

importance, competitive advantage, innovation, business fit, reasonableness, relevance, financial benefit, risk, environment, and social and political impacts (Brenner, 1994; Buchanan et al., 1998; Mikkola, 2001; Reisinger et al., 2003; Hsu, 2005).

## MATERIALS AND METHODS

A Modified Delphi technique applied using 9 experts subject matter in renewable energy was employed to investigate the factors involved in the selection of projects and the results were collected and analyzed using the Microsoft excel software.

### Modified Delphi technique

#### Round 1 Survey

The first round primarily involved interviewing nine energy experts to examine their experiences in project portfolio selection and decision making, getting their views on what may represent best practice in the sector; and what they consider to be the major contributors to effective project selection and decision making. To address the research questions, guiding questions were developed. The nine participants were selected based upon their experience, availability and recognition in their fields. The number of experts to be used in a Delphi technique is not definitive. Skulmoski et al. (2007) suggests that the number depends on the group selected whether it is homogeneous or heterogeneous. For a homogeneous group, nine experts would suffice especially where there are few experts on the subject matter. For a heterogeneous group, the numbers would be higher.

An analysis on the comments from the interview with the experts was made to determine the factors influencing decision making in the selection of projects.

#### Round 1 research design

Interview questions designed to address the research questions

were developed. These were guiding questions, suitable for the participants from very different backgrounds and multiple sector involvement. The discussion had to be flexible and adaptable, at the same time addressing the research questions, and getting their views on the important factors that contribute to or have a negative impact on effective investment decision making.

One interview was taken at the participants' work place in a quiet conducive environment to minimize interruption; the rest of the interviews was done via phone. Throughout all this process notes were taken for valuable information extraction.

### **Round 2: Questionnaire**

A questionnaire was administered to the participants from the first round to rate the proposed factors and identify some of the tools used in decision making. The responses were then collated for analysis.

### **Round 2 research design**

A questionnaire was designed to obtain participants' profile information as well as their ratings on the importance of each of the contributing factors identified in the first round

## **RESULTS**

The Likert scale was used to rate the participants' scores where 5 = 'very important', 4 = 'quite important', 3 = 'neutral', 2 = 'not very important' and 1 = 'not important at all'. The scores were entered as shown in Table 2. Participants are initialed by the letter P from participant number 1, P1 to participant number 9, P9.

## **DISCUSSION**

From the interviews, the researcher was able to gain insight into the current practice in the renewable energy sector on how projects are selected. The interviews revealed that project selection criteria, tools and techniques in the sector are not uniform. In fact there is no standard way in which projects are selected across the sectors. In the private sector, the participants choose the approach of conducting feasibility studies to determine the type of project, involve stake holders (Government/Private partners) alike, examine the technical/finance environment and social impact, look at project sustainability as well as use basic financial decision-making tools such as payback period (PBP), internal rate of return and check lists. The participants in the public and government owned institutions were largely guided by the energy master plan. Basically, the government employed consultants to do all the preliminary works and recommend to government which projects would be profitable or worth carrying out, and then they would implement such. Most of these experts would not be part of the decision-making team but the implementation team. These revelations are consistent with literature where Astebro (2004) stated that no single

optimal method exists for selecting projects even in the same sector. The participants seem not to agree that organization culture influenced the methods used for selecting projects. They were also cognizant of the fact that there are other tools and techniques which they may not have been so conversant with that existed and could be used in the selection of projects. Depending on the experience of each participants and what organizations they worked under, the adopted tools were largely dependent on what was comfortable for the organization to use. There were similarities as well as variations on the adopted tools and techniques.

Table 3 indicates the mean, standard deviation and variance of the factors at a global level and shows their behavior when plotted against each other. As expected the variance and standard deviation trends are showing the similarities of dependence on each other. While culture may be an extremely important factor in the selection of projects in other fields, the study shows that it is overall not considered important in the energy sector in Zambia.

When rated and ranked in importance on the Likert scale, overall, fifteen factors come out as being more important than the rest; their mean-rated importance as computed in Table 2 is above 4.0. These factors are: risk profile of portfolio; renewable energy/technical risk; value add/net present value/internal rate of return; available budget; renewable energy project cost; time frame for renewable energy implementation; payback period; social/political and environmental issues; knowledge of the business; knowledge of the work; education; experience; risk awareness; governance and selection of players.

The top 3 factors across the sector are those involving project cost, personnel experience in the field and the risk associated with the projects. This is not surprising because projects in the renewable sector bear high financial risk usually involving extensive financing and care must be taken to ensure success by getting experts with technical know-how to execute these projects.

The least significant factors identified are Intellectual property issues and culture with mean of 2.50. It can be observed from the results that the participants were not in agreement on whether culture has a significant role in the selection of renewable energy project, a variance above 1.0 is indicative of the different views the participants had on this factor; this is also seen in the coefficient of variation value being over 50%.

### **Contributing factors to project selection**

Fifteen contributing factors were identified to be very important and influential in the selection of projects in the renewable energy division of Zambia. These were placed in four categories namely: (1) Players, leadership, and tacit knowledge; (2) risk factors; (3) governance; (4) timing and cost. The categories of factors were then

**Table 2.** Rating of Factors on a Likert Scale.

ID	Factor	P1	P2	P3	P4	P5	P6	P7	P8	P9
1	Balance between business units served	4	3	2	3	2	3	4	3	2
2	Risk profile of portfolio	4	5	5	3	4	4	3	4	2
3	Renewable energy/technical risk	5	5	5	4	5	5	4	4	2
4	Value add/Net Present Value/Internal Rate of Return	4	5	4	4	4	5	5	5	2
5	Available budget	4	5	4	5	5	5	5	4	5
6	Renewable Energy Project Cost	4	5	5	5	5	5	5	4	2
7	Time frame for Renewable Energy Implementation	3	5	5	5	4	3	3	5	2
8	Payback period	3	4	5	5	5	4	4	3	2
9	Synergy effects between projects	4	5	4	3	3	5	4	3	2
10	Personnel resources/capabilities	5	5	4	3	3	2	4	4	2
11	Social, political and environmental issues	5	5	5	3	5	5	4	5	2
12	Job creation/wealth creation	3	3	5	3	4	4	3	4	2
13	Strategic alignment/Leverage	4	5	4	3	3	4	3	3	2
14	Intellectual property issues	3	3	3	3	2	1	3	2	2
15	Culture	4	2	5	2	1	1	3	2	4
16	Process	3	4	4	3	3	4	5	4	5
17	Knowledge of the business	4	5	5	5	5	3	3	4	2
18	Knowledge of the work	5	5	4	5	5	4	5	4	5
19	Education	3	4	5	4	4	4	5	4	5
20	Experience	5	4	5	5	5	4	5	5	5
21	Risk awareness	4	5	5	5	5	5	4	5	2
22	Governance	5	5	5	4	5	5	4	4	5
23	Selection of players	4	5	4	4	5	5	4	5	5
24	Preconceptions	4	4	4	3	2	3	3	3	5
25	Time pressures	3	5	4	3	4	2	3	3	2

analyzed across the three sectors: private, public and Government owned institutions. The rest of the factors were rated higher in the same sector but not across all the three sectors.

### Players and Tacit knowledge

Under this category are the following factors: (1) knowledge of the business; (2) knowledge of the work; (3) education; (4) experience; (5) selection of players.

Knowledge of the business usually goes hand in hand with skills. Garman (2006) defines this factor as the ability to apply business principles, including systems thinking to the work environment. Business knowledge competencies would include: project management, organizational business and personal ethics, facilities planning, purchasing procurement, evidence-based practice, inventory control systems, proposal analysis and contract negotiation, critical thinking, and analysis, needs analysis for and/or desirability of outsourcing, and outcomes management implementation. Possessing business knowledge gives one a competitive edge over his peers and is desirable to decision making. The Business Dictionary (2017) defines knowledge of work as job,

process, or task that is distinguished by its specific information content or requirements. It is specific and technical knowledge usually associated with explicit knowledge, and provides crucial input into the decision-making process.

Project selecting committee consisting of key players is fundamental to ensuring a quality process of project selection is established. Every organization must choose decision makers, executives and other key players who have the desired qualification, experience, expertise and intuition and personal qualities for leadership and collaboration. Whilst recognizing the importance of education, the participants rated it lower than work experience. Work experience reveals certain aspects of an individual's character such as how one behaves when working in a team, how one deals with real life situation, resolving problems, which could be crucial when it comes to making decision. These qualities are rarely revealed by education but revealed in reality through experience which makes it more desirable (Schindler and Eppler, 2003).

Arikan and Enginoğlu (2016) when discussing strategic leadership pointed out that it involved top management's characteristics, their way of doing things and the way they affect their organization's performance. "The boards,

**Table 3.** Mean rate importance of factors overall.

ID	Factor	Mean rate importance	Standard deviation	Variance	Coefficient of variation (%)
1	Renewable Energy Project Cost	4.75	0.43	0.19	9.12
2	Experience	4.75	0.43	0.19	9.12
3	Risk awareness	4.75	0.43	0.19	9.12
4	Renewable energy/technical risk	4.63	0.48	0.23	10.47
5	Available budget	4.63	0.48	0.23	10.47
6	Social, political and environmental issues	4.63	0.70	0.48	15.05
7	Knowledge of the work	4.63	0.48	0.23	10.47
8	Governance	4.63	0.48	0.23	10.47
9	Value add/Net Present Value/Internal Rate of Return	4.50	0.50	0.25	11.11
10	Selection of players	4.50	0.50	0.25	11.11
11	Knowledge of the business	4.25	0.83	0.69	19.51
12	Time frame for Renewable Energy Implementation	4.13	0.93	0.86	22.47
13	Payback period	4.13	0.78	0.61	18.92
14	Education	4.13	0.60	0.36	14.53
15	Risk profile of portfolio	4.00	0.71	0.50	17.68
16	Synergy effects between projects	3.88	0.78	0.61	20.15
17	Personnel resources/capabilities	3.75	0.97	0.94	25.82
18	Process	3.75	0.66	0.44	17.64
19	Job creation/wealth creation	3.63	0.70	0.48	19.20
20	Strategic alignment/Leverage	3.63	0.70	0.48	19.20
21	Time pressures	3.38	0.86	0.73	25.39
22	Preconceptions	3.25	0.66	0.44	20.35
23	Balance between business units served	3.00	0.71	0.50	23.57
24	Intellectual property issues	2.50	0.71	0.50	28.28
25	Culture	2.50	1.32	1.75	52.92

executives, and top management teams naturally play significant roles in determining the strategic direction and how the strategy gets translated into everyday execution". This suggests that players in the project selection and strategic decision-making positions need to be carefully selected and they need to apply their tacit knowledge in their decision making.

### Risk factors

Under this category are the following factors (1) risk profile of portfolio; (2) renewable energy/technical risk; (3) risk awareness; (4) social/political and environmental issues. The accumulation of a variety of significant investment risks makes the financing of renewable energy investments difficult in a developing country context. The general risk associated with the unfamiliarity of renewable energy technologies is particularly pronounced in developing countries that have never used these technologies before, overall business infrastructure and expert ability in these advancements. This risk is amplified by such investment risks that are typical for

developing countries such as: political risk, currency, impact on the environment and commercial risk induced by the poor creditworthiness of state owned utilities that carry the payment obligations to buy generated power under power purchase agreements. The accumulation of these factors worsens the risk profile of investment, and the return expectations of potential developers and their financial backers reach alarming levels. For potential investors, risk profile and risk awareness is crucial in decision making. While the consideration of risk for each candidate project is crucial, at the strategic level the risk awareness of the organization when it comes to aligning strategic objective is desired. The awareness and application of enterprise wide approaches to risk management is certainly crucial to the identification and realization of business opportunities and benefits (Klein, 1998; Adams, 2006)

From the interviews and questionnaire, the participants rated financial and weather-related risk to be the highest in terms of ranking. They related that most of the renewable energy projects require high capital expenditures but there is a challenge in access to capital for them to be viable. Additionally, capital markets in

Zambia are not as mature as in developed countries, making it difficult to get private financing. Another challenge related to this risk was the high interest rates of borrowing capital for such investments, which can explain the poorly developed bond markets. Additionally, concern raised was the fact that the average cost of electricity generation in general is exceptionally high, due to the small size of electricity markets and the resulting lack of economies of scale. This means that the return rates will be very slow and as such does not encourage private sector participation which is driven by profits.

### Governance

Good governance is concerned with the processes of making and implementing decisions that are consistent with relevant legislation. Governance drives accountability and process, and supports a collective approach to achieving best outcomes. The business dictionary defines governance as the “Establishment of policies, and continuous monitoring of their proper implementation, by the members of the governing body of an organization,” (Business Dictionary, 2017: 124). It further explains that included within it are the mechanisms required to balance the powers of the members (with the associated accountability) and their primary duty of enhancing the prosperity and viability of the organization. From this definition, a clear relationship between the selection of places and governance can be seen as the members who preside at governance are the carefully selected decision makers who have applied both explicit and tacit knowledge and their experience. This resonated well with the participants hence they ranked governance high on the Likert scale. They further characterized good governance as being accountable, transparent, following the rule of law, responsive, equitable and inclusive, effective and efficient and participatory.

### Timing and cost

Under this category are the following factors: (1) available budget; (2) renewable energy project cost; (3) time frame for renewable energy implementation and; (4) payback period.

These factors are rated high across the sectors because of the financial and timing aspect associated with them. Available budgets and cost of renewable energy projects will normally dictate what type of project to engage in. These factors will have a strong bearing on the type of project selected. These two factors form part of what is commonly referred to as the triple constraint or the iron triangle in project management. Change in timing factor naturally impacts on the cost and quality. Recognizing the two as factors that matter on selection of projects reveals that the participants recognize project management principles in the decision making.

### Conclusion

The influencing factors in project selection in the renewable sector cover: Players, leadership, and tacit knowledge; risk factors; governance; and timing and cost. Investment managers of these firms or organizations have a challenging job of deciding the type investment to pursue for their firms using the available resources. This process of selecting which opportunity to pursue is never a straight forward one because strategic goals and objectives of organizations and institutions are the drivers of project selection. Managers have to select viable projects and develop guidelines for balancing the opportunities and costs associated with each alternative. They must strive to maintain a balance between the competing demands of time and opportunity. Decision makers must exercise caution and make the best choice among their options. Organizations can develop selection models that permit them to optimize time and money, minimize losses while maximizing the likelihood of success. In order to come up with any framework structure for project selection, the next study should use these identified factors and put them to test empirically. A triangulation of methodologies including a literature analysis, focus group, Delphi study and case study can be used to achieve this. Having a framework in place will certainly help in meeting the economic challenge facing the country and help to electrify most of the rural areas; at the same time create employment investor in this sector must pay attention to these factors in order to optimize their decision making in selecting projects that align with their strategic objectives and maximize their return on investment. This must work hand in hand with strong frameworks for decision making to be in place.

### CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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*Full Length Research Paper*

# **Factorizing towards the prime determinants of job satisfaction: An integrative modeling across PCA and logistic regression**

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In recent years, job satisfaction has been seriously taken as one of the top priority concerns in developing countries, since the living standards of the people have been improving. The overarching aim of this study is to identify the top most determinants of job satisfaction among employees of Abay bank using a sample of 150 employees working in Addis Ababa. A combination of principal component analysis (PCA) and OLR models were used. Out of the 13 variables initially identified, 5 principal factors were drawn using PCA. Based on the earlier findings of PCA, OLR analysis was conducted on the five prime factors. The findings demonstrate that 4 factors are statistically significant with evidence that remuneration and fringe benefits and effective leadership are positively linked with job satisfaction wherein unmet job expectation and workload are negatively correlated with job satisfaction. However, evaluation and promotion appeared statistically insignificant. The findings highlight the need for establishing conducive working environment and recommend the bank to stay attuned in weighting workers economic status.

**Key words:** Bank employees, factors, determinants, job satisfaction, principal component analysis, principal component analysis (PCA), ordered logistic regression, OLR, Abay Bank, Ethiopia.

## **INTRODUCTION**

Before the economic liberalization in Ethiopia and for a couple of years ahead further, the growth of banking in Ethiopia was nascent. Nevertheless, for the preceding decade the banking sector exhibited a remarkable spurting among sectors of our economy. Most recently, the sector is getting a healthy booming and set out a major transformation in its operating environments. In a number of regions of the country, the formations and

expansions of banking have been spectacular. In this transformation, the roles simultaneously played by both public and private commercial banks have remained indispensable and paramount. However, as the sector is getting more complex and is underway in a most volatile environment, there is a need for technological change and efficient use of economic resources so as to get the competitive edge. Being as one of the key economic

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resources in the bank, skilled workers are the bedrock and the most reliable source of competitiveness (Rana, 2015). Employees are the backbone of any bank that demands serious attention because of their ability in deploying all the elements of a bank to attain the desired goals (Shanmugapriya, 2016). Loyal and committed workers are the vital asset and source of success in the banking industry (Rana, 2015). Most recently, the banking sector in Ethiopia is experiencing a growing competition due to the creation of an outrageously demanding society and the complete absence of deterrents on new entrants. In order to stay in the competitive market, the banks have to focus on the provision of improved quality banking services to their loyal customers. This essentially requires the retention of well trained and skilled workforce (Rana, 2015). The only arbitrator, according to Shanmugapriya (2016), that decides the success and ability of the banks to compete with their competitors are the efficient utilization of human capitals. This is because all banks virtually have similar 80% accesses to information, resource and technology. However, the 20% difference that comes out of workers cannot be done equally well by all banks (Shanmugapriya, 2016).

This makes employees the precious and most pivot of the banking services. Failure to enlarge employees' latent potential and neglect to motivate the efforts that they are exerting at workplaces can severely jeopardize the productivity, competitiveness, growth potential, and technology upgrading capacity of the banks (Millan et al., 2011; Mai et al, 2015; Shanmugapriya, 2016). Therefore, for bank management, employees' job satisfaction is not basically a moral compulsion but a business necessity (Shanmugapriya, 2016). Satisfaction of employees with their job is merely considered one of the key pillars for the success of banks (Rana, 2015) and plays vital role for the retention and attraction of competent human capital in the banks (Bista, 2016). Satisfied workers tend to contribute more for the benefit of the bank and would like to stay in the bank. In contrast, dissatisfied workers have negative attitudes and fail to release even the minimum effort that they could and often look towards outdoor opportunities to leave the bank (Adhikari, 2009; Sowmya and Panchanatham, 2011; Bista, 2016; Hossain and Wadud, 2017). If these are the cases, the question is what determines employees' job satisfaction?

According to Millan et al. (2011), job satisfaction is a heterogeneous phenomenon and encompasses varieties of facets (Bista, 2016; Hossain and Wadud, 2017). In this regard, many empirical studies have identified (Locke, 1976; Ahmed and Uddin, 2012; Islam and Zaman, 2013; Kisto, 2016; Shanmugapriya, 2016; Hossain and Wadud, 2017) the rank of some top facets of job satisfaction correspondent to the objectives these studies dealt with. However, such top listed host of factors may not be entirely perceived by all employees of banks in Ethiopia.

Thus, the issue is what are the most important perceived factors that influence employees' job satisfaction in the banking industry of Ethiopia with a particular reference to Abay bank?

While there is a vast growing body of empirical literature on job satisfaction in banking industry, to our knowledge, little work has been done on Abay bank. Bethelhem (2015) assessed the compensation and benefit practice and its implication on employee's performance. Solomon (2015) assessed employees' performance appraisal practice of the bank. However, determinants of employees' job satisfaction to the context we are working with had not yet been empirically explored using estimation models. The underlying study therefore intends to uncover this gap with an overarching objective of examining factors that determine employees' job satisfaction in Abay bank.

## LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

### Definition and facets of job satisfaction

Job satisfaction is a multifaceted and time variant concept that varies from individual to individual. The multifaceted nature of the concept produces a complexity to get a comprehensive and most single definition for it. Some of the frequently cited definitions of job satisfaction are described as follows. The early definition by Smith (1955) states that job satisfaction is the judgment of employees about how well their jobs are and the corresponding satisfaction that comes through fulfilling their various needs. Spector (1997) on his part defined job satisfaction in terms of the feeling that employees hold about their jobs and the different aspects they look after their jobs.

Robbins and Judge (2013) on their part defined job satisfaction as a positive feelings that employees have concerning a job that results from evaluating its inherent characteristics. Another definition by Robbins and Judge (2013) described job satisfaction as the difference between the amounts of rewards employees receive and the amount they believe they should be received. The most comprehensive and popular definition of job satisfaction especially in organizational study is that of Locke. The author defined job satisfaction as a state of pleasure or positive emotion appeared from the appraisal of one's job or job experiences (Locke, 1976).

Many researchers recognize that job satisfaction is comprised of a host of various facets. Smith (1969) in their study considered pay, promotions, coworkers, supervision, and the work itself as the five most vital facets of job satisfaction in their categorization. Working conditions, recognition, management behavior are some of the other few facets added by Locke (1976). Misener



et al. (1996) report a typical categorization that encompasses factors related to pay, benefits, promotion, work conditions, supervision, organizational practices and relationships with coworkers.

Neog and Barua (2014) listed salary, working environment, work-life balance, career opportunities, promotion, and proper training and development opportunities as the most essential facets of job satisfaction. The most crucial job satisfaction facets identified by Tanjeen (2013) are pay, working condition, relationship with coworkers, supervision and opportunities for promotions. According to Hackman (1980) and Dawson (1987) compensation and benefits, leadership behavior, promotion policies, and work itself are found to be among the significant facets of job satisfaction.

### Empirical foundations

Many previous studies have developed empirical foundations for determinants of job satisfaction. In this section, some of the most decisive and highly related to this particular study have been reviewed.

Awan and Asghar (2014) investigate the factors that determine employees' job satisfaction in the banking sector of Pakistan. These authors find that salary, job security and reward system have a positive and significant impact on job satisfaction. Chowdhary (2013) critically examine the determinants of bank employees' job satisfaction in India and the findings imply that salary, employees' performance, and promotional strategies have a significant consequence on job satisfaction. Islam and Saha (2001) empirically investigate factors that affect job satisfaction of bank officers in Bangladesh. These authors finding entail that salary, efficiency in work, benefits, leadership style, coworker relations, supervision, loyalty to bank, and work ability are highly significant with job satisfaction.

Rahman et al. (2009) analyze factors that influence employees' job satisfaction in the banking industry of Bangladesh with a different setting than Islam and Saha (2001) and find that remuneration, reward, job security, and pride in work are significant on employees' job satisfaction. Another study in Bangladesh by Ahmed and Uddin (2012) also finds a positive effect of salary, promotion, supervision, benefits and reward on job satisfaction. The findings in Nepalese commercial banks by Bista (2016) suggest that pay, job security, promotion potentials, relationship with coworkers and supervisors are top most influencing factors to job satisfaction. Weerasinghe et al. (2017) empirically investigate determinants of job satisfaction of banking employees in Sri Lanka and the finding imply that employees salary has a greatest significant impact on employees job satisfaction among other variables. The finding quantifiably states that when changing the employee salary by one percent it will lead to change employee job

satisfaction by 0.695. These authors finding is also supported by Siebern-Thomas (2005) who finds wage as a statistically significant factor that influences job satisfaction. Using a pooled cross-section of five national longitudinal surveys of youth waves, Artz, (2010) estimates eight different fringe benefits, and find that fringe benefits are significant positive determinants of job satisfaction. Bethelhem (2015) findings at Abay bank imply that most employees of the bank are dissatisfied with the existing compensation and benefit packages of the bank.

Nimalathasan and Brabete (2010); Saharuddin and Sulaiman (2016) and Abreham (2017) investigate the association between promotion and job satisfaction and these authors' results indicate that promotion has a significant and positive influence on job satisfaction. Furthermore, Naveed et al. (2011) estimates impact of promotion on job satisfaction and find that promotion has a modest and positive effect on job satisfaction. The regression finding of Rana (2015) reveals that employees in the banking industry of Bangladesh weigh more value to leadership behavior than autonomy in improving their job satisfaction. Bista (2016) finding shows that there exists a strong positive relationship between job satisfaction and employees supervisor support. Hossain and Wadud (2017) and Rana (2015) results indicate that supervisor support and leadership behavior positively linked with overall job satisfaction.

As far as the influences unmet expectation could have on employees job satisfaction concerned, the findings of Nelson and Sutton (1991); Major, Kozlowski, Chao and Gardner (1995); Turnley and Feldman (2000) imply that employees unmet expectations often leads to a negative work results and ultimately lowers the workers level of job satisfaction. Similarly, the findings of Porter and Steers (1973); Hackman (1980); and Kim (2002) indicate that unmet expectations have strong negative influences on job satisfaction. The meta-analysis finding of Wanous, Poland, Premack, and Davis (1992) further attests that unmet expectations are indeed strongly correlated with a decrease job satisfaction.

The empirical results of Pearson (2008) and Bozkurt et al. (2012) regarding workload imply that work overload is negatively correlated with job satisfaction. Mansoor et al. (2011) and Ali and Farooqi (2014) also find that work overload and stressor workload have significant negative impacts on job satisfaction.

In line with the empirical literature described above, this study draws the following research hypotheses:

Research Hypothesis 1: There exists a positive relationship between remuneration and fringe benefits and employees' job satisfaction in Abay bank.

Research Hypothesis 2: There exists a positive relationship between evaluation and promotion and employees' job satisfaction in Abay bank.

Research Hypothesis 3: There exists a positive relationship between effective leadership and employees' job satisfaction in Abay bank.

Research Hypothesis 4: There exists a negative relationship between unmet job expectation and employees' job satisfaction in Abay bank.

Research Hypothesis 5: There exists a negative relationship between workload and employees' job satisfaction in Abay bank.

## DATA AND RESEARCH METHODOLOGY

### Brief description of Abay Bank

During the last two decades, the banking sector in Ethiopia has experienced rapid transformation. Abay Bank Share Company is one of the private commercial banks that emerged recently in the banking industry of Ethiopia with a modern technological breakthrough. The bank has officially started a full-fledged banking operation in 2010 and nowadays the bank has been described as the emerging brand of Ethiopia. Within few years of its establishment, the total number of Abay bank branches throughout the country has reached 152. About 26 percent of the bank branches are located in Addis Ababa and the rest 74% are in regions (NBE, 2017). The bank has created an employment opportunity to 2,534 people of which 1,249 are permanent employees. Around 38 percent of them are working in Addis Ababa. In line with the expansion of the bank, the number of shareholders have risen to 3,929 and the total number of customers on books has reached 337,120 (Abay Bank, 2017). In addition to commendable performance that the bank has been exhibiting, it is the first and only bank in Ethiopia that launched evening banking service to further enlarge its service portfolio and to completely augment customer touch-points.

### Method of data collection, sampling and analysis

The population of the study was all Abay bank employees who are working in Addis Ababa and out of them, 150 employees were randomly chosen from 10 sampled branches situated in Addis Ababa. The data were collected using a structured questionnaire and all the questionnaires were handily distributed to the respondents at their work places. A 5 point Likert scale was used where 1 is used to denote "strongly disagree" and 5 for "strongly agree". To ensure the reliability of variables and the research instrument, we used Cronbach's Alpha statistics and obtained 0.640 reliability coefficient. According to Nunnally (1970) the acceptable value is 0.5 and 0.6 is the value supported by Moss et al. (1998).

To identify the determinants of job satisfaction among employees of Abay bank, a combination of principal component analysis (PCA) and ordered logistic regression analysis was implemented. This study initially identified 13 factors that influence employees' job satisfaction fetched from literature review. To highlight the similarities and differences of these independent variables and to compress the size of the problem, an initial factor analysis was executed on the 13 multiple inter-correlated quantitative factors and obtained 5 principal components using Stata version 13. It was done mainly to replace a group of correlated factors with a set of new independent variable and to statistically reduce the

dimensions of the original independent variables. In the second stage, ordered logistic regression analysis was conducted on the 5 principal components generated from PCA. At this regression, overall job satisfaction was treated as an ordered dependent variable and the 5 principal components were treated as continuous independent variables. The dependent variable has five ordered categories where 5 is the highest degree of satisfaction and 1 is least degree of satisfaction.

## RESULTS AND DISCUSSION

The descriptive statistics stated that about 60.67% of the respondents were male. The age analysis indicated that about 73.33% of the respondents were belonging to age category of 20 to 30, whereas 26.67% of the respondents were in between 31-40 categories. Only about 51.33% of the respondents have a monthly income more than Birr 6000. About 84.67% of the respondents had bachelor's degrees or higher degrees and the rest were diploma holders.

Table 1 presents the result of descriptive statistics concerning overall job satisfaction. It is noted that the higher the mean score of the factors, the higher will be the job satisfaction of the workers. Cognizant of this, we have estimated the mean score of the overall job satisfaction as 3.67 which indicates that employees are moderately satisfied in their work with Abay bank. This score further implies that Abay bank is perceived to be fairly attractive to the incumbent workers.

Table 2 presents the two mean comparison test (t-test) results to compare equality of means between sexes. Although the statistical decision for t-test statistics is not statistically significant (0.688 is greater than 5% level of significance), the t-value of 0.403 indicates that the equality of mean about job satisfaction between the sexes is slightly different between male and female employees of Abay bank.

In order to assess the suitability of the data for PCA, the most vital assumptions underpinning factor analysis were examined. To check the factorability of the correlation matrix, we have performed Bartlett's Test of Sphericity and found a result that meets the standard to proceed for factor analysis (the approximate Chi-square value is 719.401 and p-value is 0.000). Similarly, Kaiser-Meyer-Olkin (KMO) was 0.586, which exceeds the recommended minimum value of 0.50 (Kaiser, 1974). This implies the sufficiency of the sample to support PCA and the variables have much in common to warrant factor analysis.

The analysis of PCA resulted in the extraction of five principal components with eigenvalues of more than 1 by leaving out some factors which have lowest order of significance. The five principal components which constitute an eigenvalue above 1 collectively explained 51.71% of the total variance based on our data set and indicate the adequacy of the estimated total variance. In this regard, Odia and Agbonifoh (2017) asserted that

**Table 1.** Employees overall job satisfaction index in Abay bank.

Parameter	Mean	Standard Deviation
Overall satisfaction index	3.67	1.103

Source: Author's Computation from Survey Data

**Table 2.** Employees job satisfaction indices based on Sex.

Sex	Obs	Mean	Standard Deviation	t-value	Level of Sig.
Male	91	3.64	1.120	0.403	0.688
Female	59	3.71	1.084		
Combined	150	3.67	1.103		

Source: Author's Computation from Survey Data.

more than 50% of total variance explained is adequate for an exploratory study. The values of the factor loadings in the five extracted components after Varimax rotation range between the highest loadings of 0.727 for JSA12 to the lowest loading of 0.501 for JSA11. Following Hair, Anderson, Tathan and Black (2005), a value of 0.50 is an acceptable value of factor loading because it represents a good correlation between the components and the original variables.

As illustrated in Table 3, 13 independent determinants were grouped into five factors. Based on the results obtained after the Varimax rotation, the first factor contains the three most important components, viz. salary, compensation and fringe benefits are related to remuneration and fringe benefits. The second factor which includes staff evaluation and promotion systems is named evaluation and promotion. The third factor comprises relationship with superiors, communication with management and recognition of superiors is related to effective leadership. The fourth factor which encompasses turnover intentions, emotional exhaustion and absenteeism is labeled unmet job expectations. Lastly, the fifth factor involves extreme time pressures and deadlines and length of working hours is named work load.

Contingent with this, the core results of our estimations emanated from ordered logistic model are presented as follows. The statistical estimates of the general ordered logistic model and the coefficients of marginal effects are presented in Table 4. At the top-half of the table, the general ordered logistic estimates are presented for the sake of interpreting the sign as we cannot interpret the magnitude of the coefficients. Below these estimated coefficients, only the effects of the independent variables on the probability that workers are highly satisfied with their job (job satisfaction equals 5) are presented in terms of marginal effects. Further to these, t-statistics and level of significance associated with both general ordered

logistic estimates and marginal effects are reported in columns.

Looking at the results given in Table 4, four explanatory variables are found to be statistically significant. With respect to evaluation and promotion, it appears to be negative and statistically insignificant and implies that evaluation and promotion does not have any significant effects on workers level of job satisfaction in case of Abay bank. In accordance with hypothesis 1, we observed that remuneration and fringe benefits and job satisfaction are statistically associated at 5% level of significance and with a coefficient of 0.2293. The positive sign of the estimate describes that the higher the remuneration and fringe benefits that the workers of Abay bank are getting, the higher they are likely to be in the higher category of job satisfaction. These literary means workers are more satisfied as they are receiving more payments. This also observed in the marginal effects estimate that 1 unit increases in remuneration and fringe benefits of the workers, the predicted probability of being highly satisfied with their current job increases by 3.88%. The marginal estimate also implies that those workers who have higher payment are 3.88 percent more likely to have job satisfaction than those who have less payment

In terms of effective leadership, the empirical findings of earlier authors of the topic indicate that the workers relationship with superiors, recognition they have got from superiors and communication they have with their managers significantly influence job satisfaction (Bista, 2016; Hossain and Wadud, 2017). Moving into effective leadership estimate, it displays that effective leadership found to be statistically significant at 1% level with a coefficient of 0.4022. This supports the idea that leadership and job satisfaction are the two sides of the same coin. The sign of the statistical estimate implies that those workers who received recognition and have a good relationship and communication with their supervisors are more likely to be in the higher category of job satisfaction.

**Table 3.** Results of factor analysis.

Item No.	Parameters	Remuneration and Fringe benefits	Evaluation and Promotion	Effective Leadership	Unmet Expectations	Work Overload
JSA01	Salary	0.563				
JSA02	Compensation	0.687				
JSA03	Fringe Benefits	0.577				
JSA05	Evaluation system		0.564			
JSA07	Promotion system		0.536			
JSA10	Relationship with superiors			0.527		
JSA11	Communication with management			0.501		
JSA13	Recognition of superiors			0.599		
JSA04	Turnover intentions				0.606	
JSA06	Emotional exhaustion				0.621	
JSA08	Absenteeism				0.648	
JSA09	Extreme time pressures and deadlines					0.513
JSA12	Length of working hours					0.727
Eigen-values		1.585	1.524	1.266	1.198	1.149
% of Variance		12.19	11.72	9.73	9.22	8.84
Total Variance		51.71%				
Cronbach's Alpha		0.640				
Total Variance		51.71%				
Cronbach's Alpha		0.640	Bartlett's Test of Sphericity 719.401	KMO 0.586		

This result also attested in the marginal effects estimate that the workers predicted probability of being highly satisfied with their current jobs increases by 6.80% as the bank's superiors are getting more effective leaders. As effective leadership is the strongest estimator of job satisfaction in our case, this study concludes that the existence of effective leaders in the bank would ultimately produce managerially satisfied

workers. This result is vehemently consistent with hypothesis 3.

Regarding unmet job expectation and its consequences, the result of our estimation reported that unmet job expectation is negatively associated with job satisfaction.

As clearly displayed in Table 4, unmet job expectation appears to be statistically significant at 10% level with a negative coefficient of 0.2248.

Consistent with the prior results of Turnley and Feldman (2000) and Kim (2002), the negative sign of the coefficient of this study tells that the higher level of unmet job expectations from workers lead to more negative outcomes on job satisfaction. This terminologically means that workers who have an exceeded and bunch of expectations from their works are less likely to be in the higher category of job satisfaction. In other words,

**Table 4.** Result of order logistic regression.

<b>Variables</b>	<b>Coefficient</b>	<b>t - statistics</b>	<b>Significance (<math>p</math>-value)</b>
Remuneration and fringe benefits	0.2293	2.02	0.043**
Evaluation and promotion	-0.0337	-0.34	0.735
Effective leadership	0.4022	2.84	0.005***
Unmet job expectation	-0.2248	-1.82	0.069*
Work load	-0.3470	-2.35	0.019**

<b>Variables</b>	<b>Marginal effects (%)</b>	<b>t - statistics</b>	<b>Significance (<math>p</math>-value)</b>
Remuneration and fringe benefits	3.88	1.99	0.046**
Evaluation and promotion	-0.57	-0.34	0.735
Effective leadership	6.80	2.80	0.005***
Unmet job expectation	-3.80	-1.81	0.070*
Work load	-5.87	-2.32	0.021**

\*\*\*significant at 1%; \*\*significant at 5%; \*significant at 10%.  
 Source: Author's Computation from Survey Data

workers who believe they are emotionally exhausted and willing to leave their job are less likely to be in the higher position of job satisfaction. The marginal effects estimate also implies the fact that those workers who perceived they are working with unmet expectations the predicted probability of being highly satisfied with their current jobs decreases by 3.80%. The result of the marginal effect further indicates that those workers who have unmet job expectation are 3.80 percent less likely to have job satisfaction than those who have met their expectation. This finding is in accordance with hypothesis 4.

Moving into workload, the finding of this study justifies the prior results by Mansoor et al. (2011) and Ali and Farooqi (2014) who found that workload and job satisfaction have negative and significant associations. In line with this, the finding of this study declares that workload and job satisfaction appears to be statistically associated at 5% level of significance with a negative coefficient of 0.3470. Looking into the sign of the coefficient apparently indicates that workload is perceived to be negatively associated with job satisfaction among employees of Abay bank. This implies that workers at Abay bank tend to be less satisfied with their jobs as they are working in the environment where extreme time pressures and deadlines are prevailing. Looking further into the marginal effects estimate, the finding reveals that 1 unit increase in the workload of the workers, the predicted probability of being highly satisfied with their job decreases by 5.87%. The marginal effect further implies that those workers who have workload are 5.87 percent less likely to have job satisfaction than those who do not have workload. This finding is consistent with hypothesis 5.

### Conclusion and recommendations

In this paper, we have investigated the determinants of

job satisfaction for Abay bank workers in Addis Ababa using 150 respondents by applying factor analysis and ordered logistic model. Since no research has been conducted on Abay bank regarding the aforementioned issue, this study represents an initial step towards gaining thorough understanding of how job satisfaction affects workers of Abay bank. The level of job satisfaction of Abay bank employees depends on a host of factors. Out of the thirteen selected variables put in for factor analysis, five factors are found to gain the highest variance and represent 51.71% of the variability in all factors. These are remuneration and fringe benefits, evaluation and promotion, effective leadership, unmet job expectation and workload. Based on the prediction results of the factor analysis, ordered logistic regression analysis was conducted on five variables.

Four variables are found to be significantly connected with employees' level of job satisfaction whereas evaluation and promotion does not have such association. Remuneration and fringe benefits and effectiveness of leaders are found to be positively related with the employees' level of job satisfaction but variables such as unmet job expectation and workload are negatively correlated. Further to this, the study found that effective leadership and workload have stood as the two most significant variables of influencing job satisfaction in the context of Abay bank. The results of our investigation also verify the truth of the four directional research hypotheses, RH1, RH3, RH4 and RH5 wherein RH2 is the rejected hypothesis.

As the study finds that leaders' effectiveness and workload are the two greatest explanatory variables to enhance employees' job satisfaction in Abay bank, it is very appropriate that the bank management should critically concentrate on improving the leadership behavior to their employees and should establish conducive and

stress free working environment. This would enhance the level of job satisfaction by reducing the imminent of absenteeism and turnover intentions. Furthermore, the study finds that employees weigh more to remuneration and fringe benefits. Thus, it is highly recommended that the bank should improve the economic status of the employees to gain their increased level of satisfaction on their jobs. This would in turn help the bank management to retain highly skilled and experienced employees of the bank.

### Suggestions for future researches

In concluding we state the limitations of this study and propose some directions for future studies. One of the most obvious caveats is that the sample used in the present study was drawn only from 10 branches of the bank located in Addis Ababa. Hence, the findings cannot firmly be generalized to 152 branches of the bank located in different regions of the country. To address these issue further comprehensive studies on the topic with much larger sample size and broader coverage of branches throughout Ethiopia is required. Then we can confidently ensure the generalizability of the research findings of the study. Another caveat of this study is that job satisfaction is multi-dimensional and contingent upon various set of variables. While the present study examined the pertinent variables of job satisfaction, yet there are certain extra variables that were excluded from our regression because of measurement issues. Therefore, future studies could possibly examine a wider host of factors so as to culminate the lacuna and to improve the generalizability of the results.

### CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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*Full Length Research Paper*

# Corporate social responsibility: An approach to peace?

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**The responsibility to promote sustainable development should be a joint effort among government, industry and other organizations. They can share the responsibilities and commitments that countries have with regard to the ratification of the global plans of action, such as Agenda 21, Kyoto Protocol and Agenda 2030. Delai and Takahashi (2012) explain that the Corporate Social Responsibility (CSR) is the approach to sustainable development in the organizational scope. Nowadays, some of the biggest concerns are the role and impact of corporate actions on society and the planet. This article aims to explore how organizations could address the issue of just peace; it presents two initiatives the Global Compact and Agenda 2030 as CSR initiatives that they could resort. The entrepreneurial and corporate actions can indeed be configured as actions of peace if they consider the guidelines of United Nations Global Compact and Agenda 2030 for Sustainable Development as core of their business.**

**Key words:** Business ethics, Corporate Sustainability and Responsibility, Global compact, Sustainable Development Goals, United Nations.

## INTRODUCTION

Globalization brings opportunities and challenges. According to Kordos and Vojtovic (2016), many of the challenges brought by globalization "is due to the paralysis of the status of national states and the growth of the status of transnational corporations." In this sense, Giddens (2012) states the difficulty faced by national states in order to deal with global issues, such as those related to health, the dissemination of AIDS, environment and the global economy.

The World Summit in Sustainable Development has recognized the relevance of the role of corporations to

contribute to the poverty reduction in developing countries and Scholars have argued that the responsibility to promote sustainable development should be a joint effort among government, industry and other organizations, mainly multinational enterprises. Oetzel et al. (2010, pp 360-361) aim to "help businesses see the role that they can play in furthering peace – in creating more just and peaceful societies by starting with their own organization and the communities in which they work."

Thus, business enterprises can engage in ethical behaviour and also can share the responsibilities and

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commitments that countries have taken to the ratification of the global plans of action, such as the Agenda 21, Kyoto Protocol and Agenda 2030 (Getz and Ladek, 2006; Oetzel et al., 2010; Santiago et al., 2015). Data show that CSR activities are focused on philanthropic and volunteer aspects, obedience of labour laws and patterns to meet the requirements of certifications, in addition to presenting themselves as a social-marketing, window-dressing strategy, under the critical approach (Fleming and Jones, 2013; Mathis and Mathis, 2012; Crane and Matten, 2010; Sousa Filho et al., 2010). It is therefore relevant to mention the proactive corporate social responsibility even in Small and Medium Enterprises (Torugsa et al., 2013). Nowadays, some of the biggest concerns are the role and impact of corporate actions on the environment. The question refers to the problem that is configured to the organizations actions to guarantee human rights and peace and the impact of these actions on the environment. The research question is: what are the actions business enterprises and organizations may take to guarantee human rights and peace? Thus, this article aims to explore how organizations could address the issue of just peace (Galtung, 1969) and presents initiatives that business enterprises and other organizations can use in order to deal with peace matters, according to the presented theoretical framework. This article is important due to the lack of academic production regarding CSR and Just Peace and by calling the attention of organizations and business entrepreneurs to the UN initiatives that can broaden and foster sustainable development.

### **Conceptual approach: Csr and just peace**

Four concepts were considered in this study: corporate social responsibility, sustainability, sustainable development, and just peace. CSR means the approach of sustainable development in the corporate environment (Delai and Takahashi, 2012) and, in this sense, the Brundtland Report (WDCD, 1987) called "Our Common Future" was quoted. It defines sustainable development as development that satisfy the needs of the now without jeopardizing the capability of generations of tomorrow to satisfy their own needs. However it is important to present Carroll's pyramid initial model of CSR that includes four dimensions: philanthropic, ethical, legal and economic (Carroll, 1991) because of its pioneers' and best known aspects, even though some criticism as it does not consider the environmental aspect and the supremacy of the economic dimension (Baden, 2016).

In respect of sustainability, the research resort to Elkington's (1998) triple bottom line, or People, Planet, and Profit. Thus, this research address the concept of Corporate Sustainability Responsibility involving social, economic and environmental dimensions, or circles

(Visser, 2017). The area of intersection of the three circles is considered sustainable. Thus, an action to be sustainable must meet the three dimensions.

The concept of just peace adopted in this study is based on Galtung (1969) which contemplates the aspects of Negative Peace, which means lack of direct violence and Positive Peace, which means lack of structural violence. This research emphasize that structural violence is the result of the way institutions are organized that privilege some people or groups with goods and political influence, improving their well-being to the detriment of the well-being of other people. Thus, positive peace refers to the promotion of social arrangements that reduce social and economic injustice, inequalities of race, gender and ecological imbalances as barriers to peace. We can only have just peace when and where human rights are respected and all human beings have the same chance to achieve their full potential.

In the end, it worthwhile to mention some research on Business for Peace arena (Oetzel et al 2010, Fort 2015, Katsos 2016, Miklian 2017). The first built in previous research also presented specific forms that business enterprises can promote peace, including conflict management, besides promoting economic, obeying international and local law, and principles of external valuation, fostering a sense of community, and engaging in track-two diplomacy and conflict sensitive practice and risk assessment (Oetzel et al. 2010, p. 362). The latter also suggests five assertions for how businesses may create peace. They are "fostering economic development; encouraging local development facilitates local capacities for peace; importing international norms improves democratic accountability; firms can constrain the drivers or root causes of conflict; and undertaking direct diplomatic efforts with conflict actors builds and/or makes peace." (Miklian 2017 p.9)

### **MATERIALS AND METHODS**

This research carried out a qualitative and exploratory study in order to fulfil its objectives, according to Blaikie (2010). The Sustainable Development Goals (SDG's) named Agenda 2030 and the Global Compact were the two possibilities for business enterprises and other organizations to engage in human rights and just peace issue, under their CSR programs showed in this study. They were chosen in the United Nations Development actions, based on the maturity of the former and the hope of lasting achievement of the latter.

Finally, this research exhibits a case study on Brazilian enterprises signatories of the Global Compact, resorting to public data retrieved at the Global Compact website. The types of organization and randomly selected 10 organisations were analysed and their sustainability reports verified.

### **RESULTS AND DISCUSSION**

Some initiatives have been developed in order to ensure

that corporations get involved in the themes of human rights and peace. Code of Conduct, Global Compact and the Sustainable Development Goals (SDG's) named Agenda 2030 are some of them. For this article, the Global Compact and the Agenda 2030 are considered.

### **The Global Compact**

The Global Compact advises that companies accept, support and promote a set of principles related to human rights, labour, environment and anti-corruption. They are based on the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption. In this sense, the Global Compact principles are:

#### **a) Human Rights:**

- i) Businesses should promote and acknowledge the protection of internationally proclaimed human rights; and
- ii) Ensure they are not involved in human rights abuses.

#### **b) Labour:**

- i) Businesses need to maintain the freedom of association and acknowledge the right to joint trading;
- ii) Eradication of all types of forced and mandatory work;
- iii) The elimination of child labour; and
- iv) Elimination of unfair treatment in terms of recruitment and job.

#### **c) Environment:**

- i) Businesses need to provide a preventive measure to environmental issues;
- ii) Be involved in activities to facilitate higher environmental responsibility; and support the development and diffusion of environmentally friendly technologies.

#### **d) Anti-corruption:**

- i) Businesses need to fight corruption to the fullest, including bribery and extortion.

The corporations involved in the Global Compact are committed to these principles in their business. Accepting this orientation, business enterprises and other organizations are able to operate their business while respecting the corporate sustainability and social responsibility.

Furthermore, there are the UN Global Compact's Action Platforms that aims to convene leaders, experts,

civil society, business, Governments and UN partners to face challenges and act on SDGs. The platforms are: 1) reporting on SDGs; 2) Financial innovation for the SDGs; 3) Pathways to Low-Carbon and Resilient Development; 4) Health is Everyone's Business; 5) Decent Work in Global Supply Chains; 6) Water Security through Stewardship; 7) Peace, Justice and Strong Institutions; 8) Business Action Platform for the Ocean; 9) Business for Humanitarian Action; and 10) Breakthrough Innovation.

### **Brazilian organizations and the global compact**

According to the Global Compact website, there are 689 Brazilian organizations indexed with the principles of the Global Compact. Fifty four percent of them are business enterprises actively following the principles, while 12.9% are enterprises that are inactive. Thirty six percent of them are small or medium-sized enterprises, while 35% are companies (Figures 1 and 2).

Ten organisations were randomly selected from the list for a closer review of the Sustainability Reports on their websites. According to studies, some organizations sign the agreement but do not follow the Global Compact principles with governance and transparency, releasing public reports.

Upon searching, only 4 out of 10 organisations published a Sustainability Reports on their websites (Figure 3).

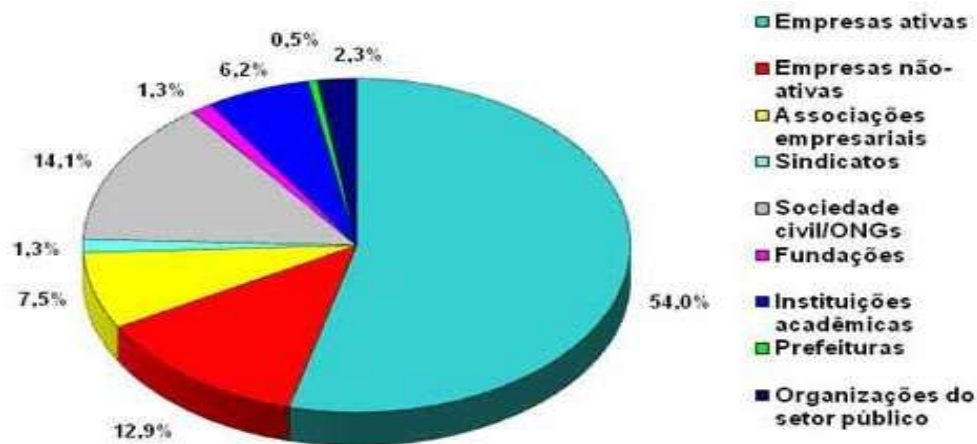
### **Sustainable Development Goals (SDGs): Agenda 2030**

The Sustainable Development Goals (SDGs), also called 2030 Agenda, are shared by the universal alliance between the continents to eradicate poverty, save the planet, and make sure that everybody in the planet has peace and affluence (Figure 4).

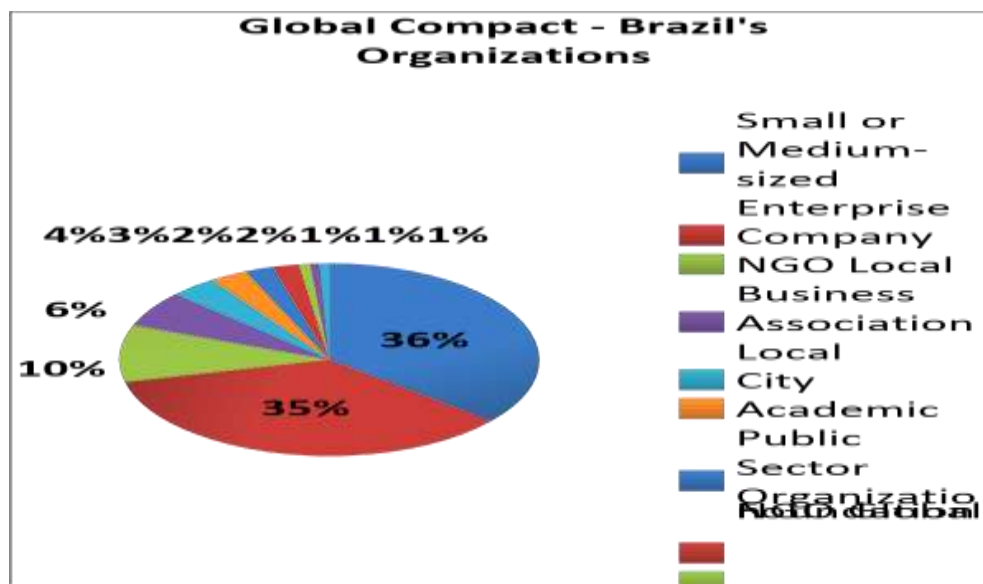
Figure 5 shows the SDGs formed by 17 goals associated to, integrated and indivisible 169 targets. They were built on the eight Millennium Development Goals (MDGs) published in 2015 (Figure 6).

The new 17 goals involve peace and justice, economic inequality, sustainable consumption, climate change, innovation etc. They are intertwined: the way to successfully achieve one goal might entail handling challenges that are closely related. The SDGs operate in one spirit and are practical in making the correct choices to better life sustainably for tomorrow generations. They give straightforward guidelines and targets for all nation to adhere to based on their own priorities and environmental issues worldwide.

Figure 6 shows the 17 goals have the following themes: no poverty, no hunger, good health, quality education, gender equality, clean water and sanitation, renewable



**Figure 1.** Global Compact: Brazilian signatories- organizations profiles (Reproduced from <http://www.pactoglobal.org.br/artigo/65/Perfil-dos-Signatarios>).



**Figure 2.** Types of Brazilian signatory organization (Elaborated by the authors from UN data).

energy, good jobs and economic growth, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption, life below water, life on land, peace and justice and partnership for the goals.

From the following link, the UN description of each goal is presented in detail: <http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>:

### **1° No Poverty**

Eliminating poverty is one of the highest problems of man today. Even though the number of extreme indigent individuals reduced from 1.9 billion to 836 million between 1990 and 2015, many still can get their most basic needs. Worldwide, more than 800 million people live on less than US\$1.25 a day; many do not have enough food, clean drinking water and sanitation. Millions

Global Compact Brazilian organizations and public sustainability report

Name	Type	Sustainability Report
BKO S.A.	Small or Medium-sized Enterprise	No
EDF Norte Fluminense S/A	Small or Medium-sized Enterprise	Yes
Yerbalatina Ltda	Small or Medium-sized Enterprise	No
Rubberart Artefatos de Borracha Ltda.	Small or Medium-sized Enterprise	No
EMBRAER S.A.	Company	No
Duratex S.A.	Company	Yes
Cielo S.A.	Company	Yes
Associação Brasileira de Normas Técnicas	NGO Local	No
Interfarma	Business Association Local	Yes
Conselho Federal de Administracao	Public Sector Organization	No

**Figure 3.** Brazilian organization signatories, type and publication of sustainability report (elaborated by the author from UN data).

of people have been taken out of poverty due to fast economic growth in nations like China and India, but their progress is not equal. Women have the tendency to be poorer than men do, because they sometimes cannot get salary job, education and property. Prosperity is also scarce in other regions, like South Asia and sub-Saharan Africa, accounting for 80% of acute poverty people. New challenges caused by climate change, conflict and food insecurity imply there is need for more work to eliminate poverty. SDGs are a daring engagement to complete what was started, and put a full stop to poverty in all aspects and ways by 2030. This entails reaching out to the most unprotected providing access to necessary resources and services, and helping areas damaged by conflict and climate-related disasters.

## 2° No hunger

With fast economic growth and improved agricultural activities in recent years, the number of undernourished people has reduced by almost half. Many unindustrialized countries suffering from famine and starvation are now



**Figure 4.** The 5 P's of sustainable development (reproduced from <https://br.pinterest.com/pin/558868634991524880/>).

able to supply the nutritional demands of the most unprotected. Central and East Asia, Latin America and the Caribbean have made huge success in eliminating acute starvation. These are great achievements based on the goals given by the first Millennium Development Goals. Regrettably, acute starvation and inadequate nutrition are still a great hindrance to advancement in a number of nations. As at 2014, it is estimated that 795 million people are severely undernourished, due to environmental degradation, drought and loss of biodiversity. More than 90 million children below five years old are terribly underweight. In addition, each person in every four is starving in Africa. The aim of SDGs is to eradicate all kinds of starvation and inadequate nutrition by 2030, ensuring everyone – mostly children – get enough nutritious food throughout the year. This entails ensuring sustainable agricultural activities: helping small sized farmers and letting even access to land, technology and markets. International cooperation is also inquired to have investment in infrastructure and technology to expand agricultural productivity. Jointly with the other goals outlined here, starvation can be eradicated by 2030.

## 3° Good Health

The United Nations Development Programme has successfully reduced child mortality, improved maternal health and fought HIV/AIDS, malaria and other diseases. More than 50% decline in preventable child deaths has been recorded since 1990, worldwide. There was 45% decline in maternal mortality globally. New HIV/AIDS infections dropped by 30% between 2000 and 2013, and more than 6.2 million people have been rescued from malaria. Irrespective of this unbelievable success, there are more than 16,000 children's deaths daily caused by curable diseases like measles and tuberculosis. Daily,



Figure 5. Sustainable Development Goals (2015).



Figure 6. Millennium Development Goals (reproduced from <http://croesy-gcse-geography.doomby.com/pages/question-6-development.html>).

many women die during pregnancy or from childbirth related issues.

#### 4° Quality Education

Since 2000, there has been great advancement in obtaining basic primary education. The overall number of enrolment in developing nations was 91% in 2015, and the number of school dropouts reduced by almost half, globally. Literacy rates have increased dramatically; a number of girls are now admitted in school. These are outstanding achievements. Progress has been difficult in some developing countries due to high levels of poverty,

armed conflicts and other exigencies. In Western Asia and North Africa, ongoing-armed conflict has driven many students from school. This is alarming. While Sub-Saharan Africa had the greatest achievements in primary school enrolment in the developing regions – from 52% in 1990, up to 78% in 2012 – large disparities remain. Children from the poorest households are up to four times more likely to be out of school than those of the richest households. There is high difference between rural and urban areas. It is reaffirmed that the attainment of quality education is one of the keys to sustainable development. The goal is for all girls and boys to have finished primary and secondary school free of charge by 2030. Other goals are to allow all to have vocational

training, eradicate gender and wealth differences, and obtain general access to quality higher education.

### **5° Gender Equality**

Stopping all kinds of biases against women and girls is not only a fundamental human right, but also important to speed up sustainable development. It has been shown umpteen times, that the empowerment of women and girls has a great impact, and is a catalyst for economic growth and development all way round. Since 2000, UNDP, UN partners and the rest of the world have concentrated on gender disparity. Outstanding achievements have been obtained since then. There are now more girls in school unlike 15 years ago, and most regions have obtained gender equality in primary school. There are up to 41% women now engaged in salary jobs besides farming, compared to 35% in 1990. The aim of SDGs is to work on these achievements to put a stop to marginalization against women and girls all over. There still exists large disparities in the labour market in some areas, with women not allowed to have jobs systematically. Others include sexual violence and exploitation, uneven sharing of free of charge care and household chore, and relegation in public offices.

### **6° Clean water and sanitation**

Insufficient supply of water has effects on over 40% of people worldwide, a disturbing number forecasted to increase with increased global temperatures by virtue of climate change. Though 2.1 billion people now have better water sanitation since 1990, diminishing supplies of safe drinking water is a big issue affecting every continent. In 2011, 41 countries experienced shortage of water; 10 of them almost lost their renewable freshwater supply, depending on alternative sources. Increasing drought and desertification worsen these trends. By 2050, one in every four persons will be disturbed by repeated water scarcity. To ensure general accessibility to safe and cheap drinking water for all by 2030 demands that investment should be high on quality infrastructure, sanitation facilities, and support hygiene all way round. It is important to protect and restore water-related ecosystems like forests, mountains, wetlands and rivers to fight against shortage of water. Cooperation that is more international is also required to support water efficiency and treatment technologies in developing nations.

### **7° Renewable Energy**

Between 1990 and 2010, the number of people

accessing electricity rose by 1.7 billion, and with continual increase in world population, the demand for low cost energy will also increase. The dependence of the world economy on fossil fuels, and increased greenhouse gas emissions are causing dramatic changes to our climate system. This is affecting the entire world. Attempts to support clean energy have led over 20% of global power to be created by renewable sources as of 2011. Yet, one in five persons does not have electricity, and as the demand keeps rising there needs for a considerable rise in the production of renewable energy all over the world. To ensure general accessibility to affordable electricity by 2030 there is need to invest in clean sources of energy like solar, wind and thermal. Using cost-effective standards for a large number of technologies can lower the world electricity consumed by buildings and industry by 14%. This means not using almost 1,300 mid-size power plants. It is important to expand infrastructure and upgrade technology to provide clean energy in all developing countries to support growth and help the environment.

### **8° Good Jobs and Economic Growth**

For the past 25 years, there has been reduction in the number of workers living in abject poverty, amidst the lasting effect of the 2008 economic crisis and world recession. In developing nations, the middle class constitutes over 34% of total recruitment – a number that has almost tripled between 1991 and 2015. With the continual recovery of the world economy continues, there is slower growth, huge disparities, and insufficient jobs forever increasing labour force. According to the International Labour Organization, over 204 million persons were jobless in 2015. The SDGs advance sustained economic growth, higher levels of productivity and technological creativity. Supporting entrepreneurship and creation of employment are vitals means to eliminate forced labour, slavery and human trafficking. With these aims, the goal is to provide complete and lucrative jobs for all including men and women by 2030.

### **9° Innovation and Infrastructure**

Investing in infrastructure and creativity are important for economic growth and development. With more than half, the world population residing in cities, mass transport and renewable energy are now very vital, just like the growth of new industries and information and communication technologies. Advancement in technology is a means to provide permanent panaceas to economic and environmental issues, including creating new work and advancing energy efficiency. Advancing lasting industries

and investing in scientific research and innovation are vital to speed up sustainable development. Over 4 billion people cannot use the Internet, with 90% from the developing world. Bridging this digital divide is important for ensuring even accessibility to information and knowledge, and fostering of creativity and entrepreneurship.

### **10° Reduced Inequalities**

It is reported that income disparity keeps rising; the richest 10% earn up to 40% of overall world income. The poorest 10% earn only between 2% and 7% of total world income. Inequality has risen by 11% in developing nations considering the population growth. These huge inequalities demand adopting of quality policies to enrich the bottom percentile of income earners, and advance economic inclusion of all irrespective of sex, race or ethnicity. Income disparity is a world concern that needs world solutions. This entails improving the regulation and monitoring of financial markets and institutions, supporting development help and foreign direct investment to places where the need is highest. Stimulating safe migration and mobility of people can bridge the huge divide.

### **11° Sustainable cities and communities**

Over half of the population of the globe reside now in urban areas. By 2050, it might rise to 6.5 billion people – two-thirds of all humanity. Sustainable development cannot be possible if building patterns and the management of urban spaces is not hanged. The fast growth of cities in the developing world plus increased rural to urban migration has resulted in a boom in large cities. In 1990, there were ten large cities with over 10 million residents. In 2014, there were had 28 large-cities, residence to 453 million people. Abject poverty is mostly common in urban spaces and national and city governments strive to make room for the increasing population. Making cities safe and sustainable entails providing accessibility to safe and cheap housing, and improving slum houses. It also means to invest in public transport, create green public spaces, and improve urban planning and management for all to participate in.

### **12° Responsible consumption**

To obtain economic growth and sustainable development there is need to lower our ecological footprint by changing our pattern of production and consumption of goods and resources. Water is consumed by agriculture most globally, and irrigation takes up to 70% of freshwater for human use. To obtain this goal, adequate

handling of our joint natural resources and ways to dispose toxic waste and contaminants are vital. Supporting industries, businesses and consumers to recycle and diminish waste is also vital, as they will help developing countries to achieve more sustainable patterns of consumption by 2030. A great part of the world population consumes very less to meet even their important needs. Halving the per capita of global food waste at the retailer and consumer levels is also vital to create sufficient production and supply chains. This can help with food security, and shift us towards a more resource efficient economy.

### **13° Climate action**

Nearly all nations of the world experience directly the great impacts of climate change. Greenhouse gas emissions keep rising, and are now more than 50% higher than their 1990 level. In addition, global warming causes permanent changes to our climate system, which will threaten permanent effect if actions are not taken now. The annual average losses from earthquakes, tsunamis, tropical cyclones and flooding lead to hundreds of billions of dollars, requiring an investment of US\$6 billion yearly in disaster risk management alone. The goal aims to mobilize \$100 billion annually by 2020 to address the needs of developing countries and help mitigate climate-related disasters. Helping more vulnerable regions, such as land locked countries and island states, adapt to climate change must go hand in hand with efforts to integrate disaster risk measures into national strategies. It is still possible, with the political will and a wide array of technological measures, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels. This requires urgent collective action.

### **14° Life below water**

The world's oceans – their temperature, chemistry, currents and life – control the systems of the earth making it conducive for humans. The management of these resources is important for humankind to offset the impacts of climate change. More than three billion people rely on marine and coastal biodiversity to live. Nowadays, 30% of the world's fish stocks are over- utilized, below the level where they can bring forth reasonable yields. Oceans also take in about 30% of the carbon dioxide humans give out, and there was have 26% increase in ocean acidification since the onset of the industrial revolution. Marine contamination, a great deal emanating from land-based sources, is now getting to frightening levels, with an average of 13,000 pieces of plastic litter seen on every square kilometre of ocean. The SDGs

want to handle and defend marine and coastal ecosystems from contamination, and handle the effects of ocean acidification. Supporting preservation and the good use of ocean-based resources through international law can fight some of problems seen in our oceans.

### **15° Life on Land**

Humans rely on the earth and ocean to live. Plant supplies 80% of our food, and agriculture is our vital economic resource and means of development. Forests provide 30% of the earth's surface, supplying important shelters for millions of species, provide clean air and water; and are used to fight climate change. Now, our lands are being degraded, and arable lands are lost at 30 to 35 times the historical rate. Drought and desertification keep rising yearly, causing loss of 12 million hectares and affecting poor areas worldwide. Of the 8,300 animal breeds, 8% have gone into extinction and 22% are on the verge going into extinction. The aim of SDGs is to preserve and restore the usage of terrestrial ecosystems like forests, wetlands, drylands and mountains by 2020. Stopping deforestation is also needed to fight the effect of climate change. There is need to urgently lower the loss of natural habitats and biodiversity which are part of our common heritage.

### **16° Peace and Justice**

Lasting development cannot be achieved if there is no peace, stability, human rights and good governance according to the rule of law. Our world is increasingly being segregated. Some areas have some forms of peace, security and prosperity, while others experience permanent violence and conflicts. This must be handled. High rates of armed violence and insecurity can destroy the advancement of a nation, influencing economic growth and often cause malice that can last forever. Sexual violence, crime, exploitation and torture prevail where conflict thrives or where there is no rule of law; and countries must endeavour to defend those most vulnerable. The SDGs want to stop all kinds of violence, and join with governments and communities to put full end to conflict and insecurity. Establishing the rule of law and advancing human rights can reduce the movement of illegal arms and encourage developing nations to participate in the institutions of world governance.

### **17° Partnership for the goals**

The realization of the SDGs is possible by strong commitment to global partnership and cooperation. While official developments help from developed nations

increased by 66% between 2000 and 2014, humanitarian crises brought on by conflict or natural disasters continue to demand more financial resources and aid. Many countries need Official Development Assistance to support growth and trade. The world today is more inter-related than in time past. Improving access to technology and knowledge is vital to distribute ideas and encourage creativity. Coordinating policies to help developing countries manage their debt, as well as promoting investment for the least developed, is important to obtain sustainable growth and development. The goals aim to support North-South and South-South cooperation by supporting national plans to achieve all the goals. Promoting international trade, and assisting developing nations increase their exports, is all part of obtaining a universal rules-based and equitable trading system that is fair and open, and beneficial to all.

### **Conclusion**

Considering the literature review and data analysis, this study supports the aim that business enterprises and other organizations must be held accountable beyond providing jobs, making profits to the shareholders and obey the law. Thus, two UN initiatives that organizations and business enterprises can resort to in order to work with the promotion of just peace were displayed.

One goal is to put on the table initiatives that could be used by the organizations to implement actions that allow them to show they care about social responsibility as a standard that can make a difference to the way the society sees and accepts their business (Visser, 2017).

Finally, the question is:

What actions business enterprises and organizations may take to guarantee human rights and peace? propose that organizations can develop CSR actions based on the Global Compact principles and sustainable development goals - Agenda 2030 in order to face world peace problems and contribute to sustainable development. Their CSR actions must go beyond Carroll's pyramid model. These actions should include all three aspects: social, economic and environmental, to be characterized as sustainable, within the sustainability model presented by Elkington (1998), called the triple bottom line, or People, Planet, and Profit. The entrepreneurial and corporate actions can indeed be configured as actions of peace if they meet this proposed model. For a practical experience in developing country, reference was made to Warner and Sullivan (2017) and UNCTD (2001), the former as an example of the role of academic applied research to develop a partnership for sustainable development between extractive industries,



government, civil society, and Non Governmental Organizations (NGOs) and the later for guidance for action. As suggestions for futures studies, researchers can study the subject in Latin American organizations. Moreover, in addition to organisations, a study on social activists work towards SDGs will be interesting to probe.

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## CONFLICT OF INTERESTS

The authors declare that they have no conflict of interest.

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