# Editorial Note

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**Dr. P. M. Patil**
Editor, SAJMR

# South Asian Journal of Management Research (SAJMR)

# Special Issue

# C O N T E N T S

**Editorial Note**

# The Contribution of Microfinance towards the Growth of SMEs

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**ABSTRACT**

This study discusses the impact of microfinance on Small and Medium Scale Enterprises (SMEs) in Developing Countries. The research examined SMEs profile, the contribution of microfinance, the services provided by Microfinance Institutions; their significant role contributing to SMEs growth and the difficulties faced by SMEs in accessing finance. An analysis of SMEs profile reveals that the majority of SMEs are at their micro stages as they employ a maximum of 4 to 5 employees. It reveals that the main purpose behind which SMEs opt for bank loan is mainly for business growth. The outcome reveals that microfinance have had a positive effect on SMEs growth. The Micro Finance Institutions (MFIs) contributed significantly in SMEs growth by providing micro loans while increasing the availability of capital to finance their small businesses. MFIs provides reasonable loan repayment conditions and this gives entrepreneurs the time for focusing and investing on business aspects that will generate economic benefit to them.

**Keywords:** SME, Capital, Growth, MFI

## Introduction

Microfinance has received widespread acclaim for supporting the underprivileged, particularly women, by increasing earnings, enabling self-employment, and empowering them. Previously, between the 1950 sand 1970s, governments and international do no rs provided crucial help to small farmers by providing subsidized agricultural credit to enhance their growth and productivity. The strategy, however, was ineffective from the institutions' perspective, as it increased the volume of credit loss. Microfinance inclusion, which was considered to be crucial in poverty reduction in the mid-1980s, eventually replaced the provision of subsidized credit programmes.

One of the most common problems faced by SMEs is access to finance, which is a major limitation to their growth. SMEs are vulnerable in obtaining bank finance as they are limited by lack of collaterals and the inability to develop a proper solid business plan and financial statements compared to larger businesses. The majority of SMEs lack the capacity to manage their activities due to lack of experienced people. As a result, they are unable to disclose financial information of the same high quality than that of larger businesses and are unable to furnish audited financial statements, which are one of the most important requirements in obtaining credit from financial institutions.

However, despite diverse incentives set by both the government and MFIs towards increasing SMEs growth and participation, SMEs still face problem in accessing bank finance. Hence, the objectives of this research paper are as follows:

☐ To assess to what extent micro finance contributes to SME's growth.
☐ To know the extent to which entrepreneurs use microfinance.
☐ To identify the factors affecting the adoption of microfinance by entrepreneurs.

The rest of the paper is organized as follows: Section 2 reviews the literature on microfinance and SMEs, while Section 3 focuses on the methodology used to conduct this study. Section 4 provides the analysis and discussion of the findings. The last section presents the conclusion and recommendations to enhance SMEs growth.

## Literature Review

### Definition and concept of Microfinance

Robinson (2003) defined microfinance as a means of providing the poor with products and services that will assist them in building their small businesses. Microfinance was known as microcredit. Microcredit is the method of giving out modest loans without any services attached. Because microcredit is now offered with a wide variety of other services, the word microcredit has been overtaken by microfinance. Microfinance can be in the form of small loans, savings programs, insurance, payment transfers, and other services offered in small quantities that low-income people can afford. These services assist families in launching and growing micro businesses, which are key sources of employment, income, and economic activity in developing countries. As to their search on poverty alleviation (REPOA, 2006), microfinance comprises of both financial and non-financial services such as training and business counseling. According to Rubambey (2001), microfinance can be a combating tool against poverty as it improve access to effective supply of savings, credit and insurance facilities while creating micro enterprises and increasing earning potential and having a better standard of living. Microfinance is known for encouraging small business development through enterprise growth, registration, and formalization, as well as socialization in to standardized financing relationships (Ranabahu,and Barett,2020; Xheneti *et.al.*,2019).

### Definition of Small and Medium Enterprises

The International Finance Corporation (IFC) defined SME as enterprises with less than 300employees. This classification can be simplified even further differentiating SMEs from MSMEs based on the employee count, as shown in Table 2.1. The SME market sector includes a wide range of businesses of varied sizes measured by its staff count, working capital, and operating in avariety of industries. Companies can be slightly larger than microenterprises on one end of the spectrum and nearly the size of large corporations on the other.

**Table 1: Definition of MSMEs by International Finance Corporation**

| Indicator | Micro Enterprise | Small Enterprise | Medium Enterprise |
|---|---|---|---|
| Employees | <10 | 10 <50 | 50 <300 |
| Total Assets | <$ 100,000 | $ 100,000 <$ 3 million | $3 million <$15 million |
| Total Annual Sales | <$ 100,000 | $ 100,000 <$ 3 million | $3 million <$15 million |

*Source: IFC (2012)*

**Importance of SMEs to the economy**

The SME sector plays an important role in both developing and developed countries around the world. According to Ayyagari *et.al.* (2000), SMEs contributes to a country's economic grow than development. The SME sector is a vital contributor to the economy as it leads to job creation allowing people to earn income and raising living standards, it also provides an equitable income distribution, export growth, innovation accompanied with development and most importantly it increases a country's GDP. According to the World Bank, SMEs account for around 90% of enterprises and more than half of all jobs in the globe. In emerging economies, formal SMEs account for up to 40% of national income.

The World Bank estimates around 600 million jobs will be required by 2030 to accommodate the rising global workforce, making SME growth a top priority for many governments worldwide. In Africa, the SME sector is seen as a job generator and contributor to the country's economic stability. From 2002 to 2010, the European Union recorded up to 85 % new employment creation in the SME sector. Hence the rapid growth of SMEs in every country shows that SMEs plays an important role to the economy throughout the world. SMEs can also contribute to the achievement of the Sustainable Development Goals by promoting inclusive and sustainable economic growth, providing decent work for all, promoting sustainable industrialization, and fostering innovation and reducing income inequalities (OECD, 2016).

**SMEs Financing Difficulties**

Despite the importance of SMEs in the economy, data suggests they are still underserved in terms of financial goods and services that are vital to their success. According to the International Trade Center, small business survival has been seen as challenging. They frequently experience challenges in obtaining bank financing. Finance accessibility has been acknowledged as an essential component for SMEs' success in building productive capacity, competing, creating jobs, and raising living standards. Bank loans are one of the most credible ways for businesses, particularly SME's, to raise finance to achieve their objectives (Moro, Fink, and Kautonen, 2014). SMEs, particularly in Africa, frequently fail to meet the requirements of financial institutions, which consider SMEs as a threat due to insufficient assurances and a lack of information about their ability to repay loans. Without financial support, small businesses cannot afford or consider in taking new technology, nor can expand to be competitive in the market, and fails to build alliances with larger businesses. SMEs are constrained by the lack of collateral and the inability to develop a solid business plan and failing to produce quality financial statements (Lopez, Gracia, and Aybar 2000).

**Importance of Microfinance Institutions**

Business survival and performance are both dependent on its ability to raise funds. As capital is regarded as the lifeblood of any business, no organization, no matter how effectively it run, cannot operate without finance. Finance is required for a company's start-up, revenue and capital expenditures, product development, working capital sufficiency, and long-term goals (Harash et al., 2014). SMEs are seen as risk borrowers and are often rejected by commercial banks and this resulted in the formation of MFIs. MFIs have been set up to provide financial assistance to entrepreneurs and are known in offering enormous support to SMEs while adopting a proper microfinance scheme. The

MFIs play an important role in SME development by lowering information and transaction costs, and their effectiveness in doing so influences savings rates, investment decisions, technological innovation, and long-term growth rates. MFIs play an important role in fostering economic growth by providing the availability of cash flow cost credit to potential investors. With the help of MFIs SMEs are able to capitalize on previously overlooked opportunities. Countries with a more functioning financial system have faster economic growth.

**Microfinance and SMEs Growth**

Several research have been carried out on the impact of microfinance on SMEs growth, and potential economic growth, with the findings that credit availability encourage growth and enables the SME sector to fully realize its ability to generate the economy (Adeniran et al., 2015). Studies showed that microfinance plays a critical role in fostering growth by boosting operational activities such as sales, asset purchase, advancement in technology, enhancing management and inclusive working capital while allowing enterprises to operate in a more feasible manner. According to a study conducted in Kenya, financial accessibility was found to be a major factor contributed 79 % of SMEs growth and proving positive effect of microfinance and promoting the growth and expansion of SME abilities through this type of assistance (Babalola, 2013, Kisaka & Mwewa, 2014). Whether the microfinance loan is from the government or from MFIs the microcredit enhances SME income and generates cash flow to expand their business (Annuar, Rose, and Zariyawati, 2016). The majority of SMEs which represent 88 % favored microfinance over bank loans because of the accessibility with which they could obtain loans and lower interest rates. The ability to obtain these loans meant being able to increase sales and income while also reimbursing the interest on time. According to Mills (2011), small businesses would succeed in countries where they have greater access to facilities that will allow them to reach their full potential. Similarly, Taiwo, Yewande, Edwin, and Benson (2016) did a research on 'The role of microfinance institutions in financing small enterprises on the Growth of Small and Medium Enterprises in Lagos Metropolis'. Their study revealed that microfinancing considerably aided small enterprises by eliminating the resource gap. Quaye (2011), another researcher conducted a study on selected SMEs in Kumasi on microfinance. According to findings, they found in comparison to traditional banks, MFIs aided SMEs by offering better access to loans.

**Methodology**

For this study the researcher will focus on SMEs in developing countries who are either clients of MFIs or those who are not clients of MFIs. A simple random sampling technique has been used to select a total of 150 SMEs out of 200 who are either clients of MFIs or SMEs who are not clients to MFIs. The sample size consisted of 139 SMEs who were members of MFIs and 11 SMEs were not members of MFIs. Primary data was collected from these SMEs entrepreneurs through a well- designed questionnaire as well as face to face interviews, because the majority of entrepreneurs were illiterate and it was difficult for them to understand the questions. The interview allowed the researcher to interact with entrepreneurs and it gave the researcher accurate information concerning microfinance. On the other hand, secondary data was gathered from the SMEDA Act and IFC database, published academic papers, and from websites.

**Data Analysis and Interpretation**

For this research, a total of 150 questionnaires were distributed to 150 SMEs.

**Demographic Profiles of Respondents**

The first part of the questionnaire identifies the demographic profile of SMEs. It revealed that 78.67% of SMEs members were females, while 21.33% were males. These findings show that females were dominant in obtaining loans from MFIs. This situation is attributed to the MFI's policy of economically empowering women, reinforcing the theory of Burjorjee (2002) who argued that women are regarded to be poorer and face more credit constrained compared to men and it is one of the main reasons why MFIs focuses more on giving loan to women.

Age is an important element that can affect a healthy person's ability to perform business activities. It signifies an individual's ability to generate economic wealth for human utilization. The respondents were asked about their age: 71.3% were 31 – 40 years, 12 % were 41 – 50 years, 10% were 21 – 30 years and 6.7% were between 51 and above.

Education is an essential agent of change since this provides entrepreneurs with knowledge and skills they need to be more productive and efficient. The findings revealed that 62% of SMEs have primary education, 17.3% have lower secondary, 14 % have upper secondary, 6% have tertiary education and only 0.7% have a professional qualification. The findings show that the majority of the micro entrepreneurs who participated in this research had only a primary level of education.

As for the occupation of the respondents, 91.3% were self-employed which indicates that the majority of respondents were owners of their small businesses, while 7.3% of SMEs were employed and 1.3% were retired.

**Business Profile and SMEs knowledge on Microfinance**

The second part of the questionnaire, identifies business profiles of the respondents and also this section assesses the extent to which SMEs have knowledge of microfinance in Mauritius.

When respondents were asked about the nature of their business, 20% of SMEs responded manufacturing and textile sector , 16.67% responded wholesale or retail shops, and also 16.67 % of SMEs comes from handicraft businesses, 14% from the accommodation and food services, 11.33% have agriculture, farming and fishing business, 6.67% provides administrative services, 4% of SMEs responded professional, scientific  and technical activities while 4% answered logistics and storage services, 2.67% of SMEs come from tourism and hospitality and 2.67% SMEs occupy information and communication business services while 1.33% comes from the construction sector.

Regarding form of business of SMEs, the majority of SMEs represented by a percentage of 81.33% are registered as Sole proprietorship, 11.33% registered as partnership businesses while 7.33% are registered as private company. Hence, the 81.33% shows that the majority of entrepreneurs in Mauritius start and operates their businesses solely and are risk takers.

As far as their source of capital is concerned, the study shows that, 69.33% of respondents started their businesses with their own funds, primarily from personal savings, while 12.67% said they got funds from friends. 8.67% revealed that they set up their businesses through relatives, while the other 8.67% established their businesses through loans from banking institutions, and the remaining 0.67% established their businesses through other institutions. This demonstrates majority of entrepreneurs started their businesses either from personal savings. The findings are similar to the findings of Angori et al. (2017).

When SMEs were asked about business experience before starting their business, the majority of SMEs responded yes, representing 70% and 30% SMEs said no. It shows that most entrepreneurs have business experience in their related sectors which indicates they possess some skills and knowledge and trained and experienced entrepreneurs are considered to acquire a better management control system that leads to SMEs growth and development. Reinforcing the theory of Thassanabanjong et al. (2009) who argued that trained managers or entrepreneurs help SMEs to progress.

When respondents were asked about the number of employees they employ in their business 42.67% answered 4 -5 employees, 31.33% answered above 5 employees, 14.67% answered 2 – 3 employees, 6 % answered 1 employee while 5.33 % answered none which means that they manage their small businesses by their own. The findings reveal that SMEs are at their micro stage as they employ 4 -5 employees that helps them with the daily work and it also come to a conclusion that most SMEs participants are of small size businesses.

When SMEs were asked about their monthly income group, majority of participants answered Rs 400001 – Rs 65 000 representing 36.67 % of the population, 33.33 % respondents answered Rs25 001 – Rs 40 000, 13.33 % answered Rs 65 001 – Rs 90 000, 8.67 % answered less than Rs 10000, 5.33 % answered above Rs 90 000 while the remaining 2. 67 % answered Rs 10 001 – Rs 25000. This shows that small businesses seem to be successful and well-established.

When SMEs were asked if they have faced problem during the last 3 years, the majority responded yes representing 95.3 % while 4.7 % said no. The SMEs also provided information on the most pressing problems faced by them during the last 3 years. The results reveals majority of SMEs face shortage of skilled staff because employing and sustaining skilled professional is difficult for SMEs because they chose to work for big businesses that can provides a higher salary, job stability, and career opportunities that small businesses cannot afford. While the results show that other SMEs faced problem in accessing better technology and lack of business information this supports the theory of Andaliband and Halim (2019), who said small businesses often face challenges because they lack managerial experience and they lack of innovation performance that makes small businesses to grow. Also this may indicate that participants are new and have not yet establish a solid brand in the market, and as a result, experiencing start-up problems. Moreover, 16.1 % said that SMEs face challenges in growing because of the existence of huge competitors and rising costs of doing business. While 11.4 % faced access to bank finance reinforcing the theory of Riding *et al*. (2010) who said that SMEs are undersupplied with financial services.

When entrepreneurs were asked if they heard about microfinance, the majority responded yes represented by a frequency of 96%, 2.67% of SMEs said no while 1.33% responded maybe. The results revealed that that majority of SMEs have knowledge of Microfinance. Regarding the use of microfinance by SMEs, the majority of SMEs answered yes represented by a frequency of 93.33% while only 6.67% of the respondent answered no. The results therefore reveal that microfinance plays an important role in SMEs growth as the majority of them were clients of microfinance.

When respondents were asked about the number of years they are members of MFIs, the majority of SMEs were clients of microfinance from 3 to 6 years represented by a frequency of 57.55%, 39.57% were client from 1 to 3 years while the remaining 2.88% were clients above 6 years.

**Microfinance Institutions and Condition of Loans**

The third part of the questionnaire has been designed for SMEs who are members of MFIs and this section assess the condition of loans provided by MFIs for small businesses.

Entrepreneurs were asked from which institutions they have applied their loans. The majority of SMEs answered they obtained their microfinance loan from DBM represented by a frequency of 29.50%, 27.34%, answered they applied from MCB, and 19.42% applied from SBM, 9.35% responded MAUBANK, while the rest 7.19% responded CIM finance and from other institutions. From the results obtained it can be seen that the majority of SMEs applied their loan from well- known MFIs such as DBM, MCB, and SBM as these institutions are well-known banks for supporting small entrepreneurs in Mauritius not only financially but also these financial institutions also provides small businesses non-financial services such as expert advice, assistance and also individualized services to meet the needs of SMEs.

When respondents were asked if they received the whole amount of loan requested, the majority answered, 'yes' represented by a frequency of 79.14% while 20.86% of the respondents answered 'no'. The majority of respondents who received their loans are the one who has business experience and that is why they have been given loan while the rest who said no are the one who are new to the business environment and are considered to be high risk profiles. The 20.86% said that they failed to get the whole amount of loan requested as they failed to provide necessary collaterals demanded by the bank, which reinforces the opinion of Beck (2007) who said lack of collateral is the biggest obstacle faced by SMEs.

Regarding the amount of loan SMEs received from MFIs, it was noted that the majority of respondents representing 50.36 % answered Rs 100 001 – Rs 300 000, 30.94 % answered Rs 300001 – Rs 500 000, 11.51 % answered above Rs 500 000 while 7.19 % answered less than Rs 100000. The results show that very few entrepreneurs received loan amounting above Rs 500 000 this maybe because they had sufficient collaterals demanded by the banks, and the majority of entrepreneurs receive loan from Rs 100 001 – Rs 300 000 are the one who did not have sufficient collateral as security and are considered as high risk profiles.

For the loan repayment period obtained by SMEs from MFIs, the majority of participants answered above 3 years representing 55.40%, indicating that they received huge amounts

of loans and it will take time to repay back the amount of loan borrowed it also means that they have collaterals as security and are not considered as a risk for the banks. While 32.37% answered 1 to 3 years and 12.23% answered less than 1 year, a short repayment time period explains the inability to provide collateral on time and why institutions hesitate to lend huge amount to small businesses. Hence, the length of time it takes for SMEs to be reimbursed is determined by the amount of loans they have received.

When asked about the purpose of loan taken by SMEs, the majority of entrepreneurs, that is 33.81%, took loan for business growth, while 30.22% answered for purchase of asset, 22.30% answered for training and development, 7.91% answered for advertising, 3.60% answered initial capital for starting up, while the remaining 2.16% answered for financing medical cover for self- employed or staff. The results show majority of SMEs seek help from MFIs for the development and growth of their enterprises which could be very challenging for entrepreneurs to expand their businesses without the help of a loan this reinforces the opinion of Cook (2001) who said that small businesses rely heavily on bank loans in order to expand their businesses and reach their full potentials.

Regarding the difficulty to obtain loan from MFIs, the majority of participants said no, representing 82. 01% while the rest 17.99% said yes. This question was an open ended question and it has been asked to assess the opinions regarding the difficulty in obtaining loan from MFIs. Some of them said MFIs compared to traditional banks also asks collaterals as security and because they lack collateral requirements, they have been denied from bank loans. While some said that they face difficulty in accessing loan from MFIs because lack of business experience, they are new to the business environment they are considered as huge risk because of market failure.

**Assessment of Microfinance scheme.**

The last part of the questionnaire assessed the microfinance scheme provided by MFIs in Mauritius. Questions has been assigned to know SMEs opinions on the rate of interest, repayment conditions, and whether the services provided by MFIs has helped their small businesses grow.

For a better understanding of this study the scale is represented as follows: A mean score of 1 or 2 means that the participants have a low level of agreement on the statements, a mean score of 3 represents a neutral response and the mean score of 4 and 5 indicates that participants have a high level of agreement on the statements.

**Table 2: Microfinance Services**

| Descriptive Statistics | | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Microfinance institutions provide affordable rate of interest. | 139 | 1.00 | 5.00 | 3.6475 | 1.13485 |
| Microfinance institutions provide reasonable loan repayment condition. | 139 | 1.00 | 5.00 | 4.2518 | .97128 |
| The amount of the micro loan was adequate | 139 | 1.00 | 5.00 | 3.5036 | 1.19403 |

| Microfinance services plays an important role on SMEs growth? | 139 | 1.00 | 5.00 | 4.4604 | .91893 |
|---|---|---|---|---|---|
| Valid N (list wise) | 139 | | | | |

From above Table it can be seen that the statement number 2 and number 4 has the high means of 4.2518 and 4.46 respectively, which indicates that participants have a high level of agreement on these statements and most of the participants answered 'Strongly Agree'. The results for statement number 4 therefore prove that majority of respondents strongly believe microfinance plays an important role on SMEs growth. This also proves small businesses heavily depend on microfinance in order to grow and develop their businesses supporting the opinions of Ranabahu and Barett (2020) and X heneti*et al.*(2019), who believed microfinance is well-known for promoting small business development through entrepreneurship expansion. As for the results for statement number 2, they indicate that MFIs provides reasonable loan repayment condition which also explains why the majority of SMEs had a repayment period above 3 years which means that MFIs gives entrepreneurs the time required in order to pay back their loans and SMEs have better management control as they have more cash to manage their day to day business activities and this may help them to improve and become efficient.

However, statement number 3 has the lowest mean of 3.50 which states 'the amount of the micro loan was adequate', is nearest to 3. It indicates that this statement got a neutral response and that most participants answered 'Neither agree nor disagree'.

Statement number 1 has a mean of 3.64 that is near to 4 which means that the majority of respondents agreed that MFIs provides affordable rate of interest.

The responses for the other questions are summarized as follows:

➢ When SMEs were asked has microfinance increase their monthly income, majority of participants 80.7 % said yes while only 12 % said no.
➢ When SMEs were asked has microfinance improve their standard of living, majority of participants representing 80.7 % said yes while only 12 % said no. With the results it can be said that microfinance increased profitability and the poverty level decreased resulting a raise in living standards.
➢ When SMEs were asked has microfinance contributed to their business development and growth, majority of participants 81.3 % said yes while only 11.3 % said no.

Hence while assessing the impact of microfinance on SMEs growth it can be concluded that microfinance plays a vital role on SMEs growth as it contributes positively on entrepreneur's monthly income, raises their standard of living and also it enables small businesses to grow. Reinforcing the opinions of (Annuar and Rose, Zariyawati, 2016) who believe microfinance boost up SMEs income and generates cash flow to expand their business.

➢ After being a microfinance client how would you describe your business and what suggestions would you like to make in order to improve microfinance scheme in Mauritius?

Participants see a better version of their business while using microfinance. It increased the availability of capital and allowed them to focus and invest on business aspects that generated economic benefit for their business. Microfinance boosted up their confidence level as it acted as a great financial support and contributed positively on business growth and they see their business flourishing in the future.

Participants also suggested MFIs should review their microfinance scheme especially on its borrowing cost as they are subjected to high interest rates that often discourage them from taking the loan. MFIs should adopt a quicker administrative system where the procedures and formalities are done more rapidly while reducing paper works and lastly they suggested high emphasis should be placed on the availability of training institutions in Mauritius, more trainings should be provided as it will help them in developing potential skills and become more innovative in the market.

**Inference Statistics**

The chi square test has been used to test if the observed outcomes of the research are consistent with the hypothesis set for this research.

**Relationship between Microfinance and SMEs growth**

The following are the questions taken from the questionnaire to test the relationship between microfinance and SMEs growth:
It was concluded that the P-value is $< 0.05$ which reveals that microfinance contributes greatly to SMEs growth.

**Relationship between knowledge of microfinance and SMEs growth**

It was concluded that P-value $< 0.05$ which means that knowledge of microfinance between SMEs contributes greatly to SMEs growth.

**Relationship between Conditions of loan and SMEs growth**

It was observed that P-value $< 0.05$ which means the conditions of loans provided by MFIs contributes greatly to SMEs growth.

All the 3 hypothesis showed there is a relationship of microfinance and SMEs growth. This shows that MFIs plays an important role for SMEs due to their microfinance scheme they set for small businesses. Microfinance allows SMEs to better finance their business on potential business aspects that increases their output and productivity and allows them to generate income and grow in size. Hence the test shows that microfinance have a great impact on SMEs growth.

**Conclusion and Recommendations**

**Conclusion**

The study was conducted to assess the impact of microfinance on SMEs growth and it reveals microfinance have a positive impact on SMEs growth. Providing microfinance to small businesses have reduced the difficulty faced by SMEs for their growth. It has been

noted that MFIs offers reasonable loan repayment period and participants were members of MFIs for long period of time. Entrepreneurs strongly believed micro finance helped them develop their businesses as it generated a rise in their monthly income and raise living standards. However, findings also showed MFIs demands collaterals requirements which SMEs fail to provide. Hence, to conclude, despite the existing challenges faced by SMEs, the chi square test clearly shows microfinance contributes positively on SMEs growth.

**Recommendations**

Based on the findings and conclusion the following recommendations can enhance SMEs growth.

- More emphasis should be placed on providing trainings to entrepreneurs by both MFIs or by organizations that promotes SMEs participation.
- The government should support and find ways for helping SMEs in attracting and maintaining qualified professionals by setting strategic goals so as skilled workers will feel motivated to work with small enterprises.
- MFIs should charge a low interest rate for technological acquisition so as it will encourage SMEs to take credit and give them the chance to invest in potential technological aspects that will enhance SMEs growth and can expand to compete in global markets.
- More MFIs should be established so as small entrepreneurs have the equal chance to have access to bank loan and an increase in the availability of capital will allow them in increasing their potential capacity and efficiency.
- MFIs should promote an increase in saving rates among SMEs.
- The bureaucratic constraint associated with small business registration should be removed the procedures in obtaining bank loan should be quicker.
- The government should provide sophisticated machines to small entrepreneurs that will allow them to produce output in a more efficient manner so that they can improve their productivity.

Banks should assist SMEs in improving investment plans and financial information, as well as raise understanding of the various funding options and programs available to SMEs.

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# The Federal Ethics and Anti-Corruption Commission of Ethiopia's Existing Practices': Standard Operating Procedures

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**Abstract:** Corruption in Ethiopia is an ancient phenomenon conceived as a source of income. It is not considered a serious criminal act. It also has a social and cultural background. Therefore, the government of Ethiopia established the Federal Ethics and Anti-Corruption Commission to curb it; however, the evidence indicates that the efforts of the FEACC have been challenged by a lack of independence, a lack of specialized staff, low public confidence, a lack of cooperation with relevant bodies, inadequate resources, and an unclear mandate and functions to bring about the expected change in curbing corruption. This research aimed to examine the effectiveness of the existing practices' standard operating procedures (SOPs), that is, the corruption prevention mandate and functions, which are based mainly on the commission's revised proclamation No.1236/2021. In this research, a conceptual framework was developed based on the existing mandates and functions of the commission and the factors that contributed to the effectiveness of ACAs. The research was guided by the Theory of Change (ToC) at the input and activity levels. A qualitative case study design was employed. The data sources for this research were documents, an e-mail expert interview, the FEACC's social media platforms (Facebook), the FEACC's official website, and broadcast media. And the data from various sources was organized using Atlas ti.9 and thematically analyzed by the researcher. The analysis was a thematic one. The findings show that, despite the fact that there are some legal provisions and SOPs for the commission's activities. The existing regulations and SOPs are not adequate and effective according to the ToC principles; the inadequacy of inputs and the lack of effective SOPs for its activities hinder the realization of the expected result. The research also contributed to knowledge by expanding the updated understanding of the existing practices' SOPs under the FEACC. Finally, based on the research results, it makes recommendations to the appropriate bodies and suggests areas for future research.

**Keywords:** Anti-corruption, Federal Ethics and Anti-corruption Commission, Effectiveness, Practices, Standard Operating Procedure

## Introduction

The Standard Operating Procedure (SOP) is a documented standard that puts together relevant regulations, resources, practices, tools, and operational procedures (Manghani, 2011). The SOPs instruct the organization on its mandate, responsibilities, and routine activities with specific detail of how, what, when, and where the activities take place (Singh, 2019; Prasanna, 2013, p.1).

Akyar (2012) stated that SOPs are crucial to the independence and professional freedom of the experts in the organization. It also helps to identify the skill gap and evaluate the performance of the employees. According to Saputro & Bangun (2022), SOPs are one form of knowledge that determine what to do, how, by whom, where, when, and how to perform a particular task. The number of SOPs in the company varies and adjusts to the needs of the company. As an organization grows, similarly, the SOPs also adjust to it.

Furthermore, the SOPs facilitate quality and integrity and promote the effectiveness and efficiency of the organization's end result (Prasanna, 2013). Therefore, as specialized agencies, ACAs need special and effective SOPs for practices and activities that can ensure their specialization, independence, promotion of adequate resources, powers, coordination of AC activities, cooperation with various bodies, and facilitation of information within and between various bodies.

In the early twenty-first century, anti-corruption agencies became the leading standard tool for fighting corruption around the globe, and their functions, mandates, and specializations grew (Makowski, 2016; UNDP, 2005; OECD, 2008; Cardona, 2015). Although the initiative to expand ACAs around the world was taken by the United Nations Conventions against Corruption, it does not address any institutional model for their signatory countries. Therefore, countries opted to establish ACAs on their own in different forms. Some countries delegate responsibility for preventing and combating corruption to various institutions; others established specialized agencies mandated to both prevent and investigate corruption; still others created centralized agencies that manage and coordinate anti-corruption activities (Lortkipanidze, 2014); since then, the establishment of anti-corruption agencies has become a global practice (Meagher, 2005). However, despite their differences, they perform similar functions: corruption prevention; education and awareness raising; investigating and prosecuting offenders; coordinating AC activities; and proposing AC policies.

Most importantly, several international and regional conventions, such as the United Nations Convention against Corruption (UNCAC), the African Union Convention on Preventing and Combating Corruption (AUCPCC), and the Council of Europe Criminal Law Convention on Corruption, have laid the groundwork for the establishment of specialized anti-corruption agencies in the countries that have ratified the conventions (Odhiambo, 2016). However, the question of which institutional model is better suited to the war against corruption remains a debate for scholars and practitioners (Meagher, 2004; UNDP, 2005; Heilbrunn, 2004; Transparency International Georgia, 2014; Quah, 2009). But there are some insights: When corruption is systematic and endemic, a law enforcement model is likely to fit best; this insight is criticized due to its limited perspective (Fritzen & Basu, 2011). On the other hand, the practices show that many countries copy the model of other countries' ACAs, which has its own limitations. Despite their forms or models, according to the UNODC, "the most important advantage of establishing an anti-corruption agency is that it sends a strong signal to the citizens of the country that the government is committed to fighting corruption. However, this initial advantage erodes if the government does not demonstrate its commitment by providing sufficient legal powers and adequate human and financial resources with operational autonomy" (Toolkit, 2004, p. 90). All the above merits are meaningful if supported by the government to operate independently with possible resources for effective functions (Quah, 2009).

Over time, the forms and insights of corruption have been growing with advancements in technology and emerging or ever-growing human activities such as economic, political, social, etc. Corruption also perpetuates other forms of crime, such as drug trafficking, money laundering, and terrorist financing. At the same time, several ACAs have emerged around the world, accompanied by a large number of AC measures aimed at achieving state compliance with the standards set by regional and international conventions (Mauritius, 2018; Misra, 2016; Hijal-Moghrabi & Sabharwal, 2018; Kernaghan, 2003).

Designing and understanding anti-corruption policies, strategies, and SOPs are prerequisites for determining the reasons for performance failures and finding ways to amplify the effectiveness of AC work, policies, and strategies, which are now in the spotlight and have become a global issue (Mauritius, 2018; Odhiambo, 2016). In this regard, many scholars have been studying the driving factors of corruption, and they mostly mentioned socio-economic dimensions, legal and political systems, and economic levels. In turn, these factors are justified as the reasons for the differences in the countries approaches to eradicating corruption (Brusca, Manes, Rossi, & Aversano, 2018).Therefore, the International Monetary Fund, OECD, and World Bank provide advice and assistance to nations in improving their socio-economic, legal, and political systems as well as the accountability and transparency of their governments to combat corruption (Brusca et al., 2018).In addition, the African Union and the European Union, at the regional level, support and strengthen anti-corruption agencies in their continents (Fritzen & Dobel, 2018; Sutcliffe, 2003).

Despite various efforts, very few successful anti-corruption agencies exist (Ferreira & Morosini, 2013). The contributing factors to their successes are a strong legal framework, specialization, independence, adequate resources and power, productive coordination mechanisms, and, above all, governments political will, among others (Langbein & Sanabria, 2017; Gebre, 2016; Meagher & Voland, 2006; Quah, 2015; Doig, 2004; Osifo, 2012; Sebek, 2019; Demmke & Moilanen, 2011; De Sousa, 2010; Mauritius, 2018; Quah, 2008; Johnson et al., 2011; Badet et al., 2016; Cardona, 2015; UNDP, 2011; UNDP,2005; OECD,2008; AUCPCC, 2003).

To be exact, corruption in Ethiopia is an ancient phenomenon with a social and cultural background (Abeje et al., 2015, p. 340; Mesay, 2012, p. 7). Especially petty corruption existed in line with the introduction of the modern administrative system in Ethiopia (Tesfaye, 2007, p. 3). In this case, Ikola-Norrbacka, Salminen & Viinamaki (2010) point out that citizen participation in corrupt activities is one indicator of the severity of corruption in the country. Therefore, recognizing the depth of the problem, the government of Ethiopia began reforming the civil service in 1994 in response to the inefficiency and ineffectiveness of the public management systems. The reform consists of five programs, among which the ethics sub-program was designed to address the challenges of corruption and improve service delivery. Therefore, the FEACC was born out of this reform as an independent multi-purpose agency in 2001 (Arsema, 2010). On the eve of the birth of the FEACC, the first corruption perception survey was conducted by Addis Ababa University, and the findings showed that corruption is the major socio-economic problem of the country (AAU, 2001). Since then, the commission's establishment proclamation has been revised at different times. In 2015, corruption investigation and prosecution mandates were transferred to the federal police and the Attorney General (now the Minister of Justice) by the revised Proclamation No. 883/2015, and again this proclamation was amended in 2021. Currently, the commission is governed by Proclamation No. 1236/2021 to implement its corruption prevention mandate.

Some studies were also conducted by scholars on the effectiveness and capacity of the FEACC. The results reveal that the previous efforts of the commission have been challenged for a long time for several reasons, such as lack of independence and autonomy; lack of specialized staff; low public confidence; lack of cooperation with relevant bodies; inadequate resources; and an unclear mandate and functions to bring about the expected change in curbing corruption (Arsema, 2010; Biruk, 2016; Zemelak,

2017; Tewodros & Raymond, 2011; Rahman, 2018; Hasen, 2020*). The other studies conducted at different times also confirmed that,* despite the various efforts of the FEACC, corruption in Ethiopia remains a major problem (Selam Development Consultants, 2014; Transparency International, 2013 &2014; Transparency Ethiopia, 2008; Kilimanjaro, 2011). Therefore, in this research, the commission had not been effective at the input, outcome, and impact levels according to the theory of change (Leeuw & Vaessen, 2009). The input and activity stages need to be re-examined in this research. This research is unique in this context because it aimed to examine the existing practices' SOPs that are based on the new FEACC's amended Proclamation No. 1236/2021. Therefore, this research focused on the SOPs that can aid the FEACC in effectively implementing its specialized mandate and functions—the SOPs that enhance independence, ensure adequate budgeting, and facilitate coordination, cooperation, and information exchange within the commission and between various bodies.

**Research Question**

Are the existing anti-corruption standard operating procedures (SOPs) of the Federal Ethics and Anti-corruption Commission effective?

**The objective of the study**

To examine the effectiveness of the existing practices and standard operating procedures (SOPs) of the Federal Ethics and Anti-corruption Commission

**The Significance of the Research**

The findings of this research are significant in expanding the updated understanding of the existing practices and SOPs of the FEACC in line with the mandate and function given to the commission. It also draws lessons for the FEACC to learn from its own practices and closely observe the existing conditions. The recommendations of this research are also useful for the parliament, government, and stakeholders to take corrective measures. Finally, it is also a baseline for further research.

**Scope and Limitation of the Research**

Thematically, it focused on the FEACC's existing practices' SOPs under its mandates jurisdiction by operationalizing four themes. Geographically, it focused on the federal Anti-corruption Commission. Methodologically, it employed a qualitative case study design and was temporarily cross-sectional.

Regarding the limitation, this research focused on the internal working procedures of the commission based on four themes; however, there are also other external factors that contributed to the effectiveness of the commission in fighting corruption. In addition, there are also other bodies working on combating corruption other than the FEACC. Therefore, it would be left for further research.

**The dissertation chapters are organized as follows:**

The article comprises an introduction, a literature review, empirical results, a discussion, a conclusion, recommendations, and areas for further research.

**Review of the Literature**

**Anti-corruption Agency**

An anti-corruption agency is defined as "a separate, permanent agency whose primary function is to provide centralized leadership in core areas of anti-corruption activity." The latter include policy analysis and technical assistance in prevention, public outreach and information, monitoring, investigation, and prosecution" (Meagher, 2005). On the other hand, anti-corruption agencies are defined as an institution independent of the executive branch of government tasked with coordinating anti-corruption activities such as monitoring, redesigning, and providing corrective measures and feedback to develop and improve anti-corruption policies and strategies (Cardona, 2015). Therefore, the appropriate design of an anti-corruption agency and separating from the executive arm of government are very crucial for anti-corruption agencies' autonomy and independence, to guarantee their professional accountability, and to independently evaluate their performance permanently. On the other hand, weak anti-corruption design has resulted in poor and irrelevant anti-corruption efforts.

Anti-corruption agencies are commonly defined as permanent legal state bodies with a specific mission and corresponding preventive and/or law-enforcing functions to counter corruption and its underlying structures (Meagher, 2005, p. 70). This common definition is agreed upon by the United Nations Convention against Corruption (UNCAC) for anti-corruption agencies.

**Anti-corruption Institutional Models**

Anti-corruption agencies have adopted varying institutional models in their respective country contexts, with mandates assigned to them. This institution may broadly be divided into a) multipurpose agencies, b) law enforcement-type institutions, c) preventive policy development and coordination institutions, and the Parliamentary model (Quah, 2009; UNDP, 2005; Toolkit, 2004; OECD, 2008, p. 11). Therefore, currently, the FEACC of Ethiopia is implementing a preventive anti-corruption model.

**Multipurpose Agency Model**

This type of ACA is mandated for corruption prevention, investigation, and prosecution. In most cases, the prosecution mandate is preserved separately to ensure independence and maintain check and balance (Cardona, 2015).

**The Law enforcement type institutions**

This type of ACA is mandated for corruption investigation, prosecution, and detection. Either separately or combining these activities under a single anti-corruption specialized body. A prominent example of such a model is the National Authority for Investigation and Prosecution of Economic and Environmental Crime (NAIPEEC) of Norway (OECD, 2008).

This type of model mandates enforcing laws through investigation. This mandate overlaps with police tasks and the work of the financial audit. In these cases, some ACAs specify the area of their mandate. In principle, the defense of the public interest in a criminal

procedure is the responsibility of the public prosecutor. The victims of crime may also have standing rights, and it is unclear whether granting standing rights to an anti-corruption agency (ACA) in a criminal procedure would produce any added value. On the other hand, it could be useful to involve an ACA in order to pursue an accusation against presumably corrupt individuals in cases where the prosecutor has decided to dismiss the case on the basis of insufficient investigation (Cardona, 2015; OECD, 2008).

**Preventive, Policy Development, and Co-ordination Institutions**

The models of corruption prevention, policy development, and coordination frequently overlap (UNDP, 2005). But in this research, they are treated as separate The preventive ACA model has several functions, such as anti-corruption policy development, conducting research on corruption, training and advisory roles, anti-corruption coordination functions, and asset declaration, registration, and verification (OECD, 2008). In this case, the FEACC's existing mandate and function are corruption prevention from 2015 to now.

Anti-corruption prevention entails a detailed assessment of different segments of the administration, such as the procurement agency, corruption risk evaluation, and administrative procedure assessment. Moreover, the prevention of corruption includes ethics education, awareness-raising, and forming partnerships with various organizations (Cardona, 2015). In its preventive mandate, the Federal Ethics and Anti-corruption Commission of Ethiopia is mandated to study government organizations' operating procedures and the risks of corruption in prone areas such as tax authority, procurement agencies, and land administration, to name a few. The commission also plays an advisory role in different sectors and conducts training for different bodies. More importantly, corruption prevention aims to improve accountability, transparency, and effectiveness in the public sector. In other words, how reform is implemented in an effective way (UNDP, 2011).

Establishing independent anti-corruption bodies that attain the role of leadership by setting standards and scrutinizing performance has become an important feature of this decade (Head, 2012). Moreover, preventive anti-corruption agencies or specialized integrity agencies perform best in an environment in which transparency and accountability systems are adequately incorporated and the political elites are committed to these values. To be exact, over the last two decades, corruption and its control have become a central agenda item in the debate on good governance (Fritzen & Basu, 2011). Corruption control needs a specialized body that monitors and implements anti-corruption legislation. This body in different countries is supported and facilitated by international organizations such as the Council of Europe, the Organization for Economic Cooperation and Development, and the United Nations (OECD, 2008).

**International Best Practices Standards that Promote and Strengthen the Effectiveness of Anti-Corruption Agencies**

In addition to the most important criteria for establishing effective anti-corruption institutions, there are a number of factors that weaken or even disable the functioning of these bodies. Analysts of anti-corruption institutions around the world have identified a variety of reasons why many initiatives to establish and manage specialized anti-

corruption institutions fail. While the reasons vary in depth and length, they generally refer to a list of political, economic, governance, legal, organizational, performance, and public trust factors known as the "Seven Deadly Sins"(Doig, 2004). The Standards established throughout international conventions, regardless of professed organizational solutions, also define the eligibility criteria for more effective specialized anti-corruption bodies. As yardsticks, the United Nations (Article 6) and the Council of Europe's anti-corruption conventions (Article 20) define independence, specialization, adequate training, and resources (Šebek, 2019).

**The FEACC Anti-corruption Legal Framework**

The revised proclamation No. 1236/2021 is the legal basis for the operation of the commission and guides its corruption prevention activities. Therefore, regarding the issue of the independence of human resource practices, the commission's establishment proclamation No. 1236/2021 states that "the commission's employee recruitment and dismissal procedures are implemented in accordance with the general Civil Service Law, and "the Commission shall issue its own administrative rules in accordance with the principles of civil service personnel." Further, "it may be determined by a regulation to be enacted by the House of Representatives" (Revised FEACC Proclamation No. 1236/2021, 2021). On the other hand, in the appointment of the commissioners and protection, it states that the head of the FEACC shall be suggested by the Prime Minister, appointed by the House of People's Representatives, and not dismissed from office. Unless otherwise specified by his/her interest, low performance, unfitness for the position, unethical issue, or sickness/health problems, the term of service is six years (FEACC Proclamation No. 1236/2021). Therefore, the Commission's new proclamation provides for the protection of commissioners from unlawful dismissal as well as for the appointment and disciplinary action, duration, and impartiality of the appointment. In addition, under Article 4, it is clearly stated that the Commission shall be free from the interference of any person or entity (FEACC Proclamation No. 1236, 2021).

In terms of financial independence, the commission's establishment proclamation No. 1236/2021 states that the commission has the mandate to prepare its annual budget that is approved by the House of People's Representatives and funded by the ministry of finance (Revised FEACC Proclamation No. 1236, 2021).

Regarding the issue of the commission's budget, the commission prepares the annual budget based on a performance budgeting system, as per Proclamation No. 1236/2021, by adding 15% to the previous amount. The commission's required budget is submitted to the House of Representatives for approval before being funded by the Ministry of Finance in accordance with formal procedures. A budget preparation procedure manual was developed by the Ministry of Finance and used by all institutions.

Interms of the Power Granted to the Commission: The Proclamation No. 1236/2021 gives the following powers to the commission: to prepare national policy and strategy; Study working procedures in public organizations and report if any impropriety is observed. While studying the procedure, send it to an organ with the power to investigate and prosecute. Declaration and registration of the assets of public officials creating a system to prevent conflicts of interest and establishing and implementing a system of awards for successful individuals and organizations that fight corruption based on competition Prepare a code of conduct for elected officials and employees. Conduct a study on

corruption risk assessment. Organize mass media organizations that would help to enhance ethics and corruption prevention in public organizations, enterprises, and educational institutions. Follow up and ensure the respect of anti-corruption laws, and give consulting services on their implementation. Organize, assign, and deploy ethics liaison officers in public organizations and enterprises. Coordination and technical assistance for regional anti-corruption commissions. The commission also has the power to represent the country and to liaise and cooperate with national, continental, and international organizations (Revised FEACC Proclamation 1236/2021, pp. 12991–12993).

Regarding the issue of cooperation and coordination, the proclamation, under Article 7, stated that "the Commission shall establish relations and cooperation on behalf of the country with national, regional, and international bodies with similar objectives." Furthermore, the commission represents the country on the anti-corruption agenda (Revised FEACC Proclamation No. 1236/2021).

## Mechanisms Designed to Enhance the Performance of Anti-corruption Agencies in Anti-corruption Drive

### Specialization

Specialized skills and a clear mandate to combat corruption are required for specialization. It refers to an agency's specific mandate, focus, and professional staff with specific skills (Cardona, 2015; Šebek, 2019; OECD, 2008; UNCAC, 2003; AUCAC, 2003; Babu, 2006). In this regard, identifying their mandate's jurisdiction, defining the scope, and eliminating mandate overlap and duplication are crucial for anti-corruption agencies' success (UNCAC 2nd & Harutyunyan, 2003; Mauritius, 2018).

### Independence

In practice, independence includes freedom from any interference (Cardona, 2015; Mauritius, 2018). There are at least three categories of independence in the ACA context. They are organizational, financial, and professional. In general terms, the independence of the ACA is about adjudicating corruption offenses freely without any favor or terror, implementing recruitment and selection processes of staff without interference, and enjoying full freedom in discharging their mandate with confidence, which can contribute to the effectiveness of anti-corruption agencies (Transparency International, 2017).

### Adequate resources and power

In this context, adequate resources include human training and development investment. In addition, the ACAs must have sufficient power, capacities, resources, and modern methods to implement their specialized functions (Šebek, 2019; OECD, 2008; UNCAC, 2003).

### Coordination and Cooperation with various Bodies

In anti-corruption activities, cooperation and coordination have paramount significance for the effectiveness and success of ACAs. Anti-corruption agencies typically coordinate anti-corruption activities at the national level and mainly collaborate with the police, the attorney general, public prosecution bodies, the judiciary, audit offices, and others for the

same (Mauritius, 2018). In addition, international and regional cooperation is unquestionably essential for ACAs. In this framework, UNCAC Article 43 advocates cooperation at the international level for experience sharing (Toolkit, 2004). The empirical studies on successful ACAs also reveal how cooperation, experience sharing, and knowledge transmission significantly contribute to institutional capacity enhancement by referring to the countries that successfully fight corruption, such as Singapore (Angeltan, 2020; Mauritius, 2018; Quah, 2008; Mungiu-Pippidi, 2015).

**Theoretical Literature**

The Theory of Change (ToC) is a multi-purpose tool that can be applied to planning, managing, monitoring, and evaluating research, especially change-oriented research (Akca, 2021). White (2009) defines the ToC as a method for improving the processes of project design, implementation, and evaluation. It is a tool used to model how short-term changes lead to long-term impacts. The ToC methodology was developed to explore behaviors and outcomes that are not easily measurable, so it is well-suited for anti-corruption organizations. Funnell & Rogers (2011) and Johnsøn (2012) comment that the ToC can be helpful for policy architects and evaluators in the anti-corruption field.

The five components of a theory of change are inputs, activities, outputs, outcomes, and impact (Rogers, 2014). An anti-corruption agency's "effectiveness" would be assessed by comparing its internal processes, outputs, and resources against those of other ACAs. Such measures aren't based on corruption levels being measured (Johnsøn, Hechler, De Sousa, & Mathisen, 2011). The indicators are divided into categories based on the basic functions that ACAs usually perform, including general management (organizational strategy, standard operating procedures, internal monitoring mechanisms, reporting procedures, and the standardization of work processes through documentation and guidance (manuals, handbooks); knowledge production, management, and dissemination; law enforcement; corruption prevention; and inter-agency cooperation (Johnsøn et al., 2011; Vogel, 2012). The assessment of an organization's capacity includes an analysis of its systems and management processes, as well as its financial, human, and other resources (Lusthaus, Anderson, & Murphy, 1995). The adequacy of inputs and the effective activities of ACAs determine the expected change, which is comprised of outcomes and impacts according to the principles of the ToC.

**Empirical Literature**

The success stories of anti-corruption agencies have different features. Some countries transform their states from ones of systematic corruption to ones of the cleanest over time. In this regard, Singapore can be an example. Others have experienced democratic culture for over a century, particularly in European countries such as Norway (Mungiu-Pippidi, 2015). Therefore, some success stories in fighting corruption rely on the evolution of democratic values over the centuries, which resulted in a vibrant civil society that respects the law (Johnston, 2014). To be exact, Singapore established the Corrupt Practices Investigation Bureau (CPIB), which is a strong and independent law enforcement agency to curb corruption, by adopting the Corruption Prevention Act in 1960 with sound policy and political support (Fritzen & Dobel, 2018). In this case, corruption is controlled in an undemocratic culture, and Singapore gradually builds the capacity of the CPIB by mandating the institution both corruption prevention and investigation missions. On the other hand, the last decade also witnessed the emergence of countries with success stories

in fighting corruption through demonstrating political commitment and policy reforms towards good governance (Rotberg, 2017). In this regard, Rwanda could be the best example of an African country.

In addition, the OECD, the AU, the SADC, and others have demonstrated their commitment to responding to corruption. Despite their efforts, corruption remains a global issue, endangering humanity and economic development, particularly in developing countries (GPAD, 2016; Toolkit, 2004; Šebek, 2019). On the other hand, international organizations such as the IMF and World Bank give due attention to good governance as a strategy to fight corruption, particularly in developing countries. Most successful nations make this move. However, these international organizations do not identify everything for each country. Working on specific issues such as the structure and feasibility of an anti-corruption program is the responsibility of the country. Adopting feasible and appropriate lessons from best practices and contextualizing them continues to be a problem for developing countries (Khan, 2006). Moreover, establishing anti-corruption bodies in particular countries has been advocated as a solution to effectively curbing corruption. But the success of these countries doesn't work for other countries (Mauritius, 2018).

Nowadays, fostering a conducive environment is acknowledged as a means of improving the effectiveness of the war against corruption. The effectiveness of anti-corruption agencies strongly relies on what UNDOC calls an "enabling environment" (UNDP, 2011). It includes a clear legal framework, political support, mandate clarity, availability of resources (human and financial), institutional design, an anti-corruption coordination system, and the level of organizational independence (Mauritius, 2018). Moreover, an "enabling environment" can be expressed by: civil servants' salaries and staff management structure; a corrupt-free prosecution authority and judiciary; a more efficient, transparent, and accountable public administration; freedom of the media to expose corruption; and support of the public and civil society (9th International Anti-Corruption Conference, 1999).

In addition to the most important criteria for establishing effective anti-corruption institutions, there are a number of factors that weaken or even disable the functioning of these bodies. Analysts of anti-corruption institutions around the world have identified a variety of reasons why many initiatives to establish and manage specialized anti-corruption institutions fail. While the reasons vary in depth and length, they generally refer to a list of political, economic, governance, legal, organizational, performance, and public trust factors known as the "Seven Deadly Sins"(Doig, 2004). Standards established throughout international conventions, regardless of professed organizational solutions, also define the eligibility criteria for more effective specialized anti-corruption bodies. As yardsticks, the United Nations (Article 6) and the Council of Europe's anti-corruption conventions (Article 20) define independence, specialization, adequate training, and resources (Šebek, 2019).

Various research has been conducted by scholars and practitioners in order to search for effective ways to eradicate corruption. In this case, the anti-corruption practitioners and experts agreed on the factors that contributed to the effectiveness of ACAs, based on the Jakarta Statement, the "Principles for Anti-Corruption Agencies," as well as the Paris Principles. The factors include the permanence of the ACAs; functional and financial independence and autonomy; a clear mandate to fight corruption; the power to recruit and dismiss according to clear and transparent procedures; internal accountability and

professionalism; and the neutrality and security of staff and any person who helps the agency (Langbein & Sanabria, 2017; Gebre, 2016; Meagher & Voland, 2006; Quah, 2015; Badet et al., 2016). In addition, international and regional anti-corruption conventions also set the measures that can be taken by the member state. For example, the UNCAC and AUCPCC stated that member states are required to create special bodies within their legal systems that are dedicated to the prevention of corruption. It further urges each state party to grant these bodies the necessary independence in accordance with the fundamental principles of its legal system to enable the bodies to carry out their functions effectively and free from any undue influence. Article 5 of the AUCPCC includes a similar obligation for African states, making it mandatory for them to create anti-corruption agencies. It explains that national agencies responsible for combating corruption and other related offences must enjoy the necessary independence and autonomy, enabling them to carry out their duties effectively (UNDP, 2005; OECD, 2008; AUCPCC, 2003; UNCAC, 2003).

Therefore, from the analysis of the global literature, the research concludes that, despite various efforts, very few successful anti-corruption agencies exist. The factors for their successes are, among others, a strong legal framework, their specialization, independence, and autonomy, adequate resources and power, productive coordination mechanisms, and, above all, government political will.

**Conceptual Framework of the Research**
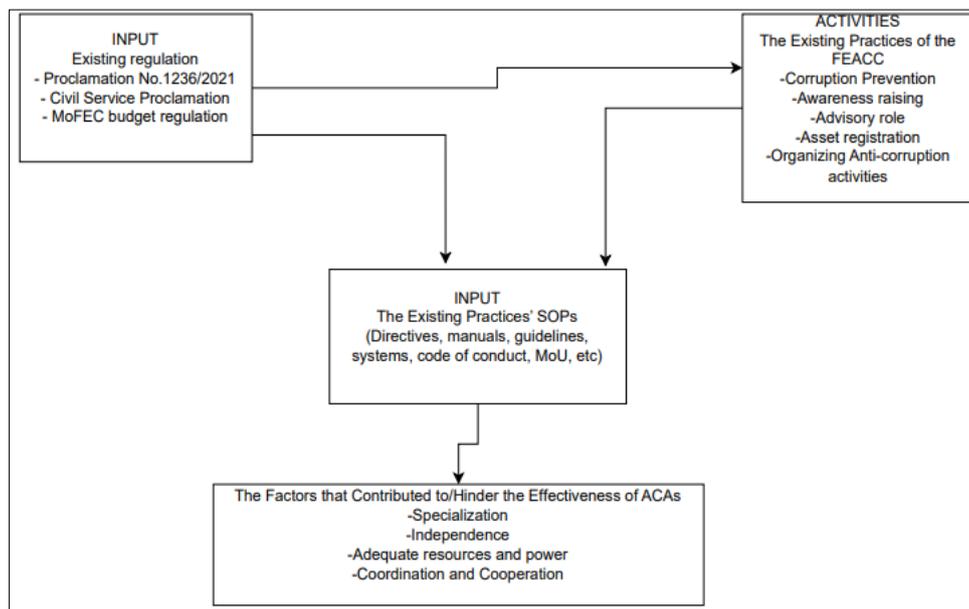


Source: Researcher's own compilation

**Research Methodology**

A qualitative approach and case study design were used. For this research, 20 respondents were purposefully selected based on their official positions, including directors, corruption prevention officers, ethics trainers and consultants, HRM officers, general service officers, ethics liaison officers, ethics infrastructure officers, asset registration officers, researchers, and IT specialists who have been directly involved in the development of anti-corruption SOPs. They were selected in collaboration with the director of training and research based on a pre-established interview guide of this research, the consent was built, and, finally,

the interview questions with all relevant information were sent to the above-mentioned experts through their respective e-mail. According to Kim et al. (2003), e-mail interviews can be potentially appropriate if the issue under investigation is sensitive, like corruption. On the other hand, qualitative researchers decided on a sampling plan and determined the sample size based on their own estimation and judgement (Moser & Korstjens, 2018). As a rule of thumb, the sample size for qualitative research must not be either too small or too large in order to attain theoretical saturation, informational redundancy, data saturation, or make it difficult to carry out a "deep, case-oriented analysis" (Onwuegbuzie & Collins, 2007).

Furthermore, expert interviews are frequently combined with other data sources, such as documents. The aim of using multiple sources of data is to triangulate the sources; in this case, data obtained from documents was cross-checked with the responses of experts. Therefore, this strategy can correct the weakness of a single data source over another. In this case, the validity and reliability of research findings are strengthened (Tansey, 2007). Conducting interviews with experts can therefore confirm the accuracy of the information that has previously been collected from other sources (Robinson, 2014; Tansey, 2007).

The documents were the FEACC's revised proclamation, the civil service proclamation, the FEACC's annual reports, operational documents, strategic plan. In addition, social media platforms (the FEACC's official Facebook), the FEACC's official website, and broadcast media (TV) were accessed to get relevant data for this research and supplement the evidence in the document (triangulated) to attain data saturation and data triangulation. In this case, Seixas, Smith, & Mitton (2018) stated that when the research is about government policy, the sources of data must be government operational documents and expert interviews to construct and reconstruct the reality. In addition, social media platforms such as Facebook and Twitter are becoming popular tools for data collection and an essential source of data, providing researchers with a huge opportunity with the responsibility to ensure the highest ethical standards (Bright, Margetts, & Yasseri, 2014; Townsend & Wallace, 2016, p. 3). Therefore, the FEACC's social media data was accessed with the consent of the commission.

Methodological triangulation provides sufficient, enriched, and in-depth evidence (data) from multiple sources (Denzin, 2012; Bryman, 2012). It is data saturation that is essential to all types of research (Bekhet & Zauszniewski, 2012). Finally, data collected from broadcast media was transcribed, the e-mail interview data was translated from Amharic to English, and all the data was processed using Atlas.ti.9 and thematically analyzed by the researcher. In this case, the advantage of e-mail interviewing is that data transcription occurs while the respondents answer the questions in textual formats (Connor, 2006; Thurlow, Lengel, & Tomic, 2004).

**Empirical Results and Discussion**

The necessary legal framework is, above all, a very crucial element in the establishment and functioning of anti-corruption agencies. Furthermore, the ability to regulate and maintain its power and function is critical to its success (Odhiambo, 2016). To be exact,

ACAs should have a clear legal basis governing the following areas: mandate; appointment and removals of HR, including agency heads; internal structure; their budget; relationships with other institutions (in particular with law enforcement and financial control bodies); accountability and reporting procedures; etc. (OECD, 2008, p. 25). Furthermore, countries adopted regional and international anti-corruption instruments in their legal systems to fight corruption. Nevertheless, these legal frameworks are insufficient to fight and control corruption effectively. Further, SOPs/ mechanisms need to be put in place to secure the necessary funding and resources to implement anti-corruption legislation and train the people managing the anti-corruption institutions (Odhiambo, 2016). Therefore, the next section examines the SOPs designed by the commission to implement its mandate.

The Table shows the themes and its indicators of this research

| Themes | Indicators |
|---|---|
| Specialization: Mandate and Functions | The clarity and competence of the commission's mandate; the SOPs developed for specialised functions; the SOPs for communicating the commission's vision and mission. |
| Specialization: Specific Expertise, Knowledge, and Skill | SOPs for HR practices; the SOPs for staff training and development. |
| Independence: Organizational, Financial, and Functional | The independence of HR practices; the procedure that protects the commissioner's and experts' independence; the SOPs that contributed to the independence of the commission. |
| Adequate Resources and Power | The SOPs for the commission budgeting; the SOPs for employee salary, benefits, and stability; the SOPs for employee training and development expenditure; the power granted to the commission. |
| Coordination, Cooperation, and Information Exchange | The SOPs for coordinating anti-corruption activities, cooperating with, and exchanging information with various bodies. |
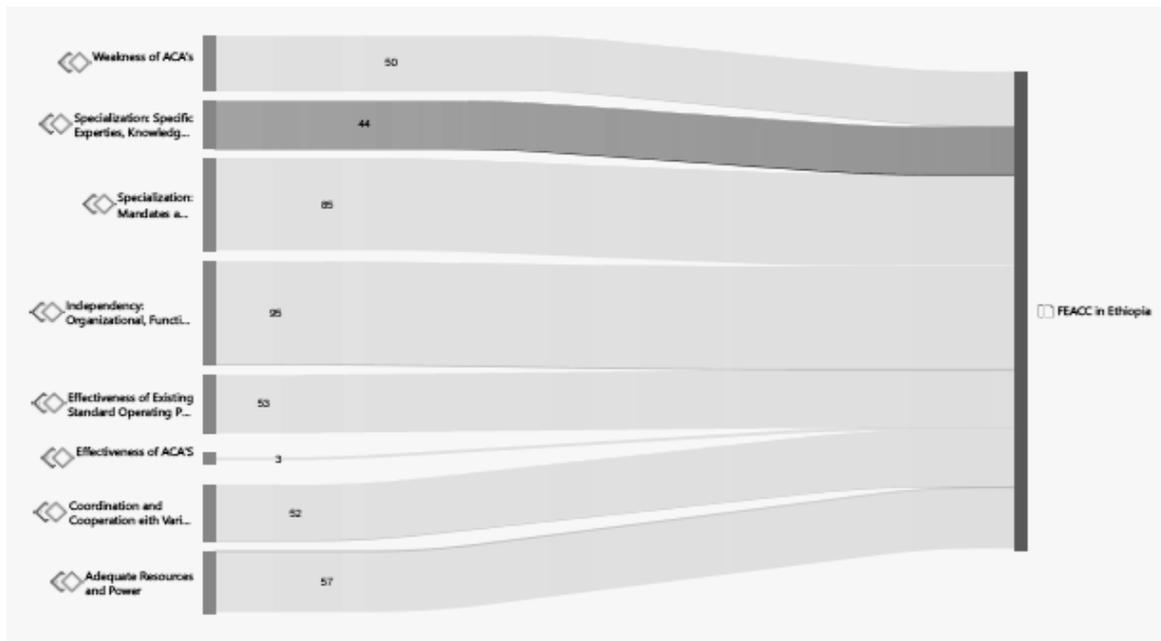
Themes: Organized by Atlas t.i.9

**The Effectiveness of the Existing Standard Operating Procedures of the Federal Ethics and Anti-Corruption Commission**

The objective of this research was to examine the effectiveness of existing anti-corruption practices' SOPs of the FEACC. Therefore, it was examined through the theory of change by emphasizing the inputs and activity levels. In this connection, Johnsøn et al. (2011) stated that the "effectiveness" of an anti-corruption agency would be evaluated by assessing internal processes, and resources used.

Specialization: Mandates and Functions: The FEACC's existing mandate overlaps and needs a more legal framework that fits its mission to combat corruption in the country. However, with this limited mandate, the proclamation No. 1236/2021 stated that the commission represents the country on the anti-corruption agenda (Revised FEACC Proclamation No. 1236/2021). The commission's existing roles and mandate overlap with those of other bodies, such as general audits and the federal police, in receiving corruption reports, among others. In the overlapping areas, the commission lacks strong, clear, and specific SOPs that delineate the roles and coordinate them together. In this case, the literature and anti-corruption convention stated that defining the scope and eliminating mandate overlaps and duplications are crucial for anti-corruption agencies' success (UNCAC 2nd & Harutyunyan, 2003; Mauritius, 2018). However, as a strong point, the commission developed various SOPs for its activities (directives and guidelines, organizational structure, the strategic plan, and management tools (BPR and BSC)). Additionally. It also communicates its mission to various bodies through printed media (the anti-corruption Gazzetta), electronic media (websites, Facebook, Twitter, Youtube, the online asset registration system (DARS), and e-mail for reporting corruption), brochures, pamphlets, magazines, meetings, reports, radio, TV, awarding, the school ethics club, a student Q&A competition, etc.

Specialization: Specific Expertise, Knowledge, and Skill: The commission's human resource management (HRM) practices are based on hard documents and manuals

(directives and guidelines) that are subject to manipulation and limited in addressing the human capital market in HR staffing and lack training gap assessment SOPs, especially in short-term training. Moreover, the commission's HR practices lack identity with other civil service institutions as a specialized agency. In this regard, anti-corruption conventions and the literature recommend that ACAs need to have professional staff with specific skills as specialized agencies (Cardona, 2015; Šebek, 2019; OECD, 2008; UNCAC, 2003; AUCAC, 2003; Babu, 2006).

Independence: The research found the factors that hinder the independence of the commission are: the HR practices that are subject to interference and manipulation; the existing practice for the dismissal of the commissioners lacks transparency and violates the commission's establishing proclamation; or there is no concrete evidence for their dismissal; it is currently accountable to the executive; and it lacks SOPs that enhance experts' professional freedom. In this case, the proclamation No. 1236/2021 stated that the commissioners are not dismissed from their offices. Unless otherwise specified by his/her interest, low performance, unfitness for the position, unethical issue, or sickness/health problems, the term of service is six years. Additionally, under Article 4, it is clearly stated that the Commission shall be free from the interference of any person or entity (Proclamation No. 1236/2021). Therefore, this finding reveals that the existing practice of the commission contradicts the above proclamation and the principles of the ACA's independence. It states that the independence of the ACA is about fighting corruption offences freely without any favour or terror, implementing recruitment processes of staff without interference, and enjoying full freedom in discharging their mandate with confidence, which can contribute to the effectiveness of anti-corruption agencies (Transparency International, 2017).

Adequate Resources and Power: The FEACC budgeting procedures are implemented in accordance with its proclamation No. 1236/2021 and the budgeting regulations of the Ministry of Finance; therefore, they are more or less similar to those of other federal public institutions. The commission's existing salary scale is low, with no benefit packages. Therefore, there is a high human resource turnover rate; in this case, the commission lacks an employee retention strategy. In addition, the commission's short-term staff training budgets lack a standard procedure for need assessment that questions the efficiency and effectiveness of the human capital investment. On the other hand, the existing powers granted to the commission by Proclamation No. 1236/2021 are one-dimensional (it lacks a law enforcement wing) and do not fit into the mission of ACAs. In this regard, the anti-corruption convention recommended that ACAs have sufficient power, resources, and procedures to implement their specialized functions (Šebek, 2019; OECD, 2008; UNCAC, 2003).

Coordination, cooperation, and information exchange: The FEACC's existing practices for coordination, cooperation, and exchanging information between various bodies are not adequate and lack written, clear, and effective SOPs, especially with the Federal Police and Attorney General (Ministry of Justice), which are mandated to fight corruption. In this regard, the commission's proclamation, under Article 7, stated that "the Commission shall establish relations and cooperation on behalf of the country with national, regional, and international bodies with similar objectives. However, it closely works with national and international bodies by signing a MoU, but the commission has a limited infrastructure for exchanging information.

The research found that the FEACC's existing regulations and SOPs are ineffective in operating its specialized functions: promoting specialization, including expertise and knowledge, promoting the commission's independence, and coordinating anti-corruption activities. In other words, with reference to the ToC, the commission is not effective at input and activity levels (Leeuw and Vaessen 2009). In general, the findings of this research support Heilbrunn's (2004) findings that pointed out that "lack of coherent strategy, political commitment, cooperation, coordination, and independence of anti-corruption agencies (ACAs) is widely regarded as the primary cause of failure in implementing their mandate." In addition, the previous research conducted on the effectiveness of the commission also reveals that the effectiveness of the commission is challenged due to a lack of independence and autonomy; a lack of specialized staff; low public confidence; a lack of cooperation; inadequate resources; and an unclear mandate and functions to bring about the expected change in curbing corruption (Arsema, 2010; Biruk, 2016; Zemelak, 2017; Tewodros & Raymond, 2011; Hasen, 2020; & Rahman, 2018). To be exact, the previous study by Arsema (2010) revealed that deficiencies in recruitment and training procedures led to a shortage of qualified staff. Therefore, the commission's existing inputs (legal provisions, mandate, functions, and operating SOPs) are not adequate and effective to manage anti-corruption work at a national level.

**Conclusion**

The research concludes that even though the FEACC recently developed some SOPs, such as the anti-corruption Gazette, a Twitter page, a Youtube channel, the online asset registration system (DARS), and an email for reporting corruption, the procedure for awarding honest individuals and organizations. The existing SOPs are not adequate and effective according to the ToC principles; the inadequacy of inputs and the lack of effective SOPs for its activities hinder the realization of the expected result.

In terms of the legal framework and specialization, the FEACC's existing mandate and functions are mainly based on the revised Proclamation No. 1236/2021. Therefore, the research found that the FEACC has some legal documents and SOPs for its activities (preventing corruption). However, there is a challenge in the clarity and competence of the mandate and functions: overlapping areas have no strong, clear, and specific SOPs to delineate the roles and coordinate them, and the commission lacks identity in different ways as a specialized agency. In this case, Proclamation No. 1236/2021 states that "the commission's employee recruitment and dismissal procedures are implemented in accordance with the general Civil Service Law. On the other hand, the commission's HRM practices are based on manual documents (directives, guidelines) that can be manipulated or corrupted and cannot address the human capital market in HR staffing; the commission lacks a standardized skill gap assessment SOP for staff training; the commissioners' dismissal procedure is not transparent (the practice is contrary to the commission's establishment proclamation); and the commission is currently accountable to the executive. The procedures for coordinating and exchanging information within the commission and between various bodies lack clear and effective SOPs. More importantly, the existing practice in cooperation with the Federal Police and the Attorney General (Ministry of Justice) lacks effective SOPs; the research identified this as a fundamental challenge. Because these bodies are responsible for investigating and prosecuting corruption cases.

## Recommendation

Based on the findings, the researcher recommends the following issues for the betterment of anti-corruption efforts in Ethiopia to the parliament, the government, and the FEACC:
The parliament should enact more legislation that gives additional power to the commission as a specialized agency and the legal provisions that ensure its independence at organizational, functional, financial, and expert levels, and the parliament should influence the government to improve existing practices.

The government of Ethiopia needs to protect the independence of the commission, both financial and functional, and the government should improve the budget of the commission, including the salary scale and the benefit packages of the FEACC employees. The FEACC needs to develop more effective standard operating procedures (SOPs) that can help implement its activities clearly and effectively. In the areas of expert capacity development, coordination, cooperation, and the channels of information exchange with citizens, stakeholders, and public and private organizations; and the SOPs for human resource practices such as e-recruitment SOPs.

## Implication and Future Research

This research has practical and theoretical contributions. The research contributes to knowledge by expanding the updated understanding of the existing practices' SOPs of the FEACC. Practically, the research assists practitioners and policymakers in closely observing the existing practices in FEACC. Finally, the research also contributed to further research on the topic.

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**Declaration of interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**The Statement of Conflict of Interest**

Title of the Manuscript: The Federal Ethics and Anti-corruption Commission of Ethiopia's Existing Practices' Standard Operating Procedures The authors whose names are listed immediately below certify that they have NO affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest (such as personal or professional relationships, affiliations, knowledge, or beliefs) in the subject matter or materials discussed in this manuscript.

# Influence of Digital Media Platform Usage among Young Educators

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## Abstract

Today, the influence of digital Media platforms is huge. Media literacy, which is taught by teachers, plays an important role in developing students' media literacy skills. This paper focuses on the influence of digital media platforms and media literacy among young educators. The study samples are trainees from post-diploma programs in multimedia art (education) (PGDMA) and young teachers from Yangon University of Education, Myanmar. The youth educators participating in this study are those who will teach students digital literacy in practice. 173 young educators participated in this study. The instrument of this study was a questionnaire and interviews. According to the observations, most educators use digital platforms and spend most of their time on the internet. This paper reveals which digital platforms they choose the most and how much time they spend on them per day. In addition, the study includes how they select the types of channels they use the most and how they consider all implications before sharing posts. The interviews focused on how to reduce misinformation on social media by educators and received a lot of feedback. The different conceptual responses are described in this paper. Overall, it has been found that young educators have basic ideas about digital literacy, but it is necessary to put them into practice. So, young educators should learn not only how to use the digital platform but also media literacy. Moreover, they should continuously practice digital transformation themselves. Only then will they be able to effectively share their knowledge and experiences with students.

**Keywords:** digital media platform, media literacy, young educators

## Introduction

Today, the evolution of advanced technologies such as artificial intelligence, machine learning, cloud computing, and analytics is playing an important role in digital platform marketing. A digital platform is a software-based online infrastructure. It refers to the software or hardware of a website that allows for the interaction of its users (Parker et al., 2016). Digital platforms can also combine several of these features, such as when a social media platform enables both information searching and matchmaking between users (Cusumano et al., 2019).Digital literacy is the ability to find, evaluate, and communicate information by utilizing digital media platforms. It is defined as the "ability to understand, analyze, evaluate, and create media messages"(Austin et al., 2006). Digital literacy does not replace traditional methods of interpreting information; it extends the basic skills of these traditional literacies (Jenkins & Henry 2009). The main feature of the 21st century is a media-saturated culture and easy access to different types of media for everyone, especially children and teenagers (Wan G & Gut DM. 2008). Media literacy education is important nowadays.

Media literacy empowers students to interact with information and become digital creators. It serves to develop critical thinking skills and provides a tool to examine and explore diversity issues. The teaching of media literacy is to prepare students for the

present and future. Media literacy educators have also turned to social media platforms to communicate and share ideas with one another (Greenhow et al., 2016). They can help students identify misinformation, combat fake news, and engage with the media responsibly. These skills are valuable not only in academics but also in the students' personal lives. Therefore, the fundamental media literacy skills of multimedia teachers are important.

## Digital usage in Myanmar

In Myanmar, the Internet has been accessible since 2000. Most Myanmar people were not interested in using the internet in the early days. They have gradually become interested in the internet since 2014–2015. During the COVID crisis, people were staying at home and spending more time online. They used online applications for various fields such as education, games, sales, work, banking, etc. There were 23.93 million internet users in Myanmar at the start of 2023, when internet penetration stood at 44.0 percent (Simon Kemp., 2023). Now, they prefer to use digital. Today, e-government, e-education, online sales, and online banking are widely used in Myanmar.

According to the January 2022 Data Report, nearly 26 million internet users were found in Myanmar. 45.9 % of the total population used the internet. The popular websites are Microsoft Office, Roblox, Mangago, Seesaw, Channel Myanmar, Spotify, VOA News, Messenger, Google, and Channel News Asia. From Myanmar mobile app statistics, the top mobile apps are Telegram, Viber, Facebook, My ID, Mytel Pay, KBZ Pay, Wave Pay, Siphon, TikTok, AYA Pay Wallet, and Facebook Lite [9]. Currently, social media is more popular online than any other app. The Myanmar citizens uses social media to access the latest news. However, offline media is also playing an important role in local marketing in Myanmar (Wira Madjid 2021).

## Post Graduate Diploma in Multimedia Art (Education) training in Yangon University of Education

The Post Graduate Diploma in Multimedia Art (Education) Training (PGDMA) has already been opened for 21 batches at Yangon University of Education. This is a ten-month course for those who have obtained their first degree and want to join the school system. There are three modules included in this course. Module 1 is the basic course on computer systems, hardware, and Microsoft Office. Module 2 is the fundamental course in computer software, multimedia, computer networks, and administration. Module 3 is the specialization courses and pedagogies for the advanced course in multimedia and education management information system (EMIS) development. After the course, they will get a diploma and have the opportunity to work at the school as multimedia teachers. That's why their perspectives on Media Literacy are important. Moreover, it is important that their attitudes be good and smart.

## Purpose of this study

The purpose of this paper is to explore the influence of digital platform usage and promote media literacy awareness among young educators.

**Methodology**

The young educators are necessary to teach students to be media literate. So, their perspectives on media literacy are important. This paper used data based on surveys and interviews. The survey questionnaire examined digital platform usage and media literacy among young educators. ICT team members from Yangon University of Education facilitate interviews with participants. The study consisted of eight items.

- Which digital platforms do they select the most?
- Do they believe that digital platforms offer enormous benefits?
- How much time is spent on digital platform per day?
- What types of channels do they select to use?
- Have you ever thought about who created a post before sharing it?
- Why create a post on social media?
- Why are you spending your free time on digital platform?
- How to reduce disinformation on social media?

Items 1 to 6 were assessed by questionnaire, and items 7 and 8 were examined through informal interviews. This study mainly focused on young educators. They are the trainees from the Post-Diploma in Multimedia Art (Education) program and young teachers from Yangon University of Education. The trainees who took the PGDMA (Education) training courses in the 2022–2023 academic year participated in this study.

The references were published papers and Internet articles related to this study.

**Findings and Discussion**

This section illustrates the survey data and discusses observations based on them. 173 young educators participated in this survey and gave some suggestions. They are 82% female teachers and 18% male teachers. 50.8% of participants' age range was 20 to 25, 25 to 30 was 37.5%, and 31 and above was 12.5%. The education level of the participants was 48.3% bachelor's degree, 57.8% postgraduate diploma, and 2.3% others.
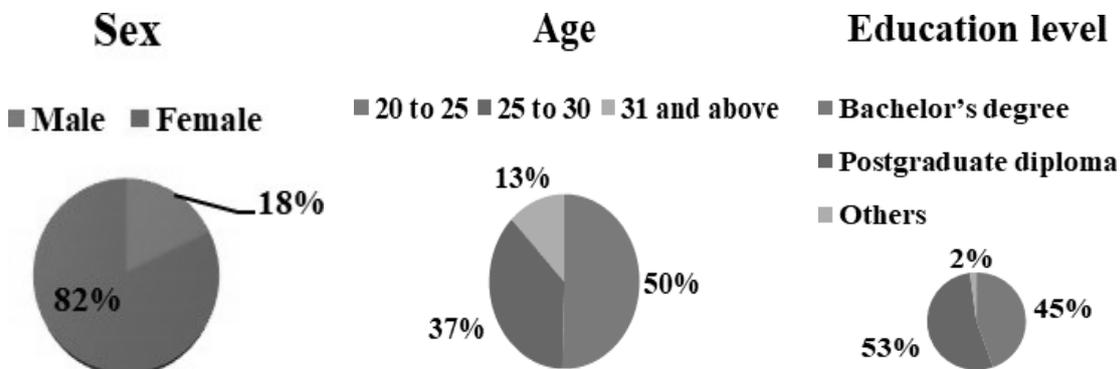


**Which digital platforms do they select the most?**

Millions of people around the world, including in Southeast Asian countries, have used digital media platforms. Southeast Asia is one of the largest regional social media users

globally (Wira, 2021). At first, which platform participants preferred to use was discussed.173participants responded this item.

According to survey data, they use Facebook (80.2%), YouTube (12.1%), Instagram (1.2%), Messenger (2.5%), and TikTok (3.1%). They make less use of WhatsApp, Twitter, and Signal platforms. It has been found that most of them prefer to use the Facebook platform. Today, Facebook is the biggest and most popular platform on which people tend to share information regularly. The same can be used for educational purposes as well. By creating a group on Facebook, students can exchange information with their peers.

However, educators need to realize that individual preferences and reasons for liking Facebook can vary widely among users, and this platform may change over time. Moreover, they need to share this awareness with their students.
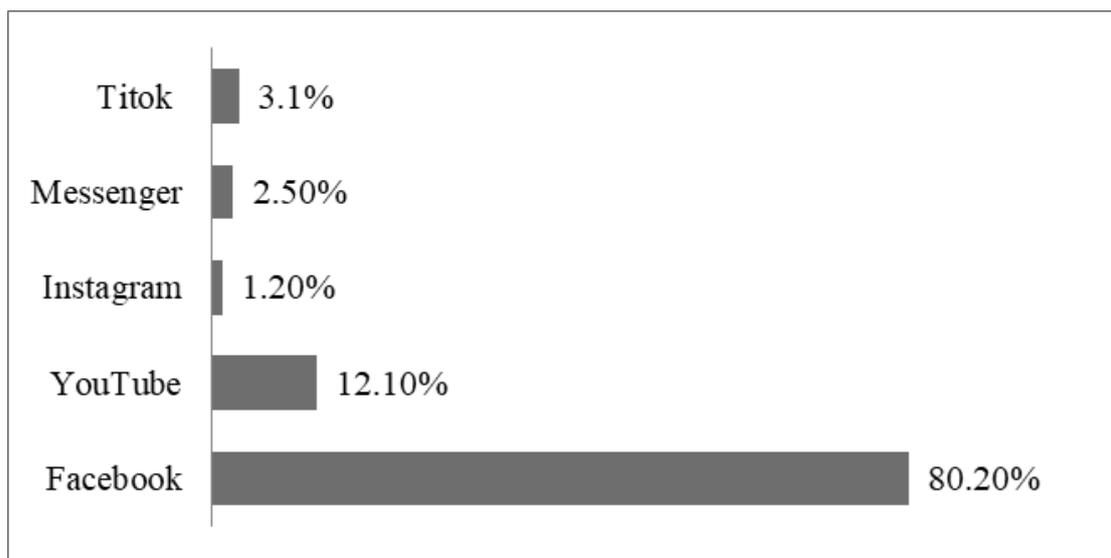


Figure 1: Percentage of choice of digital platforms

**Do they believe that digital platforms offer enormous benefits?**

In the second part, the survey examines young educators' acceptance that digital platforms offer many benefits. 170 participants responded this item. From the results, 57.6% agree 9.4% strongly agree and 30% were neutral. Two-thirds of participants (67%) agreed that digital platforms offer significant benefits. But, other participants did not 100% agree that digital platforms offer many benefits.

Digital platforms offer many advantages but also many disadvantages. Young people should not trust all information from digital media. There is a lot of fake news and misinformation online. Therefore, it's important to consider and address potential challenges. Young educators need to apply and understand the rules responsibly. Moreover, they need to teach media literacy to their students.
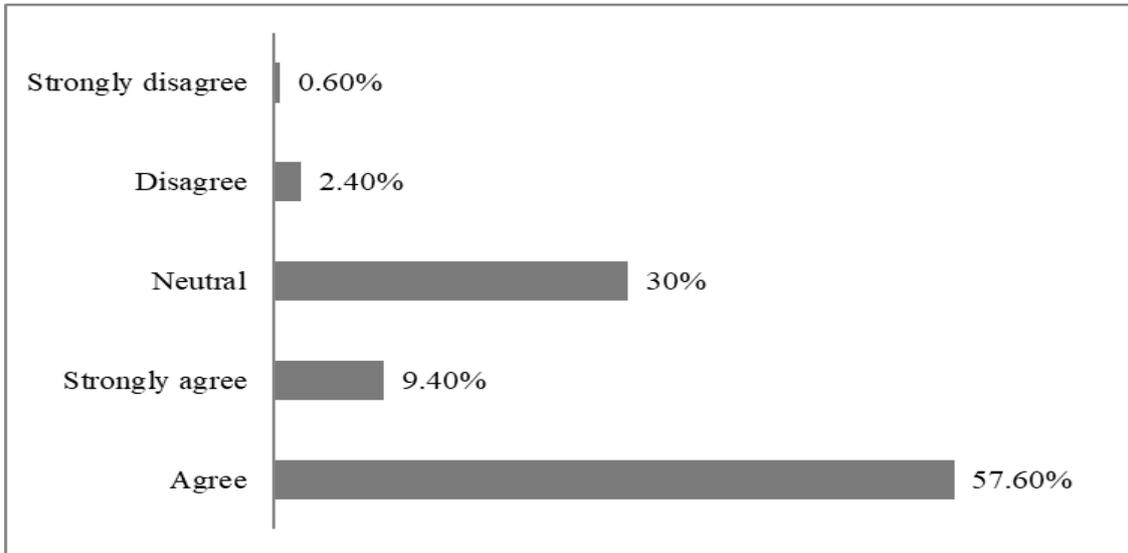
Figure 2: Percentage of belief in digital platforms

**How much time is spent on digital platform per day?**

This section explores how young educators spend their time on digital platforms each day. 171 participants responded this item. From the survey data, young educators spend 3hours (21.6%), 4 hours (15.20%) and more than 4 hours (19.40%) use on internet. It was found that half of the participants spend more than 3 hours a day on digital platforms. This has many advantages and disadvantages. In particular, young educators need to understand the downside of spending too much time on digital platforms.

Today, many people, including students, prefer to communicate through social networks rather than face-to-face. At this time, virtual learning has become a necessary procedure in education. However, spending too much time on the internet can cause young learners to miss many opportunities to interact physically in their lives (Abudabbous & Nowara., 2021). Young educators need to be aware of the fact that social media can improve students' academic levels, but misuse can lead to adverse results. This knowledge should be shared with the students.
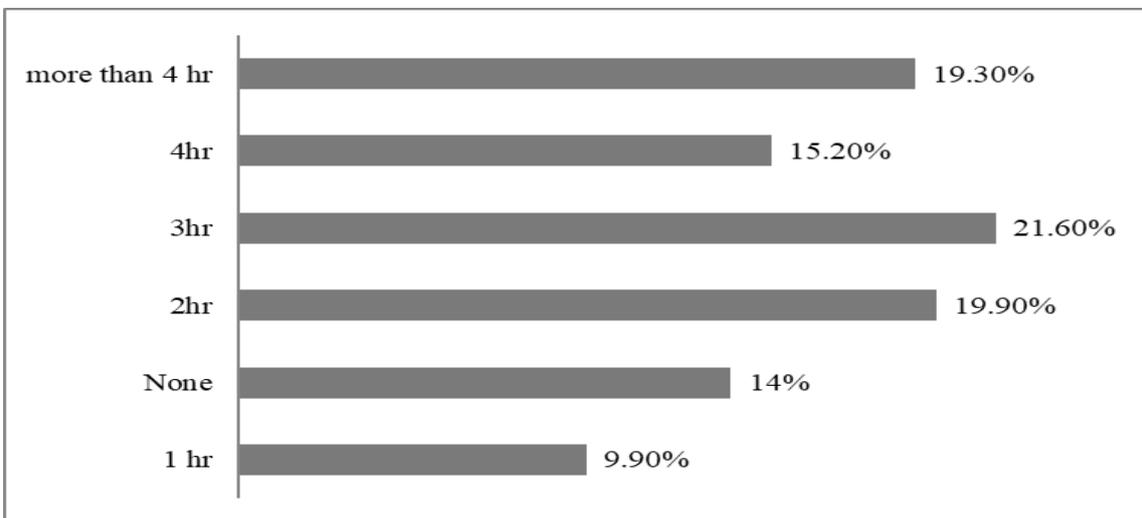


Figure 3: Percentage of time spent on digital platform per day

**What types of channels do they select to use?**

This section explores the types of channels most young educators choose for digitalmedia.172 participants responded this item. They like education & knowledge, entertainment, food, and news channels the most. A third of participants prefer education platforms. It is good for updating education.

Education platforms can offer various benefits. Young educators can share these benefits with their students. In addition, they should know how to engage their students and ensure the transfer of knowledge and skills. That's why, they need to learn about digital education more than ever. They should use applications with their students in the classroom. Additionally, they should continuously practice digital transformation themselves.
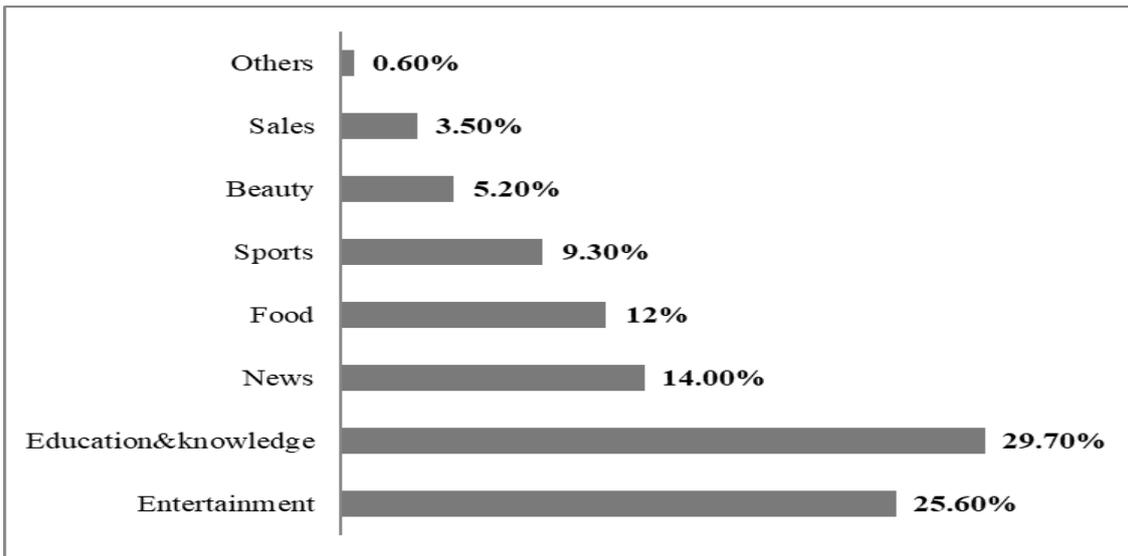


Figure 4: Percentage of channel types selected

**Have you ever thought about who created a post before sharing it?**

It's important to be aware of the content before sharing it on social media and other platforms. Sharing posts without fact-checking helps spread misinformation and fake news. It can cause confusion, fear, and misunderstanding. The original creator of a post should always be considered before sharing it.172 participants responded this item.

According to the data, a quarter of participants (28.1%) consider the creator before sharing a post. Other participants did not understand this concept. Based on this, some participants lacked knowledge of media literacy. It was suggested that young educators should learn not only how to use the digital platform but also media literacy. Only then can educators evaluate the quality of information sources and explain the importance of information literacy to students.
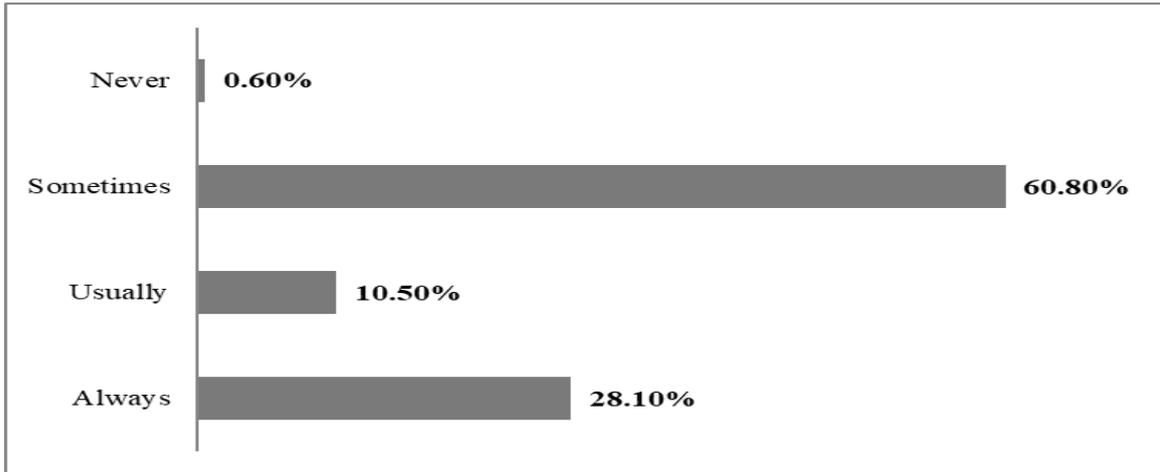
Figure 5: Percentage of fact-checking before sharing a post

**Why create a post on social media?**

167 participants responded to this item. Their reasons for creating a social media post are attention and emotion. Attention plays an important role in almost every area of life, including school, work, and relationships. It allows people to focus on information and create memories. Research has shown that online users may seek out virtual relationships as an outlet for their needs. If too much personal information is shared with the public or a stranger, it can have negative effects.

Emotions are defined as physiological and behavioral responses to specific normality of the evolutionary environment. Some researchers believe that viewing emotional expression on social media leads to widespread feelings of envy. Emotional status updates cause us to feel some envy and perhaps other negative emotions while browsing social media (Panger, G. T. 2017).

When creating a post on social media, all aspects should be considered before sharing or creating the post.
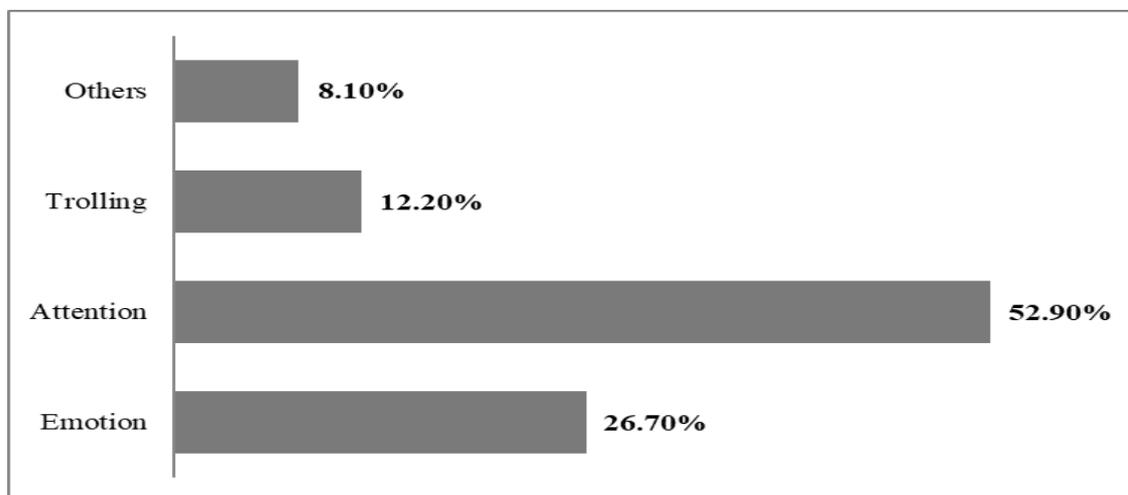


Figure 6: Percentage of reasons for creating a post on social media

**Why are you spending your free time on digital platform?**

This content was assessed through informal interviews. 167 participants participated in this interview. The observed data is shown in the table. According to observation, most participants spend free time on digital platforms to get relaxation, knowledge, and news.

**Table: Percentage of reasons for spending free time on digital platforms**

| Content | Percentage |
|---|---|
| Relaxation | 36% |
| Gaining knowledge(Education) | 32% |
| News | 22% |
| Healthy | 0.07% |
| Connection with family & friends | 0.06% |
| Music & Video | 0.04% |
| Sports | 0.01% |
| Sales | 0.01% |

Relaxing on digital platforms may involve the sharing of personal information, which can lead to privacy violation so re-security threats. While digital platforms can be enjoyable and convenient for relaxation, it's important to be aware of their potential negative effects. Spending too much time on digital platforms can cause eye strain, headaches, and potential long-term vision problems. In addition, Participation in digital platforms exposes users to cyber bullying, online harassment, or negative interactions with others.

Young educators should study and understand the above-mentioned issues. Only then will they be able to effectively share their knowledge and experiences with students.

**How to reduce is information on social media?**

Not all harmful social media posts are completely false. They may contain some truth. But they will be misleading or make problematic claims (Kristina Hook & Ernesto Verdeja 2022). The spread of mis information is a problem for internet users. Reducing misinformation on social media is an important challenge in today's digital age. The interviews focused on how to reduce misinformation on social media by educators and received a lot of feedback. 156 participants responded this interview. The ten different conceptual responses are listed below.

- Believe it or not, decide when you see the post.
- Do not show emotion or unwanted things.
- Information that does not have a foundation should be banned.
- In order to reduce misinformation, we need (1) honesty, (2) faithfulness, and (3) reliability.
- ToreducedisinformationonsocialmediabyskippingorhidingpostsIdon'tagreewith.
- Laws should be promulgated and actions taken.
- Page, friends must be verified. If you are not using a Facebook account, you must

deactivate it and check in.
- Not sharing posts with uncertain information sources; not liking or writing comments.
- Everyone has a responsibility to combat fake news.
- Don't do it with the intention of hurting those who want to.

Educating users about media literacy is essential. It has been found that the educators have basic ideas, but they know it is necessary to put them into practice. Moreover, they should learn to think critically about verifying information from credible sources before sharing or believing it. Also, they should distribute their experiences to colleagues as well as students.

## Conclusion

The use of digital media tools is increasing year by year. Research shows that when people use too much digital media, it can affect their behavioral and cognitive development as well as their physical and mental health. Therefore, teaching digital literacy is important today. The participants in this research are the ones who will teach the students about digital literacy, so they need to have knowledge about digital literacy. According to the studies, even though the young teachers have basic knowledge, they still need to learn more. They should learn more about the effects of digital media so that they can be sure to impart knowledge to the students. They will be able to cultivate future students who are full of knowledge and can use advanced technologies.

## Acknowledgement

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# Sustaining Customer Satisfaction:
# The Impact of Internet Banking in Mauritius

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## Abstract

This research investigates the multifaceted impact of internet banking on customer satisfaction among users in Mauritius, with a particular emphasis on sustainability considerations. Utilizing convenience sampling, we collected data from a sample of 113 participants through electronically administered questionnaires. Our statistical analysis employed the Chi-Square test of independence and crosstabulation, while the SERVQUAL model served as the guiding framework for evaluating customer satisfaction. The central discovery of this study underscores the pivotal role of sustainability in internet banking's impact on customer satisfaction. Specifically, we found that all five dimensions of the SERVQUAL model (reliability, responsiveness, assurance, tangibles, and empathy), when intertwined with sustainability principles, exert a statistically significant and positive influence on customer satisfaction within the context of Mauritius. This suggests that internet banking, when practiced sustainably, not only enhances customer satisfaction but also contributes to broader environmental and social goals. In light of these findings, our recommendations are twofold: first, to enhance the user experience and overall satisfaction, it is imperative that internet banking channels remain fully operational, reliable, and responsive. Furthermore, ensuring 24/7 accessibility to internet banking services is essential. Secondly, recognizing the importance of sustainability in contemporary banking practices, we advocate for banks to prioritize sustainability considerations within their internet banking platforms. In this regard, banks should redouble their efforts to protect user confidentiality and privacy, thereby minimizing security risks. Moreover, rendering internet banking platforms visually appealing and user-friendly, with a keen eye on sustainability, is paramount. Lastly, banking institutions should cultivate a deeper understanding of their clients' needs and preferences, further nurturing customer relationships. By integrating sustainability principles into their internet banking services, banks can simultaneously enhance customer satisfaction and contribute to the sustainable development goals of Mauritius. This research sheds light on the synergistic relationship between internet banking, customer satisfaction, and sustainability, offering valuable insights for financial institutions seeking to align their practices with evolving societal and environmental demands.

**Keywords:** Internet Banking, Customer Satisfaction, SERVQUAL Model, Mauritius, Sustainability

## Introduction

The Mauritian financial system stands as one of Africa's most advanced, primarily attributed to its bank-based financial sector. The environment has been increasingly competitive due to the sustained economic growth in Mauritius, fostering significant investments in the banking sector.

Prior to the advent of the Internet in Mauritius, banking transactions were conducted manually, requiring clients to visit physical bank branches for their financial needs. However, in the late 1990s, the Mauritian banking landscape underwent a transformative shift driven by global developments such as the expansion of telecommunications networks and e-commerce. This transformation integrated technological advances into the Mauritian banking sector, albeit at a gradual pace. During the early stages, information technology primarily automated back-office tasks and customer-facing banking activities.

In 1987, the Mauritian banking sector initiated its digitalization journey with the introduction of Automated Teller Machines (ATMs) by the MCB. ATM services in the island have since evolved to offer convenient features including cash withdrawals, money transfers, cash deposits, and detailed account statements.

The year 1997 marked the introduction of internet banking in Mauritius. At that time, only four of the eleven licensed banks offered internet banking services. Subsequently, substantial improvements were made to communication infrastructure across Mauritius, making high-speed internet connectivity widely accessible and cost-effective for nearly every citizen on the island.

As a result, virtually all licensed banks in Mauritius now provide internet banking facilities. These services encompass mobile banking, enabling banking transactions through mobile phones (such as money transfers and balance verifications) via the internet or SMS; fund transfers, encompassing self-account transfers, intra-bank transfers, inter-bank transfers, and foreign transfers; bill payments, allowing electronic payment of utility bills, electronic standing orders, insurance premiums, and more; and loan applications, providing customers the ability to apply for loans through user-friendly interfaces on online banking platforms.

Internet banking is often praised for its advantages over traditional banking. It offers time-saving benefits compared to manual banking transactions in bank branches. However, it is not without its challenges, with security threats being among the most common. Hacking, forgery, and phishing pose significant risks to a secure online banking experience. Additionally, clients who are less computer-savvy may struggle to optimize the use of online banking interfaces.

In light of the above discussion, it is crucial to not only assess the gains derived from the adoption of internet banking but also to consider the associated costs. In other words, it is of paramount significance to ascertain how internet banking impacts customer satisfaction in Mauritius over the long term.

This study aims to investigate the extent to which internet banking influences the long-term customer satisfaction of internet banking users in Mauritius. The objectives of this study are to establish both the existence and the nature of the association between internet banking reliability, internet banking responsiveness, internet banking assurance, internet banking tangibles, internet banking empathy, and their long-term impact on customer satisfaction.

**Review of literature**

The adoption of internet banking, a significant technological advancement, has been a subject of study through various theoretical frameworks. Notable among these are the Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), Unified Theory of User Acceptance of Technology (UTAUT), Unified Theory of User Acceptance of Technology 1 (UTAUT 1), Unified Theory of User Acceptance of Technology 2 (UTAUT 2), and the Meta Unified Theory of User Acceptance of Technology (Meta UTAUT). These theories have contributed to our understanding of the factors that influence individuals to embrace internet banking (Ansori, 2017).

Internet banking is recognized as an operational service that empowers bank clients to access information about banking products or services and execute financial transactions through electronic devices such as mobile phones, Automated Teller Machines (ATMs), and personal computers (Ansori, 2017).

The SERVQUAL model has been widely utilized by researchers and authors to investigate customer satisfaction derived from internet banking services. Toor et al. (2016) conducted quantitative research in Pakistan to explore how various aspects of online banking affect customer satisfaction. They examined different cities in their study and modeled customer satisfaction from internet banking as a function of the five quality dimensions of the SERVQUAL model. Their findings indicated that customer satisfaction in e-banking in Pakistan is significantly influenced by all the SERVQUAL quality dimensions, with assurance, reliability, and responsiveness emerging as the most critical factors. This study concluded that, in Pakistan, internet banking directly contributes to customer satisfaction.

A study with a striking resemblance was conducted a year earlier by Raza et al. (2015), albeit focused solely on the city of Karachi. Their multiple linear regression model revealed that reliability, tangibility, responsiveness, and assurance have a statistically significant and positive impact on customer satisfaction. While empathy also had a positive impact, it was not statistically significant. Consequently, the research recommended that banks enhance the visual and operational aspects of their online banking platforms to ensure client retention, while also prioritizing the reliability and security of internet banking services to reduce attrition rates.

Bebli (2012) conducted a study in Ghana to investigate how internet banking impacted customer satisfaction, utilizing the SERVQUAL model as the underlying framework. Employing a mixed-method approach, Bebli employed tools such as regression analysis, the Chi-Square independence test, and Spearman's rank coefficient. The study revealed that customer satisfaction was positively influenced by various factors, including control, ease of use, privacy, speed of delivery, pleasure, and reliability. The findings suggested that customers were likely to display higher satisfaction levels due to the use of internet banking.

Three years earlier, Santouridis et al. (2009) examined how customer satisfaction in Greece, a country with relatively low internet penetration at the time, was impacted by the service quality of internet banking. In this study, the SERVQUAL model was also employed, albeit in a more flexible manner, with six dimensions considered: responsiveness, assurance, web assistance, reliability, information quality, and empathy.

The research established that all six dimensions of service quality shared a statistically significant and direct relationship with customer satisfaction, with reliability emerging as the most influential predictor of customer satisfaction. Information quality was identified as a key factor likely to attract potential users of internet banking in the future, while empathy and web assistance were found to be the most relevant factors likely to drive existing clients to recommend internet banking services to others.

The above literature review has illuminated the global landscape of studies examining factors influencing customer satisfaction derived from the use of internet banking. However, a notable research gap exists in Mauritius. While internet banking is increasingly prevalent, studies exploring its long-term impact on customer satisfaction are scarce in the Mauritian context. This study aims to bridge this identified research gap by employing the SERVQUAL model as an underlying framework to investigate the extent of customer satisfaction with internet banking services in Mauritius, with a particular emphasis on its long-term sustainability.

H1: Internet banking reliability has a positive and sustainable influence on long-term customer satisfaction.

H2: Internet banking responsiveness positively impacts and sustains long-term customer satisfaction.

H3: Internet banking assurance has a positive and sustainable effect on long-term customer satisfaction.

H4: Internet banking tangibles have a positive and sustained impact on customer satisfaction over time.

H5: Internet banking empathy aspect shares a positive and enduring association with long-term customer satisfaction.

## Research Methodology

## Target Population

The research focused on adult members of the Mauritian population who actively utilized internet banking services. Given the evolving nature of internet banking in Mauritius and the aim to assess the long-term impact on customer satisfaction, the determination of the precise size of the target population presented challenges. As such, random sampling, which typically requires a known population size, was not feasible. Therefore, non-random sampling, specifically convenience sampling, was chosen. Convenience sampling allowed for the selection of respondents based on availability and convenience while aligning with the study's objectives to explore the sustainability of customer satisfaction over time.

## Data Collection

To ensure an objective and up-to-date understanding of the research topic, primary data collection was exclusively employed. Given the limited availability of secondary data specific to Mauritius in this context, primary data offered a fresh perspective.

## Questionnaire Design

The primary data collection instrument was a comprehensive questionnaire, consisting of seven sections:

• Demographics
• Reliability
• Responsiveness
• Assurance
• Tangibles
• Empathy
• Customer Satisfaction

This questionnaire included multiple-choice and 5-point Likert Scale questions, enabling a thorough investigation of respondents' experiences and perceptions related to internet banking services and their long-term sustainability.

## Data Collection Method

Data collection was conducted electronically through Google Forms. The choice of an online survey approach was driven by its cost-effectiveness and real-time response tracking capabilities, which are particularly relevant when assessing the sustainability of customer satisfaction over an extended period. Respondents were afforded the flexibility to participate at their convenience, emphasizing the sustainability of data collection methods.

## Sample Size

The initial target sample size was 100 respondents. However, the research exceeded expectations, resulting in the collection of 113 usable questionnaires. This larger sample size further enhances the robustness of the study's findings regarding the sustainability of customer satisfaction with internet banking services in Mauritius.

## Analysis and Discussion

Cronbach's Alpha has been calculated for the required sections of the questionnaire. The data has been pre-processed and cleaned on Microsoft Excel. The analysis has been done with the aid of Statistical Package for Social Sciences (SPSS) statistical analysis tool. The first step of the data analysis procedure involved establishing reliability through the computation of Cronbach's Alpha. This was followed by a descriptive summary of the collected data.

The final stage consisted of inferential analysis on the sample data so as to derive findings that can be generalized to the target population. The SERVQUAL model was employed as underlying framework for assessing customer satisfaction with respect to internet banking services in Mauritius. Hypothesis testing has been conducted with the end of goal of determining whether an association is present between pairs of categorical variables.

For this purpose, the Chi-Square independence test has been employed – all tests have been conducted at the 5% significance level. Simultaneously, cross tabulation analysis has been undertaken so that the nature of the link between the variables can be determined.

The following table displays the reliability coefficients obtained for the 6 relevant sections of the questionnaire.

**Table 1 - Cronbach's Alpha values**

| Section | Number of statements | Reliability coefficient |
|---------|---------------------|------------------------|
| B | 4 | 0.972 |
| C | 4 | 0.972 |
| D | 5 | 0.986 |
| E | 3 | 0.981 |
| F | 5 | 0.984 |
| G | 4 | 0.984 |

The above table shows that, for each section, the Cronbach's Alpha value is way larger than 0.6. The collected data can therefore be validated as being reliable. It can be used as means for deriving the necessary research findings.

**Descriptive Analysis**
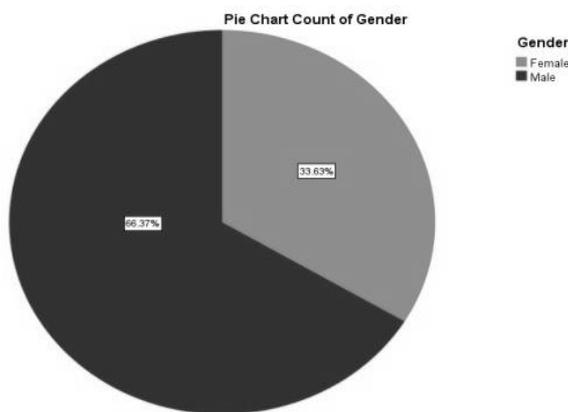


Figure1 - Pie Chart Count on Gender

Two-thirds (66.37%) of the respondents were men while 33.63% were of female gender.
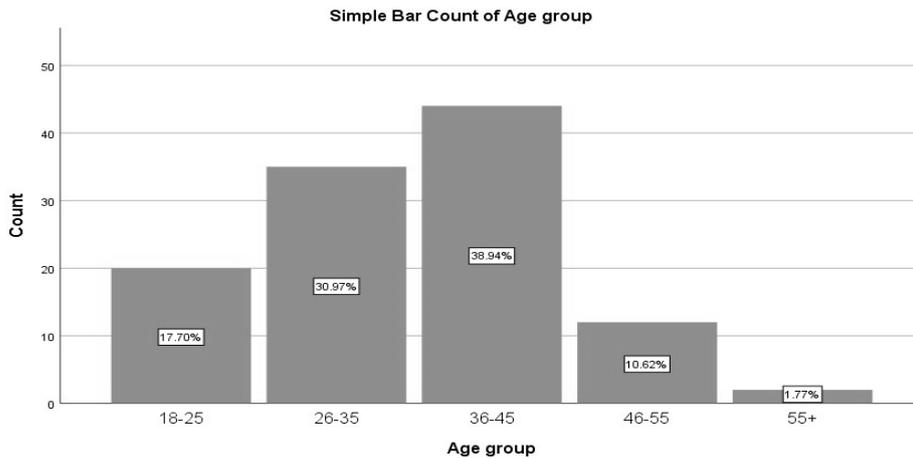
Figure 2- Simple Bar Count on Age Group

A little less than 40% of the respondents were aged between 36 and 45. The age of 30.97% ranged from 26 to 35. 17.70% fell in the 18-25 age group while 1.77% were at least 56 years old.
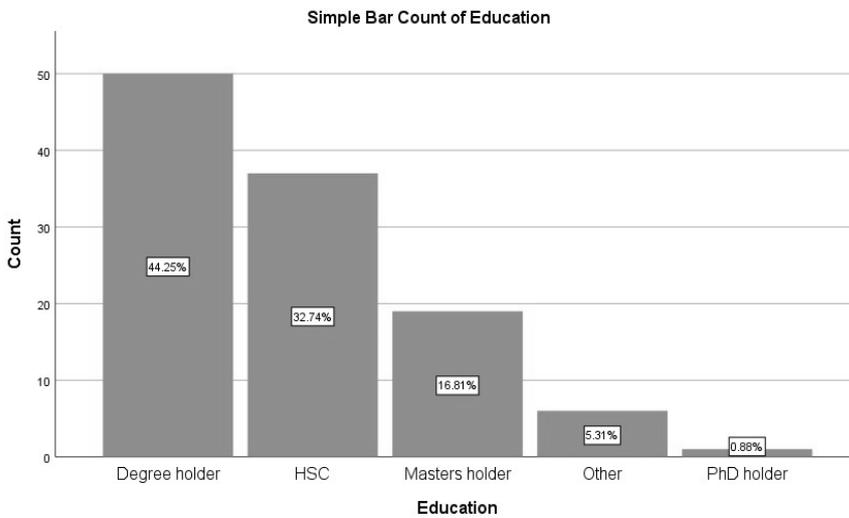


Figure 3– Simple Bar Count on Education

44.25% of the participants are degree holders. 32.74% have the HSC as highest level of educational attainment. 16.81% of the participants possess a Masters degree.
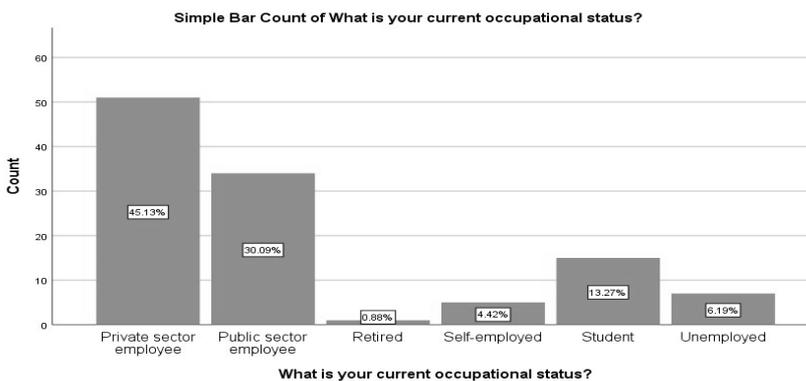


Figure 4 – Current occupational status

45.13% of the respondents reported being private sector employees. 30.09% worked in the public sector. 13.27% stated that they were students while 6.19% were unemployed. 4.42% were self-employed while 0.88% were in retirement.
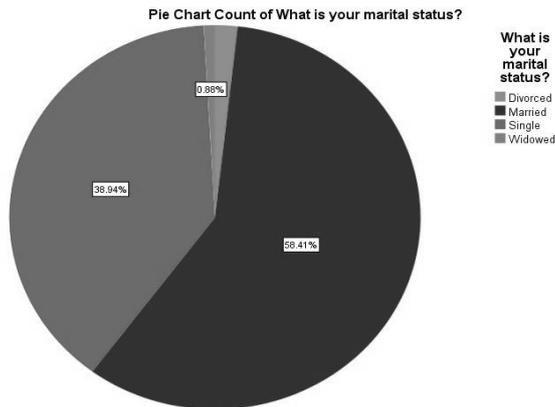


Figure 5 – Marital status

The majority of the participants (58.41%) reported being married while 38.94% were single.

**Table 2 - Monthly income level**

### What is your monthly income level?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than MUR 25,000 | 31 | 27.4 | 27.4 | 27.4 |
| | More than MUR 80,000 | 1 | .9 | .9 | 28.3 |
| | MUR 25,000 - MUR 40,000 | 52 | 46.0 | 46.0 | 74.3 |
| | MUR 40,000 - MUR 60,000 | 20 | 17.7 | 17.7 | 92.0 |
| | MUR 60,000 - MUR 80,000 | 9 | 8.0 | 8.0 | 100.0 |
| | Total | 113 | 100.0 | 100.0 | |

Almost half of the respondents (46.0%) reported earning between MUR. 25,000 and MUR. 40,000. 27.4% earned less than MUR. 25,000 while 17.7% fell in the MUR.40,000 – MUR. 60,000 income bracket. 8.0% earned between MUR. 60,000 and MUR. 80,000 while only 0.9% stated that they earned more than MUR. 80,000.

**Table 3 - Number of years using internet banking services**

### Since how long have you been using internet banking services?

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1-3 years | 27 | 23.9 | 23.9 | 23.9 |
| | 4-6 years | 43 | 38.1 | 38.1 | 61.9 |
| | 7-10 years | 37 | 32.7 | 32.7 | 94.7 |
| | Less than 1 year | 6 | 5.3 | 5.3 | 100.0 |
| | Total | 113 | 100.0 | 100.0 | |

38.1% stated that they have been using internet banking services for 4 to 6 years. 32.7% have been availing themselves of internet banking services since the last 7 to 10 years. 23.9% have been availing themselves of online banking facilities since the past 1 to 3 years. Only 5.3% have been using internet banking services for less than a year. This indicates that the adoption of internet banking is becoming more and more popular in Mauritius with the passage of time.

## Reliability

The participants were required to rate 4 statements concerning internet banking reliability (1: strongly disagree and 5: strongly agree). The results are shown below.

**Table 4 - Descriptive statistics for reliability aspect**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Reliability [The use of E-banking is reliable.] | 113 | 1 | 5 | 4.04 | .870 |
| Reliability [I prefer using E-banking services instead of visiting the bank's branch for doing my transactions.] | 113 | 1 | 5 | 4.09 | .851 |
| Reliability [E-banking performs the service right the first time.] | 113 | 1 | 5 | 4.07 | .863 |
| Reliability [E-banking service channels are always in working order.] | 113 | 1 | 5 | 4.02 | .896 |

It can be observed that, for all 4 statements, the mean rating revolves around 4. This indicates that, on average, the participants expressed agreement with all the 4 statements. In other words, they agreed that the use of internet banking is reliable. Furthermore,they prefer conducting their banking transactions online instead of calling physically at the branch of the bank. They also express agreement with the notion that online banking performs the required service correctly the first time. Lastly, the respondents agree that internet banking service channels always work correctly.

## Responsiveness

The respondents had to rate 4 statements referring to internet banking responsiveness (1: strongly disagree and 5: strongly agree). The results are shown below.

**Table 5 - Descriptive statistics for responsiveness aspect**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Responsiveness [E-banking services are available 24/7.] | 113 | 1 | 5 | 3.95 | .833 |
| Responsiveness [My bank's E-banking facilities make accurate promises about the services they deliver.] | 113 | 1 | 5 | 3.98 | .802 |
| Responsiveness [Response of service through E-banking is prompt and quick.] | 113 | 1 | 5 | 3.94 | .782 |
| Responsiveness [The use of E-banking is time saving.] | 113 | 1 | 5 | 4.05 | .730 |

For all 4 provided statements, the mean ratings are quite high, revolving around 4. This indicates agreement, on the whole, with the given statements. The participants thus agree that they are able to avail themselves of online banking facilities on a 24/7 basis. They also express agreement with the supposition that their bank's internet banking services deliver on the promises that they make. They agree that the use of internet banking results in a quick and prompt response and leads to significant saving of time.

**Assurance**

For this section, the participants were required to provide their rating of 5 statements concerning internet banking assurance (1: strongly disagree and 5: strongly agree. The results are shown below.

**Table 6 - Descriptive statistics for assurance aspect**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Assurance [I feel secure while making transactions through internet banking.] | 113 | 1 | 5 | 3.86 | .925 |
| Assurance [My E-banking site does not share my personal information with other sites.] | 113 | 1 | 5 | 3.83 | .915 |
| Assurance [I feel secure in providing sensitive information for online transactions.] | 113 | 1 | 5 | 3.87 | .891 |
| Assurance [E-banking service provides me with high protection for my online banking transactions.] | 113 | 1 | 5 | 3.83 | .963 |
| Assurance [The behaviour of E-banking employees instils confidence in me.] | 113 | 1 | 5 | 3.88 | .894 |

The mean ratings are all closely matched, revolving around 3.85. This indicates that, on average, the respondents are mostly in agreement with the given statements pertaining to the assurance of internet banking services. In other words, they generally agree that they feel secure when engaging in banking transactions online. They agree that their internet banking platform ensures their confidentiality and does not divulge their personal information with other sites. The respondents also express agreement that they feel a sense of security when sharing sensitive details when conducting online banking transactions. They further agree that the internet banking services ensure full protection when internet banking transactions are being undertaken.

Lastly, on the whole the respondents feel a sense of confidence from the behaviour of the bank's internet banking employees.

**Tangibles**

The respondents were required to rate 3 statements referring to internet banking tangibles (1: strongly disagree and 5: strongly agree). The results are shown below.

**Table 7 - Descriptive statistics for tangibles aspect**

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Tangibles [The E-banking physical facilities are visually appealing.] | 113 | 1 | 5 | 3.87 | .861 |
| Tangibles [I am satisfied with the technological up-to-date equipment of the bank.] | 113 | 1 | 5 | 3.87 | .891 |
| Tangibles [The E-banking facilities are modern and secure.] | 113 | 1 | 5 | 3.90 | .834 |

The respondents in general expressed agreement with the 3 statements above, as evidenced by the mean ratings being close to 4. They thus agree that the internet banking physical facilities are visually appealing. The participants express satisfaction with the technological state-of-theart tools of the bank. They further contend that the internet banking facilities are both secure and modern.

**Empathy**

The participants were required to rate 5 statements pertaining to the empathy related with internet banking services (1: strongly disagree and 5: strongly agree). The results are given below.

**Table 8 - Descriptive statistics for empathy aspect**

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Empathy [Help is immediately available if I encounter any problem on internet banking.] | 113 | 1 | 5 | 3.81 | .875 |
| Empathy [E-banking employees understand my specific needs.] | 113 | 1 | 5 | 3.81 | .851 |
| Empathy [I get personal attention from E-banking employees when the need for contact arises.] | 113 | 1 | 5 | 3.82 | .826 |
| Empathy [E-banking employees respond promptly to my queries.] | 113 | 1 | 5 | 3.79 | .911 |
| Empathy [Bank deals respectfully with my complaints with respect to internet banking.] | 113 | 1 | 5 | 3.84 | .808 |

For this section as well, the respondents were mainly in agreement with the 5 given statements, as can be inferred from the mean ratings being close to 4. The respondents

agree, in general, that if they face any issue concerning internet banking, they are able to seek help promptly. They also agree that their particular needs are well understood by the internet banking employees, who offer personal attention when the need for contact arises and respond in prompt fashion to any request. The respondents further express agreement with the supposition that the bank deals respectfully with any complaints that they may have regarding online banking.

**Customer Satisfaction**

For this section, the respondents were required to rate 4 statements pertaining to customer satisfaction derived from internet banking services (1: strongly disagree and 5: strongly agree).

The table below summarizes the results.

**Table 9 - Descriptive statistics for customer satisfaction**

|  | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Customer Satisfaction [Overall, service of E-banking is better than my expectation.] | 113 | 1 | 5 | 3.79 | .807 |
| Customer Satisfaction [I find the E-banking experience pleasant.] | 113 | 1 | 5 | 3.79 | .860 |
| Customer Satisfaction [I am satisfied with the bank's internet banking service quality.] | 113 | 1 | 5 | 3.80 | .815 |
| Customer Satisfaction [I am satisfied with the transaction processing via E-banking services.] | 113 | 1 | 5 | 3.78 | .842 |

The above table shows that the respondents, on average, obtain a good satisfaction level from internet banking services. Indeed, the mean rating of all 4 statements are very close to 4, indicating that the participants are mostly in agreement with them. They thus agree that internet banking services have surpassed their expectations. They find the internet banking experience pleasant and express satisfaction with the quality of internet banking services. Lastly, they are satisfied with the processing of transactions via internet banking.

**Inferential Analysis: Hypothesis Testing and Discussion of Findings**

As stated earlier, the 5 hypotheses of this research have been tested through the use of the Chi Square test of independence complemented with crosstab analysis. All the necessary tests have been conducted at the 5% significance level.

Before the 5 hypotheses were tested, the Compute function of SPSS was used to calculate an average rating, per respondent, for each of the five required sections.

**Hypothesis 1: Impact of Reliability on Customer Satisfaction**

H0: Internet banking reliability has no impact on customer satisfaction.
H1: Internet banking reliability positively impacts customer satisfaction.

**Table 10 - Chi-Square and crosstab for hypothesis 1**

## Reliability * Customer_Satisfaction

### Crosstab

Count

|  |  | Customer_Satisfaction | | | | | Total |
|---|---|---|---|---|---|---|---|
|  |  | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 |  |
| Reliability | 1.00 | 1 | 0 | 0 | 0 | 0 | 1 |
|  | 2.00 | 1 | 3 | 3 | 0 | 0 | 7 |
|  | 3.00 | 0 | 1 | 11 | 1 | 0 | 13 |
|  | 4.00 | 0 | 0 | 14 | 43 | 1 | 58 |
|  | 5.00 | 0 | 0 | 3 | 13 | 18 | 34 |
| Total |  | 2 | 4 | 31 | 57 | 19 | 113 |

### Chi-Square Tests

|  | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 171.947[a] | 16 | .000 |
| Likelihood Ratio | 104.715 | 16 | .000 |
| Linear-by-Linear Association | 65.636 | 1 | .000 |
| N of Valid Cases | 113 |  |  |

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .02.

The p-value of the Chi-Square test is 0.000 < 0.05. This indicates that, at the 5% level of significance, the alternative hypothesis is accepted, i.e. there is statistically significant evidence that the reliability of internet banking services impacts customer satisfaction.

The associated crosstab reveals that customer satisfaction is positively affected by the reliability of internet banking services. Indeed, 31 of the 34 respondents who rated reliability as 5 gave their customer satisfaction levels a rating of at least 4. On the other hand, 5 of the 8 respondents who rated reliability at most 2 also gave customer satisfaction a maximum rating of 2. This clearly illustrates that internet banking reliability has a positive effect on customer satisfaction in Mauritius.

The above finding echoes that of Mchomba (2018), which came to the conclusion that customer satisfaction obtained from the use of internet banking is significantly and positively influenced by reliability of internet banking services.

The results of this study indicate that internet banking reliability has a significant and positive impact on customer satisfaction in Mauritius. When customers perceive internet banking services as reliable, they are more likely to trust and use these services. This trustworthiness can reduce the need for customers to visit physical bank branches, which

not only enhances their convenience but also aligns with sustainability objectives.

The positive relationship between reliability and customer satisfaction underscores the importance of robust technology infrastructure and secure online transactions. Banks should continue to invest in maintaining and improving the reliability of their internet banking platforms to ensure a consistent and trustworthy user experience. This investment not only benefits customer satisfaction but also supports the long-term sustainability of banking operations by reducing the consumption of paper-based resources and energy associated with physical branch visits.

**Hypothesis 2: Impact of Responsiveness on Customer Satisfaction**

H0: Internet banking responsiveness shares no relationship with customer satisfaction.

H1: Internet banking responsiveness shares a positive relationship with customer satisfaction.

**Table 11 - Chi-Square and crosstab for hypothesis 2**

**Responsiveness * Customer_Satisfaction**

**Crosstab**

Count

| | | Customer_Satisfaction | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | |
| Responsiveness | 1.00 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 2.00 | 1 | 3 | 0 | 0 | 0 | 4 |
| | 3.00 | 0 | 0 | 17 | 2 | 0 | 19 |
| | 4.00 | 0 | 1 | 13 | 49 | 0 | 63 |
| | 5.00 | 0 | 0 | 1 | 6 | 19 | 26 |
| Total | | 2 | 4 | 31 | 57 | 19 | 113 |

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 248.292[a] | 16 | .000 |
| Likelihood Ratio | 141.558 | 16 | .000 |
| Linear-by-Linear Association | 76.665 | 1 | .000 |
| N of Valid Cases | 113 | | |

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .02.

The p-value of the Chi-Square test is $0.000 < 0.05$. This indicates that, at the 5% level of significance, the alternative hypothesis is accepted, i.e. there is statistically significant evidence that the responsiveness of internet banking services influences customer satisfaction.

The associated crosstab reveals that customer satisfaction is positively affected by the responsiveness of internet banking services. Indeed, all 25 respondents who rated responsiveness as 5 gave their customer satisfaction levels a rating of at least 4. On the other hand, all 5 respondents who rated responsiveness at most 2 also gave customer satisfaction a maximum rating of 2. This clearly illustrates that the responsiveness of internet banking services is directly related with customer satisfaction in Mauritius.

The above finding is in line with Mchomba (2018), which found that online banking service quality is positively affected by the time factor and accessibility, 2 major aspects

of responsiveness. Likewise, Liebana et al (2013) observed that customer satisfaction is directly influenced by ease of use, accessibility and availability. The above finding is nevertheless contradicted by Vetrivel et al (2020), which concluded that convenience and responsiveness have no statistically significant impact on customer satisfaction.

The findings reveal that internet banking responsiveness shares a positive relationship with customer satisfaction. When customers can access banking services 24/7 and experience prompt responses, their satisfaction levels increase. This aspect of internet banking aligns well with sustainability goals by reducing the necessity for physical interactions and paper-based transactions.

The convenience of accessing banking services at any time and receiving quick responses contributes to enhanced user experiences. Banks should prioritize and maintain high levels of responsiveness in their internet banking services to ensure that customers continue to benefit from the efficiency and convenience associated with online banking. Sustainability objectives can be supported through increased adoption of online banking, which can lead to reductions in resource-intensive physical banking operations.

**Hypothesis 3: Impact of Assurance on Customer Satisfaction**

H0: Assurance of internet banking services has no influence on customer satisfaction.
H1: Assurance of internet banking services has a positive influence on customer satisfaction.

**Table 12 - Chi-Square and crosstab for hypothesis 3**

**Assurance \* Customer_Satisfaction**

**Crosstab**

Count

| | | Customer_Satisfaction | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | |
| Assurance | 1.00 | 1 | 2 | 0 | 0 | 0 | 3 |
| | 2.00 | 1 | 2 | 2 | 0 | 0 | 5 |
| | 3.00 | 0 | 0 | 23 | 1 | 0 | 24 |
| | 4.00 | 0 | 0 | 5 | 49 | 1 | 55 |
| | 5.00 | 0 | 0 | 1 | 7 | 18 | 26 |
| Total | | 2 | 4 | 31 | 57 | 19 | 113 |

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 227.042[a] | 16 | .000 |
| Likelihood Ratio | 164.702 | 16 | .000 |
| Linear-by-Linear Association | 85.705 | 1 | .000 |
| N of Valid Cases | 113 | | |

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .05.

The p-value of the Chi-Square test is $0.000 < 0.05$. This indicates that, at the 5% level of significance, the alternative hypothesis is accepted, i.e. there is statistically significant evidence that the assurance of internet banking services influences customer satisfaction.
The associated crosstab reveals that customer satisfaction is positively influenced by the assurance of internet banking services. Indeed, 25 of the 26 respondents who rated assurance as 5 gave their customer satisfaction levels a rating of at least 4. On the other

hand, 6 of the 8 respondents who rated assurance at most 2 also gave customer satisfaction a maximum rating of 2. This clearly illustrates that the assurance of internet banking services positively influences customer satisfaction in Mauritius.

The above finding is corroborated by Abdallah (2018), which came to the conclusion that trust, assurance and security all directly influence customer satisfaction. In the same vein, Qureshi et al (2008) observed that more people are turning to internet banking owing to the associated privacy and security guarantees. It must nevertheless be mentioned that Vetrivel et al (2020) came to the conclusion that security has no statistically significant influence on customer satisfaction.

The study shows that assurance in internet banking services has a positive influence on customer satisfaction. Customers who feel secure when conducting online transactions and trust the confidentiality of their personal information are more likely to be satisfied with internet banking. This trust is essential for long-term adoption and customer loyalty, as it reduces the perceived risks associated with online banking.

From a sustainability perspective, the assurance of secure and confidential online banking can lead to a decrease in the use of paper-based transactions and physical visits to bank branches. Banks should, therefore, continue to invest in robust security measures and privacy protections to maintain and enhance customer trust in internet banking services. These efforts can contribute to the sustainability of banking operations by reducing the environmental impact of traditional banking practices.

**Hypothesis 4: Impact of Tangibles on Customer Satisfaction**
H0: Internet banking tangibles do not affect customer satisfaction.
H1: Internet banking tangibles positively affect customer satisfaction.

**Table 13 - Chi-Square and crosstab for hypothesis 4**

**Tangibles * Customer_Satisfaction**

**Crosstab**

Count

| | | Customer_Satisfaction | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | |
| Tangibles | 1.00 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 2.00 | 1 | 3 | 1 | 0 | 0 | 5 |
| | 3.00 | 0 | 1 | 23 | 0 | 0 | 24 |
| | 4.00 | 0 | 0 | 7 | 51 | 0 | 58 |
| | 5.00 | 0 | 0 | 0 | 6 | 19 | 25 |
| Total | | 2 | 4 | 31 | 57 | 19 | 113 |

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 268.619[a] | 16 | .000 |
| Likelihood Ratio | 180.730 | 16 | .000 |
| Linear-by-Linear Association | 92.308 | 1 | .000 |
| N of Valid Cases | 113 | | |

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .02.

The p-value of the Chi-Square test is 0.000 < 0.05. This indicates that, at the 5% level of significance, the alternative hypothesis is accepted, i.e. there is statistically significant evidence that the internet banking tangibles impact on customer satisfaction.

The associated crosstab reveals that customer satisfaction is positively influenced by the tangibles of internet banking services. Indeed, all 25 respondents who rated tangibles as 5 gave their customer satisfaction levels a rating of at least 4. On the other hand, 5 of the 6 respondents who rated tangibles at most 2 also gave customer satisfaction a maximum rating of 2. This clearly shows that the tangibles of internet banking services positively affect customer satisfaction in Mauritius.

The above finding is supported by Amin (2016), which averred that customer satisfaction is directly influenced by the user-friendliness, organization and efficiency of the bank website. Mchomba (2018) also found platform user-friendliness to be a determining factor of customer satisfaction. Vetrivel et al (2020) further established a positive association between website efficiency and customer satisfaction.

The study findings suggest that internet banking tangibles, such as user-friendliness, visual appeal, and modern technological tools, have a positive influence on customer satisfaction. When customers find online banking platforms visually appealing and user-friendly, they are more likely to engage with these services and experience higher levels of satisfaction. From a sustainability perspective, the tangibles of internet banking can contribute to reduced paper consumption and the efficient use of digital resources. User-friendly interfaces can lead to higher adoption rates, thereby reducing the need for physical branch visits and paper-based transactions. Banks should continue to focus on improving the user experience and interface design of their online banking platforms to enhance customer satisfaction and promote sustainable banking practices.

**Hypothesis 5: Impact of Empathy on Customer Satisfaction**

H0: Empathy related with internet banking services shares no association with customer satisfaction.
H1: Empathy related with internet banking services shares a positive association with customer satisfaction.

**Table 14 - Chi-Square and crosstab for hypothesis 5**

Empathy * Customer_Satisfaction

**Crosstab**

Count

| | | Customer_Satisfaction | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | 1.00 | 2.00 | 3.00 | 4.00 | 5.00 | |
| Empathy | 1.00 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 2.00 | 1 | 3 | 1 | 0 | 0 | 5 |
| | 3.00 | 0 | 1 | 26 | 1 | 0 | 28 |
| | 4.00 | 0 | 0 | 3 | 54 | 0 | 57 |
| | 5.00 | 0 | 0 | 1 | 2 | 19 | 22 |
| Total | | 2 | 4 | 31 | 57 | 19 | 113 |

**Chi-Square Tests**

| | Value | df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 295.574[a] | 16 | .000 |
| Likelihood Ratio | 197.287 | 16 | .000 |
| Linear-by-Linear Association | 94.468 | 1 | .000 |
| N of Valid Cases | 113 | | |

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .02.

The p-value of the Chi-Square test is 0.000 < 0.05. This indicates that, at the 5% level of significance, the alternative hypothesis is accepted, i.e. there is statistically significant evidence that internet banking associated empathy shares an association with customer satisfaction. The associated crosstab reveals that the existence of a positive relationship between these 2 variables. Indeed, 21 of the 22 respondents who rated empathy as 5 gave their customer satisfaction levels a rating of at least 4. On the other hand, 5 of the 6 respondents who rated empathy at most 2 also gave customer satisfaction a maximum rating of 2. This evidences the fact that customer satisfaction in Mauritius is positively influenced by the empathy related with internet banking services. The above finding corroborates those of Amin (2016), which concluded that customer satisfaction is positively and significantly impacted by the personal needs of internet banking users.

The study findings demonstrate a positive association between empathy related to internet banking services and customer satisfaction. Customers who perceive that their needs are well understood and receive personalized attention from internet banking employees are more likely to be satisfied with online banking services. This empathy can enhance customer loyalty and reduce attrition rates.

In terms of sustainability, empathy in online banking can contribute to the reduction of physical interactions and paper-based transactions. When customers receive personalized assistance and prompt responses to their inquiries or issues, they are less likely to rely on in-person visits to bank branches. Banks should prioritize customer-centric approaches in their internet banking services, including empathetic interactions and personalized support, to not only boost customer satisfaction but also align with sustainability objectives by reducing the environmental footprint of traditional banking operations.

**Conclusion and Recommendations**

In the ever-evolving landscape of banking services, this research provides significant insights into the intricate relationship between internet banking dimensions and customer satisfaction in Mauritius. The findings are unequivocal: all five dimensions of the SERVQUAL model - reliability, responsiveness, assurance, tangibles, and empathy - have not only a statistically significant but also a profoundly positive impact on customer satisfaction derived from the use of internet banking services. This illuminating research reaffirms that the adoption of internet banking has not only transformed the way banking services are accessed and delivered but has also fundamentally elevated the level of satisfaction among banking customers in Mauritius.

**Recommendations**

*Reliability – Bridging Trust and Sustainability*
This study underscores the paramount importance of reliability in shaping customer satisfaction. To enhance the user experience and simultaneously advance sustainability goals, banks should prioritize rendering internet banking facilities more reliable. This involves maintaining a robust infrastructure that ensures uninterrupted access to online services, instilling trust among customers that they can rely on these services when required. Additionally, banks should consider sustainable practices in their operations, such as implementing energy-efficient data centers and adopting renewable energy sources to power their services.

*Responsiveness – Ensuring Accessibility and Sustainable Practices*

Customer satisfaction is found to be positively influenced by the responsiveness of internet banking services. Banks should, therefore, invest in improving the responsiveness of their internet banking platforms while also considering sustainability initiatives. Ensuring 24/7 availability, promptly addressing service disruptions, and transparently communicating any planned interruptions are key steps. Furthermore, banks should integrate sustainable practices into their IT operations, such as adopting green IT practices and minimizing energy consumption.

*Assurance – Enhancing Security and Privacy while Embracing Sustainability*

This research highlights the significance of assurance in positively impacting customer satisfaction. Banks should prioritize safeguarding customer information and privacy through robust security measures. Additionally, they should embark on educational campaigns to make customers aware of the comprehensive security measures in place. While ensuring cybersecurity, banks should simultaneously implement sustainability initiatives within their security measures, such as reducing carbon emissions related to cybersecurity infrastructure.

*Tangibles – Modernity, Sustainability, and User Experience*

The tangibles associated with internet banking play a pivotal role in customer satisfaction. Banks should focus on maintaining visually appealing and modern internet banking platforms while also considering sustainability aspects. Implementing sustainable architectural practices, using environmentally friendly materials, and designing energy-efficient banking facilities can contribute to a more sustainable and aesthetically pleasing environment for customers.

*Empathy – Understanding Customer Needs and Sustainability Preferences*

Empathy emerges as a vital factor in enhancing customer satisfaction in the context of internet banking services. Banks should prioritize gaining a deeper understanding of their customers' needs, including their sustainability preferences. Establishing helpdesks for prompt issue resolution, ensuring accessibility to assistance, and regularly updating FAQs pages can enhance the overall customer experience. Moreover, banks should consider developing sustainable banking products and services that resonate with the preferences of environmentally conscious customers.

*Future Research Avenues*

While this research has shed light on critical aspects of customer satisfaction and sustainability in the banking sector, it is essential to acknowledge its limitations. Future research should explore alternative sampling methods to mitigate potential biases and sampling errors. Investigating the feasibility of targeting a larger sample size, even in the absence of random sampling, can bolster the generalizability of findings. Additionally, adopting more potent survey administration methods like face-to-face interviews can offer greater control over respondent identities and facilitate the collection of richer, more nuanced data. These approaches should be further extended to explore the intricate relationship between customer satisfaction and sustainability

practices in the banking sector, providing invaluable insights into the future of responsible banking in Mauritius.

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# An Analytical Study of Brainstorming Method on Master Students' Thinking Skills in Teaching of Curriculum Development

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**Abstract:**

The main purpose of this research was to study the effect of brainstorming method on master students' thinking in teaching of curriculum development at the Yangon University of Education, Myanmar. Action research was used in this study. The research was carried out with (52) M.Ed first year students from Yangon University of Education, Myanmar. The instruments used for this study were observation checklist and interview questions. There is a lot of discussions on inductive/deductive presentations of contents. Inductive presentation begins from concrete facts and moves to generalizations. Deductive presentation begins from theoretical knowledge and moves on its practical applications. Most of the time in Universities is used for teaching and learning different subjects. The acquiring of knowledge seems to be the most important objective of schooling, however, the acquiring of thinking skills, values and attitudes is even more important for the society. Based on the results, the use of brainstorming method in classroom is vital to have positive attitudes towards teaching of curriculum development. Thus, brainstorming method was effective in raising students' thinking at the University level. The results of this study imply that brainstorming method can be regarded as one of the useful ways for the university teachers.

**Key Words**: Brainstorming, curriculum development, thinking skills, effect, attitude

## Introduction

Education is a key role in helping students to develop students' thinking skills from respective content knowledge. Effective teaching learning process depends on teachers' pedagogical knowledge and opportunities which can support students' thinking skills. Pedagogy concerns all the methods and abilities a teacher should have in teaching and nurture the students in their all- round development.

Curriculum development is the dynamic process whereby an individual or a team identifies education at aims and objectives for the learners, design and its implementation in a school system and its periodic evaluation have been recognized as activities that must be carefully planned and orchestrated.

## Purpose of the Study

The main purpose of this research is to study the effect of brainstorming method on master students' thinking skills in teaching of curriculum development. The specific objectives are as follows.

- To point out the effect of brainstorming method on master students' thinking skills in teaching of curriculum development
- To present the concept of curriculum development in terms of curriculum theory, curriculum philosophies, criteria for selecting content and models.
- To investigate the attitudes of master students towards learning based on brainstorming methods and
- To make suggestions concerning with the brainstorming method on students' thinking skills for university teachers

**Research Questions**

(1) To what extent do masters students have thinking skills in teaching of curriculum development?
(2) To what extent do master students present the concept of curriculum development?
(3) What are the attitudes of master students on using brainstorming method?

**Scope of the Study**

The following points are the scope of the study.

- This study was geographically restricted to Yangon University of Education.
- Participants in this study were M.Ed first year students from Yangon University of Education.
- This study was concerned with the brainstorming method on master students' thinking skills in teaching of curriculum development.

**Definition of Key Terms**

**Brainstorming Method**

Brainstorming is a type of discussion which is useful for problem-solving. Brain storming method produces to generate creative ideas, learners are asked to withhold judgments of criticism and produce a very large number of ways to do something, such as resolve a particular problem (Sang, 2003).

**Curriculum Development**

The curriculum development process is most effective when learning outcomes and performance standards are established first and then linked to what teachers must do to ensure that learning takes place (Kelly, 1977).

**Thinking Skills**

Thinking is a process of formulating knowledge and understanding which involves mental activities in the human brain (Isoda & Katagiri, 2012).

**Effect**

Effect means having power to produce, or producing a desired result (Cruickshank & Bainer, 1990).

**Attitude**

An attitude can be defined as a positive or negative evaluation of people, objects, event, activities, ideas, or just about anything in environment (Eagly, Alice & Shelly, 1998). Review of related literature for this study was provided as follows.

**Review of Related Literature**

Teaching includes an opened-minded plan for helping students meet and acquire learning outcomes. In the classroom environment, brainstorming is the best way of promoting logical reasons for the beliefs and dis-beliefs. It also involves sharing knowledges and experiences, solving problems with understanding. Use of brainstorming, as an instructional method draws support and direction from the following various learning theories. Therefore, to be an effective learning environment, a teacher should consider the learning theories such as cognitive learning theory and constructivism of learning theory.

**Cognitive Learning Theory**

Cognitive is a learning theory that emphasized in the process which happens inside the learners. Educational implications of Piaget's theory were indicated as follows.

**Educational Implications of Piaget's Theory**

Piaget's theories have had a major impact on the theory and practice in education. The educational implications of Piaget's Theory are as follows.

(1) **A focus on the process of children's thinking, not just its products;** In addition to checking the correctness of students' answers, teachers should understand the processes students use to get to the answers.
(2) **Recognition of the crucial role of students' self-initiated, active involvement in learning activities:** Instead of teaching didactically, teachers provide a variety of learning activities that permit students to act directly on the teaching learning process.
(3) **Acceptance of individual differences in developmental progress;** Piaget's theory assumes that all students go through the same developmental sequence but they do so at different rates (Schunk, 2012).

Therefore, teachers should make a special effort to arrange learning activities for individuals and small groups of students. Learning a concept requires two cognitive processes such as generalization and discrimination. Generalization is a cognitive process by which includes generalities from particular examples. Gradually, the student learns to discriminate between examples of the concept and nonexamples that may share some features with the concept. Thus, learning as knowledge construction, based on the idea that learning occurs when a learner actively constructs a knowledge representation in working memory.

**Constructivism of Learning Theory**

Constructivism is a theory of learning based on the data that knowledge is constructed by the knower based on mental activity. The theory suggests that humans construct

knowledge and meaning from their experiences. Constructivism also has influence educational thinking about curriculum and instruction. It underlines the emphasis on the integrated curriculum in which students study a topic from multiple perspectives (Schunk, 2012).

**Curriculum: Content and Development**

The term curriculum has come to refer not only to the subject matter or content, but also to the entire instructional process including materials, equipment, examinations and training of teachers.

**Curriculum Theory**

Curriculum has led to curriculum theory. Curriculum theory is concerned with (1) the underlying ideological and philosophical assumptions of curriculum, (2) the conceptualization of three main components of curriculum; (a) purpose and content, (b) instruction, (c) evaluation and (3) curriculum process; (a) systematic curriculum development, (b) the implementation of curriculum in education and (c) curriculum evaluation.

**Curriculum philosophies**

Discussions on the school curriculum reveal different philosophical orientations which affect the goals, content, methods, and materials of education. Eisner and Vallance (1974) have distinguished five major orientations.

(a) *The school curriculum should develop cognitive processes*. The principal function of the school is not to transmit a predetermined content, but to train children in skills of enquiry, to develop their cognitive functioning to help them to learn how to learn.

(b) *The school curriculum should orient to self-actualization.* The curriculum should be meaningful at the given stage of the child's growth rather than provide him with experiences which are useful to him only when he is adult.

(c) *The school curriculum should orient to social reconstruction/relevance.* This lays emphasis on the needs of the society which are to be met by educational and curriculum.

(d) *The school curriculum should orient to academic rationalism.* This emphasizes the heritage of classical scholarship and a common literacy as the man core and content of the curriculum.

(e) *The school curriculum should lay emphasis on the efficient identification of goals and means.* This orientation sees curriculum as technology or it is instrumental approach to curriculum.

**Essential Components of Curriculum**

Three major distinctions are commonly made; all of them are of direct importance to pedagogy. They are (a) Purposes and content, (b) Instruction, and (c) Evaluation.

## Curriculum Processes

The development of a new curriculum, its implementation in a school system and its periodic evaluation have been recognized as activities that must be carefully planned, and orchestrated.

## Criteria for Selecting Content

Regardless of their curriculum design preferences or their philosophical orientations, curriculum developers have to apply criteria in choosing curriculum content. The common criteria are.**(1) Self-sufficiency, (2) Significance, (3) Validity, (4) Interest, (5) Utility,(6) Learnability,** and**(7) Feasibility** (Kelly, 1977).

## Curriculum Development Model

### Tyler Model: Four Basic Principles

Tyler's is one of the best known, technical-scientific models. Tyler (1949) mentioned that those involved in curriculum inquiry must try to define the (1) purpose of the school, (2) educational experiences related to the purposes, (3) organization of these experiences, and (4) evaluation of the purposes.
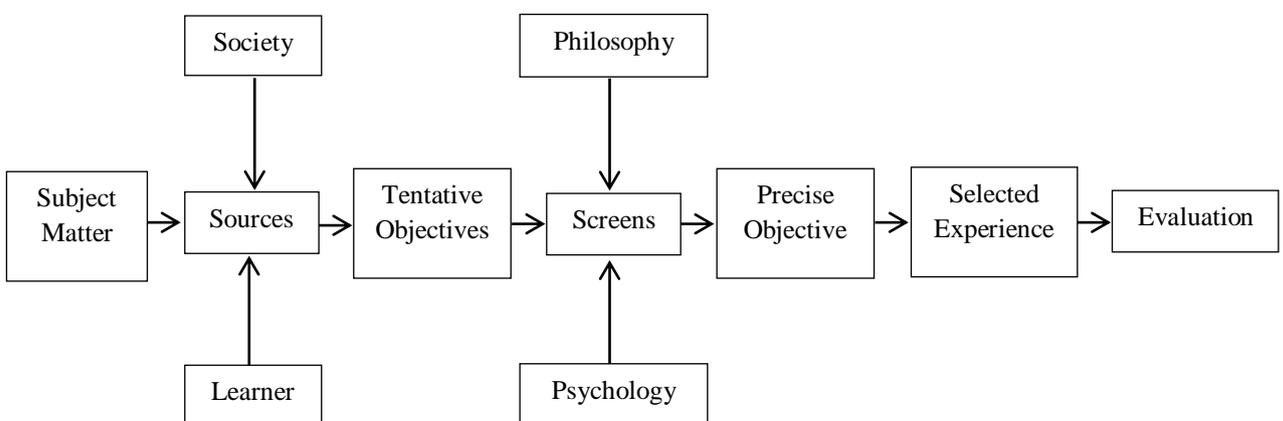
Figure1 Ralph Tylar's Curriculum Development Model (1949)
Source: Kelly (1977),*The Curriculum: Theory and Practice*

Method of instruction, or method of teaching refers to a kind of practice for a subject of certain class level, based on teaching or learning theory, model or principle. Brainstorming method was indicated as follows.

## Brainstorming

Brainstorming is a type of discussion which is useful for problem-solving. During a brainstorming session, which can be either in the form of class discussion or group discussion, every participant would be allowed to express his or her opinion on the discussed issue and provide possible and acceptable solutions for the problems raised.

Brainstorming is usually held in the form of buzz session, whereby several small groups of pupils would be able to involve themselves in the brainstorming session. Brainstorming

session usually involves three main stages, i.e., Preliminary stage, Discussion stage, as well as the Evaluation and Conclusion stage.
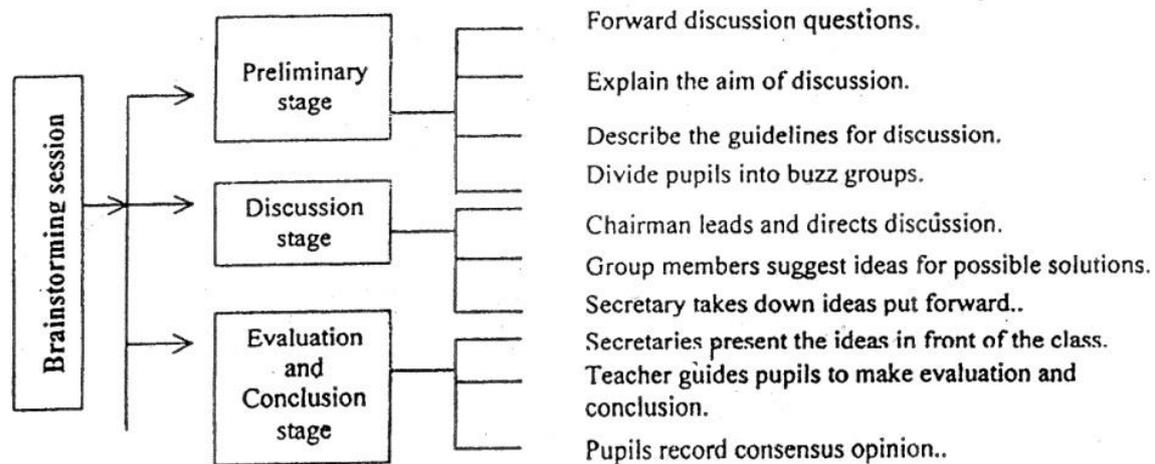


Figure 2 Procedure of Brainstorming Method

Source: Sang (2003), *An Education Course for KPLI: Student Development*, p. 22.
The research method for this study was provided as follows.

**Research Method**

Qualitative research method was used in this study. A good qualitative study combines an in-depth understanding of the particular setting investigated with general theoretical insights that transcend that particular type of setting (Taylor & Bogdan, 1998).

**Research Design**

In this study, a case study design and the grounded theory approach was conducted. The grounded theory approach is a method for discovering theories, concepts, hypotheses, and propositions directly from data rather than from a priority assumptions, other research, or existing theoretical frameworks (Taylor & Bogdan, 1998). Analytic induction was developed as a procedure for verifying theories and propositions based on qualitative data. The steps involved in analytic induction are:

(1) Develop a rough definition of the phenomenon to be explained.
(2) Formulate a hypothesis to explain that phenomenon.
(3) Study one case to see the fit between the case and the hypothesis.
(4) If the hypothesis does not explain the case, either reformulate the hypothesis or redefine the phenomenon.
(5) Actively search for negative cases to disprove the hypothesis.
(6) When negative cases are encountered, reformulate the hypothesis or redefine the phenomenon.
(7) Proceed until the hypothesis has been adequately tested (according to some researchers, until a universal relationship has been established) by examining a broad range of cases (Taylor & Bogdan, 1998). Figure 3.1 summarizes the version of the grounded theory approach.

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┌─────────────────────────────────────────┐
│              Collect data               │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│         Identify themes or develop      │
│     Concepts and ideas based on data    │
│              • Language                 │
│              • Quotes                   │
│           ▪ Practices/behavior          │
└─────────────────────────────────────────┘
        │                         │
        ▼                         ▼
┌──────────────────────┐  ┌──────────────────────┐
│ Review and compare   │  │ Collect additional   │
│     other data       │  │        data          │
└──────────────────────┘  └──────────────────────┘
        │                         │
        ▼                         ▼
┌─────────────────────────────────────────┐
│     Confirm/discard/refine/elaborate    │
│        On theme, concept, or idea       │
│      (build theory that fits the data)  │
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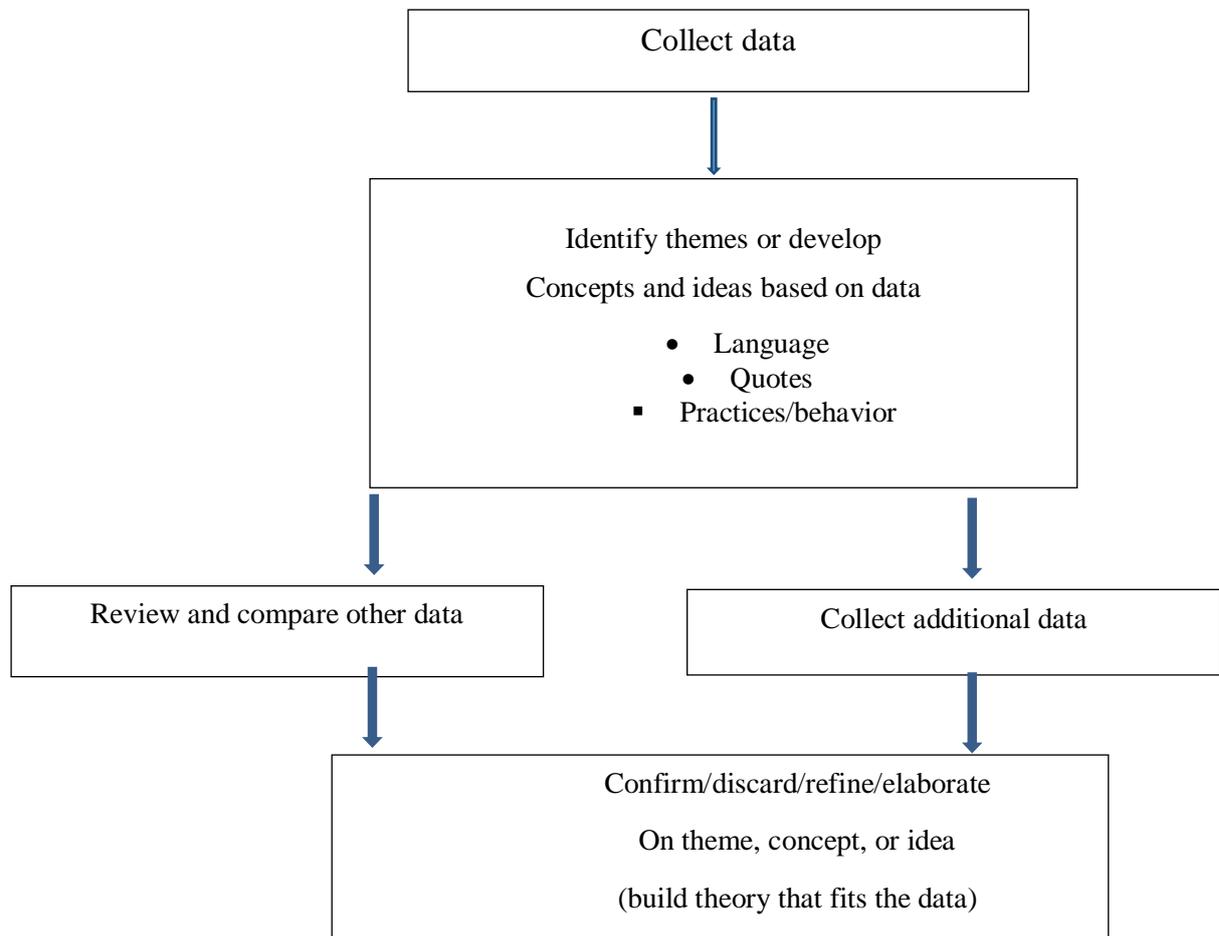
Figure 3 One version of the grounded theory approach

Source: Taylor and Bogdan (1998), *Introduction to Qualitative Research Method; A Guidebook and Resource*, p. 138

Since grounded theory originated in the work of Glaser, Barney and Strauss, Alselm (1967) its purpose has been to develop theories which are grounded in the data: which fit the data, which work in practice and are relevant to the researched situation (Glaser, 1982). It does this by using a particular process for analyzing the data.

**Population and Sample Size for the Qualitative Study**

Qualitative sampling is the process of selecting a small number of individuals for a study to get the key information (Mills & Gay, 2016). Qualitative researchers generally rely on the purposive selection of participants (Gay & Airasian, 2003).

In each selected classroom, master students were assigned to the group A and group B. In each group, 2o students were elicited by using random purposive sampling. Thus, a total of 4o students participated in the observation and interview question. The population and sample size for the qualitative study was shown in Table 1.

**Table 1. Population and Sample Size for the Qualitative Study**

| No. | Group | Population | Sample |
|-----|-------|------------|--------|
| 1 | A | 26 | 20 |
| 2 | B | 26 | 20 |
|   | Total | 52 | 40 |

**Instruments for the Qualitative Study**

Gay and Airasian (2003) stated that observations, interviews, phone calls, personal and official documents, photographs, recordings, e-mail messages and responses, and informal observation are all sources of qualitative data. The main instruments to collect data for the qualitative study are the observation checklist and semi-structured interview question.

**Observation Checklist**

The aim of observation checklist is to record the inductive/deductive presentations of contents. The presentations include induction as well as deduction. The observation checklist was developed by adapting the framework for improving concept formation behavior (Taylor & Bogdan, 1998). The sign system format, one of the methods of coding patterns for observing students' behavior was applied to develop the observation checklist. In this checklist, the behaviors are divided into five categories of induction or deduction: (1) curriculum theory, (2) curriculum philosophy, (3) criteria for selecting content, (4) curriculum process, (5) curriculum development model. The presence or absence of 40 behaviors were observed and recorded at (40 of 8 minutes intervals) and total length of time for observation was 320 minutes. Among the 40 observed behaviors, the numbers of 20 behaviors were assigned as induction and the left 20 behaviors were assigned as deduction.

**Semi-Structure Interview Questions for Students**

The main aim of the semi-structure interview questions for the students was to elicit their attitudes towards teaching of curriculum development by using brainstorming method. There were 10 interview questions for students. The questions were divided into three sub-topics: (1) demographic data for student, (2) Thinking behavior, and attitudes on brainstorming method. The questions on thinking behavior include three different categories: (a) induction, (b) deduction, and (c) reflection. Attitudes towards brainstorming method address four different categories: (1) effect on thinking skills, (2) relevancy with master students, (3) difficulties in practice, and (4) comments and suggestions.

**Data Analysis**

The qualitative data got from observation were analyzed through descriptive statistics (percentage). Gay and Airasian (2003) stated that a very common type of qualitative data analysis is the constant comparison method. Thus, Students' responses to interview questions were analyzed through the constant comparison method.

**Study Procedure**

The study was conducted in Yangon University of Education in 2023-2024 Academic Year. The observation study was started in the third week of June 2023 and ended in the end of July 2023. The duration of the study was taken about six weeks. Before starting the treatment period, the rough definitions of the phenomena in teaching of curriculum development were be explained. Students were assigned group A and B. Students were divided into four sub-group. Thus, Group A and B involve four sub-groups. Eight sub-groups were formed. Group members suggest ideas for possible solutions. Then, one of the group members presented the ideas in front of the class. Observation was conducted with 40 students who were already chosen for the qualitative study. The end of the observation period, interview was conducted.

**Research Findings**

In this study, the three research questions were explored through qualitative research methods. Master students were assigned to group A and group B. Four students from group A presented inductive presentations and four students from group B presented deductive presentations. Therefore, a total of 40 students actively participated. The findings are indicated with two main portions: (1) observation findings for thinking skill behavior of students and (2) interview findings for the attitudes of students on thinking skills through brainstorming method. Further,

**Findings of Observation on Thinking Skills Behaviors of Students**

**Research question (1).** To what extent do masters students have thinking skills in teaching of curriculum development?

Table 2 provides the thinking skill behaviors showed by 40 students during the individual session of 320 minutes of observation.

**Table 2 Findings of Observation on Thinking Skills Behaviors of Students**

| No. | Master Student | Inductive Presentation | % | No. | Master Student | Deductive Presentation | % |
|---|---|---|---|---|---|---|---|
| 1 | A1 | 5/5 | 100 | 1 | B1 | 4/5 | 80 |
| 2 | A2 | 5/5 | 100 | 2 | B2 | 5/5 | 100 |
| 3 | A3 | 5/5 | 100 | 3 | B3 | 3/5 | 60 |
| 4 | A4 | 4/5 | 80 | 4 | B4 | 5/5 | 100 |
| 5 | A5 | 5/5 | 100 | 5 | B5 | 4/5 | 80 |
| 6 | A6 | 4/5 | 80 | 6 | B6 | 3/5 | 60 |
| 7 | A7 | 4.5/5 | 90 | 7 | B7 | 3.5/5 | 70 |
| 8 | A8 | 5/5 | 100 | 8 | B8 | 4.5/5 | 90 |
| 9 | A9 | 4/5 | 80 | 9 | B9 | 5/5 | 100 |
| 10 | A10 | 5/5 | 100 | 10 | B10 | 4/5 | 80 |
| 11 | A11 | 4.5/5 | 90 | 11 | B11 | 3.5/5 | 70 |
| 12 | A12 | 5/5 | 100 | 12 | B12 | 4/5 | 80 |
| 13 | A13 | 4.5/5 | 90 | 13 | B13 | 3/5 | 60 |
| 14 | A14 | 4/5 | 80 | 14 | B14 | 3/5 | 60 |

| 15 | A15 | 5/5 | 100 | 15 | B15 | 4/5 | 80 |
|----|-----|-----|-----|----|-----|-----|-----|
| 16 | A16 | 4.4/5 | 88 | 16 | B16 | 3.4/5 | 68 |
| 17 | A17 | 5/5 | 100 | 17 | B17 | 4/5 | 80 |
| 18 | A18 | 4.5/5 | 90 | 18 | B18 | 3.5/5 | 70 |
| 19 | A19 | 5/5 | 100 | 19 | B19 | 4/5 | 80 |
| 20 | A20 | 5/5 | 100 | 20 | B20 | 3.5/5 | 70 |
| 21 | A21 | 4.5/5 | 90 | 21 | B21 | 3/5 | 60 |
| 22 | A22 | 4.4/5 | 88 | 22 | B22 | 3.4/5 | 68 |
| 23 | A23 | 5/5 | 100 | 23 | B23 | 3/5 | 60 |
| 24 | A24 | 4.5/5 | 90 | 24 | B24 | 3.5/5 | 70 |
| 25 | A25 | 4.7/5 | 94 | 25 | B25 | 3.6/5 | 72 |
| 26 | A26 | 4/5 | 80 | 26 | B26 | 4/5 | 80 |
| 27 | A27 | 4.6/5 | 92 | 27 | B27 | 3/5 | 60 |
| 28 | A28 | 5/5 | 100 | 28 | B28 | 4.5/5 | 90 |
| 29 | A29 | 4.7/5 | 94 | 29 | B29 | 3.4/5 | 68 |
| 30 | A30 | 5/5 | 100 | 30 | B30 | 4/5 | 80 |
| 31 | A31 | 4.7/5 | 94 | 31 | B31 | 4.5/5 | 90 |
| 32 | A32 | 5/5 | 100 | 32 | B32 | 4.7/5 | 94 |
| 33 | A33 | 4.6/5 | 92 | 33 | B33 | 4.5/5 | 90 |
| 34 | A34 | 4.7/5 | 94 | 34 | B34 | 4.6/5 | 92 |
| 35 | A35 | 5/5 | 100 | 35 | B35 | 4.5/5 | 90 |
| 36 | A36 | 4.4/5 | 88 | 36 | B36 | 4/5 | 80 |
| 37 | A37 | 4.7/5 | 94 | 37 | B37 | 4.4/5 | 88 |
| 38 | A38 | 5/5 | 100 | 38 | B38 | 4.5/5 | 90 |
| 39 | A39 | 4.6 | 92 | 39 | B39 | 4/5 | 80 |
| 40 | A40 | 4.7 | 94 | 40 | B40 | 3.5/5 | 60 |
| | Total | | 86.25 | | Total | | 77.5 |

The result in Table 2 showed that Group A students exhibited thinking skills behavior up to 86%. Group B students exhibited 77.5% of thinking skills behaviors. Based on Table 2, the comparison of master students' thinking skills in terms of two groups was provided in Figure4.



**Figure 4 Findings of Observation on Thinking Skills Behaviors of Students**

It can be easily seen that the inductive thinking skills is higher than deductive thinking skills among the master students.

**Finding of Group A Students' Responses to Interview Questions**

The followings are the findings of group A students' responses to interview questions.

All students said that there was a lot of discussions on inductive presentations of curriculum development. The inductive thinking is in accordance with the development of curriculum. They explore the current curriculum of other countries such as Japan, New Zealand, Hong Kong and Netherlands. Generalizations are elaborated to be applied in practice.

**Findings of Group B Students' Responses to Interview Questions**

The followings are the findings of group B students' responses to interview questions. All students said that there was a lot of discussions on deductive presentations of curriculum development. Deductive thinking begins from theoretical knowledge and apply on to its practical applications. They investigate the current curriculum of other countries such as Singapore, Vietnam, Philippines and Cambodia. They wanted to confirm the criteria of selection of content may be involved in these countries' curriculum contents. They said that they also examined which curriculum development model may be used in these countries.

**Discussion, Suggestion and Conclusion**

Brainstorming is a useful teaching method for developing higher order thinking skills that enable students to interpret analyze and manipulate information. Brainstorming increase interest and motivation that ultimately enhance memory. Increased attention and desired to learn are the essential ingredients for learning and are often more important for thinking than retention. The present finding is in harmony with the findings of (Rhaman & Khalil, 2011) who stated that every student participates cooperatively and democratically and the competition among the students is reducedin teaching of social studies at secondary level. And they can extend their own thinking to be congruent with the questions.

Brainstorming method of teaching engages both the teachers and students in thinking. And, brainstorming method captured students' attention and increased their active involvement in the class. Brainstorming creates a collaborative climate in an environment of trust and cohesiveness, which encourages an open and lively exchange of ideas among members. According to the findings, it can be concluded that brainstorming method is effective in improving teaching of curriculum development.

**Suggestions**

Effective use of this method to teach curriculum development can provide students the opportunity to participate in the activities and maximize individual potentials in learning the subjects. In order to use brainstorming method effectively in school subjects, the teacher needs to consider the following points.

- Before implementing brainstorming method, the teachers should understand the procedures of brainstormingmethod that they will use to meet the needs of students.
- The teachers should guide the students in expressing their ideas and opinions with a view to identifying and solving problems effectively.
- The teachers should carefully manage classroom conditions to reduce time constraints.

## Conclusion

In practice, curriculum development is a dynamic, and interactive process. For a successful curriculum, curriculum development never really ends. The students' thinking and learning about phenomena of the curriculum development which are clearly central to good teaching. Thus, choosing specific teaching methods that best achieves course objectives is one of the most important decisions a teacher makes.

To sum up, brainstorming motivates students to work together to achieve a common objective: Seeking to learn, Students work as member of an independent group. The demands of 21$^{st}$ century skills are critical thinking, creativity, communication, and collaboration that can access information, sharing and using it.

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## Acknowledgement

# A Study of Performance Management Systems for Small Business Efficiency and Success

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**Abstract :**

To survive and expand within a competitive landscape, enterprises must consistently enhance their operational effectiveness. Human resources, instead, may be seen as a fundamental organizational asset, sometimes referred to as "knowledge workers" within the emerging framework of the knowledge-based economy. In recent years, there has been an increased focus among organizations on the well-being of their workers, prompting a search for strategies to enhance the work environment and foster employee motivation. This is due to the recognition that the human person is the organization's most valuable resource. Companies that experience a depletion of their intellectual capital have a significantly diminished likelihood of long-term viability. The recognition of significant capital necessitates the implementation of performance management, namely via the use of a performance assessment system. The objective of this article is to provide a comprehensive and thorough evaluation of "performance management systems" as a critical practice within the realm of human resource management. One of the main considerations that will be addressed pertains to the introduction of fundamental concepts associated with human resource management (HRM) performance, alongside the examination of various facets of performance management and performance evaluation. Additionally, the principal methodologies for appraising employee performance will be explored.

**Keywords:** Employees, Performance Management & Small Business

## Introduction

From a managerial perspective, the assessment of employee performance is an imperative and fundamental responsibility in gauging the extent to which people are advancing towards the objectives and missions of the firm. Within a context characterized by turbulence and heightened tension, the process of performance assessment serves as a means of ascertaining pertinent information and providing feedback, while also identifying the strengths and flaws inherent in an organization's performance and standing. Moreover, performance management serves to structure and regulate both individual and organizational conduct, therefore enhancing performance across all hierarchical levels within the corporation. Research results indicate that organizations that possess efficient and effective performance management systems have increased profitability, improved financial turnover, and enhanced productivity. In order to achieve successful competition, it is important to enhance both individual and organizational performance. The evaluation of individual and organizational performance enables managers to enhance their ability to effectively control the extent to which the strategic objectives of the company are achieved. In order to assess the extent to which the organization's goals are being achieved, it is essential for managers to establish and sustain communication with all staff. This requires the successful design of work roles, the selection of adequately skilled individuals for organizational positions, the provision of suitable rewards for achieving the strategic objectives of the company, and the provision of necessary incentives.

Performance management serves as a strategic mechanism for assessing and evaluating individuals' abilities, talents, knowledge, and behaviour via the processes of review and audit. Senior management acquires understanding about the fulfilment of the organization's present and future demands, along with evaluating employee behaviour's alignment with goal achievement and assessing individual suitability for accomplishing organizational objectives. Are individuals experiencing a sense of satisfaction in their contribution towards achieving the established goals? Can the organization effectively recognize, encourage, and incentivize the behaviours that are essential for attaining strategic objectives and advancing? Does the corporation have a well-established organizational culture? The concept of performance management refers to the systematic process of establishing goals, monitoring progress, providing feedback, and evaluating the performance of individuals, teams, or organizations in order to optimize productivity and achieve desired outcomes. The majority of organizations have implemented a performance management system to effectively accomplish crucial objectives related to human capital management. These objectives encompass motivating employees to enhance their performance, supporting employees in their talent development, and establishing and reinforcing the organizational culture. The tasks included in this role include the identification of qualified candidates for development, the identification of personnel who are exhibiting subpar performance, and providing support in the execution of company initiatives. The performance of an organization is contingent upon the performance of its people resources and their interactions with the resources, facilities, and technology at the disposal of the enterprise. The performance of human resources, however, is contingent upon their level of motivation and their capacity to execute. Moreover, the capacity of human resources is contingent upon their job-related knowledge and proficiency in effectively using that knowledge to carry out tasks and engage in activities.

Furthermore, human resource motivation is influenced by the employees' attitudes as well as the environment and situations in which they operate. The process by which these functions are implemented in the organisation is known as performance management. In other words, performance management is a system of policies and measurements that focus on individual performance in order to achieve goals. Without a doubt, performance management strategies serve the organisation in numerous ways, including "estimating training needs" and "creating the correct criteria for planning staff displacement to better meet their mental, physical, and physical conditions." "Creating the ability to determine the validity and accuracy of employment tests," "Establishing a reasonable promotion system based on the competence and future needs of the organisation," "Reducing dissatisfaction and complaints arising from discrimination and biased opinions," and "Establishing a reasonable promotion system based on the competence and future needs of the organisation" were all mentioned.

The following discourse presents a concise overview of the salient components of performance management, which establish a connection between an organization's strategic objectives, employee performance, organizational growth, incentives, and overall organizational results. The process involves formulating performance objectives for both individuals and groups, which are aligned with the strategic goals of the company, in order to ensure that individual performance is congruent with the organization's requirements. By using a structured methodology to evaluate and measure the efficacy of both workgroups and individuals in achieving their intended goals; this study aims to establish a connection between performance assessment and employee development, as well as explore the role of rewards and encouragement in fostering employee growth.

Additionally, it seeks to examine the significance of conducting a comprehensive review of performance to promote excellence in employee behaviour. Performance evaluation, in its most comprehensive sense, encompasses a range of actions and activities that are undertaken with the objective of enhancing the use of facilities and resources, while also attaining economic objectives and practices that are both effective and efficient. This technique is described as "a systematic and systematic examination of employees' performance in relation to how they perform tasks in given positions and determine their potential for growth and improvement" in the field of human resources. It is vital to analyse the human resources in the organisation in order to understand the consequences of their performance and efficiency. In this approach, it recognises and executes the strengths and limitations of human resources in order to reach organisational goals.

The enhancement and progression of human resources Performance assessment serves as a key indicator for assessing the effectiveness of an organization. If an individual's performance demonstrates improvement, it may be reasonably inferred that the overall performance of the organization would also see enhancement. In contrast, performance assessment is an ongoing managerial practice whereby managers consistently observe and evaluate the behaviour of their workers. The assessment process, including both official and informal aspects, has influence over many employment-related outcomes such as salary, promotion, dismissal, transfer, and training. This inquiry seeks to elucidate the distinctions between management and performance assessment, as well as the potential consequences associated with each. This subject is of significant importance and relevance in this context. In addressing this inquiry, it is imperative to assert that performance management is akin to performance measurement, with the objective of evaluating the efficacy of a company in both cultivating and enhancing its workforce and organizational structure. This is achieved by enhancing employee and group productivity through the acquisition of skills, heightened commitment, and motivation. In contrast, a performance evaluation is a method used to evaluate the effectiveness of an employee's performance by comparing it against predetermined benchmarks or criteria. Based on this line of reasoning, it may be argued that performance assessment can be seen as an integral element within the wider framework of performance management.

The primary objective is to evaluate the performance of employees, mitigate instances of subpar performance, and facilitate the advancement of employee achievements. Various experts have articulated several objectives for the purpose of assessing employee performance. The following are a few of the objectives: The process of establishing a collaboration group involves the consideration of individual goals and the convergence of organizational objectives. It is important to ensure that employee categorization is fair and equitable, taking into account the diverse talents and skills of staff members. Additionally, efforts should be made to discover and enhance the strengths and abilities of employees. The objective is to provide an equitable system for promoting and motivating workers, as well as establishing criteria for appropriate salary and benefit increments. Additionally, it is important to enhance communication channels between managers, supervisors, and employees. Furthermore, Human Resource Planning (HRP) should be used to effectively align workforce requirements with organizational goals. This study aims to assess the efficiency and productivity of labour, as well as the capacity to modify job descriptions and organizational positions. Despite the existence of several regulations and bylaws pertaining to the implementation of systematic assessment systems for assessing the performance of managers and workers, the execution of evaluation programs has not

proven to be effective. Undoubtedly, the inclusion of certain confusing factors has led to the complete lack of success of these programs in several organizations and corporations.

**Performance Appraisal Programmes**

**Fear of Conflict :** Certain managers hold the belief that by providing clear communication on flaws or assessment outcomes, including the delivery of negative evaluations, they may effectively interact with their subordinates. The present state of the economy: In many instances, challenging economic circumstances lead individuals to perceive that the compensation received by their workers is not proportional to the value of their work, and moreover, that a part of it is subject to adjustment via the assessment system. The prevailing sentiment within a community: If the collective societal perspective is that competency does not serve as the fundamental basis for advancement, it is probable that the implementation of an assessment system inside a corporation will prove to be ineffectual.

**Human error :** Evaluators can still make mistakes, no matter how meticulous they are about their work. These errors are divided into five categories: halo error (all features are evaluated based on some type of positive or negative feature), severity error (good employee performance, average evaluated, and average employee poor), lax error (moderate, good employee performance, and poor, moderate employee rating), the centre tendency error (all staff scores are close to the midpoint), and latency error (employee score based on the month, week, or day) at the conclusion of the evaluation period, Are split into two groups.

**Timing :** Certain CEOs have the belief that the process of completing assessment plans is time-consuming. Based on the available research, it has been observed that individuals exhibit a reluctance to complete a single-page assessment form, despite its accessibility.

**Training that is not appropriate :** In addition to the restrictions indicated above, a lack of sufficient training can lead to other problems like as prejudice among employees, the impact of the evaluator relationship, a focus on subjective performance criteria, and so on. Step-by-step performance management model The four-stage Deming model is usually included in most performance management models, and it consists of planning and targeting, continuous execution and monitoring, control of strengths and weaknesses, feedback, and finally performance analysis and review.

A) Conducting a comprehensive "job analysis" serves as a fundamental means of acquiring organizational business knowledge prior to formulating performance standards for normative planning and identifying pertinent performance indicators. The process of prioritizing and creating performance standards for each work is undertaken subsequent to the collection and synthesis of job-related information. Key performance metrics consist of a collection of comprehensive criteria, together with specialized indicators according to job categories, work type, and other relevant factors. The subsequent phase entails determining the methodology for quantifying each performance indicator, along with assessing their extent and significance.

B) Assessment, constant monitoring, tracking, mentoring, and performance measurement are all tasks that must be completed. Managers and supervisors should oversee, support, lead, train, delegate, and provide feedback as instructors once goals and plans have been

specified and agreed upon. During the assessment period, the manager must comprehend, evaluate, and advise the employee on how to change and improve his or her behaviour and performance in order to ensure the successful implementation of programmes and attainment of goals. Management and supervisors should also aid the coach in their job of reviewing and responding to each action, as well as learning about their behaviours and behaviours. (Coaching is a flexible and loving procedure based on two people's mutual agreement, with the coach providing ongoing feedback.)

C) Control the standard's strengths and flaws and provide comments. The third phase in the process is to incorporate employee performance management, which involves analysing employees' behaviour and performance in relation to agreed-upon and specified goals and expectations, as well as recognising their strengths and shortcomings. Employees must have faith in their supervisors and accept the outcomes of this appraisal in order for the phase of work to succeed. It should be remembered that, like with any human action or task, evaluating employee behaviour and performance has the possibility for inaccuracy. In fact, evaluating is one of the most challenging and time-consuming tasks that managers must undertake.

D) This study aims to conduct a comprehensive analysis and evaluation of performance, while also exploring viable solutions. Furthermore, it seeks to propose an improvement approach for both individuals and groups. The last stage of the employee performance management process involves evaluating employee performance and implementing corrective measures to enhance performance in future planning periods. This stage serves to conclude the process and imbue it with a managerial aspect. After conducting the requisite assessments and fulfilling the staff's performance appraisal document, which encompasses an assessment of the employee's competencies and deficiencies, as well as their achievements and shortcomings, it is imperative for the manager to meticulously scrutinize and evaluate the employee's performance and conduct during an in-person meeting, and collaboratively arrive at significant determinations.

Consequently, the enhancement of employee and organizational performance and achievement will ensue. To ensure the completion of the performance cycle and facilitate its continuous improvement, it is essential to establish a systematic process that involves regular evaluation, redefinition, and enhancement of job performance for each phase. By using this approach, we have the ability to influence the business cycle and steer the organization towards a trajectory of expansion and improvement. The assessment of appraisers has significant importance in the establishment of a comprehensive performance appraisal system. In practice, after the assessment criteria and tools have been identified, the selection of evaluators must be determined by the evaluation approach and the level of organizational maturity. The appraisal of employees in the majority of organizations is typically overseen by their immediate management or supervisor. The person, a specialized committee, or even his or her co-workers and subordinates might perform the assessment.

**Supervisory or Managerial Evaluation**

Supervisors are in charge of the performance appraisal process in many organisations. The supervisor's perspective is important because of the intimate working relationship between supervisors and personnel, as well as the level of skill and expertise. An excellent source for evaluation is their superiors. Self-Evaluation: Individuals who are aware of their

responsibilities, performance standards and standards, supervisor expectations, and organisational goals are the ideal people to evaluate their own performance. Individuals must grade themselves on their traits and capabilities, as well as comment on their performance, in order to self-assess. These statements can, of course, be overdone at times. Peer-to-peer evaluation: In organisations, peer-to-peer review is uncommon. It is, nonetheless, one of the most trustworthy sources of information in the appraisal process. Peers, like careers, are knowledgeable with the job needs of the person being assessed and have a great opportunity to monitor their colleagues' work activities in order to perform an evaluating role. Peer evaluation is reliable when teamwork occurs over a lengthy period of time and the tasks assigned require a relative response and reaction time

**Subordinate Evaluation :** Organizations that have implemented a comprehensive quality system use this kind of review as they continually seek opportunities for improvement. One of the primary advantages of subordinate assessment is its capacity to enhance policymakers' understanding of supervisors' communication skills, staff preferences, and resource allocation capabilities. One of the challenges associated with this particular approach is in the perception of many workers, who see this sort of review as a means to accrue points, while others perceive it as an opportunity to rectify past transgressions. In summary, the majority of workers tend to evaluate their superiors primarily on the basis on their organizational capabilities rather than their actual job performance.

**Evaluation Committees :** Evaluation committees are established with the purpose of appraising the performance of people, aiming to mitigate inherent biases and prospective biases that may arise during individual evaluations. The composition of this committee consists of individuals holding managerial and supervisory positions, who engage in the practice of making observations pertaining to their colleagues inside the workplace. In order for this method to be effective, it is essential that supervisors, who possess a comprehensive understanding of employee behaviour, engage in close cooperation and communication. The following are ten performance assessment methodologies that align more effectively with the distinctive attributes of a start-up: Ten Strategies for Assessing Employee Performance in Small Businesses and Start-ups and established companies exhibit distinct differences according to their individual situations and qualities. Most of these start-ups are based on a novel concept with the goal of creating a technical advancement. Initially, they have little financial capital and mainly depend on the founders' expertise, ambition, and enthusiasm. The human resources issue for start-ups is of utmost importance due to the presence of clever and technologically savvy individuals who possess distinct needs, interests, and expectations compared to conventional employees. Consequently, their engagement in the start-up environment becomes more intricate. The importance of teamwork and the associated skills cannot be overstated in achieving success for a start-up. Therefore, it is crucial to carefully select a workforce that is well-suited to the job requirements. Subsequently, it is necessary to assess and effectively manage their performance in order to enhance their capabilities and ensure that their activities are aligned with the goals of the organization.

The Assessment Center Method is used to evaluate the social standing and competencies of people and workers. The assessment process reveals employee personality qualities, including but not limited to tolerance, reflection, and acceptance.

The Behaviourally Anchored Rating Scale (BARS) is a contemporary approach to assessing employee performance that focuses on evaluating and categorizing people

according to their observable behavioural characteristics. According to experts, this treatment is very precise and effective.

Evaluation of Essay Assessment: This involves the supervisor or immediate manager generating a comprehensive descriptive essay on the individual's performance. The approach used in this technique is characterized by a lower degree of organization, necessitating the evaluator's ability to effectively discern and articulate the attributes, merits, and limitations of the individual under consideration. The deficiencies shown by employees in the context of emerging firms make this method very cost-effective and efficacious.

The Critical Incident approach involves the collection of both good and negative employee responses to a particular stimulus, similar to the previously mentioned approach. Consequently, an individual's capacity to manage routine tasks is evaluated.

The Human Asset Accounting Method is based on the fundamental concept that human capital is closely connected to the value generated inside the organization. The instrument in question is widely recognized as an effective, pragmatic, and economically viable solution for enterprises. Consequently, the determination of whether an employee merits promotion or whether the partnership with such person should be ended hinges upon the value contributed to the organization as a direct consequence of their actions. Due to its simplicity of implementation and monitoring, several start-ups adopt this method as a means of assessing employee performance.

One approach that may be used in management is Management by Objective (MBO). This strategy incorporates a certain level of participation from everyone involved and is characterized by its efficient implementation process, which also proves to be cost-effective. The workers, managers, or partners of both sides establish objectives, which are then evaluated in terms of the achieved quality and quantity. One of the key advantages of this technique is its consideration of the need for continuous feedback, while also effectively saving time and energy for the assessors.

The Method of Paired Comparison is a systematic approach whereby workers are assessed by comparing them to other employees in a two-way manner. Considering the significant number of assessments that are necessary, this particular method would be better suited for start-ups and small-scale enterprises that operate with limited teams.

The "Rating Scale" is a method of conducting performance evaluations that use an individual skills rating system. In the event that an employee's ratings on this scale fall below a certain level, there are provisions in place to provide training and support aimed at improving their performance.

One common approach to appraisals involves evaluating individuals based on their attributes. This method focuses on identifying and assessing the personal characteristics and qualities of individuals in order to make judgments about their performance and potential. By examining features such as intelligence, motivation, communication the approach of focused evaluation is known for its efficacy in enhancing organizational business ethics and work culture. It involves the assessment of workers' performance based on several attributes, including but not limited to usefulness, self-confidence, and correctness.

The concept of 360 Degree Input involves the collection of input from all individuals who interact with a person throughout their professional hours. This includes individuals such as subordinates, co-workers, top-level supervisors, and even the person themselves. When compared to other techniques, the cost associated with this evaluation approach is rather high.

**Conclusion**

One may argue that the Performance Management System plays a crucial role in the achievement of management success for small businesses. Put simply, Premenstrual Syndrome (PMS) serves as a crucial operational mechanism that empowers tiny enterprises to attain exceptional outcomes. The implementation of a proficient Performance Management System (PMS) has the potential to enhance staff performance inside firms. An optimal system should foster an organizational atmosphere characterized by trust, autonomy, cooperation, communication, and teamwork, among several other factors. The establishment of a comprehensive system inside an organization is of utmost importance, as it serves the twin purpose of identifying and acknowledging high-achieving people, while also facilitating the long-term success of both the individuals and the organization as a whole. Many contemporary organizations see the need of implementing a robust Performance Management System and are allocating substantial resources towards its development and implementation. The performance management system is a framework designed to effectively monitor, evaluate, and enhance the performance of individuals, teams, and organizations. It encompasses several processes, tools, and techniques that enable the establishment of clear goals Nevertheless; there remains a significant amount of diversity in the performance of the staff. The design of the company's performance management system should be formulated in a manner that establishes a connection between the performance expectations of workers and the overarching objectives of the organization, with the ultimate aim of attaining a competitive advantage. In conclusion, the performance management system serves a dual purpose as it not only serves as a means of assessing the alignment of an employee's conduct with established standards, but also functions as a significant and strategic organizational instrument for establishing a connection between individual behaviours and the overarching objectives of the company. As previously said, we have explored the ways in which a robust performance management system and its essential components contribute to the attainment of business goals for small enterprises.

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# A Review of Existing Treatment Models and Municipal Solid Waste Management Policy in Thailand

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**Abstract :**

Due to rapid industrialization, privatization, globalization, and the growing economy, municipal solid waste management has developed an environmental challenge not only globally but also in Thailand. The present study is based on the review of literature available on solid waste management and technologies used to address it in Thailand. The researcher has reviewed fifteen research articles on solid waste management and technology used in Thailand. Using the content analysis method, the researcher has highlighted methodologies, processes, research designs, and results given by more than fifteen research articles. The article is an attempt to understand the viewpoints of different researchers and the models suggested by the researcher to address and resolve the environmental problem caused by the solid waste created, especially in the cities. However, the technology and model suggested by the researcher need to be appropriate and cost-efficient for municipalities; the researcher is also keen to find out the opportunities for solid waste management and to recognize the challenges and constraints for the same. The paper also describes the municipal solid waste management policy and its framework.

**Keywords: -** Solid waste management, models of waste management, waste management policy

## The State of Solid Waste in the Country:

In Thailand, waste collection and disposal of municipal solid waste are mainly conducted by municipalities. According to the Pollution Control Department government of Thailand, in 2021, nearly 25 million tons of solid waste were created, out of which 8 million tons of solid waste were reused, 9 million solid waste is to dispose of, and 8 million solid waste was disposed of incorrectly. According to Thailand's Pollution Control Department (PCD), the largest proportion of plastic in municipal solid waste is derived from plastic bags (roughly 80%) out of the 2 million tons of municipal plastic waste generated in 2018. A study done in Thailand reported the need for facilities to support waste separation, waste containers, waste collection points, and more or modified waste collection vehicles. Technical solutions also included increasing the frequency of waste collection days and changes to collection routes. Second-tier solutions for waste reduction through recycling and composting were also mentioned (Taiwo, 2011). In the year 2015, about 73560 million tons of solid waste were created in Thailand per day, that is 1.3 kg/per person/per day. The existing municipal solid waste technologies are facing challenges nowadays, but Thailand is making improvements to address the problems of municipal solid waste. Thailand has given much priority to the environment, and thus, it has put environmental aspects in its policies and regulations. According to the NREP Policy from 1997 to 2016, the Government of Thailand has implemented an

environmentally sound waste disposal system and improved the waste disposal capacity of local government agencies. The Thailand government also inspires the role of the private sector in research and development for the recycling of raw materials and clean technology. Additionally, the Government will strictly control and prevent the waste from other countries into Thailand and avoid becoming an end receiver of waste. Wastes are classified into five categories in Thailand based on the sources of waste creation they are classified as 1) Municipal Solid Waste, 2) Waste those are infectious, 3) Hazardous waste from industrious, 4) Non-Hazards Industrial wastes, and 5) Community Hazardous Waste. Different ministry takes care of the different waste as classified in Table.1.

**Table. No.1**

| Sr. No. | Ministry | Type of Wastes |
|---------|----------|----------------|
| 1 | The Ministry of Natural Resources and Environment (MONRE), especially the Pollution Control Department (PCD) | 1) Municipal Solid Wastes and 5) Community Hazardous wastes |
| 2 | The Ministry of Public Health | 2) Waste those are infectious like hospitals and health care centers |
| 3 | Ministry of Industry (Department of Industrial Work) and The Industrial Estate Authority of Thailand (IEAT) | 3) Hazardous waste from the industrious 4) Non-Hazards Industrial wastes |

Source: Kojima, (2019)

Bangkok has wholesale and retrial mechanisms of food supply network, which have the food entrepreneurs distributed all over the region. There are more than 60 large retail and wholesale markets in Bangkok all over nearby provinces distributed along the main roads and making Bangkok a unique region. Modern trading in Bangkok has different branches, which include Supermarket, Macro, Lotus, and 7-eleven; these all have grown from the sales of both fresh food and packed food. To develop and strengthen the business and trade, they have developed and enhanced the infrastructure, which has resulted in a change in lifestyles and has given customers open access to the market and the goods are fresh foods and packed chilled foods. As a result, and according to a report on consumer information for sustainable consumption and production in the food supply chain in Bangkok submitted to the United Nations environmental program Thailand 2021, food waste that occurred in Bangkok during the past 10 years, the proportion was in the range of 42-52% of the total municipal waste generated in Bangkok. When solid waste is effectively and efficiently managed, various benefits can be derived from the management.

**The scenario of policy formulation and implementation on solid waste management in Thailand**

**National Integrated Waste Management Policy**

The national integrated waste management policy was introduced in the year 2012 with a focus on integrated solid waste and wastewater management (UNEP, 2012), Thailand started its journey towards national environmental policies and plans. To minimize the production of solid waste in Thailand the National integrated waste management policy promoted the 3R policy which includes waste reduction, separation at sources of waste created, waste matter recovery for energy use, composting, and use of recycled materials.

**National Environmental Policies and Plans:**

Thailand's government has improved and implemented environmentally-friendly sound solid waste management system and developed waste disposal capacity of local government, according, according to the Natural Resources and Environmental Policy (1997-2016), the Government has implemented an environmentally sound waste disposal system and improved the waste disposal capacity of local government agencies.

**National 3R strategy:**

The 3r strategy was finalized by the Pollution Control Department (PCD) in Thailand aiming to meet the objectives of integrated solid waste management which mainly focuses on the 3Rs which are reducing, reusing, recycle. This strategy aims at minimizing the generation of waste enhancing waste separation and segregation, reusing the waste, and recycling the waste in every part of the country. The strategies consist of the upgrading of resource efficiency, sustainable consumption, minimizing waste, reusing and recycling, and use of alternate technology for the treatment of waste and effective disposal. The strategies cover the whole life cycle analysis of waste created.

**The 3rs Policy was explained by Sang-Arun, J., Bengtsson, M., & Mori, H. (2011) :**

1. Reducing: "Reducing" here denotes reducing consumption and reducing unwanted waste by cautious research of raw materials or by careful utilization of goods. Reexamining the means by which goods are created and utilized is measured as very crucial for the effective application of the 3Rs and especially for waste reduction. The best practice for reducing food wastage is to research food needs and domestic consumption prior to purchasing, cooking, or ordering food.

2. Reusing: Reusing here refers to two activities: i) the use of old products with or without repair for their original purposes. For example, an old refrigerator from a rich family can be reused by a poor family. ii) the use of a product that cannot function as it is in its original state can serve as a new type of product with little or no processing for example paper or glass that can be reused for making papers or new glass materials.

3. Recycling: Recycling involves a complicated set of actions in a process to recover resources from waste. Recycling takes time, labor input, and greater venture and may create more GHG emissions throughout the process than reuse and reduction. A product from the recycling process is generally dissimilar from the unique one. Recycling should, in principle, be applied to organic materials that cannot be reused. Recycling can cause some GHG emissions, but these can be predictable to be smaller than the GHG emissions that would happen as an outcome of landfill disposal. The aim of recycling organic waste is to recover precious nutrients and energy. Nutrient recovery involves composting and organic extraction.

**Technological solutions and successful models of solid waste management in Thailand**

From the articles and studies and reports of the Pollution control department of Thailand, it is learned that the major waste produced in Thailand, especially in Bangkok is food

waste. After reviewing the research found many models and technologies which are working effectively in solid waste management in Bangkok, some of the models suggested and studied by the Report on consumer information for sustainable consumption and production in the food supply chain in Bangkok submitted to the United Nations environmental Programme Thailand 2021 are discussed as follows;

**Central groups:**

Central Group is a company with clear strategies and exploits plans for reducing waste, especially food waste in hotels, restaurants, and, particularly supermarkets and malls. The company prevents waste generation by accepting an auto-replenishment system to check available stock, control restocking, and identify products with an expiration date. The overloaded stock of food products was donated and Central's department store in Bangkok segregated their food waste so that it would be turned into compost. Operators are asked to the daily record and report the quantity of segregated waste to the headquarter with a waste management application so that they can assist in planning while chefs in hotels were asked to decrease waste in cooking meals and to make the greatest competent use of ingredients. waste segregation is reportedly carried out every morning. Edible products are donated while the rest was used in generating biogases with a machine and for composting.

**Eden Agritech Co., Ltd.**

The company that exports fruits and vegetables produce Naturen, a natural extract, to extend the shelf life of their products. The extract mixes with biological and film technologies to produce an edible coating. Nuturen can be applied by dipping or spraying and creates a coating that is invisible to the naked eye. The coating regulates surface contact with water, air, and other gases, extends the products' expiration date by 5 times, slows the growth of microbe, and preserves vitamins and other nutrients in the products. The firm adopted Sustainable Development Goals (SDGs) as guidance for meeting multiple business targets by looking beyond lengthening the life of fruit and vegetable products and aiming toward contributing to the preservation of the Earth and communicating messages on sustainability.

**Mullika Inter Food Co., Ltd.**

Mallika has been managing 27 restaurants for over a decade. The firm planned and managed the entire supply chain of the business from acquiring food from markets and the firms' organic farms in Lopburi Province, storing and distributing products to retrieval of food waste and byproducts. Most food wastes were found to derive from leftovers, unused vegetables, and bakery products with expired dates, and the waste was used in generating biogases while the waste liquid was turned into bio-fertilizer and used in vegetable farms in Lopburi Province. Biogases generation was, however, found to be inefficient when the waste composition of carbohydrates, protein, and plant fiber is unstable or the waste consists of too many vegetables, and the firm was found to be interested in acquiring machines to produce fertilizer from food waste within 24 hours. The price tag on the machinery remained relatively high, however. Lemon peels were used in producing a bio-agent which was used with dishwashing liquid in grease traps and wastewater treatment ponds. A mixture of vinegar and rice whisky was used as a pesticide, coconut coir was

sold as animal feed and coconut endocarp was used as a container for growing plants at farms in Lopburi Province.

## Food Intel Tech (FIT) Application

FIT application was developed by Light Blue Environmental Consulting Co., Ltd. for recording and conducting an in-depth analysis of food waste in order to reduce the generation of waste and calculate disposal costs. The application requires information on the weight, amount, type, and origin of food waste as well as on meals and other causes associated with the waste generation. The application displays the situation on food waste based on comparative analysis with base-year and data provides weekly summaries on food waste and reports on greenhouse gases emission. Fifteen hotels and restaurants in Bangkok were found to be using FIT which reportedly reduce food waste in the restaurants by 51.6%. The application was also noted for enhancing the capacity to plan the effective reduction of food waste in kitchens, building awareness of the waste's impacts on the environment, and reflecting the cost of food waste on hotel and restaurant operators.

## Yindii Application

Yindii was found to assist hotels or restaurants in selling their excessive stock of food or nearly expired food products to consumers at a cheaper price so that they might not turn into food waste. Around 150 hotels and restaurants were found to be using the application and consumers can pick hotels or restaurants of their choice and place reservations on food products during the day. The products are packaged and can be delivered or picked up in the evening. If the orders are sold out, the establishments are to replace them with other similar products. Yindii communicates to younger consumers how much contribution they made to mitigating greenhouse gases emission by using the application, a customer survey found that 80% of the customers had been unaware of environmental impacts from food waste before using the application and the application was thus instrumental in communicating the message.

## Clear Plate Application

Clear Plate is an application used in China to reduce leftovers in each meal. The users are required to take pictures of their plates after their meals and points are rewarded for not having any leftovers. The points can be collected and exchanged for prices or used to donate meals for those in need. The application has become a tool for reducing food waste in multiple organizations. By using the application, over 10,000 leaderboards were set up in universities, restaurants, firms NGOs ad state agencies to display a ranking of contributors to reducing food waste (leftover). Clear Plate also organized activities in more than 2,000 universities on World Food Day to campaign against food waste. The activities were participated by millions of students. Clear Plate was found to place the focus on the younger generation in efforts to reduce greenhouse gases emission by engaging with students and celebrities.

## Scholars of Sustenance Thailand (SOS)

SOS is a non-profit organization that collects a donation of quality food leftover from hotels, department stores, food factories, restaurants, and shops in Bangkok, Phuket

Province, and Hua Hin District of Prachuap Khiri Khan Province. The food was picked up at the establishments, checked for safety, kept in storages with temperatures of 3-4 Celsius, and then distributed to orphanages, foundations for the underprivileged, low-income communities, hospitals, aid centers, and homeless shelters. SOS staff were noted to use an application to record the weight of each type of food on a daily basis in order to assess the operation and its impacts, plan for logistics and report back to donors.

**Suggestions and Recommendations for Effective Management of Solid Waste Management According To Bengtsson, M., Janya Sang-Arun, & Menikpura, N. (2012)**

**Target setting and institutional setup:**

The local government plays a key role in solid waste management thus the working group and staff plays important role in reducing, reusing, and recycling the waste produced in the locality. If the local government can set a target, and work they can work more effectively and efficiently. Among the responsibilities of the municipal bodies, sustainable waste management should be taken into consideration as one of the priority issues.

**Awareness raising and capacity building:**

It is necessary to strengthen capacity at all levels for stakeholders and conduct awareness-raising programmes on a range of issues including the seriousness of existing waste management systems and their contribution to local hazards as well as the global climate. Most importantly, periodical awareness programmes should be conducted to facilitate and encourage residents to separate waste at the source.

**Selection of simple, low-cost technologies and their effective integration:**

The sustainability of any waste management method in developing countries depends on the total cost of the facility and its level of simplicity. There should be a research and development division in every ministry to invent new and alternate technology for waste management and recycling, reusing. There should be a market for the recovered resources from waste at the local or regional level so that the system is financially feasible.

**According to Phoungthong, K. (2017),**

In order to protect the environment Thailand has put in place environmental regulations and policies. The zero waste campaign for recycling and waste reduction must be considered to reduce the overall waste; this must also include composting organic waste.

1. Furthermore, incineration technology can be used, where appropriate, as part of a sustainable waste management and energy system. Every municipality or regional government must decide whether the advantages outweigh the disadvantage.

2. The environmental feasibility of using the incineration technology must be assessed for a better understanding of the environmental and economic feasibility with regard to resource use.

**According to Sharp, A., & Sang-Arun, J. (2012).**

Local governments should not expect great achievements in the first few years of implementation. Local residents need time to become accustomed to the urban organic waste utilization system and to understand how they can contribute to the project and environmental improvements in general. Local governments should develop their urban organic waste utilization program within a comprehensive strategy for waste management that sets waste reduction as a top priority.

**Conclusion:**

From the study and analysing the different research papers and articles reflections of different experts on solid waste management working in Thailand and the government reports it can be concluded that solid waste management is a big challenge and it will add to more challenges in the future for an example problem of plastics in oceans and disposal and reuse issues of plastics. Furthermore, the problem of the waste management system is multidimensional and needs to be addressed by having an integrated approach to understanding the life cycle analysis of the waste. If the source of waste can be studied scientifically the waste can be avoided getting produced and if waste is produced those waste can be reused. Thus, waste management is an integrated and inclusive process of addressing the environmental problems caused by waste. The waste management systems can be improved by a discussion on hurdles, barriers, people participation, local capacity building, efficient and effective social policies, networking of the services, and studying the effective models of different countries on waste management.

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# E-Learning and Lecturers' Perspectives at the University of Guyana:
# A Descriptive Analysis

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## Abstract

Education has been described as a process that has an innate social effect for both students and teachers. While education is broadly understood as the gathering of knowledge offered through strategic curriculum implementation to ensure competency and skill acquisition, it is still largely dependent on the actors that comprise the system. At the University of Guyana, there have been several modes of delivery attempted and utilised due in part to the COVID-19 pandemic and its effects. These modes range from face-to-face methods, remote E-learning, and blended learning. The purpose of this study was to determine what proportion of lecturers have an interest in adopting online education into their teaching practices, to garner what proportion of them support assessment using online platforms, to ascertain how lecturers feel about the effectiveness of online learning strategies and to determine whether there are any statistically significant associations between sex, age, and years of lecturing, and lecturer's interest in online educational practices. The study method was descriptive and cross-sectional, and both qualitative and quantitative in nature. Lecturers were conveniently sampled to determine their views towards online teaching and an exploratory method of inquiry was utilised. A multinomial logistic regression analysis was undertaken, where interest in online education, age category- more than and less than forty years of age was considered, together with sex and years of lecturing. Years of lecturing were categorised as less than or greater than ten years of lecturing. At a 95% confidence interval, the p-value obtained was 0.008 noting a significant association between interest in online educational practices and independent variables, sex, age, and years of lecturing. Women and older lecturers were less likely to support online education; therefore, we recommend that there be the implementation of continuous professional development and training workshops targeted especially for this group of stakeholders.

**Keywords**: E-learning, ICT, perspectives, lecturers, higher education

## Introduction

The digital age has revolutionized education with E-Learning, utilizing electronic media and technology to deliver educational content. This approach offers flexible and accessible learning environments, transcending geographical and temporal constraints. It includes tools like Learning Management Systems (LMS), multimedia resources, and virtual classrooms. The University of Guyana is committed to enhancing the educational experience, promoting inclusivity, and preparing students for future digital challenges through E-Learning initiatives. This shift in education is a significant shift in the field of education (Bates, 2015). With the advent of the internet and digital devices, E-Learning has gained momentum globally, altering traditional classroom dynamics. At the University of Guyana, a leading institution in the Caribbean, the integration of E-Learning has become a focal point, transforming the educational landscape, and reshaping the roles of lecturers and students alike.

Education, as a continuous process for acquiring knowledge and skills, has experienced a profound transformation in recent decades due to technological advancements. Traditional face-to-face teaching methods have evolved to include online education, a mode characterized by its adaptability and accessibility. The integration of Information and Communication Technology (ICT) into education has paved the way for this shift, offering a myriad of opportunities and challenges. Understanding lecturers' attitudes towards online education is critical in shaping the future of higher education. This study explores the perceptions of lecturers at the University of Guyana (UG) concerning online education, examining the impact of factors such as age, gender, and institutional readiness.

Online learning and education (OLE), often referred to as e-learning or mobile learning, encompasses educational practices facilitated through modern ICT tools and the internet (Ullah, 2018). It transcends geographical constraints, offering a flexible learning environment that promotes self-paced, interactive learning experiences.

The roots of technology in education trace back to the introduction of personal computers, marking the beginning of a transformative journey. With the internet becoming ubiquitous, education witnessed a paradigm shift. This shift is essential, not just for educational enhancement but also for overcoming barriers to education, as evidenced by global trends (Peytcheva-Forsyth et al., 2018).

Lecturers, as pivotal stakeholders, significantly influence the success of online education. Their attitudes towards online learning play a central role, impacting their teaching methods and, consequently, student learning outcomes (Van den Berg et al., 2006; Wasserman and Migdal, 2019). Positive attitudes often lead to constructive engagement with e-learning tools, fostering an environment conducive to effective learning (Ullah, 2018). Age and gender, as identified factors, contribute to these attitudes, with younger lecturers and females exhibiting more positive inclinations (Alodail, 2016; Buabeng-Andoh, 2012).

The onset of the COVID-19 pandemic accelerated the adoption of online education globally, including at UG. The transition at UG commenced in March 2019, driven by the necessity to ensure continued education amidst the pandemic. UG's efforts in training and utilizing online platforms like Zoom and Moodle reflect a commitment to embracing digital pedagogy.

Understanding lecturers' perceptions of online education is indispensable for several reasons. Firstly, it informs pedagogical strategies, aiding the development of tailored training programs and support mechanisms. Secondly, it provides insights for the administration, guiding decisions about the future of education delivery at UG. The study's outcomes will serve as a foundational resource, empowering UG's administrative body to make informed decisions regarding the continuity and potential expansion of online education.

Online education stands as a testament to the evolution of education in the digital age, offering unprecedented opportunities for both educators and learners. The perceptions of lecturers at UG shed light on the intricacies of this transformative journey. As UG navigates these uncharted waters, this study acts as a compass, guiding the institution towards effective, inclusive, and innovative educational practices. By embracing the

insights gleaned from this study, UG can shape its future educational landscape, ensuring that knowledge remains accessible, engaging, and transformative for all.

**Literature Review**

The landscape of higher education worldwide has been fundamentally reshaped by the rapid evolution of E-Learning technologies. This comprehensive literature review delves into the nuanced perspectives of lecturers across the United States, the Caribbean region, and Guyana. By exploring statistical data, challenges, and opportunities associated with E-Learning initiatives, this review sheds light on the transformative journey of digital education in these diverse contexts.

In the United States, the prevalence of E-Learning has surged dramatically. As of 2018, a staggering 33.1% of college students enrolled in at least one online course, reflecting the growing reliance on digital platforms (NCES, 2019). Research underscores the favourable view of American lecturers towards E-Learning, with 62% emphasizing its critical role in enhancing engagement and catering to diverse learning styles (Seaman et al., 2018).

Across the Caribbean region, E-Learning has become a cornerstone of higher education, transcending geographical barriers, and enhancing educational accessibility and quality. In Jamaica, the University of the West Indies (UWI), Mona Campus, stands as a beacon of progressive E-Learning initiatives. Through the Mona Open Campus platform, UWI offers students a comprehensive virtual learning experience, revolutionizing education, especially for those in remote areas. Trinidad and Tobago have embraced innovative E-Learning practices through the University of Trinidad and Tobago (UTT). UTT's E-Learning platform offers students a rich virtual environment, complete with multimedia resources and interactive forums, creating an immersive learning experience. Likewise, Barbados Community College (BCC) has spearheaded collaborative online learning environments, fostering a sense of community among students and faculty through platforms like Moodle.

UG has made significant strides in E-Learning, adopting platforms like Moodle and Zoom to facilitate remote learning. Moodle, functioning as a robust Learning Management System (LMS), provides students and instructors a digital space for materials, assessments, and interaction. UG's proactive approach is evidenced by the integration of online courses into its curriculum, driven by the urgency brought about by the COVID-19 pandemic (Li and Lalani, 2020). To support lecturers, UG has invested in faculty development programs and training sessions, ensuring a digitally literate and pedagogically skilled teaching cadre (Wasserman and Migdal, 2019).

Students' demographics, such as age and familiarity with digital technologies, influence lecturers' perceptions of E-Learning (Alodail, 2016). Younger students often exhibit higher digital literacy, making lecturers more comfortable with incorporating technology-rich methods in their teaching (Buabeng-Andoh, 2012). At UG, where the student body has diverse age groups and technological backgrounds, lecturers' strategies for digital engagement need to be flexible and accommodating.

Challenges faced by lecturers at UG mirror global trends, encompassing issues of accessibility, technological constraints, and the digital divide (Singh, 2013). Additionally, the rapid shift to E-Learning due to the COVID-19 pandemic has accentuated these

challenges, highlighting the need for ongoing support and training (Li and Lalani, 2020). Despite these challenges, E-Learning offers unprecedented opportunities, enabling personalized learning experiences, fostering collaboration, and preparing students for the digital workforce (Peytcheva-Forsyth et al., 2018).

E-learning has become indispensable in modern education, transforming higher education in the United States, the Caribbean, and Guyana. While challenges persist, the proactive initiatives and investments in digital education infrastructure and faculty development programs promise a future of accessible, engaging, and inclusive education for all.

This study sought to investigate what proportion of lecturers have an interest in adopting the use of online education into their teaching practices what proportion support using online platforms at the University of Guyana. Also, to ascertain how lecturers feel about the effectiveness of online learning strategies and whether there are any statistically significant associations between sex, age, and years of lecturing, and a lecturer's interest in computers and the adoption of online educational practices.

## Methodology

A cross-sectional descriptive study was employed. Lecturers at UG were conveniently sampled to determine their attitudes and views towards online learning and education. This study was a non-experimental research design with an exploratory method. It explored the lecturers' ideas, notions, and thoughts related to the topic in the study. Data collected to assess lecturers' belief in the effectiveness of OLE, support of assessments using OLE, interest in computers and adoption of OLE, were garnered using two tools with Cronbach Alpha scores of 0.67 and 0.63 respectively (Table 1 & 2). All statistical analysis was carried out using IBM SPSS software version 27.

### Study population

UG has two campuses, Turkeyen and Tain. However, the bigger campus is Turkeyen with a teaching staff of three hundred and ten (310) for the academic year 2020-2021.The participants for this study were recruited from the Turkeyen Campus only. Most of the Lecturers that participated in this study were females (168) and most of them were over 40 years of age (176) (UG personnel, 2023).

### Data Analysis

A multinomial regression analysis was used to assess for significant associations in lecturers' sex, age, and years of lecturing and their interest in computers and adoption of OLE; and to assess for significant associations in lecturers' sex, age, and years of lecturing and support for assessment using online platforms. The Chi-squared test was used to assess significant associations between age category and lecturers' support of assessments using OLE; to identify significant associations between the sex of lecturers and their belief in the effectiveness of OLE; and to identify significant associations between lecturers' years of teaching and support of assessments using OLE. Demographic data and data to ascertain lecturers' attitudes towards support for assessments using OLE, belief in the effectiveness of OLE, and interest in OLE were displayed using tables and charts.

*Objectives*

The aim of this study was to assess the relationship between demographic variables and other descriptive variables regarding OLE at the University of Guyana. The demographic variables included gender, age, and years of lecturing, while the descriptive variables included interest in computers and adoption of online teaching; and assessments using online platforms at UG.

*Variables*

The independent variable was the socio-demographic variables: age, gender, and years of lecturing at UG. The dependent variable was Lecturers' perceptions: interest in computers and adoption of OLE, belief in the effectiveness of OLE, and assessments using online platforms at UG.

*Research Questions and Hypotheses*

1. Is there a statistically significant association between lecturers' gender, age and years of lecturing, their interest in computers, and adoption of OLE?

*Hypothesis 1:*
   i.      Ho (Null): There is no statistically significant association between lecturers' gender, their interest in computers, and adoption of OLE.
   ii.     Ha (Alternative): There is a statistically significant association between lecturers' gender, their interest in computers, and the adoption of OLE.

*Hypothesis 2:*
   i.      Ho: There is no statistically significant association between lecturers' age, their interest in computers, and adoption of OLE.
   ii.     Ha (Alternative): There is a statistically significant association between lecturers' age, their interest in computers, and adoption of OLE.

*Hypothesis 3:*
   i.      Ho: There is no statistically significant association between lecturers' years of lecturing, their interest in computers, and adoption of OLE.
   ii.     Ha (Alternative): There is a statistically significant association between lecturers' years of lecturing, their interest in computers, and adoption of OLE.
2. Is there a statistically significant association between lecturers' gender, age, and years of lecturing and their support for assessments using online platforms?

*Hypothesis 1:*
   i.      Ho (Null): There is no statistically significant association between lecturers' gender and their support for assessments using online platforms.
   ii.     Ha (Alternative): There is a statistically significant association between lecturers' gender and their support for assessments using online platforms.

*Hypothesis 2:*
   i.      Ho: There is no statistically significant association between lecturers' age and their support for assessments using online platforms.

     ii.      Ha (Alternative): There is a statistically significant association between lecturers' age and their support for assessments using online platforms.

*Hypothesis 3:*
     i.      Ho: There is no statistically significant association between lecturers' years of lecturing and their support for assessments using online platforms
     ii.      Ha (Alternative): There is a statistically significant association between lecturers' years of lecturing and their support for assessments using online platforms.

3. Is there a significant association between lecturers who have an interest in computers and adoption of OLE and those who support assessments using online platforms?

*Hypothesis:*
     i.      Ho: There is no significant association between having an interest in computers and adoption of OLE and supporting assessments using online platforms.
     ii.      Ha: There is a significant association between having an interest in computers and the adoption of online OLE and supporting assessmentsusing online platforms.

4. Is there a statistically significant association between lecturers' gender and beliefs about the effectiveness of online teaching?

*Hypothesis:*
     i.      Ho: There is no statistically significant association between gender and lecturers' belief about the effectiveness of online teaching.
     ii.      Ha (Alternative): There is a statistically significant association between gender and lecturers' beliefs about the effectiveness of online teaching.

## *Research Paradigm and Positionality*

This research paper adheres to the philosophical assumptions of plurality. Plurality refers to the use of several methods of inquiry to bring about an understanding of what could possibly be the truest knowledge available at one point and time (Biesta, 2010). This research paper considers the use of statements that measure lecturer perceptions using a Likert scale. Using a scale such as the Likert scale allows for both qualitative and quantitative methods of investigation and analysis to be pursued. Ensuring reliability of the measuring tool, which means that the tool is effective at measuring what it is meant to measure and obtaining numerical values to substantiate the results of the data gathered lends to what is called a pragmatic world view (Creswell & Plano Clark, 2011).  It is often said that pragmatism is futuristic. Pragmatism proports the notion that the outcome of interventions and actions provide evidence for social development (Goles, 2000). Education happens to be rooted in sociology and the pragmatic disposition is often featured as an identifiable mark of the profession (Biesta, 2010). Being able to use a sequential qualitative-quantitative approach allows the researchers to understand in a step-by-step manner the reasons for undertaking the study approach (Lo et al., 2014). In essence, understanding the intricacies of the study methods allows the research to gather evidence and evaluate it through several different lenses. Namely, the researcher can focus on the strength of the outcomes, their applicability to the University of Guyana and their limitations. Ultimately, the data, given the surety of a rigorous pragmatic process should

lend a unique outlook as it pertains to lecturers and their perspectives to online education in settings that bear similarities to that of the University of Guyana. Lastly, but certainly not least, the pragmatic worldview adopted for this research paper considers that the world is a dynamic entity, given to growth and development, therefore the researchers are able to use a prospective outlook that adheres to actualization, realization, and betterment.

*Instrument Design*

A closed questionnaire with 4-point Likert type and four major themes was designed via Google Forms and disseminated through email to lecturers in June-July 2021. The themes were demographic information about the respondents, interest in computers and adoption of online teaching, belief about the effectiveness of Online Education, and assessments using online platforms. The questionnaire was adopted from Ullah, 2018. Common themes were merged, and Cronbach Alpha values were determined for the two tools (Table 1 & 2) produced from the merger. Four- five statements were included for each theme. Both positive and negative statements were included. The questionnaires were open for approximately two months. Several reminders were also sent out. One hundred lecturers responded. Four of the responses were incomplete and were removed to run the statistical analysis.

**Table 1 : Lecturers' Perspectives - Assessment Tool No. 1**

| No. | Questions (Cronbach Alpha score = 0.633) | Likert Scale |
|---|---|---|
| 1 | Online teaching makes learning interesting. | SA    A    D    SD |
| 2 | Online teaching is economical in terms of time for lecturers. | SA    A    D    SD |
| 3 | Online teaching improves learning because it integrates various types of media. | SA    A    D    SD |
| 4 | For searching online educational resources, the web is often teacher friendly. | SA    A    D    SD |
| 5 | It is easy to become skilful at using online learning systems like Moodle and ZOOM. | SA    A    D    SD |
| 6 | Marking, grading, and providing feedback to students is easy and quick. | SA    A    D    SD |

*SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree*

**Table 2 : Lecturers' Perspectives -Assessment Tool No. 2**

| No. | Questions (Cronbach Alpha score = 0.67) | Likert Scale |
|---|---|---|
| 1 | It is difficult to lecture online without appropriate training on the use of ICT. | SA    A    D    SD |
| 2 | Slow computers and poor internet connection discourage the use of online teaching. | SA    A    D    SD |
| 3 | Online teaching is often avoided as it promotes social isolation. | SA    A    D    SD |
| 4 | In online teaching, the interaction between students and lecturers is weak. | SA    A    D    SD |
| 5 | Acquisition of significant information via the Internet is | SA    A    D    SD |

| | difficult. | | | | |
|---|---|---|---|---|---|
| 6 | It is difficult and time-consuming to construct both objective and subjective type questions in Moodle. | SA | A | D | SD |
| 7 | The integrity of assessments on Moodle is not maintained. | SA | A | D | SD |
| 8 | Lecturers have little or no control over assessments on Moodle as no invigilation is done. | SA | A | D | SD |

*SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree*

## Results

### Demographics of Lecturers

A total of 100 lecturers responded to the questionnaires. Females (62%), persons who were younger than 40 years (56%) and persons who were lecturing for 10 years or less (62%) were in the majority (Table 3).

**Table 3 : Demographics Of The Respondents**

| Characteristic | N (%) |
|---|---|
| *Age* <br> <40 years <br> >40 years <br>    Total | 56 (56%) <br> 44 (44%) <br> 100 |
| *Gender* <br>    Female <br>    Male <br>  Total | 62 (62%) <br> 38 (38%) <br> 100 |
| *Years of Lecturing* <br> ≤ 10 years <br> ≥ 10 years <br>    Total | 62 (62%) <br> 38 (38%) <br> 100 |

### Interest in Computer and Adoption of OLE

Majority of the lecturers showed interest in ICT and adoption of OLE than those who did not. Of the lecturers that responded, most of them felt that it was difficult to lecture online without appropriate training on the use of ICT (81.3%), slow computers and poor internet connections discourage the use of online teaching (95.8%) and online teaching make learning interesting (69.8%). Majority of lecturers felt that OLE is often avoided as it promotes social isolation (62.5%)(Table 4).

**Table 4 : Lecturers' Interest In Computer And Adoption of OLE**

| No. | Statement | No (%) of participants | |
|---|---|---|---|
| | | Interested | Not interested |
| 1 | It is difficult to lecture online without appropriate training on the use of ICT. | 78 (81.3) | 18 (18.7) |
| 2 | Slow computers and poor internet connections discourage the use of online teaching. | 92 (95.8) | 4 (4.2) |
| 3 | Online teaching is often avoided as it promotes social isolation. | 36 (37.5) | 60 (62.5) |
| 4 | Online teaching makes learning interesting. | 67 (69.8) | 29 (30.2) |

*Belief about the effectiveness of OLE*

More lecturers believe in the effectiveness of OLE than those who did not. Most lecturers believed that those who are experts in ICT usage are more effective in online teaching (71.9%), online teaching is time-efficient for lecturers (56.2%) and online teaching enables the integration of various types of media (67.8%). Most of them did not believe that the interaction between students and lecturers is weak (53.1%), and there is maximum engagement of students in the online environment (82.3%) (Table 5).

**Table 5 : Belief About The Effectiveness of OLE**

| No. | Statement | No (%) of participants | |
|---|---|---|---|
| | | Interested | Not interested |
| 1 | Lecturers who are experts in ICT usage are more effective in online teaching. | 69 (71.9) | 27 (28.1) |
| 2 | In online teaching, the interaction between students and lecturers is weak. | 51(53.1) | 45 (46.9) |
| 3 | Online teaching is economical in terms of time for lecturers. | 54 (56.2) | 42 (43.8) |
| 4 | Online teaching improves learning because it integrates various types of media | 65 (67.8) | 31 (32.3) |
| 5 | Online teaching offers maximum engagement of students. | 17 (17.7) | 79 (82.3) |

*Support of assessments using online platforms*

More lecturers supported the statement given for assessment using online platforms than those who did not. Majority of them supported the statements that marking, grading, and providing feedback to students is easy and quick (68.7%), it is difficult and time-consuming to construct both objective and subjective type questions in Moodle (72.9%), the integrity of assessments on Moodle is not maintained (62.5%) and lectures have little or no control over assessments on Moodle as no invigilation is done (64.6%). Most of them did not support the statement that assessment via online platforms is better than face-to-face examinations (83.3%) (Table 6).

**Table 6 : Support Of Assessments Using Online Platforms**

| No. | Statement | No (%) of participants | |
| --- | --- | --- | --- |
| | | Support | Do not Support |
| 1 | Assessment via Moodle is better than face-to-face examinations. | 16 (16.7) | 80 (83.3) |
| 2 | Marking, grading, and providing feedback to students is easy and quick. | 66 (68.7) | 30 (31.3) |
| 3 | It is difficult and time-consuming to construct both objective and subjective type questions in Moodle. | 70 (72.9) | 26 (27.1)0 |
| 4 | The integrity of assessments on Moodle is not maintained. | 60 (62.5) | 36 (37.5) |
| 5 | Lectures have little or no control over assessments on Moodle as no invigilation is done. | 62 (64.6) | 34 (35.4) |

*Socio-demographics and interest in computers and adoption of OLE*

A multinomial logistic regression analysis model was used to estimate the effect of sex, age, and years of lecturing on interest in OLE. Although the odds ratio greater than 1 was reported, the influence of years of experience was not significantly associated with interest in OLE. An odds ratio of greater than one was reported despite p-values not showing significance (Table 7).

**Table 7 : Multinomial Logistic Regression Analysis For Interest In OLE**

| Interest in computers & adoption to OLE | Variable | Coefficient (Beta) | Standard Error | Odds Ratio (OR) | p-value | Confidence Interval (CI) |
| --- | --- | --- | --- | --- | --- | --- |
| | Sex | --0.553 | 0.576 | 0.576 | 0.575 | 0.23 - 2.18 |
| | Age Category | -0.329 | 0.565 | 0.579 | 0.561 | 0.18 - 1.78 |
| | Years of lecturing | 0.141 | 0.579 | 1.151 | 0.808 | 0.37 - 3.58 |
| N=96 Not interested computers & adoption to OLE = 18 Interested computers & adoption to OLE = 78 | | | | | | |

*Socio-demographics and support for assessments using online platforms.*

A multinomial logistic regression analysis model was also used to estimate the effect of sex, age, and years of lecturing and their support for assessments using online platforms. Lecturers with more than 10 years of teaching have four times the propensity to support online learning (OR = 4, p = 0.007). An odds ratio greater than 1 and p-value below 0.05 was significant for support for OLE and years of lecturing (Table 8).

**Table 8 : Multinomial Logistic Regression Analysis For Support Of Assessment Using Online Platforms**

| Support of assessment using online platforms | Variable | Coefficient (Beta) | Standard Error | Odds Ratio (OR) | p-value | Confidence Interval (CI) |
|---|---|---|---|---|---|---|
| | Sex | -0.636 | 0.483 | 0.530 | 0.188 | 0.71 - 4.81 |
| | Age category | 0.617 | 0.488 | 1.853 | 0.206 | 0.2 - 1.36 |
| | Years of lecturing | 1.293 | 0.480 | 3.644 | 0.007 | 1.42 - 9.34 |
| N=96<br>Does not support assessment using online platforms = 37<br>Supports assessment using online platforms = 59 | | | | | | |

*Belief in the effectiveness of OLE*

Forty-nine lecturers believe in the effectiveness of OLE, of which twenty-five were males and twenty-four were females. Of the forty-seven respondents who did not believe in the effectiveness of OLE, most of them were females (Table 9). The table shows that more males believed in the effectiveness of OLE while more females did not believe.

**Table 9 : Belief In The Effectiveness Of Ole By Gender**

| Exposure | Outcome | | |
|---|---|---|---|
| | **Does not believe** | **Believes** | **Total** |
| Female | 36 | 24 | 60 |
| Male | 11 | 25 | 36 |
| Total | 47 | 49 | 96 |

Odds Ratio 3.4; CI 1.4-8.2; Fischer exact p value 0.004

There was a significant difference between those who believed in OLE based on gender (p=0.004). Females were 3 times more likely to not believe in the effectiveness than their male counterparts (odds ratio 3.4, 95% CI 1.4; 8.2) (Table 9). There is a significant association at a 95% confidence interval between the two variables. ($X^2$ = 7.806, df=1, p= 0.004). Therefore, there is a significant association between sex and belief in the effectiveness of OLE.

*Age category and support of assessments using OLE.*

More persons supported OLE (61.4%) than those who did not (38.5%) overall, however there was a significant difference in terms of age (p<0.05). Lecturers who were older than 40 years were almost three times likely to be unsupportive of OLE than those who were younger than 40 years (odds ratio 2.8, 95% CI 1.17;6.7). There is a significant association at a 95% confidence interval between the two variables. ($X^2$= 5.523, df=1, p= 0.019). Therefore, there is a significant association between age category and support of assessments using OLE (Table 10).

**Table 10 : Lecturers' Age Category And Support For The Assessment Using OLE**

| Exposure | Outcome | | Total |
| | Supports | Does not support | Total |
|---|---|---|---|
| <40 years | 32 | 11 | 43 |
| >40 years | 27 | 26 | 53 |
| Total | 59 | 37 | 96 |

Fischer p value= 0.02; OR=2.8 CI 1.17-6.7

### Years of lecturing and support of assessments using OLE

Most lecturers (62%) supported assessments using OLE and there was a significant difference between those who had less than 10 years' experience when compared to those with more experience (p<0.001). Persons lecturing for less than 10 years were almost four times as likely as those with more than 10 years, to be in favour of assessments utilising the OLE system (odds ratio 4.3, 95% CI 1.8;10.4). Chi-squared statistics showed that there is a significant association at a 95% confidence interval between the two variables. ($X2=$ 11.121, df=1, p< 0.001). Therefore, there is a significant association between years of lecturing and support of assessments using OLE.

**Table 11 : Years Of Lecturing And Support Of Assessments Using OLE**

| Exposure | Outcome | | Total |
| | Supports | Does not support | Total |
|---|---|---|---|
| ≤10 years | 44 | 15 | 59 |
| ≥ 10 years | 15 | 22 | 37 |
| Total | 59 | 37 | 96 |

A. *Adoption of OLE and interest in computers and support for online assessments*

Chi squared statistics were unable to show a significant association between having an interest in computers and adoption of OLE and supporting assessments using online platforms.

**Discussion**

Since the COVID-19 pandemic, great efforts have been placed worldwide on implementing online or e-learning. While this comes with a great adjustment, academic continuance remained a necessary goal. The approach to online learning can vary based on many factors such as age, gender, and years of teaching. In this study, it was found that all these factors have a significant association between lecturers' acceptance and willingness to participate in the online/ e-learning process.

Interest, adoption, and support for OLE could have many extraneous influences that affect their actualization in modern educational settings. The methods and modes of delivering learning content to students are chief among these extraneous variables. Given that

teaching online is dependent on software that is specificallycompatible with certain types of learning content, electronic technology access and proficiency has become somewhat mandated in this so called "new era". The availability of computers, smart screens and other media sources also play a pivotal part in how lecturers perceive online learning and education. This is not limited to computers, but other media tools linked to videos and audio equipment that allow students and lecturers to interact effectively (Tena et al., 2016). Online platforms like Moodle were perceived to be efficient. With this perceived efficiency in mind, it is wise to consider adjusting teaching methods to suit online platforms that require new knowledge and practice. Online classes also allow the teaching of large classes as one unit and automated marking of assessments, which reduces workload (Hako et al., 2021). In South Africa, the use of available tools to engage in online learning was investigated and it was found that most lecturers preferred human interaction and were not aware that online learning tools were available; this indicates that the successful integration of online learning tools depends on lecturers gaining additional knowledge and support of the educational institution (Modise &Moots, 2022).

A study of educational institutions in 11 countries indicated that lecturers were neutral in determining whether online or traditional teaching was more efficient. This neutrality could stem from the COVID-19 pandemic being a catalyst for online learning and thus their short-term experience would not serve as a genuine comparison. Approximately 71.7 % of lecturers engaged in online learning for less than a year (Shambour & Abu-Hashem, 2021). Given additional time, these perspectives regarding OLE may differ. Lecturers being challenged in promoting student engagement could be due to lack of experience of the instructor, technical difficulties and students not being familiar with online learning technology (Awad et al., 2022).

### Gender

Our study indicated a significant association from Pearson's Chi-squared test between gender and belief in the effectiveness of online learning (p =0.005). We found that female lecturers were less likely to embrace the advantages of online education. Previous research has indicated that male teachers may be more likely to accept technology in the classroom (Zhao et al., 2021). Additionally, research shows that male educators are more adept at using digital tools and technology and have more access toICT training (Mahdi & Al-Dera, 2013). Males and females preferred different modes of communication and had varying knowledge of online tool utilization (Tena et al., 2016). Male lecturers were aware of a wider range of online tools compared to female lecturers and male lecturers scored higher in technical competencies of online tools. However, female lecturers scored higher in how often the online tools were used. A positive correlation between instructor perceptions and gender may indicate that males and females perceive online learning differently (Awat et al., 2022). However, another study found no significant differences in instructors' perceptions of online versus traditional teaching based on gender (Shambour & Abu-Hashem, 2021).

### Age Category

There was a significant association between age category and support of assessments using OLE from the assessment of OLE in our study. This contrasts with findings from another study, which showed no significant differences in instructors' perceptions of online versus traditional teaching in terms of age categories (Shambour& Abu-Hashem,

2021). However, younger educators < 30 years were more agreeable than older instructors when considering online learning. In comparison, younger groups of lecturers are more supportive of online learning (Awad et al., 2022). We postulate that older lecturers were less enthused about OLE because they may be set in their ways and may be concerned about the lack of personal interaction with their students. Further, their scepticism may stem from a lack of belief in the quality of online instruction and assessments. This reveals a need for additional research to quantify the support lecturers provide for online learning and specify it by age category.

### Years of teaching experience

Unsurprisingly, our study showed that there was an association between years of lecturing experience and support of OLE, and this indicates that the resistance to change does not necessarily decrease with experience.

The multinomial regression analysis considered sex, age category, and years of lecturing with an interest in online learning. There was no significant influence on interest; however, years of lecturing resulted in an odds ratio of 1.2, indicating there may be a possible association if the sample size was larger. A significant association between perceptions of online learning and traditional teaching experience was also indicated in a multinational study (Shambour& Abu-Hashem, 2021). It should also be noted that the latter study had a larger sample size.

Furthermore, our study found that lecturers with <10 years of teaching have four times the propensity to support OLE. In a similar study, as years of teaching experience increased there was a decrease in positive perceptions of online learning (Awad et al., 2022; Shambour& Abu-Hashem, 2021). Additionally, their findings of a positive correlation between academic history involving online learning and perceptions of teaching online indicate that familiarity with online modes of learning may have a great impact on the success and ease with which lecturers experience online learning (Awad et al., 2022). However, no significant difference ($p > 0.05$) was garnered, and the responses noted were not related to positive or negative perceptions regarding OLE (Shambour & Abu-Hashem, 2021).

Chi-squared statistics in this study were used to identify the association between categorical variables (years of lecturing and support of assessments using OLE). There is a significant association between the two variables. However, no significant correlation between years of experience and lecturers' perceptions of online learning was identified in a similar study (Awad et al., 2022).

### Adoption of OLE and interested in computers.

Chi squared statistics were unable to show a significant association between having an interest in computers and adoption of OLE and supporting assessments using online platforms. This association between adoption of OLE and interest in computers may likely yield different findings if the sample size were larger.

## Conclusion and Recommendations

Our findings clearly show that disparities exist in the level of interest exhibited by male and female lecturers towards OLE. We recommend that the University of Guyana offers specialised training courses and workshops that will enable faculty members, particularly females, to confidently navigate online platforms such as Moodle. Additionally, the creation of online communities and support networks can promote a sense of cooperation and accomplishment. Furthermore, presenting examples of women who have succeeded in online learning settings might serve as motivation for those hesitant to engage online learning platforms.

Older lecturers should have opportunities to explore and experiment with various online evaluation approaches during professional development workshops. These workshops are probably best held during the January or June to September breaks, and utilise the services of CIT, so that persons can get hands-on training. Younger and more experienced lecturers should be able to interact and exchange experiences and best practices through workshops, mentoring programs, and projects. The Communication Department of the University can be used to develop marketing strategies tailored specifically to encourage more females and older lecturers to get involved in workshops for the effective use of Moodle and Zoom. Lecturers who serve as facilitators of Post-Graduate Diploma in Education program can also conduct workshops on effective assessment methods for faculty members. The University should also consider face to face invigilation for assessments conducted on online platforms such as Moodle to maintain the integrity of examinations.

Avenues for further research include investigating the attitudes and perceptions of the students to OLE. Investigations to find out what perceptions lecturers and students have about the challenges, barriers, and advantages of OLE would be useful for a holistic understanding of how online education at the University of Guyana is viewed.

This study was limited because of the small number of respondents; however, we feel that we have garnered enough useful information to pave the way for a comprehensive approach for the development of OLE in Guyana.

In conclusion, appreciating the dynamics of lecturers' interest in OLE is critical for guiding professional development programmes and promoting the widespread use of online teaching techniques. We hope that our study has contributed meaningfully to this evolving field of study as it has created more questions that beckon further research.

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# Can The Right to A Healthy Environment Provide for a Basis for The Protection Against Climate Change? A Critical Review

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**Abstract:**

A human rights-based perspective can affect the policies and measures taken to slow down climate change and get ready for it. By ensuring that crucial data is accessible, that participation is effective, and that people have the opportunity to receive justice (and remedies), it can aid in assessments and process improvement. Incorporating a human rights-based approach, the United Nations Development Assistance Framework (UNDAF) Guidance Note for UN Country Teams (UNCTs) on Integrating Climate Change Considerations in the Country Analysis asks UNCTs to take into account how and to the extent to which anticipated changes in climate will impede social and economic growth at relevant levels, including addressing poverty reduction, advancing human rights, and improving human well-being and health. One of the main foundations and methods of this human rights-based strategy for combating climate change can be the right to a clean environment. This essay seeks to evaluate this right's potential from a normative standpoint. It assesses how effective this right will be in halting climate change. It is thought that the problem of climate change represents an environmental degradation from which the environment needs to be protected. Climate change would thus be referred to be an environmental degradation in the report.

## Introduction

Long-term changes in weather and temperature trends are referred to as climate change. Such fluctuations may be brought on by significant volcanic eruptions or variations in the sun's activity. But since the 1800s, human activities—primarily the combustion of fossil fuels like coal, oil, and gas—have been the primary cause of climate change. Fossil fuel combustion produces greenhouse gas emissions that serve as an insulation around the planet, retaining heat from the sun and increasing temperatures. Carbon dioxide and methane are the primary greenhouse gases responsible for climate change. These are produced, for instance, while burning coal or gasoline for the purpose of heating a building. Carbon dioxide may also be released when woods and land are cleared. The main sources of methane emissions are oil and gas production and agriculture. One of the largest sources of greenhouse gases is energy, followed by industry, transportation, buildings, agriculture, and land use (Pielke, 2004).

Many believe that rising temperatures are the main effect of climate change. But the narrative does not begin with the temperature increase. Changes in one place might have an impact on changes in all other areas since the Earth is a system in which everything is interconnected (Rechkemmer et al, 2016). Intense droughts, water scarcity, destructive fires, rising sea levels, inundation, polar ice melting, devastating storms, and a decline in biodiversity are currently some of the effects of climate change. Climate change may have an impact on our work, housing, safety, and ability to grow food. Many of us, such as residents of small island states and other nations that are developing, are already more

susceptible to the effects of the climate (Kelman, 2014). Long-lasting droughts have placed people in jeopardy of starvation, while problems such as sea level rise and saltwater intrusion have progressed to the point that entire communities have been forced to evacuate (McNamara & Prasad, 2014). The quantity of "climate refugees" is anticipated to increase in the future.

Numerous scientists and government reviewers concurred in a number of UN reports that keeping the increase in global temperature to 1.5°C would help humanity avoid the worst climate effects and maintain a habitable climate (Cointe & Guillemot, 2023). However, present strategies predict a 2.8°C rise in temperature by the end of the century (Nick et al, 2013). All across the world, emissions that contribute to climate change are produced, yet some nations create significantly more than others. About half of all greenhouse gas emissions worldwide in 2020 were produced by the top seven polluters (China, the United States of America, India, the European Union, Indonesia, the Russian Federation, and Brazil) (Goldenberg & Nelson, 2016). Everyone must take action on climate change, but those who contribute to it the most have a responsibility to act first.

Numerous approaches to combating climate change can boost the economy while also enhancing our quality of life and safeguarding the environment. In order to direct development, there are also international frameworks and agreements in place, including the Paris Agreement, the UN Framework Convention on Climate Change, and the Sustainable Development Goals. Adapting to the effects of climate change, reducing emissions, and funding necessary adaptations are the three main types of action. By switching from fossil fuels to renewable energy sources like solar or wind, we can cut the emissions that cause climate change. But right away, something needs to be done. Even while more nations are pledging to have net-zero emissions by 2050, emissions must be cut in half by 2030 to keep global warming to 1.5°C or less (Soergle et al, 2021). Protecting people, homes, businesses, livelihoods, infrastructure, and natural ecosystems means adapting to the effects of climate change. Both current and potential future effects are covered. Everywhere will need to adapt, but the most vulnerable populations must receive priority now in order to be prepared for climate threats. A high rate of return is possible. For example, disaster early warning systems save lives and property and can be up to ten times more beneficial than the initial investment.

In spite of the various approaches mentioned above, a human rights-based approach to climate change arguably has not received the required attention that it probably deserves. A conceptual framework that is practically focused on promoting and preserving human rights and normatively grounded in international human rights norms is known as a "human rights-based approach." It aims to address discriminatory behaviours and unfair power distributions that obstruct development and undermine human rights by analysing responsibilities, disparities, and vulnerabilities.

Plans, strategies, and programs are grounded in a framework of rights and associated legal duties and responsibilities established by international law under a human rights-based approach. The empowerment of individuals (right-holders), particularly those who are least privileged, to take part in the creation of policy and keep duty-bearers accountable helps to advance sustainability. Despite this, UN organizations have reached consensus on a number of fundamental characteristics of a human rights-based approach: (1) The major goal while creating policies and programs should be to uphold human rights; (2) An strategy based on human rights recognizes those with rights and their entitlements as well

as the corresponding duty bearers and their obligations, and attempts to strengthen the capacity of claimants to assert their rights and duty-bearers to fulfil their duties; (3) All policies and programming in all fields and throughout the entire process should be guided by the principles and standards established by international human rights treaties (WHO, 2008).

Practically speaking, policies and actions for reducing climate change and preparing for it can be influenced by a human rights-based approach. It can help with assessments and process improvement, ensuring that key information is available, that participation is successful, and that people have access to justice (and remedies). The United Nations Development Assistance Framework (UNDAF) Guidance Note for UN Country Teams (UNCTs) on Integrating Climate Change Considerations in the Country Analysis incorporates a human rights-based approach, asking UNCTs to think about how and to what extent expected changes in climate will hinder social and economic growth at pertinent levels, which includes addressing poverty reduction, bolstering human rights, and enhancing human well-being and health.

The right to a clean environment can be used as one of the key pillars and strategies in this human rights-based approach towards the combat against climate change. This paper aims at assessing the potential of this right from a normative perspective. It evaluates the contribution that this right can make against climate change. The issue of climate change is assumed to be an environmental degradation from which the environment requires protection. As such, the paper would refer to climate change as an environmental degradation. The paper adopts a doctrinal legal approach which is characterised by the analysis of legal rules and the formulation of observations.

**Literature Review**

Everyone has a right to a clean, healthy and sound environment. Given the connection between human rights and the environment, a clean, healthy and a sustainable environment is important for the complete fulfilment of a variety of human rights, including the rights to development, life, health, food, water, and sanitation. The protection of the environment is crucial to the realization of all human rights, particularly the rights to information, participation, and access to justice (Report of Special Rapporteur, 2018). Boyd has argued that environmental rights have becoming over whelming popular and endorsed by international law and domestic laws of over 90 countries (Boyd, 2012). However, the state of our environment continues to deteriorate despite numerous international accords, as well as national laws and programs as per Boyle and Redgwell (Boyle & Redgwell, 2021). The current global issues, such as climate change, biodiversity loss, and pollution, pose some of the greatest risks to humanity and have a significant impact on the exercise and enjoyment of human rights.

Examples include: Increasing water scarcity and land degradation such as soil erosion, loss of vegetation, wildfires, and permafrost undermine the rights of individuals to life, health, food, and water as well as their ability to maintain an adequate standard of living; One of the major environmental health risks is air pollution, which is projected to cause seven million premature deaths annually and violate people's rights to life and health (WHO, 2021). In 2021, disasters caused by climate change resulted in the new displacement of more than 38 million people. The right to appropriate housing, education, health care, and security, among other rights, are all directly impacted by this (IDMC, 2020).

Environmental degradation impacts disproportionately individuals, communities, and populations who are already at risk. For instance, Meserat (2016) depicts this situation in Ethiopia with land degradation issues in the Amhara Region. The triple planetary crises' effects increase the structural and other intersecting obstacles they must overcome. The following are some instances of persons who have frequently and may continue to be disproportionately impacted by the triple planetary catastrophe - Women and girls, as the degradation of the environment exacerbates already-existing gender disparities and discrimination on matters like gender-based violence, rights of access and tenure over property, and natural resource management; Children who face the consequences of environmental damage more acutely because of shortages of food and water, illness transmission, and other factors, such as their less developed physiology and immune systems (CRC); Indigenous Peoples frequently take serious, even fatal, dangers in protecting the indigenous lands and assets, resources, and territories that are essential to their survival, way of life, and religion and customary traditions.

Finding creative solutions to improve environmental protection is urgently needed. Maconachie has contended that a new approach is needed to the way that environmental problems are framed and their solutions formulated (Maconachie, 2016). A significant milestone is the General Assembly's (GA) acknowledgment of the human right to a clean, healthy, and sustainable environment (also known as the "right to a healthy environment"). The GA passed a historic resolution affirming the human right to a healthy environment on July 28, 2022 (UNGA, 2022). The resolution was passed with historic support (161 votes in favour, 0 against, and 8 abstentions), and it came after the Human Rights Council (HRC) acknowledged the right in October 2021 (HRC, 2021). The GA resolution powerfully conveys that this right, which is currently acknowledged in 156 nations at the national and regional levels, has broad, global support.

The UN's main policy-making body is the General Assembly (GA). It is required to take new human rights issues into consideration and has universal membership of all 193 UN Member States (UNGA). In order to implement domestic constitutional, legislative, and policy reform, GA resolutions frequently urge or demand States to take legislative or policy actions. The General Assembly's (GA) resolution on the right to a healthy environment is an outcome of States' commitment to addressing environmental issues, decades of advocacy and cooperation by national human rights organizations, civil society groups, Indigenous Peoples, children and young people, and business actors, among others, and support from UN bodies (UNEP, UNDP, OHCHR Joint Statement, 2021). It is essential to prioritize human rights in order to confront the triple planetary catastrophe of pollution, biodiversity loss, and climate change in order to achieve the Sustainable Development Goals (SDGs). Hectors has highlighted the link between human rights and environmental protection, thus confirming the need for a prioritisation for a better protection of the environment (Hectors, 2008).

The UN hosted its first international conference on the environment in Stockholm in 1972. States ratified the Stockholm Declaration on the Human Environment, whose first tenet affirms that people have the following rights: *"the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being"*. The right to a healthy environment started to appear in national constitutions throughout the 1970s, including those of Portugal (1976), Spain (1978), and Peru (1979), as well as in legislation and policy texts. Gellers (2017) has argued that

placing environmental rights within constitutions imbues them with the highest level of legal authority. At the regional level, the right was enshrined in the Arab Charter on Human Rights (2004), the ASEAN Declaration on Human Rights (2012), the Regional Agreement on Access to Information, the African Charter on Human and Peoples' Rights (1981), the San Salvador Protocol to the American Convention on Human Rights (1988), the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention (1998), and the Convention on Access to Information, Public Participation in Decision- and Justice in Environmental Matters in Latin American and the Caribbean (Escazú Agreement (2018)), among others.

The right to a healthy environment does not have a single, widely accepted definition, although it is commonly accepted to encompass both substantive and procedural components according to Shelton (2010). The essential components are healthy biodiversity and ecosystems, clean air, a safe and predictable climate, access to safe water, enough sanitation, healthy and sustainably produced food, and non-toxic surroundings for people to live, work, learn, and play (Declaration of the United Nations Conference on the Human Environment, 1973). The rights to obtain information, to participate in decision-making, to seek justice and effective remedies, as well as the safe exercise of these rights without fear of retaliation, are all considered procedural aspects. In addition to resource mobilization and extraterritorial jurisdiction over human rights violations brought on by environmental degradation, achieving the right to a healthy environment also calls on international cooperation, solidarity, and equity in environmental action (Human Rights Committee, 2019).

**Implications of the UNGA's recognition of the Right to a Healthy Environment**

The past GA recognition of a human right has sparked States' attempts to guarantee the right's enjoyment. As a result, it is anticipated that the GA Resolution on the right to a healthy environment will have a number of catalytic effects: (1) A deeper knowledge of how environmental destruction endangers the exercise of all human rights and how doing so improves environmental protection, creating a positive feedback loop; (2) increased legal recognition of the right in nations that do not yet do so—for example, by establishing a foundation for constitutional and/or legislative reform to recognize this right; (3) a greater understanding of the necessity of addressing environmental issues on a societal level; (4) In nations where the right is already acknowledged, enforcement and implementation should be strengthened; (5) The right to a healthy environment can be used as an extra legal foundation or point of reference for environmental-related cases in local and global courts and tribunals, improving the enjoyment of rights holders and holding duty bearers accountable to respect, protect, and fulfil the right; (6) reinforced systems to ensure environmental human rights defenders' safety; (7) additional obligations for the business sector to uphold the human right to a healthy environment, especially across their supply chains and human rights due diligence; (8) increased backing from governments and the UN system for an improved, integrated response to the triple global problem and (9) encouraging the public and affected groups to participate freely, actively, and meaningfully in discussions about the right to a healthy environment.

Individuals, organisations and entities directly or indirectly involved with contributing to global warming and climate change can be compelled to be more conscious since the recognition of the right to a clean environment as discussed by Wong (2003). Indeed, the

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fight by citizens to defend themselves from climate change is strengthened by countries' definitions of a clean environment as a human right. Human rights will also be taken into account in decisions made in lawsuits brought against businesses for their role in climate change, in addition to the environment. This will serve as the impetus for businesses to practice environmental responsibility.

Several Haitian children petitioned the Inter-American Commission on Human Rights in 2021 to look into human rights abuses related to rubbish disposal in their neighbourhood. It should be highlighted that this legal dispute was premised on the right to a clean environment which shows that such an approach has enormous potential and is being put into practice, thus legitimising the potential of such a right in combating climate change. Indeed, according to the petition to the Inter-American Commission on Human Rights seeking to address violations of children's rights in Cité Soleil, Haiti (2021), climate change is worsening harms to children by displacing their surroundings and causing an increase in waterborne illnesses (Daly, 2022). The rights of children (Article 19), privacy (Article 11), the right to live in a healthy environment (Articles 4, 26), and the right to judicial protection (Article 25) are all allegedly violated, according to the petitioners.

**Advancing a rights-based approach to combating climate change**

A human rights-based approach (HRBA) to climate change is a crucial instrument for strengthening accountability for individuals making decisions and carrying out environmental activities, as well as for those who are affected by environmental activities. All human rights are incorporated within the HRBA, including the right to a healthy environment and the aforementioned substantive and procedural components along with human rights concepts like inclusion and universality, equality and non-discrimination, and accountability. The connection between "duty bearers" who have human rights obligations and "rights holders," who have the power to hold duty bearers accountable and to access efficient remedies for infringements is identified and strengthened by an HRBA. Among other advantages, rights-based approaches to climate change decision-making and policy creation can offer the following ones: Creation of universally applicable environmental human rights norms to aid in local, national, regional, and international initiatives; Increased capacity for States to fulfil their climate change and human rights commitments in a coordinated way, including their responsibility to guarantee that non-State actors and commercial enterprises uphold human rights; Increased accountability by giving individuals the means to defend their rights and hold governments and other parties responsible; More credible, practical, and long-lasting results.

A rights-based approach, which is intrinsically tied to the ideas of environmental and climate justice, is necessary for the effective development and implementation of policies related to a healthy environment and the combat against a climate change. The significance of enabling the people and groups most impacted by and at danger from climate change, such as Indigenous Peoples, women, children, the elderly, people with impairments, and those living in destitution, is emphasized by both environmental justice and climate justice (Human Rights Committee, 2010). In order to establish a rights-based approach to tackling climate change, climate justice "comprises justice that links development and human rights," according to a 2022 study by the Intergovernmental Panel on Climate Change (IPCC) (Human Rights Committee, 2017). The IPCC continues on to explain how equitable, rights-based strategies that are inclusive and participatory result in more legitimate and sustainable outcomes and are crucial for the creation of

climate resilient societies (IPCC Report, 2022). It is crucial to guarantee that all communities may take part in decision-making processes, have access to information, and receive justice when it comes to environmental issues. A key component of climate justice and the human rights-based approach is the equitable distribution of the risks, benefits, and—more importantly—negative repercussions. Additionally, improved communication with communities and groups that experience disproportionate effects from environmental deterioration may aid in identifying previously unnoticed effects and come up with innovative, workable solutions.

**Who shoulders the responsibility of making the right to a healthy environment a successful basis for combating climate change?**

First and foremost, it is the responsibility of States to defend the right to a healthy environment, as they are obligated to respect, safeguard, and implement all human rights. At the same time, everyone has a crucial part to play in realizing everyone's right to a healthy environment. In an effort to boost up endeavours to ensure a clean, healthy, and sustainable environment for all, the GA resolution urges "States, international organizations, business enterprises, and other relevant stakeholders to adopt policies, to enhance international cooperation, to strengthen capacity-building, and to continue to share good practices" (IPCC Report, 2022).

Each State has a "duty to respect, protect and promote human rights, including in all actions undertaken to address environmental challenges, and to take measures to protect the human rights of all... and that additional measures should be taken for those who are particularly vulnerable to environmental degradation," according to the UN Declaration on the Rights of All. Adopting the proper constitutional, legislative, and policy reforms is required for this, as is building the capacity to increase efforts to maintain a healthy environment for all. Taking a rights-based approach, for instance, to the creation, content, oversight, and execution of nationally decided contributions, biodiversity policies and action plans, and plans for climate adaption could prove to be key to success. Making ensuring individuals who require it have access to justice and remedies are another part of it. Armed non-State actors who perform government-like duties are likewise subject to commitments.

There is an obligation to collaborate globally in order to realize everyone's right to a healthy environment. Future global and regional UN Member State activities that are pertinent should safeguard current and future generations' rights to a healthy environment. States may ratify or accede to multilateral accords relating to a clean environment, its preservation, and how these agreements may affect the exercise of a wide range of rights. The right to a healthy environment should be respected, protected, and upheld by international, regional, and national courts. In collaboration with impacted people and communities, they must additionally guarantee efficient remedies for violations of the right to a healthy environment. The right to a healthy environment can be advanced through the use of national monitoring systems and organizations, as well as UN human rights procedures like the UN human rights treaty bodies.

NHRIs are crucial in tracking and documenting the effects of climate change on human rights, advising governments on how to implement their international commitments based on human rights, promoting access to justice and means of redress, assisting communities in taking part in decision-making, and educating the public on these effects. A national

inquiry into climate change was performed by the Philippine Commission on Human Rights. The Inquiry and its report concentrated on how the carbon majors—the largest private sector polluters in the world—contributed to the climate catastrophe and discovered that there was a legal foundation for holding them accountable. An important example of the part that individuals claiming their rights and NHRIs backing them is the National Inquiry on Climate Change, which was founded on a petition filed in 2015 by a number of non-governmental organizations (NHRIs) (led by Greenpeace and the Philippine Rural Reconstruction Movement (PRRM) and thousands of citizens against forty-seven investor-owned fossil-fuel and cement companies, including Shell, ExxonMobil, Chevron, BP, Repsol, Sasol, and Total) (Phillips & Anschell, 2022).

CSOs can be essential in supplying expertise and pertinent information on environmental rights. Many attempt to make space for the personal involvement of afflicted people and communities in climate justice decision-making and express the opinions and viewpoints of those who are likely to be directly impacted by environmental challenges and related policies. As they engage with their respective communities and the general public, these groups can raise the necessary awareness of new environmental challenges.

## Conclusion

In order to close gaps and address issues in the current international climate change regime, the legal and normative framework on international human rights law is beneficial. It may be helpful to refocus international climate law's norms, goals, and objectives to better reflect the interests and requirements of the individual by using human rights law as an interactive platform. The benefits of have not yet been properly investigated by the UN. The paper has claimed that there may be good reasons for at least such an approach, notwithstanding its difficulties to be examined. In contrast to environmental agreements and treaties, the human rights-based approach to combating climate change offers a more juridical framework. The human rights-based approach takes the entire climate change issue from the realm of politics (under the international climate system) to the sphere of international law in addition to giving the issue of climate change a human rights aspect. As an example, the reduction of greenhouse gas emissions could be seen as a duty that a state would have to someone who is a survivor of climate change-related human rights violations. On the other hand, under the current international climate policy, reducing greenhouse gas emissions is purely a matter of political compromise and targets with no legal requirements. Consequently, it is in the best interest of the international community to advance the climate change agenda by embracing a human rights-based strategy premised on the right to a clean environment, particularly given the fact that alternative approaches and strategies have so far shown meagre results.

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# India's Role in Global Business and Commerce : Current Trends and Forecasts.

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**Abstract:**

India tops the list as the fastest growing nation in global service trade. Almost 55 percent of India's GDP comes from services. India's trade in services has been a significant driver in its exports in the last two decades. Currently, international business is of prime importance amongst economies of the world. For the fast-growing economies like the BRICS countries (Brazil, Russia, India, China, and South Africa), global business holds more significance. The annual rate of growth of India in the international business is above 8%. Bilateral and multilateral trade negotiations have boosted world trade in the past decades. There has been a considerable reduction in tariffs on exported goods. India's involvement in world business has increased its external trade by getting into trading agreements with different countries and trading blocs. India is currently the world's fastest-growing large economy, as well as the world's eighth largest exporter and tenth largest importer of commercial services.It is predicted that the top three countries that are likely to dominate the 21st-century economy are; the United States, China, and India. Forty percent of the world's GDP (gross domestic product) comes from these countries. India, which is already using the World Bank's PPP (Purchasing power parity) exchange rate, has the 3rd largest GDP in the world.

**Keywords:** SEIS, Business environment, Exports, Imports, Economic Complexity Index (ECI), GDP Per Capita,

## Introduction:

India's business environment is now competitive with that of China and South-east Asia and the country could attract more foreign investments. Higher political risk in South-east Asia will present India with an opportunity to capture more attention from global manufacturers because of relative advantage in doing business in India. According toIndia's chief economic adviser, V Anantha Nageswaran, India's economy is strong enough to withstand high US interest rates. It is believed that the country's medium-term growth rate of around 6.5% is sustainable, and private capital formation is evident. However, there are the risks India faces in securing energy supplies due to climate change and its transition away from fossil fuels. The country needs to focus on manufacturing as well as services and that India's debt and deficit ratio will improve in the future. The medium- term risk for the country is securing energy supplies while the merchandise trade deficit is not a concern. According a report published by OICD on 19th September 2023 India's economic growth rate is estimated to be 6.3 percent. In yet another report published by Fitch Rating Agency on 15th September 2023, it is stated that Indian economy will grow stronger amidst global economic challenges. Consequently, India's growing global trade, emerging as a global supplier country, increasing foreign direct investment, increasing number of foreign tourists and developing a new horizon of India's digital development will be growing and taking new shape in

near future. Currently, India is playing a new role as a developer of DPI (digital public infrastructure). In this context, 8 countries of the world have already signed (MOU) an agreement with India. During G20 summit held in India on 9th and 10th September 2023participating countries have witnessed the strength of India in this sector. Digital revolution in India represented by AADHAR, Digilocker, e-Sanjivini, Deeksha, Bhasini, ONDC and steps undertaken such as COVIN, UMANG, Jandhan, e-nam, GST, Fast Tag etc. which have proved to be the game changer. By using ultramodern techniques, the changing face of country's financial situation with UPI and BHARAT Bill Payment has also been made possible from across national borders. These developments and experiences have placed India at the top of the world in terms of fast growing digital capital formation. According a World Bank Report by using these techniques, India has not only achieved balanced financial management within a period of 9 years which otherwise could have taken a time period of almost 50 years through traditional modes of operation.

Global supply chain is likely to offer diverse alternate options of payments to less developed countries. For example 55 countries belonging to African Union which are rich in natural resources, have now joined G-20 and with this, India will initiate increased investments in the sectors of agriculture, health, pharmaceuticals, textiles, automobiles, energy and infrastructure development in African countries. With these revolutionary changes in India, there has been an increase in the number of foreign tourist arrivals India. During January to June 2023, foreign tourist arrivals in India was 4.38 million (43.80 lacs) as compared to 2.12 million in the previous year registering an increase of 106 percent. However, it has to be taken into consideration that achieving the status of a developed nation for India by 2047 is faced with several challenges despite strong prospects of growth and immense scopes of available options. According the World Bank definition a country will have to register a regular growth rate of 7.6 percent to attain the status of a developed country. The former governor of Reserve Bank of India, C. Ranga Rajan, opined that although it is matter of pride for us to know that India has been underlined as the fifth economy in the world but the country is at 142nd place out of 197 countries of the world in the context of per capita income which is worrisome in this context.

**Brief literature review:**

Number of studies have been conducted that focus on India's business and commerce in relation to regional and global contexts. Important among them are the contributions of Sunaina Chadha (2022); (2022Communication Enabled Applications (CEA-2023); Ashish Kumar and Devendra Verma (Sept 2023); Economists (August 2023); Fin. Min. (July 2023); Sajid Z. Chenoy (August 2023); and Udit Misra (Sept 2023).Improvements in India's business environment and progress in bilateral trade deals make it an increasingly viable investment destination," said EIU Asia Outlook 2023. India has risen to the 52nd spot in EIU's global business environment rankings, from 62nd five years earlier, and now ranks above China (27th December 2022).

"In 2022, India's share in global merchandise trade stood at 1.8 percent. However, its share in machinery and electronics was a mere 0.75 and 0.4 percent respectively in 2015. Over the course of seven years, there has been a marginal yet significant improvement in these shares," it said. (26-May 2023)**.**India's business environment is now competitive with that of China and South-east Asia and the country could attract more foreign investments, the Economist Intelligence Unit (EIU) said in a report. Higher political risk in

South-east Asia will present India with an opportunity to capture more attention from global manufacturers," it said. CEAis a programming model that provides the ability to add dynamic web communications to any application or business process.

**Methodology:**

The paper is based on the statistics and estimates of Economic Complexity Index (ECI), Economist Intelligence Report (EIR), and International Monetary Fund (IMF). Additionally, quarterly reports of the Reserve Bank of India (RBI) and recommendations of its Monetary Policy Committee (MPC) have been reviewed for the purpose. Analysis has been made to work out Gross Domestic Product (GDP). It is further supported by India's International Trade. Leading import, export items in terms of goods and services besides analyzing trade partners and their contributions in India's International trade has been elaborated to explain the current status of Indian economy and its per capita income, average income and per capita income adjusted to purchasing power parity (PPP).Economic Complexity Index (ECI) has been worked out to explain the complexity of economic sectors and challenges faced by it. Both qualitative as well as quantitative methods have been used to analyze the results. While qualitative methods deal with the explanations, interpretations and narratives of scholars; quantitative methods deal with the results derived through excel and interpretations of diagrams developed by KBK graphics. Both of them have been acknowledged in the text.

**Results & Discussions:**

In 2021, India was the number 6 economy in the world in terms of GDP (current US$), the number 14 in total exports, the number 11 in total imports, the number 137 economy in terms of GDP per capita (current US$) and the number 41 most complex economy according to the Economic Complexity Index (ECI) .

**World Economy Ranking:** The world economy ranking activity in 2023 is US$105 trillion. World's GDP has increased to 112.6 trillion in 2023 from 103.86 trillion in 2022. Table -1 depicts the status of economy and global rank of top ten economies of the world. India ranks fifth and its economy isUS $3.469 trillion. According to IMF world economy rating, India's performance is commendable yet needs sustained efforts to compete with countries ahead of it.

**Table-1: Top ten economies of the world**

| Global Rank | Country | Status of Economy | Global Rank | Country | Status of Economy |
|---|---|---|---|---|---|
| 1 | America | US $ 25.035 trillion | 6 | U.K. | US $3.199 trillion |
| 2 | China | US $18.321 trillion | 7 | France | US $2.778 trillion |
| 3 | Japan | US $4.301 trillion | 8 | Canada | US $2.2 trillion |
| 4 | Germany | US $4.031 trillion | 9 | Russia | US $2.113 trillion |
| 5 | India | US $3.469 trillion | 10 | Italy | US $1.99 trillion |

**Source:** IMF- World Economy Rating.

**India's Role in World Business**

India is known to be one of the fastest-growing economies in the world, next only to China. It holds the place of the 10th largest economy in the world. It is predicted that the top three countries that are likely to dominate the 21st-century economy are; the United States, China, and India. Forty percent of the world's GDP (gross domestic product) comes from these countries. India, which is already using the World Bank's PPP (Purchasing power parity) exchange rate, has the 3rd largest GDP in the world.

The growth of India's GDP to 203.39 trillion USD in 2019-20 owes it to the integration of the domestic economy through two channels; trade and capital flow. The per capita income of India has also become three times in these years.

**India's Export of Services**

In the Indian economy, the services sector holds tremendous value. Almost 55 percent of India's GDP comes from services. India's trade in services has been a significant driver in its exports in the last two decades. India tops the chart as the fastest growing nation in global service trade. The service sector has been beneficial to India in many ways such as:

- Attracting significant foreign investments.
- A significant contribution to export
- Providing large scale employment.

The service sector of India comprises a wide range of activities such as transport, trade, hotels and restaurants, business services, financing, insurance, etc. From the year 2014-2018, India's export of services has shown an upward trend.

The Indian government has come up with SEIS (Service exports from India scheme) which is geared towards promoting the export of services from India. The SEIS provides duty scrip credit for eligible exports. The service providers in India would get rewards under the SEIS scheme for all the eligible exports. Check out the salient points of the SEIS scheme:

- Any service provider (company, firm, and partnerships) who has net free foreign exchange earnings of more than 15000 USD in the preceding financial year are eligible for duty credit scrip.
- For individual service providers, the minimum net free foreign exchange earning required is 10,000 USD.
- The service provider must have an active import-export code (IE code) to be eligible under the SEIS scheme.
- The net foreign exchange earning SEIS is calculated, as shown below:
- Net Foreign Exchange = Gross Foreign Exchange earnings – Total foreign exchange which has been remitted, spent or paid.

**India's Foreign Trade in Goods**

- The goods foreign trade by India was 31.4% of the total GDP in the 2019 financial year. India's Foreign Trade in Goods primarily happens with the United States, UAE (United Arab Emirates), China, Saudi Arabia, Hong Kong, Singapore, and Iraq.

- Recently India signed up for free trade agreements with South Korea and ASEAN. India is also in negotiation with various partners like Australia, the EU, New Zealand, MERCOSUR, and South Africa.

**EXPORTS** : Table-2 presents items of export from India, export amount in US dollars and share in major export items. The top exports of India during 2022-23 amounted to $114.7 billion. Of the total top exports from India, refined petrol accounted for 42.72 percent, followed by diamonds about 23 percent. Packaged medicaments accounted for 16.73 percent. Jewelry accounted for 9.32 percent while rice accounted for 8.7 percent of the total top exports. The leading export partner of India is United States of America which shares about 49.10 percent of the top five export partners. United Arab Emirates accounted for about 17.52 percent while China accounted for 15.93 percent. Bangladesh is the fourth export partner of India accounting for about 9.72 percent, while Hong Kong is the fifth top export partner accounting for 9.72 percent of the leading export total.

Table-2: India's major items of export and leading export partners during 2022-23
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| No. | Major items of export | Amount | % | Leading export partners | Amount of goods exported | % |
|---|---|---|---|---|---|---|
| 1 | Refined petroleum | $49B | 42.72 | United States | $71.2B | 49.10 |
| 2 | Diamonds | $26.3B | 22.92 | United Arab Emirates | $25.4B | 17.52 |
| 3 | Packaged medicaments | $19.2B | 16.73 | China | $23.1B | 15.93 |
| 4 | Jewelry | $10.7B | 9.32 | Bangladesh | $14.1B | 9.72 |
| 5 | Rice | $10B | 8.70 | Hong Kong | $11.2B | 7.72 |
| **Total( top five items)** | | **114.7** | **100** | **Total (top five partners)** | **$145B** | **100** |

**Source:** Developed from data issued from Ministry of Finance and Commerce, Government of India.

In 2021, India was the world's biggest exporter of diamonds ($26.3B), rice ($10B), non-retail cotton yarn ($4.69B), synthetic reconstructed jewelry stones ($1.46B), and pepper ($1.33B).

**IMPORTS :** The top imports (first five) of India during 2022-23 were worth US $ 282.2 billion (table-3). Crude petroleum accounted for about one third of the total imports during the reference year. Gold is the second most important import item and accounted for 20.69 percent of the total import value of the items. Coal briquettes accounted for about one tenth of the total imported (top five) value. Import of diamonds accounted for 9.21 percent while petroleum gas accounted for 7.76 percent value of the top imported items.

The leading import partners (first five) of India and related value have been analyzed to assess the direction and volume of imports in Indian contexts. Results reveal that total value of imports for top five countries is worth US $232.6 billion. China is the leading import partner of India accounting for about 40.45 percent and with a net worth of US$94.1 billion. United Arab Emirates is the second important import partner for India and accounts for 18.05 percent of the total import value of leading import partner countries. United States of America ranks third as the leading import partners and accounts for 16.80 percent in the group. Switzerland is the fourth import partner of India and accounts for 13.67 percent of the total value of the leading import partners. Saudi

Arabia is the fifth import partner of India and accounts for about 11 percent of the total import value of the top five partners.

**Table-3: Top import items and leading import partners of India during 2022-23**

| No. | Major items of import | Amount | % | Leading import partners | Amount of goods imported | % |
|-----|----------------------|--------|-----|------------------------|-------------------------|-----|
| 1 | Crude petroleum | $93.5B | 33.13 | China | $94.1B | 40.45 |
| 2 | Gold | $58.4B | 20.69 | United Arab Emirates | $42B | 18.05 |
| 3 | Coal Briquettes | $28.4B) | 10.06 | United States | $39.1B | 16.80 |
| 4 | Diamonds | $26B | 9.21 | Switzerland | $31.8B | 13.67 |
| 5 | Petroleum Gas | $21.9B | 7.76 | Saudi Arabia | $25.6B | 11.00 |
| **Total( top five items)** | | 282.2B | 100 | **Total (top five partners)** | 232.6 | 100 |

**Source:** Developed from data issued from Ministry of Finance and Commerce, Government of India.

In 2021, India was the world's biggest importer of coal briquettes ($28.4B), diamonds ($26B), and petroleum gas ($21.9B), Palm oil ($8.72B), Soybean Oil ($5.6B), and Scrap Aluminum ($2.94B).

**India's Merchandise trade:** Figure-1 reveals the volume of India's merchandise trade during April-August as well as April- August 2023. During the period under review the negative trade (April-August 2022) balance was of the order of -112.6 US$ billion. Similarly, during (April-August 2023) trade balance was of the order of US$ 98.88 billion. It is evident that the trade balance is getting reduced with the passage of time which is indicative of improved economic situation.



**Source:** Ministry of Commerce and Industry.
**Figure-1:** India's merchandise trade snapshot, September 18, 2023.

**Reserve Bank of India (RBI):** Monetary Policy Committee (MPC) of RBI is responsible for developing policies and guidelines. Asima Goel, a member of MPC, outlined that the economic growth rate of the country during current fiscal year will be more than 6 percent. In an era of rising global challenges, India could manage and maintain economic stability with strong background base. Because of continued global economic recession, India's economic growth rate is registering a decline. Consequently, prices of food items, petroleum and petroleum products are increasing. The problem is further compounded by bad weather, its anomalies and consequences of climate change which are impacting adversely on Indian economic situation currently. According to an RBI estimate economic growth rate of India during current fiscal year would be 6.5 %.

The company's long term estimates are around four percent, which means that despite cost specific challenges; their value addition is not more than four percent. Therefore, the increasing retail prices are likely to be 6.83%. It has been further added that considering frequent setbacks in supply chains caused due to Ukraine war and other natural factors; there is an apparent need to further strengthen monetary control measures. However, such measures should not be at the cost of any bigger development agenda. Political instability, in election year, might cause delays in development expenditures. For example, government expenditures in steel, cement, logistics, green and basic infrastructure create opportunities for private capital investment. In a good cycle of GDP, private capital investments continue to increase despite delays caused due to instability in election year.

**Niti Ayog:** Arvind Virmani (21-09-2023), a member of Niti Ayog, India opined that 'despite high cost of crude oil and increasing risks of climate change' Indian economy will grow at about 6.5 percent. Explaining his point of view further, Virmani said that Indian economy has broadly adjusted with the fluctuations/ shocks experienced in global GDP. Based on the logic, noted economist opined that the growth rate of Indian economy will be 6.5 percent during 2023-24. Crude oil prices continue to remain a matter of great concern for the country. With reference to crude oil production, Saudi Arabia has reduced its production level and Russia has also followed the same trend. Consequently, prices of crude oil have crossed a mark of $90 for the first time within ten months.

**India's GDP:** According to IMF (2022 forecast)), India's GDP was worth US$196.54 billion in 1981 and ranked 11[th] in global position of 145 countries. Over a period of a decade (1991), global position slipped down to the place of 17[th] among 154 countries. During the period, India's GDP rose to the level of 274.84 registering a decadal increase of 39.83 percent. By 2001, global position of India was at 13[th] place among 192 countries. The India's GDP stood at US$ 495.95 in 2001 registering a decadal increase of 80.45percent during1991-2001 period. Over the next ten years (2011) India's GDP registered the level of US$ 1823.05 billion and ranked 10th place among 195 countries. The decadal increase (2001-2011) of 267.58 percent was recorded. By 2021, India's GDP rose to the level of US$ 3177.92 billion and scored a rank of 6th among 193 countries. The increase (2011-2021) recorded during the period was 55.85 percent. By 2022, India's GDP stood at US$3534.74 attaining a global position of 5th among 191 countries. The recorded annual growth rate during the reference period was 11.22 percent (figure-2). According to World GDP ranking 2023, India's GDP is expected to increase by 6.1 percent in the fiscal year 2023-24, which is slower than the rest of the world but still above the average. Approximately 15 % of the global growth may be attributed to India by 2023.
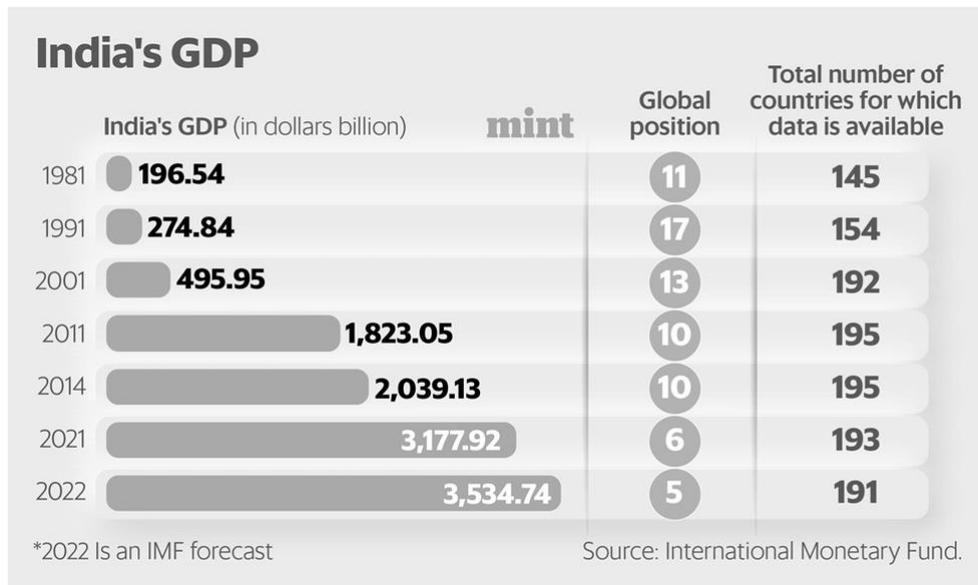
**Figure-** 2: India's GDP (1981- 2022).
**Source:** IMF

**India's Average Income or Per Capita Income (in dollars):** A review of India's per capita income reveals a phenomenal increase of more than eight times during a period of 40 years (1981-2022). The per capita income of India was 274.73 dollars in 1981 and India's global position was 133 among 140 countries. However, it has recorded a phenomenal increase of 2282.97 dollars per capita by 2021. India's global position also improved significantly (145 among 193 countries) by 2022.It is further significant to note that India's average income further improved and recorded 2515.44 dollars per capita during 2022-23. Global position further improved to the level of 140 among 191 nations (figure-3). As such, there has been a net increase of 232.47 dollars in the per capita income as compared to the average income position of 2021 (US$ 2282.97).
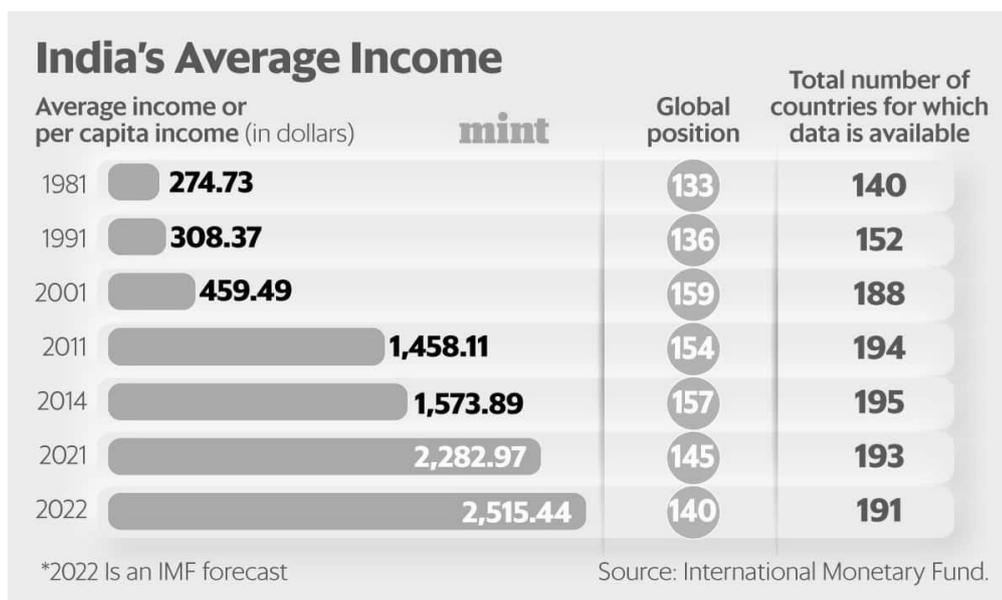


**Figure-3:** India's average income.
**Source:** IMF

**India's average income (adjusted for purchasing power parity (in dollars)):** It is evident from figure -4 that it was $ 603 in 1981 which approached to the level of $7340.90 in 2021 representing an increase of more than ten times within a period of 40 years. In terms of global position, India ranked 123 out of 140 countries in 1981 and was placed at 128 out of 193 countries. During 2021-2022, India's average income adjusted to purchasing power approached the level of $ 8358.30 with a global position of 127 out of 192 countries. As such, it is obvious that India is making a significant progress in its average income. However, global position of India in terms of average income reflects insignificant improvement in its rank.



**India's Average Income (adjusted for PPP)**

| Average income or per capita income adjusted for purchasing power parity (in dollars) | | Global position | Total number of countries for which data is available |
|---|---|---|---|
| 1981 | 603.17 | 123 | 140 |
| 1991 | 1,127.39 | 132 | 155 |
| 2001 | 2,021.14 | 151 | 188 |
| 2011 | 4,493.67 | 139 | 194 |
| 2014 | 5,233.88 | 136 | 195 |
| 2021 | 7,340.90 | 128 | 193 |
| 2022 | 8,358.30 | 127 | 192 |

*2022 Is an IMF forecast          Source: International Monetary Fund.

**Figure-4:** India's average income adjusted for PPP during1981-2022.
**Source :** IMF

**Conclusions and Recommendations:**

Foregoing discussion on India's role in global business and commerce related to recent trends and forecasts reveal that in 2021, India was the number 6 economy in the world in terms of GDP (current US$), the number 14 in total exports, the number 11 in total imports, the number 137 economy in terms of GDP per capita (current US$) and the number 41 most complex economy according to the Economic Complexity Index (ECI).

The annual rate of growth of India in the international business is above 8%. Improvements in India's business environment and progress in bilateral trade deals make it an increasingly viable investment destination globally. India has risen to the 52nd place in EIU's global business environment rankings, from 62nd five years earlier, and now ranks above China.

Indian economy climbed up to the 11th place in the global direct selling ranking as it clocked sales of $3.23 billion (around Rs. 26,852 crore) in 2022, said a report by global industry body the World Federation of Direct Selling Association (WFDSA), 21 August 2023.

India's business environment is now competitive with that of China and South-east Asia and the country could attract more foreign investments. Higher political risk in South-east Asia will present India with an opportunity to capture more attention from global manufacturers because of relative advantage in doing business in India.

In the past few years, India has emerged as a global economic power. It is one of the world's fastest-growing economies, the leading outsourcing destination, and a favorite of international investors.

India is now the fifth- largest economy in the world GDP ranking list due to its strong economic foundations, thriving domestic demand, careful financial management, high saving rates, and favorable demographic trends.

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# Fostering Employee Resilience and Organizational Commitment: The Mediating Role of Employee Engagement

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## Abstract:

The study aims to understand the mediating role of employee engagement on employee resilience and organizational commitment among banking sector employees. Method: Data was collected using Brief Resilience Scale, Utrecht Work Engagement Scale, and Organizational Commitment Scale on 122 bank employees. All the demographics were taken via offline and online modes. Result: The SPSS-27 has done all the data calculation work from where a significant relationship was found between employee resilience, employee engagement, and organizational commitment at $p<0.01$ level of confidence.

**Conclusion:** In today's competitive and helter-skelter climate, organizations need to adapt and transform quickly due to increased competition, technical breakthroughs, and changes in worker demographics in overall performance. Employee engagement mediates this relationship, suggesting that fostering resilience and commitment can enhance work engagement. Resilience is crucial for managing stress, tardiness, disputes, and crises, and recruiting resilient individuals can help reduce staff absenteeism and attrition in the banking sector.

**Keywords:** Banking Sector, Employee Engagement, Employee Resilience and Organizational commitment

## Introduction:

*"It is not the most powerful or the cleverest of the species that endure, but rather those that are most adaptable to change"* - Charles Darwin

The preceding announcement is vital in today's competitive and chaotic climate, which necessitates organizations' constant adaptation and transformation (Allvin et al., 2011). Organizations must transition faster than ever before due to increased competition, growing technical breakthroughs, changes in worker demographics, and the spread of worldwide global agreements and standards. Modern organizations require both adaptive and generative abilities, necessitating a pool of resilient and engaged individuals (Lee et al., 2013). Given the dynamic and varied nature of work, resilience may help employees swiftly adjust to fluctuating expectations and perform well even in difficult and emotionally stressful conditions (Fredrickson et ., 2003).
According to research, highly resilient people have greater coping and adaptation capacities when confronted with adversity, such as work-related stress (Hodges et al., 2008). Howard (2008) emphasized the importance of resilience in safeguarding employees from the negative consequences of work-related unpleasant events. Grant and Kinman (2012) have emphasized the need for resilience for individuals who work in emotionally

demanding and complicated jobs. Despite the need for a highly resilient and engaged workforce in the existing diverse operational environment of service organizations, there is little research on the relationship between organizational commitment, employee resilience, and job engagement. Subsequently, this study aims to understand the mediating role of employee engagement on employee resilience and organizational commitment among banking sector employees.

**Relationship between employee resilience and organizational commitment**

Resilience, described as a positive reaction to stress, is critical in assisting individuals in navigating and enduring difficult working situations (Luthar, 1993). This resilience creates not just pleasant feelings, but also a deep emotional connection to the organization. King (1997) went on to emphasize the importance of a person's tenacity in committing to their profession and organization, citing career resilience as a component linked to emotional career commitment. Resilience also leads to a fulfilling work life, which has been demonstrated to be an important component in individuals' organizational commitment (Wrzesniewski, et al., 2003). Furthermore, Youssef (2007) and Vohra and Goel (2009) found that resilience has a favorable influence on organizational performance and commitment. A previous study has looked at the relationship between resilience and individual attitudes, but there has been less emphasis on the relationship between resilience and overall organizational commitment. To fill this void, it is hypothesized that there is a strong link between staff resilience and organizational commitment. This viewpoint is based on the concept that resilience not only helps people manage stress, but also promotes a deeper and more long-lasting commitment to their job (Allen & Meyer, 1990; Solinger et al., 2008). Despite the fact that various studies have discussed various types of commitment resulting from resilience, it is important to recognize that these components can coexist within an individual's psychological orientation towards the organization (Mansfield et al., 2012; Ramlall, 2009; Shin, et al.,2012; Toor & Ofori, 2010). Therefore, this study hypothesis the significant relationship between employee resilience and organizational commitment.

**Relationship between work engagement and employee resilience**

Work participation is a current bound in both study and practise (Bakker et al., 2014; Ghadi et al., 2013; Quinones et al., 2013). It emphasises the influence of job engagement on a variety of employee attitudes and behaviours (Kimberley et al., 2015; Quinones et al., 2013; Yalabik et al., 2015). Work engagement is conceptually led by Schaufeli et al. (2002) description of it as a good, satisfying, work-related state of mind, which was first theorised by Kahn (1990) and operationalized by Maslach et al. (1997).Whilst there is a well-established relationship between psychological qualities and workplace engagement, research on the function of employee resilience in generating work engagement is lacking (Wefald & Downey, 2009). Previous research has found that both workplace and personal resources have an impact on work engagement (Xanthopoulou et al., 2009). However, the relationship with employee resilience is still unknown. Positive characteristics of resilient people include optimism, curiosity, and openness (Block & Kremen, 1996; Waugh et al., 2008). This optimism adds to a greater willingness to accept obstacles at work, so strengthening job engagement. Furthermore, research shows that resilient individuals excel at developing excellent connections and social support at work (Fredrickson et al., 2003), both of which are important elements related with job engagement (Christian et al., 2011; Kahn, 1990).As a result, resilient individuals who are ready to deal with adversity, form

meaningful professional connections, and keep hopeful viewpoints are more likely to be engaged at work. As a result, the study proposes a link between employee resilience and employee job engagement.

**Mediation effect of employee engagement**

The studies stated above have suggested a probable association between employee engagement and employee resilience to some extent, but the mechanism by which engagement influences resilience and commitment has not been examined. According to the literature review, resilience can positively influence organizational commitment (Vohra & Goel, 2009; Youssef & Luthans, 2007), and increased employee commitment can increase the likelihood of engagement (Kim, 2014; Lehmann-Willenbrock et al., 2013). However, it is especially interesting to investigate if employee involvement influences (mediates) the link between resilience and commitment. While investigating possible moderating factors in the relationship between engagement (as part of psychological capital) and commitment, Norman et al. (2010) called for research to examine mediators in the stated relationship to extend an understanding of how emerging positive constructs affect organizational phenomena. Therefore, this study hypothesizes that employee engagement mediates the relationship between employee resilience and organizational commitment.

**Figure 1**: depicts the suggested link between resilience, organizational commitment, and employee engagement.The mediation model displays (a) resilience's direct influence on organizational commitment and (b) employee engagement's mediating effect on resilience-organizationalcommitment relationships.
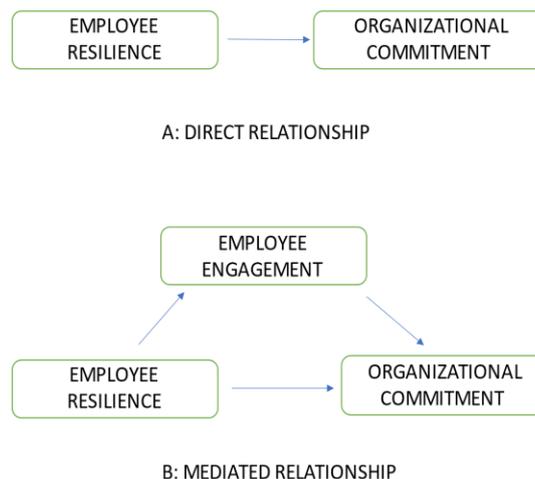


**Figure 1:** Relationship between Resilience, Organizational Commitment, and Employee Engagement

**Method:**

**Aim:** The study aims to understand the mediating role of employee engagement on employee resilience and organizational commitment among banking sector employees.

**Objectives:** Determining the relationship between employee resilience with employee engagement and organizational commitment among banking sectors Examining the mediating role of employee engagement in employee resilience and organizational commitment relationship among banking sectors

**Hypotheses:**

H1: Significant relationship between employee resilience with employee engagement and organizational commitment among banking sectors.

H2: Employee engagement mediates the relationship between employee resilience and organizational commitment among banking sectors.

**Procedure of data collection from sample**

A small orientation toward the rationale of the research was provided to the individuals so that each knew what to expect from the questionnaire. Before handing or passing out the questionnaires to the respondents, the researcher ensured that everyone understood the primary objective of the research in simple terms. As in any research, in the present research, the researcher was faced with not optimal responses to be included in the study for various reasons- incomplete responses and incomplete demographic details. Therefore, for the final analysis, 122 working men and women with an age ranging from 25 to 50 years were considered. For this research, the sample comprises individuals residing in India. He/she must be from India.

**Research Design**

The study intends to use a confirmatory approach, employing convenience sampling methods. Based on the literature evaluation, the study considers employee engagement to be an independent variable, whereas employee resilience and organizational commitment are dependent factors. Furthermore, one theory proposes that employee engagement serves as a mediator in the link between employee resilience and organizational commitment.

**Table 1: Tool Used**

| Sr. No. | Name of the scale | Authors & Years | Items |
|---|---|---|---|
| 1 | Brief Resilience Scale | Smith, & Bernard, Jennifer.(2008) | |
| 2 | Utrecht Work Engagement Scale | Wilmar Schaufeli & Arnold Bakker (2006) | |
| 3 | Organizational Commitment Scale | Upinder Dhar, Prasant Mishra & D.K Srivastava (2001) | |

**Result:**

After scoring the data, SPSS-27 was used for analysis. The descriptive analysis included the calculation of mean and SD, whereas inferential statistics included correlation analysis, linear regression analysis, and PROCESS macro model 4 by Andrew F. Hayes (2013). After these calculations, interpretations, and conclusions have been made.

**Table 2: Socio Demographic Characteristics of Participants**

| Characteristics | | N | % |
|---|---|---|---|
| Gender | Male | 100 | 81.97 |
| | Female | 22 | 18.03 |
| Age | 25-35 years | 18 | 14.75 |
| | 36-45 years | 89 | 72.95 |
| | 46-55 years | 15 | 12.29 |
| Work Experience | 3-5 years | 40 | 32.79 |
| | 5-10 years | 57 | 41.80 |
| | 10 years< | 31 | 25.40 |

**Table 3: Psychometric properties of scales used:**

| Sr.No | Scales used in the study | Items | Reliability |
|---|---|---|---|
| 1. | Brief Resilience Scale | 5 | 0.80 |
| 2. | Utrecht Work Engagement Scale | 17 | 0.86 |
| 3. | Organizational Commitment Scale | 8 | 0.87 |

(0.91-1.00: Excellent; 0.81-0.90: Good; 0.71-0.80: Good & Acceptable)

**Table 4: Descriptive statistics and Correlations of study variables**

| Variables | N | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| Age | 35.38 | 4.60 | 1.00 | | | | | |
| Gender | 0.18 | 0.39 | .041 | 1.00 | | | | |
| Work Experience | 8.183 | 4.58 | 0.642** | 0.011 | 1.00 | | | |
| Employee Resilience | 3.51 | 0.54 | 0.170 | -0.110 | 0.205* | 1.00 | | |
| Employee Engagement | 43.0 | 8.51 | 0.216* | 0.26 | 0.294** | 0.375** | 1.00 | |
| Organizational Commitment | 31.61 | 6.76 | 0.256** | -0.004 | 0.276** | 0.474** | 0.393** | 1.00 |

*Note*. N=122; * $p<0.05$; ** $p<0.01$; 1=Age; 2= Gender; 3= Work Experience; 4= Employee Resilience; 5= Employee Engagement; 6= Organizational Commitment

**Table 5: Total Effects**

| | B | SE | R² |
|---|---|---|---|
| ER>OC | 5.925** | 1.005 | 0.225 |
| ER>EE | 5.916** | 1.333 | 0.141 |

*Note*. ** $p<0.01$; β =unstandardized coefficient; SE= standard Error; ER= Employee Resilience; EE= Employee Engagement; OC=Organizational Commitment

**Table 6: Direct Effects in mediated relationships**

| | B | SE |
|---|---|---|
| EE | 0.199* | 0.067 |
| ER | 4.750** | 1.050 |

**Table 7: Indirect Effects**

|  | B | SE | Bootstrap 95% |
|---|---|---|---|
| ER-EE-OC | 1.1745* | 0.509 | 0.35-2.34 |

*Note*. Bootstrap sample size=5000; *p<0.01; β =unstandardized coefficient; SE= standard Error; ER= Employee Resilience; EE= Employee Engagement; OC=Organizational Commitment

**Discussions:**

In a sample of bank employees in India, the study findings demonstrated a substantial association between employee resilience, organizational commitment, and work engagement. In the face of an increasingly volatile world, it is critical for organizations to develop their people's talents to enhance individual and organizational results. The study aims to understand the mediating role of employee engagement on employee resilience and organizational commitment among banking sector employees. To achieve this, correlation analysis, linear regression analysis, and PROCESS macro model were undertaken. There is table 3.2. which clearly claims that all the scales are good to be used for the sample participating in this study. In general (Table 3.3), a strong correlation exists between organizational commitment and employee resilience (.474); also, employee engagement and employee resilience (.375). Therefore, H1 supported a Significant relationship between employee resilience with employee engagement and organizational commitment among banking sectors at p=0.01 level. Resilience among employees is vital to function inthe 'chaotic practice world' (Blasdel, 2015; Winwood et al., 2013). It has become quintessential for organizations to develop specific interventions for fostering employee resilience and enhancing work engagement (Cooke et al., 2016; Hodliffe,2014; Youssef & Luthans, 2005). Presently, employee resilience has become a keyattribute and is receiving increased attention from both organizational behavior scholars and professionals. At a recent American Psychological Association conference (2016), resilience was recognized as a prerequisite for survival in a volatile environment (Davies, 2016).The study discovered substantial theoretical and empirical evidence of the significance of learning organizations in developing employee resilience and job engagement (Xanthopoulou et al., 2009), based on Frederickson's broaden-and-build (2001) and conservation of resource theory (Hobfoll, 1989, 2001).

Table 3.5 explains the indirect effects of Employee resilience, employee engagement, and organizational commitment has a value of B=1.1745 and SE=0.509 which explains a positive relationship between employee resilience, organizational commitment, and employee engagement. Specifically, an increase in both employee resilience and organizational commitment is associated with an increase in employee engagement. Therefore, H3 supported Employee engagement mediates the relationship between employee resilience and organizational commitment.

The significant relationships between resilience, organisational commitment, and employee engagement add to the growing evidence and support for the relationship between psychological constructs and organization-specific employee behavior and thus

offer direction to organizations to stimulate and maintain organization-specific employee behavior.

According to a POB study (Gupta & Singh, 2014; Luthans, 2002), resilience adds to an employee's positivity index, which improves his/her capacity to manage stress, tardiness, disputes, crises, and so on. The nature of the job in the manufacturing business is fairly conventional and boring, which frequently leads to boredom, tension, and burnout. Furthermore, difficulties such as staff absenteeism and turnover are fueled by issues like as safety, the possibility of industrial accidents, and occasionally difficult working circumstances (such as a high-temperature zone and excessive noise). Resilience builds an individual's coping mechanism and can assist the person in dealing with setbacks, stress, pressure, challenges, and adversity at work (Martin, 2005). Recruiting resilient individuals would aid industrial organizations in reducing staff absenteeism and attrition.

**Conclusion:**

In today's competitive and chaotic climate, organizations need to adapt and transform quickly due to increased competition, technical breakthroughs, and changes in worker demographics. Resilience is crucial for employees to quickly adjust to fluctuating expectations and perform well in difficult conditions. Research shows that highly resilient individuals have greater coping and adaptation capacities when faced with adversity, such as work-related stress. This study aims to understand the mediating role of employee engagement on employee resilience and organizational commitment among banking sector employees. This study investigates the relationship between employee resilience and organizational commitment in the banking sector.

The study found a significant association between employee resilience, organizational commitment, and work engagement among Indian bank employees. Organizational commitment and employee resilience are strongly correlated, with an increase in both indicating a positive relationship. Employee engagement mediates this relationship, suggesting that fostering resilience and commitment can enhance work engagement. Resilience is crucial for managing stress, tardiness, disputes, and crises, and recruiting resilient individuals can help reduce staff absenteeism and attrition in the banking sector.

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# Effect of Climate Change on
# Children in Latin America and the Caribbean

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**Abstract**:

This article describes the effects of climate change on children and their rights. After literature study some conclusions are made in the end. The main question is: how does climate change influence the children in Latin America and the Caribbean in experiencing their child rights in a proper way? The Convention on the Rights of the Child (CRC) emphasized that children and young people have the same general human rights as adults and also specific rights that conceive their special needs. Children have the right to a clean, healthy and sustainable environment. All countries in Latin America and the Caribbean have been affected by at least one type of disaster each year in recent decades. Floods and severe storms are the most frequent extreme events ever reported. Most cities are also enduring the strong effects of climate change and suffer from significantly negative consequences for the region's economy, infrastructure, and societies. These situation have directly effects on the well-being and development of the children, which are secured in the CRC. Our spaceship Earth is faltering and so on the lives of our children, who will take over from us. To secure their rights the United Nation Committee on the Rights of the Child has provided some measures to State Parties in General Comment no. 26. States should incorporate children's right to a clean, healthy and sustainable environment into their national legislation and take adequate measures to implement it in order to strengthen accountability. This right should be, included in policies related to education, leisure, play, access to green spaces, child protection, children's health and migration, and national frameworks for the implementation of the CRC.

## Introduction

All UN member states, except the USA, have ratified the UN Convention on the Rights of the Child (CRC) (ohchr, 1989). The implementation of the articles of the CRC proceeds hesitantly. This widespread observation invites the critical question: what are the causes, which hinder progress and who is responsible to remove obstacles? Thus, accountability has become a subject of much discussion in this matter (Lukas, Linder, Kutrzeba and Sprenger, 2016; Vandenbogaerde, 2016).

Some believe that the CRCitself can serve as an important tool for the promotion of the well-being of children (Doek, 2014; Bradshaw, 2014). But literature presents a tension between children's rights and child well-being. Well-being is the key of the CRC (Ben-Arieh et al., 2014), and can be seen throughout in its guiding principles: health care, education, and protection. Children's well-being needs the promotion of their rights, and the implementation of these rights enhances well-being (Casas et al., 2018). As one of the four guiding principles, the CRC mentioned children's rights to express their views on all

matters concerning them, and this is related to high subjective well-being (Casas et al., 2018; Doek, 2014).

The CRC accomplishes the promise of child well-being in several ways. Such as by the empowerment of children through their right to be heard which is mentioned in article 12 of the CRC.

Additionally, the CRC tries to provide conditions and environments conducive to children's well-being and development. Some example: through support for parents and family (through articles in the CRC under the cluster of "family and alternative care"); through inclusion of social and cultural rights (through articles in the CRC under the cluster of "civil rights and freedoms"); and finally through the right to various protection measures and provisions. (through articles in the CRC under the clusters of "protection from violence", "special protection measures", "health and disability", and "education") for all children with a special focus on cases where the child's well-being is at risk (Doek, 2014).

"A clean, healthy and sustainable environment is both a human right itself and necessary for the full enjoyment of a broad range of children's rights. Conversely, environmental degradation, including the consequences of the climate crisis, adversely affects the enjoyment of these rights, in particular for children in disadvantaged situations or children living in regions that are highly exposed to climate change". (GC 26, par. 8). Climate crisis effects the well- being of the child in a negative way.

Humanity has gone off-track in today's world. Our stay on Earth is endangered by uprooting our environment, while sacrificing peace by turning war into the supreme arbiter to settle disagreements. The danger of use of chemical weapons in war situation is a fact. With a sense of guilt, the United Nations has brought states together in many global ecological gatherings in the last decades. Starting with the Declaration of the United Nations Conference on the Human Environment of Stockholm in 1972 to the 1992 Earth Summit in Rio de Janeiro, from the gathering in Johannesburg (2002) to the climate change conference in Copenhagen (2009), from discussions on sustainable development in Cancun (2010) to gatherings in Durban (2011), from the return to Rio de Janeiro (2012) after twenty years of untiring efforts to Climate Change Conference in Paris (2015). The huge pilgrimages to conference summits around the globe have still left us without a clue how to respond. With all their summits, the dominating powers in our world have been unable to offer an exit strategy (Sankantsing, 2016).

The main question is how does climate change influence the children in Latin America and the Caribbean in experiencing their child rights in a proper way?

**Literature review**

In examining this research question, I conduct literature research and explore the Child Rights Committee (CRC) discussion on climate change. I consult reports about climate crisis in the Latin American and Caribbean region. The CRC and its General Comments itself are a major source of information in how to deal with the well - being of children and how to protect them.

**Historical Development of children's rights in the World**

Due to World War I, Europe had a lot of orphaned, homeless and impoverished children. The plight of children during and after World War I, led to international attention to the need to protect children from violence and neglect. It led among others to the adaptation by the League of Nations of the Geneva Declaration on the rights of the child in 1924.

The history of the development of children's rights started with the adoption on 26 September 1924 of the Geneva Declaration of the Rights of the Child by the League of Nations. This declaration was not from one of the member states of the League, but on behalf of the men and women of all nations. The 5 provisions in this declaration were formulated in terms of needs: development, nutrition and medical care, aid, labour and exploitation, social awareness (Records of the Fifth Assembly, 1924).

In 1948 the General Assembly of the United Nations published a seven point declaration with two more points of special attention: the obligation for care of children with respect to the unity of the family and the obligation to provide children social security programs. In 1959, a revised and more detailed version of this Declaration was adopted by the General Assembly of the United Nations.[1] During the International Year of the Child (1979), Poland proposed to draft a binding convention on the rights of the child. After a drafting process that lasted ten years, the Convention on the Rights of the Child was adopted by the General Assembly on 20 November 1989 (Resolution 44/25) at that time consisting of 159 member states. Within a year after this adoption, on 2 September 1990, the CRC entered into force and by the end of 2019, 196 countries had ratified the CRC. Somalia was so far the last country that ratified the CRC on 1 October 2015. The CRC explains who children are, all their rights, and the responsibilities of governments. All the rights are connected, they are all equally important and they cannot be taken away from children. A child is conform article 1 of the CRC, every person under the age of 18 years.

**What does the CRC provides children?**

According to the CRC children and young people have the same general human rights as adults and also specific rights that conceive their special needs. Children are not seen as the property of their parents and are not helpless objects of charity. They are human beings and are the subject of their own rights.

The CRC sets out the rights that must be realized for children to develop to their full potential and offers a vision of the child as an individual and as a member of a family and community, with rights and responsibilities appropriate to his or her age and stage of development. By recognizing children's rights in this way, the CRC tightly sets the focus on the whole child.

There are many reasons for singling out children's rights in a separate human rights Convention (https://www.unicef.org/child-rights-convention):

**Children are individuals**

'Children are neither the possessions of parents nor of the state, nor are they mere people-in-the-making; they have equal status as members of the human family'.

**Children start life as totally dependent beings**

'Children must rely on adults for the nurture and guidance they need to grow towards independence. Such nurture is ideally found from adults in children's families, but when primary adult caregivers cannot meet children's needs, it is up to the State as the primary duty bearer to find an alternative in the best interests of the child'.

**The actions, or inactions, of government impact children more strongly than any other group in society**

'Practically every area of government policy – from education to public health – affects children to some degree. Short-sighted policymaking that fails to take children into account has a negative impact on the future of children and all members of society'. When a child is growing up as a "problem" child, it cost the society much money and effort to support the child to get out of it.

**Children's views should be heard and considered in the political process**

'Children generally do not vote and do not traditionally take part in political processes. Without special attention to the opinions of children – as expressed at home and in schools, in local communities and even in governments – children's views go unheard on the many important issues that affect them now or will affect them in the future'. Important is, to recognize, that the view of the child matters in topics within their own life.

**Many changes in society are having a disproportionate, and often negative, impact on children**

'Transformation of the family structure, globalization, climate change, digitalization, mass migration, shifting employment patterns and a shrinking social welfare net in many countries all have strong impacts on children. The impact of these changes can be particularly devastating in situations of armed conflict and other emergencies'.

**The healthy development of children is crucial to the future well-being of any society**

'Because they are still developing, children are especially vulnerable – more so than adults – to poor living conditions such as poverty, inadequate health care, nutrition, safe water, housing and environmental pollution. The effects of disease, malnutrition and poverty threaten the future of children and therefore the future of the societies in which they live'.

**The costs to society of failing its children are huge**

'Social research findings show that children's earliest experiences significantly influence their future development' (https://www.unicef.org/child-rights-convention). The costs of consults and guidance for a child, who is damaged, caused by insufficient attention, health care, education, protection etc. are extremely high for a country.

The Convention recognizes the fundamental human dignity of all children and the urgency of ensuring their well-being and development. It makes clear the idea that a basic quality of life should be the right of all children, rather than a privilege enjoyed by a few.

In other human rights treaties such as the International Convention on Civil and Political Rights (ICCPR) and the International Convention on Economic Social and Cultural Rights (ICESCR), minimal attention has been paid to children. These treaties have not been written with the idea that human rights also apply to children. Children are seen as "right holders" in the CRC. The CRC also includes special rights for children, such as in the articles 3, 8, 12, 24, 33, 39, 40 (Doek, 2018).

Article 3, paragraph 1, of the CRC gives the child the right to have his or her best interests assessed and taken into account as a primary consideration in all actions or decisions that concern him or her, both in the public and private sphere. Moreover, it expresses one of the fundamental values of the Convention. It must be ensured that the "best interest of the child" concept is not used as an instrument to determine or disqualify the lifestyle and parenting style of the parents. Parental rights may be restricted in case their lifestyle and style of parenting damage the development of the child and when it is against the law (Manohar, 2021).

Article 8, children have the right to their own identity – an official record of who they are which includes their name, nationality, gender, religion and beliefs, culture, personality and family relations. No one should take this away from them, but if this happens, governments must help children to quickly get their identity back (Manohar, 2021).

In Article 12, children are provided the right to express their views in every decision that affects them and that they should be given due weight according to their age and maturity (Manohar, 2021). Adults should listen and take children seriously.

Article 24 provides children the right to the best health care possible, clean water to drink, healthy food and a clean and safe environment to live in. Access to medical treatment is an important condition. All adults and children should have information about how to stay safe and healthy (GC 14, par. 77).

Article 33, obliged Governments to protect children from taking, making, carrying or selling harmful drugs. Governments have to take all measures to protect children from drugs abuse.

Children accused of breaking the law have the right, conform article 40 to legal help and fair treatment. There should be lots of solutions to help these children become good members of their communities. Recent studies show that locked facilities may not be the best or most cost-efficient option for housing juvenile offenders. Implementation of alternatives to confinement when dealing with minors who commit or who are accused of criminal offenses is better for the correction of the child. There are various types of alternatives to detention and confinement. (https://childsafety.losangelescriminallawyer. pro/juvenile-offenders-alternatives-to-confinement.html) Prison should only be the last choice.

Article 39 gives children the right to get help if they have been hurt, neglected, treated badly or affected by war, so they can get back their health and dignity. Recovery from

harm due to war and reintegration of children with their family are very important measures States Parties should take.

The above mentioned special articles are  in the most important articles in the CRC :  the best interests of the child as a primary consideration in all actions concerning children; the child's inherent right to life, clean environment, safety, health, and State Parties' obligation to ensure to the maximum extent possible the survival and development of the child; and the child's right to express his or her views freely in all matters affecting the child, with those views being given due weight.

**Climate Change in Latin America and the Caribbean**

According to the World Meteorological Organization, the global annual mean temperature in 2021 was 1.11 ± 0.13 °C higher than the pre-industrial mean of 1850-1900. In addition, the seven years from 2015 to 2021 were the seven warmest years on record, and the ocean heat content in 2021 was the highest ever recorded.(WMO)-no. 1295). The increase in the global average temperature is altering the intensity and frequency of extreme events related to atmospheric conditions, water, and climate. In Latin America and the Caribbean, the impacts of climate change and extreme weather events have been recorded throughout the region. These can cause or aggravate other high-impact events such as floods, landslides and forest fires. The Global Climate Risk Index15 indicates that in 2019, 6 of the 30 countries most affected by climate change correspond to Latin America and the Caribbean: Bahamas, Bolivia, Paraguay, Chile, Brazil and Colombia. Likewise, between 2000-2019, 7 of the 30 countries most affected by climate change are from the region: Puerto Rico, Haiti, Bahamas, Dominica, Guatemala, Bolivia, El Salvador. It should be noted that Puerto Rico was the most affected country by climate change in 2000-2019. The Global Adaptation Index of the University of Notre Dame (ND-GAIN) offers similar conclusions, placing 15 countries in Latin America and the Caribbean in the vulnerability ranking above the midpoint. It is mentioned by the World Meteorological Organization, that Central America and the Caribbean are two of the most vulnerable geographical areas in the world.

The effects of climate change tend to affect the poorest and most vulnerable populations to a greater extent. In Latin America and the Caribbean - one of the world's most unequal regions in terms of income - climate events reduce the income of the poorest 40% of the population by more than double the average of the population, which could drag between 2.4 and 5.8 million people in the region into extreme poverty by 2030 (Busso, et al., 2020). Climate change contributes to higher disaster risk, for example, through the increased frequency and intensity of extreme weather events. It also introduces new hazards, such as the sea-level rise and slow-onset events like vegetation changes and ice and snow cover reductions (Barandiarān, et.al., (2019), IDB). The United Nations Office for Disaster Risk Reduction recorded 175 disasters in the Latin American and Caribbean region for 2020-2022 alone, 88% of which were of meteorological, climatological, or hydrological origins and accounted for 40% of disaster-related, 71% of registered economic losses (UNDRR, 2021).

All countries in Latin America and the Caribbean have been affected by at least one type of disaster each year in recent decades, with floods and severe storms being the most frequent extreme events ever reported. Similarly, most cities are also enduring the strong effects of climate change and suffer from significantly negative consequences for the

region's economy, infrastructure, and societies. To mention some: the unexpected expenses caused by storms or floods, interruption of business operations, impacts on health due to heat waves and drought, or changes in city budgets. Although information on climate change impacts is less available at local levels. Many Latin American cities have reported climate change-related disasters - droughts, storms, and heat waves being the most common (Vera & Sordi, 2020). Warmer weather will increase vector-borne diseases' reproduction, resilience, and distribution. It is estimated that an additional number of South American people infected with malaria will rise from 25 million yearly in 2020 to 50 million by 2080.Sea-level rise is a major challenge for the region, where almost half of the population lives within 100 km from the coast and where the sea level is rising faster than at the world scale (Blackman, et al., 2014).

**Migration due to disaster in Latin America and the Caribbean**

Disasters were the main trigger for internal migration in the Americas in 2021, totalling close to 1.7 million, more than half resulting from storms and floods. Hurricane Ida was the event that gave place to most of the displacements, causing almost 14,000 preventive evacuations in Cuba and even more in the United States. Hurricane Elsa also forced significant migrations in the region, causing 180,000 preventive evacuations in Cuba and, to a lesser extent, in Barbados and the Dominican Republic. Brazil registered 411,000 displacements due to floods in 2021- 170,000 of which occurred during the wettest December in the last 15 years. The Americas recorded 282,000 internal displacements associated with forest fires in 2021. At least 1,100 evacuations were reported in Mexico and 815 in Chile due to forest fires. Smaller-scale disasters tend to go unnoticed though they should be addressed owing to their effects on local communities, particularly in Latin America and the Caribbean (IDMC, 2022).

According to the Intergovernmental Panel on Climate Change (IPCC), droughts, tropical storms, hurricanes, heavy rains, and floods are the main climate-related factors that drive displacement and migration. The Andes, north-eastern Brazil, and the northern countries of Central America are among the region most sensitive to climate-related migration and displacement- a rising phenomenon in recent years. Although the consequences are highly context-dependent, climate-related migration is expected to grow on small islands, especially in the Caribbean. Without purposefully determined climate action, estimates are that more than 17 million people in Latin America and the Caribbean will be forced to move by 2050, increasing urban population growth by up to 10% (World Bank, 2022).

The cities in the region continue expanding and absorbing more and more natural resources and rural land. Inequality in cities is persistent, and the housing deficit affects almost half of the region's population . The challenges of climate change overlap and exacerbate those inherent in cities, particularly in large towns and metropolises, where an increase in informal settlements, pollution, and inadequate access to urban services often accompanies accelerated and unplanned growth.

The region´s rapid urbanization and the growing demand for housing and urban services have made room for informal urban housing growth and rose from 6% to 26% of the total residences from 1990 to 2015 (Vera, et.al., 2023).

These informal settlements are based on the outskirts of the city plans, with deficient public infrastructure and poor primary services such as water, electricity and sanitation,

which expose the residents to high-risk levels of undesirable climate effects. In addition, because more and more urban center settlements are in coastal areas, research foresees that in South America alone, by 2100, 3 to 4 million inhabitants will endure coastal flooding and erosion due to the sea-level rise in all emissions scenarios. In fact, in Latin America and the Caribbean, nearly 80% of the losses caused by disasters occur in urban areas, where most of the population lives. Notably, 40% and 70% of the total loss happens in cities with fewer than 100,000 inhabitants, where towns´ exposure to disaster risk combines with limited capacities and low investment (Vera, et.al., 2023).

Migration due to natural disasters have great effects on children. The CRC explicitly addresses environmental issues in article 24 (2) (c), by which States are obliged to take measures to combat disease and malnutrition, taking into consideration the dangers and risks of environmental pollution, and under article 29 (1) (e), by which they are required to direct the education of children to the development of respect for the natural environment (GC 26, par. 9).

**The Effect of climate change to children and their rights**

"Climate change is already having a disproportionate impact on 21st century children.". "Climate change is the biggest global threat of the 21st century". Besides women, the elderly, indigenous and disabled people, children are the poorest of the poor and the most vulnerable (Ruppel-Schlichting, 2013).

Without climate change mitigation, the challenges of the present will morph into catastrophic/existential crises in the future. Most of all consider the potential impact of displacement on children. But what if warming of 3 degrees Celsius results in one billion people being displaced by 2050. Since at least half likely will be children. About 500 million children will be displaced in 2050, some of whom will lose their lives, while others will suffer daily indignities. No wonder UN Secretary General Antonio Guterres characterized maintaining the status quo in the face of climate change as suicide (UNICEF, 2020).

Climate change is life altering, and even if it affected children in the same capacity as it did adults, there still would be cause for alarm, now and in the future. But the undeniable truth is that the impact of climate change is borne more immediately and most unmercifully by the vulnerable, the poor, ethnic and racial and religious minorities, persons with disabilities, and children (Gibbons, et.al., 2020).

The harshest impacts of climate change occur in low and middle income countries, home to 85% of the world's children (Burke, 2018).

Climate change increases water stress, and impedes adequate sanitation, resulting in 1.5 million children dying annually from drinking contaminated water (Sanz-Caballero, 2013).Children displaced by climate change due to severe drought or sea-level rise experience the death of their "place identity, culture, land and customary way of life," precipitating higher rates of adjustment issues, depression, suicidal ideation, and suicide (Burke, et.al., 2018).Even where children survive the impacts of climate change, such as infant malnutrition, lost months or years of elementary education, or the trauma of separation from caregivers, their life course trajectories are negatively altered (Gibbons, 2014).   Currently, about one-quarter billion children under five years old in low- and

middle-income nations are at risk of falling short of their developmental potential, and these numbers will continue to grow as climate change pushes more children into poverty.

Extreme environmental stressors profoundly scar children's bodies and minds, trampling their hopes and dreams, and bringing them ever closer to the living dead. Sudden-onset disasters make children more susceptible to sexual abuse, exploitation and trafficking, child labor, and recruitment into armed forces, jeopardizing their right to a dignified life. Slow-onset climate change processes fester frustration and increase the risk of children's exposure to domestic violence (Bakker, 2020).

Climate induced- epigenetic changes in children may impair their capacity to care for the next generation, and since subsequent generations of children are likely to live in a world of rapidly spiraling extreme weather, leading to even more epigenetic changes, the future of human development is in jeopardy (Sanson & Burke, 2020).Since the adoption of the CRC, growing acceptance has emerged of the wide-ranging interconnections between children's rights and environmental protection. Unprecedented environmental crises and the resulting challenges for the realization of children's rights require a dynamic interpretation of the CRC. (GC 26, par. 9)

Towards the realization of this right for children, the United Nations Committee of the Rights of the Child considers that States should immediately take the following action:

(a)    Improve air quality, by reducing both outdoor and household air pollution, to prevent child mortality, especially among children under 5 years of age;
(b)    Ensure access to safe and sufficient water and sanitation and healthy aquatic ecosystems to prevent the spread of waterborne illnesses among children;
(c)    Transform industrial agriculture and fisheries to produce healthy and sustainable food aimed at preventing malnutrition and promoting children's growth and development;
(d)    Equitably phase out the use of coal, oil and natural gas, ensure a fair and just transition of energy sources and invest in renewable energy, energy storage and energy efficiency to address the climate crisis;
(e)    Conserve, protect and restore biodiversity;
(f)    Prevent marine pollution, by banning the direct or indirect introduction of substances into the marine environment that are hazardous to children's health and marine ecosystems;[2]
(g)    Closely regulate and eliminate, as appropriate, the production, sale, use and release of toxic substances that have disproportionate adverse health effects on children, in particular those substances that are developmental neurotoxins.

States have to take all necessary, appropriate and reasonable measures to protect children their rights, related to climate change that are caused or perpetuated by business enterprises. The United Nations Committee on the Rights of the Child noted that businesses have the responsibility to respect children's rights in relation to climate change. States should ensure that businesses rapidly reduce their emissions.It is very important to conduct environmental impact assessments and children's rights due diligence procedures to ensure that they identify, prevent, mitigate and account for how they address actual and potential adverse climate change-related impacts on children's rights.

States should incentivize sustainable investment in the use of renewable energy, energy storage and energy efficiency, in particular by State-owned or controlled enterprises and also those that receive substantial support and services from State agencies.

States should ensure that their obligations under trade or investment agreements do not impede their ability to meet their human rights obligations. These agreements have to promote rapid reductions in greenhouse gas emissions and other measures to mitigate the causes and effects of climate change. The facilitation of investment in renewable energy is urgent (GC 26, par. 107-110).

The United Nations Committee on the Rights of the Childe emphasizes theincorporation of children's right to a clean, healthy and sustainable environment into national legislation and take adequate measures to implement it in order to strengthen accountability(GC 26, par. 65).

**Conclusion**

The CRC recognizes the fundamental human dignity of all children and the urgency of ensuring their well-being and development. Climate crisis effects the well- being of the child and their rights in a negative way. The harshest impacts of climate change occur in low and middle income countries. These countries are home to 85% of the world's children (Burke, 2018). Currently, about one-quarter billion children under five years old in low- and middle-income nations are at risk of falling short of their developmental potential. These groups of children will continue to grow as climate change pushes more children into poverty.Without purposefully determined climate action, estimates are that more than 17 million people in Latin America and the Caribbean will be forced to move by 2050. The United Nations Office for Disaster Risk Reduction recorded 175 disasters in the Latin American and Caribbean region for 2020-2022 alone. Hereof, 88% were of meteorological, climatological, or hydrological origins and accounted for 40% of disaster-related, 71% of registered economic losses (UNDRR, 2021). Sudden-onset disasters make children more susceptible to different forms of violence, such as sexual abuse, exploitation and trafficking, child labor, and recruitment into armed forces,These situation is jeopardizing their right to a dignified life.

Placing a lesser value on the best interests of children in the climate actions of the State party is in direct violation of article 3 of the CRC.

The United Nations Committee on the Rights of the Child emphasizes that State Parties must ensure a clean, healthy and sustainable environment in order to respect, protect and fulfil children's rights. The obligation to respect children's rights requires States to refrain from violating them by causing environmental harm. They shall protect children against environmental damage.

The climate change-related impacts on children's rights connected to the implementation of the business agreements should be regularly assessed, allowing for corrective measures, as appropriate.

For so long humanity has tried several remedies and failed, paying a terrible social and moral price. We may well stand before the last opportunity to reconnect to the

evolutionary process to stop climate change, before nature proceeds to remove us (our children included) as an unreliable companion of life and an obstacle in evolution.

"Each generation must out of relative obscurity discover its mission, fulfill it, or betray it", is stressed by the great Caribbean thinker Frantz Fanon (Fanon, 1961). The same message, but more in a practical terms is phrased by Vandana Shiva, a great Indina philosopher: "We can either keep sleepwalking to extinction or wake up to the potential of the planet and ourselves" (Shiva, 2008).

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