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Editorial

Journal of Social and Development Sciences (JSDS) is a scholarly journal that deals with the disciplines of social and development sciences. JSDS publishes research work that meaningfully contributes towards theoretical bases of contemporary developments in society, business and related disciplines. The work submitted for publication consideration in JSDS should address empirical and theoretical contributions in the subjects related to the scope of the journal in particular and allied theories and practices in general. Scope of JSDS includes: sociology, psychology, anthropology, economics, political science, international relations, linguistics, history, public relations, hospitality & tourism and project management. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal and that all listed authors approve its submission to JSDS. It is JSDS policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of JSDS consists of papers of scholars from Nigeria, Ghana, USA, Uganda, UK and Eritrea. An Investigation into the Nexus between Fiscal Policy, Foreign Direct Investment and Economic Growth, Exchange Rate and Stock Price Nexus, Posters and Development: A Case Study of Cell Phone Posters, Exploring the Impact of Human Resource Management Practices on Employee's Retention and An Exploration of China's Engagement with Eritrea are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed, by the editorial team for relevance and originality of the work and blindly peer-reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise and to acquire additional knowledge in other relevant fields.

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PAPERS

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An Investigation into the Nexus between Fiscal Policy, Foreign Direct Investment and Economic Growth in Nigeria

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Abstract: The study examined the relationship between foreign direct investment and fiscal policy and the implication of the relationship on the Nigerian economic growth, the years under review were 1980 to 2019. Variables such as government expenditure, government revenue among others were used to proxy fiscal policy while data on foreign direct investment were used for FDI. The GDP growth rate was used as a proxy for the Nigerian economic growth. The study applied Autoregressive Distributed Lags estimating techniques. The result from the analysis indicated that the association between foreign direct investment and fiscal policy could not have a significant effect on the economic growth of Nigeria in the long run but, in the short run, the association was significant. The study recommends more collaboration between fiscal policy and foreign direct investment in such a way that it will promote the growth of the Nigerian economy.

Keywords: *Fiscal Policy, Foreign Direct Investment, Economic Growth.*

1. Introduction

Over the years, foreign direct investment has been a major incentive that peoples the Nigerian economic growth with its immense contributions to the revenue generation (Dada & Abanikanda, 2021). Despite the huge revenue realized via foreign direct investment especially in the petroleum industry, the nature of fiscal policy practiced in Nigeria for the past two decades has been in form of deficit Ogege & Bolouprémo, 2020). That is, a major feature of fiscal policy in Nigeria over the years has been fiscal deficits. Proponents of fiscal deficit believe the excess of government expenditure over revue is to boost infrastructure and promote domestic production to maintain sustainable economic growth (Ogege, 2020; Arain, Qureshi, Suthar, Pirzado, Khanzada, Baloch, Memon, 2021). However, this case has not been the situation in Nigeria where economic growth has been falling and fluctuating in recent times. Nigeria within the last five years has witnessed two economic recessions in quick successions one in 2006 and the other one in 2020 (Yeboua, 2021). The poor performance of the country's economic growth and the rate of its fluctuation calls to question the roles of both foreign direct investment and fiscal policy in Nigeria. Although recent data have shown that capital inflow into Nigeria in form of FDI has been falling. For instance, FDI in Nigeria fell from 4.45 billion USD in 2016 to 3.3 billion USD in 2019 (World Bank, 2020). Around the same period, tax revenue fell by 6.7% and it was at the same period that Nigeria witnessed two economic recessions (CBN, 2019). The implication of this scenario is that it appears that there might be some connections among the three that is FDI, fiscal policy and Nigeria's economic growth.

For instance, the naira has undergone devaluation twice within the last five years and one of the cardinal objectives of this move is to promote FDI and boost domestic output that will propel economic growth (Babalola, & Onikosi-Alliyu 2020). Despite all these efforts the FDI in Nigeria has been dwindling thus, compounding the negative effect on government revenue and hence limiting the usage of fiscal policy to put the country on the path of sustainable economic growth. Understanding the nexus between FDI and fiscal policy especially government revenue and expenditure has been adjudged to be very key to evaluating the impact of the two on economic growth (Wang, Xu, Qin, & Skare, 2021). This nexus has generated different controversies in the literature ((Basuki, Purwaningsih, Soesilo, & Mulyanto, 2020). For instance, some studies concluded that fiscal policy drives FDI while some studies concluded that the reverse is the case (Babalola & Onikosi-Alliyu, (2020) from their assessment found out that the proceeds from FDI in form of revenue is a major driver of fiscal policy in Nigeria while Anichebe & ACA, (2019) in their study viewed fiscal policy from tax revenue incentive given to foreign investors and concluded that this is a major driver of FDI into the country and hence they concluded that fiscal policy drives FDI. These debates have continued without any concrete consensus among the authors. Consequently, apart from evaluating the effect of both FDI and fiscal policy on the economic growth of Nigeria, the causality between fiscal policy and FDI will also be investigated to contribute to the existing literature on the dichotomy between the two. The rest of this seminar paper is

divided into the literature review, methodology, results and discussions then, the conclusion and recommendations.

2. Literature Review

This aspect focuses mainly on the empirical literature around the topic, the theoretical literature is combined with the theoretical framework under the methodology of the paper. There have been diverse efforts around the relationship among FDI, fiscal policy and economic growth some of the most recent ones are discussed here. Ogege & Boloupremo, (2020) examined the influence of the government fiscal policy on foreign direct investment (FDI) in the economy of Nigeria pre and post-military rule using data from 1981 to 2018. After the stationary test using the ADF method, the model was estimated with the application of the Ordinary Least Square technique and correlation analysis. Findings from the study showed that there is a positive and significant relationship between inflation and FDI especially during the Military Era in Nigeria. Furthermore, the findings also indicated that government expenditure impacted significantly on FDI during and before Military Eras. On the contrary, external debt did not have significant impacts on FDI in both periods. The same results were shown by the exchange rate. Notwithstanding, the Nigerian government has been making a series of efforts to promote FDI in the country via both foreign policy and macroeconomic policies. In a related study, Babalola & Onikosi-Alliyu, (2020) using the annual data examined the impact of fiscal policy and its crowing out implication on capital inflow in Nigeria.

The FDI was identified as a proxy for capital inflow in the study whole the following variables namely, budget deficit domestic debt and external debt were all used to capture fiscal policy. Cointegration and error correction model was applied as the estimating technique. The result from the study indicated that budget deficit failed to have a crowding-out effect but rather crowing in effect on capital inflow both in the long and short ruin [period. Again the external debt showed a negative impact on capital inflow. In another perspective, Kyari, (2020) focused on the revenue side of fiscal policy by giving attention to petroleum tax. The study examined the impact of Nigerian petroleum tax incentives on foreign direct investments. The approach adopted was primary data and responses were collected via a questionnaire that was constructed using the Likert Scale method. The result of the analysis indicated that the petroleum tax incentive is an important method to attract foreign direct investment in Nigeria. In a related perspective that also centers on tax revenue Ogege (2020) adopting a qualitative research method, examines the sensitivity of foreign direct investment in Nigeria to taxation practices. The paper highlights that the tax incentive policy of the Nigerian tax system is a good driver of foreign investment in Nigeria. While the efficacy of taxation remains questionable, the paper whilst in conclusion recommends a justifiable level of fiscal incentives.

A stable political and economic climate is a panacea in achieving the desired effect. Anichebe & ACA (2019) also focused on the tax revenue aspect of fiscal policy by examining the effect of revenue from the tax on the Nigeria FDI between 1981 and 2017. Sources of data include the CBN and NBS while the Ordinary Least Square estimating technique was adopted. The result showed that there is a significant relationship between tax revenue and FDI in Nigeria during the periods under the investigation. While VAT and Customs duties have a positive effect on FDI, company income tax and Personal income tax have negative impacts on the FDI. Olaniyi, Oyedokun, & Ajayi, (2019) examined some tax incentives' impact on capital inflow in Nigeria. The tax incentive that was the focus are excise duties, customs duties, company income tax and value-added tax, the study focused on the period between 1994 and 2016. Both multiple regression and correlation analysis were used. Finding showed that excise duties, VAT and Custom duties incentives are very good drivers of capital inflow in Nigeria during the period under investigation. From the literature review, it is obvious that none of the studies actually combined all the three variables in their analysis. Again, despite the various findings in terms of the relationship between fiscal policy and FDI, none of the studies focused on examining the causality between the two. This study will be filling these gaps.

3. Methodology

This aspect of the paper discusses the theoretical framework, model specification, sources of data and definition of variables, estimating techniques and method of data analysis.

Theoretical Framework (Two Gap Model): The theoretical under pining of this study is extracted from the two-gap model where both saving and foreign exchange gaps are identified as drivers of economic growth. This means that (I-S) and (M-X) are the main drivers of growth. X is export, M is import, I is Investment and S is savings. The less developed countries experienced this often where the investment is always at the excess of savings thereby creating a balance deficit and when the import is greater than export we have a deficit balance of payment. This approach relates capital inflow in form of FDI (foreign exchange gap) to the savings and investment gap which captured fiscal policy. All are used as drivers of economic growth as shown in the two-gap model. This model is adopted to generate the relationship between FDI, Fiscal policy and economic growth of Nigeria.

Model Specification: Following the theoretical framework and the empirical studies of Ogege, (2020). The model for this study is expressed as follows

$GDP = f(GE, GR, FDI, EXR, K)$……(8)

The growth rate model of the study is expressed as follows:

$\boldsymbol{GDP_t = \beta_0 + \beta_1 GE_t + \beta_2 GR_t + \beta_3 FDI_t + \beta_4} EXR_t \boldsymbol{+ \beta_5 K_t + \varepsilon_t}$ ……(9)

Where GDP is a gross domestic product of Nigeria to proxy economic growth, GE is government expenditure and GR is government revenue and both are proxies for fiscal policy. FDI is foreign direct investment, EXR is the exchange rate and K is capital formation both are control variables in the model.

Estimating Techniques: Equations 4.10 are estimated employing the cointegration analysis approach which followed the following four steps (1) testing for order of integration and stationarity of the variables utilizing unit root tests, (2) the cointegration analysis and (3) Granger Causality test**.**

Unit Root Testing: One of the initial conditions that must be fulfilled before ARDL is applied is the unit root test. The test suggests the stationarity status of all the variables to be used in the ARDL model. The variable must be either I(1) or I(0) orders of integration before ARDL can be applied. Two approaches to the unit root test namely the Augmented Dickey-Fuller (ADF) test and Phillips-Perron (PP) test are applied in this study.

Cointegration Tests: Cointegration tests are necessary to examine the stability or stationarity of a linear combination of the variables. The idea is that if a variable is not stationary, a linear combination with other variables might be. The implication of this is that long-run or co-movement do exist among such variables. An important requirement before ARDL cointegration can be applied is that the unit root test result must show that all the variables are I(1) or I(0). This is a condition that makes ARDL much more usable than other approaches of cointegration like the Johansen approach which made it mandatory for all the variables to be of order one that is I(1) before cointegration can be done.

Granger Causality: After the estimation of cointegration regression which is used to analyze relationships between FDI, fiscal policy and economic growth. The Granger causality test is conducted. This is because the existence of either unidirectional or bidirectional causality presupposes the existence of either long or short-run relationships among the variables. The Granger causality test for two stationary variables is necessary for estimation of the empirical relationship between variables and our variables of interest here are FDI and fiscal policy variables namely; government expenditure and revenue.

Sources of Data: Data for this study will be sourced from both the Central bank of Nigeria and the World Bank. Precisely, data on both government expenditure and revenue was sourced from the CBN statistical bulletin 2020 edition, while data on FDI and economic growth was sourced from the World Bank table 2020 edition.

4. Results and Discussion

This section discusses the result obtained after the application of the ARDL estimating techniques. Notwithstanding, descriptive statistics and other pre estimating techniques were discussed first.

Descriptive Statistics

Table 1: Descriptive Statistics

	GDPGR	GE	GR	FDI	EXR	K
Mean	3.176302	3.846069	3348767.	2.541606	88.08500	36.19095
Median	4.200378	2.098885	4096.620	1.609715	97.01772	32.51772
Maximum	15.32916	9.448340	12294427	8.841062	306.0800	89.38105
Minimum	-13.12788	0.911235	66.58000	-0.738870	0.546781	14.90391
Std. Dev.	5.399415	2.904443	4731968.	2.625479	86.75285	18.85074
Skewness	-0.890935	0.727227	0.822255	1.025118	0.773783	1.092146
Kurtosis	4.762573	2.016977	1.920458	2.892897	2.923321	3.935148
Jarque-Bera	10.46954	5.136285	6.449710	7.024896	4.001398	9.409385
Probability	0.005328	0.076678	0.039762	0.029824	0.135241	0.009053
Observations	40	40	40	40	40	

Note: GDPgr= GDP growth rate (%), GE= Government expenditure (billion USD), GR= government revenue (Billion naira), FDI= foreign direct investment (% of GDP), EXR= Exchange rate (naira per USD) K= gross capital formation (billion naira).
Source: Author's Computation (2021).

In table 1 average GDP growth rate stood at 3.176302% with minimum and maximum values of -13.12788% and 15.32916% respectively. Mean values for government expenditure, government revenue, foreign direct investment, exchange rate and gross capital formation stood at 3.846069 billion US dollar, 3348767 billion US dollar, 2.541606% of GDP, 88.08500 naira per US dollar and 36.19095 billion naira respectively. Minimum and maximum value stood at 0.911235 billion USD and 9.448340 billion USD for government expenditure, 66.58000 billion USD and 12294427 billion USD for government revenue, -0.738870 % of GDP and 8.841062% of GDP for foreign direct investment, 0.546781 naira per USD and 306.0800 naira per USD for the exchange rate, 14.90391 billion naira and 89.38105 billion naira for gross capital formation. Skewness statistics of -0.890935, 0.727227, 0.822255, 1.025118, 86.75285 and 1.092146 for GDP growth rate, government expenditure, government revenue, foreign direct investment, exchange rate and gross capital formation respectively as presented in table 1 revealed that all the variables except GDP growth rate are positively skewed, and Jarque-bera statistics revealed that only GDP growth rate, government revenue, foreign direct investment and gross capital formation are normally distributed.

Unit Root Test: The unit root test is called the stationarity test, it is one of the preconditions for the application of the ARDL. The variables must be either I91) or I(0) before ARDL can be applied. ADF approach to the test of unit root is adopted in the study. The results are presented in Table 2.

Table 2: Summary of Unit Root Test Result

Variables	ADF Statistics	1% Critical Value	5% Critical Value	Order of Integration
GDP gr	-5.691246*	-4.211868	-3.529758	I(0)
GE	-6.204104*	-4.219126	-3.533083	I(1)
GR	-3.429314*	-3.615588	-2.941145	I(1)
FDI	-10.04513*	-4.219126	-3.533083	I(1)
EXR	-5.581314*	-4.219126	-3.533083	I(1)
K	-5.283010*	-4.219126	-3.533083	I(1)

Results on the table above indicate that all the variables are stationary at levels except the GDP gr that is stationary at levels. These results have already set a good tone for the application of ARDL. The next test is the cointegration test which is presented in table 3.

Table 3: ARDL Co-Integration Bound Test

F-Statistic	Lower Bound Critical Value	Upper Bound Critical Value
5.731707	2.62	3.79

Note: Critical values are values at a 5% significant level. **Source:** Author's Computation, (2021).

For cointegration to exist among the variables the F statistics must produce a value that is greater than the critical values at both upper and lower bounds under 5% level is statistical significance. The result from the table has shown that the value of the F statistics is 5.731707 while the critical values at both the lower and upper bounds are 2.62 and 3.79 respectively. This result implies that cointegration exists. This has paved the way for the estimation of the long and short-run relationships among the variables.

Table 4: ARDL Short Run and Long Run form Estimation Result

SHORT-RUN ESTIMATION

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDPGR(-1))	0.716450	0.464465	1.542526	0.1394
D(GDPGR(-2))	0.578559	0.330660	1.749711	0.0963
D(GDPGR(-3))	0.469969	0.210768	2.229794	0.0380
D(GE)	**0.178132**	**0.581965**	**0.306086**	**0.7629**
D(GE(-1))	1.200687	0.819287	1.465527	0.1591
D(GR)	**-0.001695**	**0.207343**	**-0.008175**	**0.9936**
D(FDI)	**1.236199**	**0.493083**	**2.507081**	**0.0214**
D(FDI(-1))	0.006927	0.347936	0.019909	0.9843
D(FDI(-2))	-0.339660	0.319813	-1.062058	0.3015
D(FDI(-3))	0.867242	0.333227	2.602557	0.0175
D(EXR)	-2.745617	0.684051	-4.013763	0.0007
D(K)	-2.694287	1.411835	-1.908358	0.0716
CointEq(-1)	-1.975059	0.527699	-3.742778	0.0014

Cointeq = GDPGR - (-0.1622*GE -0.0009*GR + 0.0435*FDI -0.1242*EXR -1.3642*K + 6.4319)

LONG RUN ESTIMATION

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GE	**-0.162180**	**0.539492**	**-0.300617**	**0.7670**
GR	**-0.000858**	**0.104953**	**-0.008177**	**0.9936**
FDI	**0.043509**	**0.396946**	**0.109610**	**0.9139**
EXR	-0.124222	0.159989	-0.776443	0.4470
K	1.364155	0.623262	-2.188733	0.0413
C	6.431881	2.430211	2.646634	0.0159

Source: Author's Computation, (2021).

Beginning with the result of the long-run analysis. The results have shown that none of the variables used in the proxy fiscal policy have a significant impact in the long run on the economic growth of Nigeria. These variables are government revenue and expenditure. In the same vein, FDI also failed to have a significant impact on economic growth. This is because of the Prob. of all these variables are greater than 5% hence they are not significant. The only variable with a significant, long-run relationship with the economic growth of Nigeria, in the long run, is an investment that is proxy by capital K. This result implies that the relationship between FDI, fiscal policy and economic growth in Nigeria is weak in the long run. In the short run, the result is different. FDI and exchange rate have a significant impact on the economic growth of Nigeria as the Prob is less than 5%. Notwithstanding, the fiscal variables such as government expenditure and government revenue still continued to maintain a non-0signficance relationship with the economic growth. However, the error correction term is negative and significant. This means that the adjustment process from past disequilibrium to present equilibrium is in the right direction.

Table 5: Post Estimation Test

Normality Test		
Statistics	**Values**	**Probability**
Jarque-Bera Stat	2.818628	0.244311
Serial Correlation LM Test		
Statistics	**Values**	**Probability**
F-statistic	1.031482	0.1160
Heteroscedasticity Test		
Statistics	**Values**	**Probability**
Breusch-Pagan-Godfrey	0.229994	0.9977

Source: Author's Computation, (2021).

The results in the table above have shown that the estimated model produced a residual that is normally distributed since the Jarque Berra statistics are not significant. Again, both the F statistics of the serial correlation and test of Heteroskedasticity do not pass the test of statistical significance at 5% thus suggesting that the estimated model does not have the problems of serial correlation and heteroskedasticity.

Analysis of Causal Relationship among Fiscal Policy, Foreign Direct Investment and Economic Growth in Nigeria

Table 6: Granger Causality Test Result

Null Hypothesis	**F-statistics**	**Probability**
GE does not Granger Cause GDPGR	0.30372	0.7401
GDPGR does not Granger Cause GE	2.67739	0.0436
GR does not Granger Cause GDPGR	0.41005	0.6670
GDPGR does not Granger Cause GR	1.21393	0.3099
FDI does not Granger Cause GDPGR	9.15351	0.0279
GDPGR does not Granger Cause FDI	2.42957	0.1037

Source: Author's Computation, (2021)**.**

The results from the pairwise granger causality have shown that there exists at least a unidirectional relationship between FDI and economic growth. The results show that FDI granger causes GDP growth rate. This means that the causality flows from the FDI to the GDP growth rate because the probability is 0.02 which is less than 5%. The only relationship on the table that has less than 5% probability again is that of government expenditure and GDP growth rate. The Probability is 0.04. This shows that the GDP granger causes GE. It means that the causality flow from GDP to GE. The implication is that there is at least a unidirectional causality between a fiscal variable and the economic growth of Nigeria.

Discussion of Findings

The result of the study showed that in the short run government expenditure exert a positive insignificant effect on GDP growth rate with a coefficient of 0.178132 ($p=0.7629 > 0.05$) indicating that one percent increase in the government expenditure will lead to about 0.17 percent increase in GDP growth rate in the short run. The increase in GDP growth rate is a reflection of a growing economy while a decrease in GDP growth rate indicates a decline in economic growth. The implication of the result is that increase in the level of expenditure incurred by the government in the short run has potential for improving, however, such potential in Nigeria is yet to culminate into significant economic growth. Meanwhile in the long-run government expenditure showed an insignificant negative effect on the level of economic growth in the country. This result empirically validates the notion that government expenditure in Nigeria does not have long-run growth potential, given the relative fraction of government expenditure on recurrent relative to capital expenditure, that can culminate in improved productivity and economic output in the country. Result also showed that government revenue exert negative insignificant effect on GDP growth rate both on the short run and long run with coefficient of -0.001695 ($p=0.9936 > 0.05$) and -0.000858 ($p=0.9936 > 0.05$) respectively.

This implies that a one percent increase in government revenue will lead to about a 0.0016 percent decrease in GDP growth rate in the short run. One percent increase in government revenue will also lead to about 0.00085 percent reduction in GDP growth rate. This result can be attributed to two things among others, first, the inherent mismanagement of public funds in the country due to a high level of corruption and system deficiencies, as such any increase in government revenue most time only gives room for further looting and mismanagement in the country. Secondly, an increase in government revenue especially in terms of tax tends to drain some level of productive potential out of both the formal and informal sector of the country, without the commensurate institutional and infrastructural quality in place for boosting output at the national level. Result in addition showed that foreign direct investment exert positive effect on GDP growth rate both in the short run and long run with coefficient of 1.236199 ($p=0.0214 < 0.05$) and 0.043509 ($p=0.9139 > 0.05$) respectively. In the short run inflow of foreign direct investment into the country has a significant incremental effect on the level of economic growth. However, in the long run, such an effect is not statistically significant though still positive. This reflects that the impact of foreign direct investment on the level of economic growth is more substantial in the short run. Finally, the result showed that there is an established causal relationship either between foreign direct investment and economic growth or between fiscal policy and economic growth. These results reflect that the previous level of foreign direct investment does not significantly contribute to the improved level of economic growth in Nigeria.

5. Conclusion and Recommendations

Conclusion: Based on the result of the proxy for the key variables foreign direct investment, fiscal policy and economic growth, this study concluded that foreign direct investment and fiscal policy have insignificant long-run impacts, on economic growth. Also, there is no causal relationship between foreign direct investment and economic growth as well as no causal relationship between fiscal policy and economic growth.

Policy Recommendations: In line with the outcome of this study, it is recommended that

- Government should ensure that revenue realized is adequately allotted to the productive sector of the economy to boost economic activities.
- Corruption needs to be controlled effectively as this will reduce the negative impact of government revenue on economic growth since funds will be used as planned on the productive economy thereby enhancing economic growth.
- The government needs to restructure the institutional characteristics that will attract foreign investors into the country to increase foreign direct investment as this will improve the economic activities and economic growth.
- Government should ensure that the proportion of capital expenditure to recurrent expenditure is increased to ensure an increase in the level of productive investment such that economic activities will be enhanced for greater economic growth.

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Exchange Rate and Stock Price Nexus: Evidence from Ghana

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Abstract: This study aimed at investigating the link between the Ghanaian exchange rate and stock prices from July 2007 to December 2019, to establish whether appreciation in exchange rate causes stock price increases or otherwise. The Ghana Stock Exchange's (GSE) All-Share Index; served as a proxy for stock prices, while nominal monthly exchange rates for the Ghana Cedi in terms of the US Dollar were utilized as a proxy exchange rate. The Pearson's Product Moment Correlation test was employed to evaluate the link between the two variables, and the Augmented Dickey-Fuller (ADF) test was employed to determine the data's stationarity qualities. The series were all non-stationary since they had unit roots; however, stationarity was attained at the first difference. The results of the regression and correlation analysis conducted revealed that the two macroeconomic variables are negatively connected in the Ghanaian context. In view of the negative association between the exchange rate and stock prices in Ghana, the study advises policymakers to be cautious when implementing exchange rate measures.

Keywords: *Exchange Rate, Stock Prices, Correlation.*

1. Introduction

Instability in the exchange rate has been found to have a pervasive effect on the prices of all commodities and services in the economy, including stock prices. In recent years, both economics and finance literature have expressed concern regarding the link between exchange rates and stock prices. The stock prices of companies listed on the GSE show their success and overall financial health. As a result, while diversifying and hedging their portfolios, both domestic and international investors profit from understanding the nexus between stock prices and exchange rates (Adeyeye et al., 2017). However, there has been little research, into the exchange rates and stock prices nexus in Ghana. The trade effect reveals the effect of exchange rates on stock prices (Geske & Roll, 1983). Exchange rate variations influence stock market investors' rates of return both domestically and internationally. When the demand for export commodities is elastic, a drop in the value of the domestic currency leads to a rise in the volume of exports. As a result, cash flow and liquidity in domestic companies improve, causing stock prices to increase. A flow-oriented model is a popular approach for determining the connection between exchange rates and stock prices. Stock price movements, according to this model, influence aggregate demand via the wealth effect, liquidity effect, and currency rates. An increase in inflation, as well as an increase in the exchange rate, would cause stock prices to decline because an increase in interest rates reduces the present value of cash flows (Bunheng et al., 2020).

The results of empirical analysis on exchange rates and stock prices nexus have been inconclusive and contradictory. On the one hand, studies by Bahmani & Saha (2016), Caporale et al. (2015); Ülkü & Demirci (2012) found a positive link between stock prices and exchange rates, whereas studies by Caporale et al. (2015), Chkili & Nguyen (2014), and Wong (2017) found a negative relationship. Wickremasinghe (2011) also contends that stock prices and currency rates are linked in both the short and long term. Alagidede et al. (2011) and Amarasinghe & Dharmaratne (2014), on the other hand, discovered no statistically significant link between the two variables. As a result, the goal of this research is to see if there is a link between stock prices and the Ghanaian exchange rate. The research is motivated by the following research question: Is there a link between Ghana's exchange rate and stock prices? This hypothesis was examined in light of the study question: H_0: In Ghana, exchange rate and stock prices have no link. Specifically, H0: = 0. H_1: In Ghana, the exchange rate and stock prices have a positive relationship. Specifically, H1: > 0. The following is how the research paper is structured: The introduction is presented in section 1.0, the relevant literature on the exchange rate and stock price connection is reviewed in section 2.0, and the methodology of the paper is outlined in section 3.0 while Section 4.0 presents the findings and discusses them. Section 5.0 however, concludes the study.

2. Related Literature

In economics and finance literature, the causal linkage between exchange rates and stock prices are well documented. According to the commodity market hypothesis, a change in exchange rate affects multinational enterprises' competitiveness and, as a result, their earnings, which brings about changes in stock prices (Granger et al., 2000; Agrawal et al., 2010, Alagidede et al., 2011). When the value of a local currency falls, export prices fall as well, which generally leads to an increase in demand for foreign items and, thus, increases the value of exports? Volatility in exchange rates can affect both international corporations and local businesses with limited overseas operations. Exchange rate fluctuations have a great effect on input and output pricing, as well as demand for products and services. Owing to exchange rate swings, stock values are influenced, resulting in equity movements and flight. During the Asian financial crunch, Granger et al. (2000) used time-series data to conduct a unit root and co-integration analysis on four different countries in an attempt to establish a causal relationship between asset values and currency rates. According to their research, a rise in the exchange rate causes a rise in stock prices in South Korea. They discovered, however, that stock values in the Philippines are inversely related to exchange rates. In addition to Japan, their studies found that there is no direct correlation between stock prices and exchange rates in Indonesia.

As a result of these contradictory findings, no consensus has been reached on the direction and indications of the connection between stock prices and exchange rates in economics and finance theories. Despite this, the connection between exchange rates and stock prices have been explored using two different models: the commodities market model and the portfolio balance model (Agrawal et al., 2010; Raji et al., 2016; Xie et al., 2020; Salisu, et al., 2021). The 'first model,' developed by Dornbusch and Fisher (1980), emphasizes the relationship between the current account and the exchange rate. They created an exchange rate determination model that takes into account relative pricing, expectations, and asset markets, in addition to the relationship between the exchange rate and the current account. They contend that current account and exchange rate fluctuations are inextricably related. They also assert that a country's currency rate is largely influenced by its trade balance or current account situation. In line with the model, exchange rate variations affect international competitiveness and trade balance, which affects real GDP. As a result, the influence of exchange rate changes on stock prices is determined by the extent of openness of the domestic economy and the extent of the trade deficit. Stock prices and currency rates have a positive link, according to goods market models (Stavarek, 2004).

In addition, the portfolio balance model emphasizes the importance of capital account transactions (Tahir & Ghani, 2004). In the model, stock prices and currency rates are supposed to have an inverse relationship. Capital flows increase when the value of domestic stocks rises, increasing the demand for the local currency; as well as the exchange rate. A growing stock market fosters local currency appreciation via direct and indirect causes. When prices rise, investors are encouraged to buy local assets by selling international assets and using the proceeds to purchase new domestic stocks. The value of the domestic currency rises as a result of major changes in currency demand and supply. A rise in domestic stock prices, on the other hand, will raise wealth and cause investors to need more cash. As a result, domestic interest rates will rise, attracting international investment and raising foreign investor demand for local currency, resulting in the increased exchange rate and stock price volatility (Stavarek, 2004). Obben et al. (2006) provided empirical evidence that there is a bi-directional causal link between exchange rate and New Zealand stock market prices in the short and long run. Furthermore, Abugri (2008) discovered that the link between exchange rate and stock returns is inverse and statistically significant for both Brazilian and Mexican stock market returns.

However, neither Argentina nor Chile's stock market returns responded greatly to exchange rate changes. Nonetheless, Adam and Tweneboah (2008) find that stock prices and the Ghanaian currency rate have a negative association. In Singapore, however, Maysami et al. (2004) find a positive association between exchange rate and stock market performance. Raji et al. for example were able to accomplish a comparable result (2016). Using monthly data from the stock and foreign exchange markets, they looked at the relationship between the stock and foreign exchange markets in six African countries: Mauritius, Namibia, Nigeria, South Africa, Zambia, and Kenya. The study's findings revealed an inverse linkage between the two financial markets, implying that when stock price index returns rise or fall, so does the exchange rate, resulting in local currency appreciation or depreciation. Muradoglu and Metin (1996) found a direct link

between stock prices and exchange rates in Turkey. Ozturk (2008), in contrast, discovered that there is no causal association between stock prices and currency rates. Salisu & Vo's study (2021) discovered a mixed nexus under multiple interest rate regimes. Their purpose was to figure out the way in which exchange rates and stock returns interacted in low and high-interest rate environments, which they classed as advanced industrialized countries and quickly expanding emerging economies, respectively.

Their studies revealed that in the short run, the exchange rate and stock prices in the high-interest rate groups have a substantial negative association. In the long run, however, their data revealed that there is a clear negative connection in a low-interest-rate environment. Furthermore, Yildirtan (2007) discovered no link between exchange rates and stock prices. Demir and Demirhan (2012) established a bi-directional causal linkage between all stock prices and currency rates in their empirical findings. Stock prices can assist predict exchange rates, but not the other way around, according to Xie et al's empirical study (2020). As a result, the statistics cast doubt on the flow-oriented approach to calculating exchange rates. Their findings, however, suggest that there isn't enough evidence to prove unidirectional asymmetric causality between currency rates and stock prices and vice versa. The findings of this study reveal that the literature and debate around the relationship between stock prices and currency rates are inconclusive. The discrepancies in the results could be attributed to the use of different analytical tools and research approaches by different scholars, as well as distinct economic environments.

3. Data and Methodology

The study used monthly time series data, spanning the period July 2007 to December 2019; thus, the data were mainly sourced from secondary sources. The stock price data was sourced from the Ghana Stock Exchange, while the data on exchange rates was sourced from the Bank of Ghana. The Johansen and Granger causality test, as well as regression and correlation analysis, was conducted to explore the link between exchange rate and stock prices using the E-views statistical software. The study employed the correlation and regression approach because a review of the literature revealed that the use of econometric models such as the GARCH, EGARCH, and APT has been the most prevalent methodology employed in the analysis of macroeconomic variables in Ghana; multiple regression analysis has been employed rarely in such research in developed economies, and it has been nearly completely missing in emerging markets. Thus, to avoid false regressions, all necessary statistical diagnostics tests such as autocorrelation, multicollinearity, heteroscedasticity, unit roots, and cointegration were performed.

To establish the link between the variables. A model is specified in which stock price is a function of the nominal exchange rate, monetary policy rate or interest rate, money supply, and inflation rate: GSE = f (NER, MPR, MS, INF), where GSE represents the Ghana Stock Exchange, NER the Nominal Exchange Rate, MPR the Monetary Policy Rate, MS the Money Supply, and INF the Inflation Rate. Monetary Policy Rate (MPR) or Interest rate, money supply, and inflation were included in the model since they were found to be key predictors of stock prices in the research. To determine the data's time series qualities or stationarity attributes, the unit root test was used. The term "stationarity" simply refers to the fact that the mean and covariance of distribution remain the same over a period of time. As a result, stationarity means that the future will be comparable to the past, at least in terms of probability. Nonstationary data regressions, according to Gujurati (2003), give erroneous findings, rendering the t and F statistics useless. In other words, adding a non-stationary variable to a statistical significance test can invalidate it.

As a result, the Augmented Dickey-Fuller (ADF) test was employed to assess if the data was stationary or not by estimating the equation:

$\Delta Y_t = \beta_0 + \delta Y_{t-1} + \gamma_1 \Delta Y_{t-1} + \gamma_2 \Delta Y_{t-2} + \ldots + \gamma_p \Delta Y_{t-p} + \mu_t$ ..... (1)

$\Delta Y_t = \beta_0 + \delta Y_{t-1} + \sum \gamma_2 \Delta Y_{t-2} + \varepsilon_t$ ..... (2)

The Augmented Dickey-Fuller (ADF) analysis determines if the variables under consideration have a unit root and therefore must be stated in the first difference form. It expresses the Null hypothesis by claiming that the time series is nonstationary because it lacks a unit root. The Alternative Hypothesis, on the other hand, claims that the time series has a unit root and is thus stationary. Thus;

- **H_0:** the series are nonstationary (=1) or lack a unit root.
- **H_1:** the series are stationary or have only one unit root (1).

In a situation where the absolute ADF test statistic is less than the crucial value, we reject the Null Hypothesis. On the contrary, in a situation where the absolute ADF test statistic is greater than the crucial value, we accept the Null Hypothesis.

4. Results and Discussion

In total, one hundred and thirty-eight observations (N = 138) were used in the investigation. This data set comprises monthly time-series observations from July 2007 to December 2019, the period after the redenomination of Ghana's currency. To determine the basic features of the variables under examination, a variety of descriptive statistical tests were used. Table 1 shows the descriptive characteristics of the variables in the model. According to the findings, the stock price variable had a mean of 3.48258 and a standard deviation of 0.37262. With a standard deviation of 0.12909, the average inflation rate was 1.09123. The mean of the money supply was found to be 4.13342, with a standard deviation of 0.25106. The variable interest rate has a mean of 1.188665 and a standard deviation of 0.06168, with a mean of 1.188665 and a standard deviation of 0.06168. The standard deviation of the variable nominal exchange rate was 0.14043, with a mean of 0.20261. All of the standard deviations showed that the data was widely distributed around its individual means.

Table 1: Group Descriptive Statistics of the Variables

Statistics	GSE	INF	MPR	MS	NER
Mean	3.48258	1.09123	1.18865	4.13342	0.20261
Median	3.36325	1.07003	1.17609	4.16226	0.17654
Maximum	4.03706	1.31597	1.32221	4.56635	0.50478
Minimum	2.98515	0.92376	1.09691	3.67009	-0.03151
Std. Dev.	0.37262	0.12909	0.06168	0.25106	0.14043
Skewness	0.04212	0.27251	0.11234	-0.13255	0.42212
Kurtosis	1.43775	1.62085	1.92467	1.81456	2.82075
Jarque-Bera	9.17891	8.24661	4.52554	5.53329	2.79334
Probability	0.01015	0.01619	0.10406	0.06287	0.24741
Sum	313.432	98.2109	106.978	372.008	18.2356
Sum Sq. Dev.	12.3576	1.48321	0.33864	5.60984	1.75525
Observations	138	138	138	138	138

A normal or symmetrical distribution is one in which the distribution's mean, mode, and median values are all the same (i.e., Mean = Mode = Median). Skewness, on the other hand, measures the level of non-symmetry in distribution to ascertain whether the mean is at the center or not. A skewness value of zero denotes a normal distribution (0). A negative number shows a left-skew and, as a result, a negatively skewed distribution, whereas a positive value shows a right-skew and, as a result, a positively skewed distribution. According to the results of the descriptive statistics in Table 1, all of the variables were asymmetrical and thus lop-sided. All of the variables were positively skewed to this effect, except the money supply, which was negatively skewed. In other words, the descriptive statistical test revealed that the data was not normally distributed around its means. As a result, Ghana's stock prices and currency rates are highly vulnerable to periodic volatility and speculation. None of the variables, including GSE, INF, MPR, MS, and NER, were stationary at the levels, although they were all integrated of the first order, or stationary at the first difference, according to the stationarity tests. The ADF results following the first difference are shown in Table 2.

Table 2: ADF, PP and KPSS Unit Root Test for All Variables

Test Type	Deterministic Trend	Test Statistic	Critical Values		
			1%	5%	10%
ADF	None	-3.28741	-2.59150*	-1.94453**	-1.61434***
	Intercept	-4.14827	-3.50648*	-2.89471**	-2.58452***
	Intercept and trend	-4.14582	-4.06570*	-3.46168**	-3.15712***
	None	-3.13402	-2.59150*	-1.94453**	-1.61434***

PP	Intercept	-4.06252	-3.50648*	-2.89471**	-2.58452***
	Intercept and trend	-4.06340	-4.06570	-3.46168**	-3.15712***

The ADF, PP, and KPSS unit root tests for the first difference of the log of the variables in the regression model are shown in Table 2. According to the findings, the series were significant at the 1%, 5%, and 10% significance levels for all tests since the test statistic value was smaller than the essential threshold in all cases. The findings indicate that the series has reached a state of equilibrium. Table 3 shows the findings of the correlation investigation.

Table 3: Correlation Matrix for All Variables

		LGSE	LINF	LMPR	LMS	LNER
	Pearson Correlation	1	.673**	.315**	-.742**	-.912**
LGSE	Sig. (2-tailed)		.000	.003	.000	.000
	N	138	138	138	138	138
	Pearson Correlation	.673**	1	.837**	-.258*	.004
LINF	Sig. (2-tailed)	.000		.000	.015	.967
	N	138	138	138	138	138
	Pearson Correlation	.315**	.837**	1	.229*	.473**
LMPR	Sig. (2-tailed)	.003	.000		.032	.000
	N	138	138	138	138	138
	Pearson Correlation	-.742**	-.258*	.229*	1	.947**
LMS	Sig. (2-tailed)	.000	.016	.031		.000
	N	138	138	138	138	138
	Pearson Correlation	-.0912**	.004	.473**	.947**	1
LNER	Sig. (2-tailed)	.000	.966	.000	.000	
	N	138	138	138	138	138

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

The findings of a Pearson's Correlation analysis of the exchange rate and stock prices are shown in Table 3. According to the statistics, the exchange rate and stock prices have a moderately negative relationship (r = -0.912, p 0.01). The null hypothesis should be rejected because the p-value for the correlation between the two variables in the study was less than 0.01. Furthermore, as shown in table 4, the results of the multiple regression analysis revealed a negative link between exchange rates and stock prices in Ghana.

Table 4: Ordinary Least Squares Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.802	1.706	4.316	0.000
DLINF	0.763	0.490	1.686	0.029
DLMPR	-0.892	0.974	0.924	0.038
DLMS	-1.352	0.365	-4.248	0.000
DLNER	-1.105	0.668	1.944	0.049
R-squared	0.832			
Adjusted R-squared	0.783			
Durbin-Watson stat	0.359			
F-Statistic	89.248			

The independent variables LINF, LMPR, LMS, and LNER had an R-square value of 0.832, which means they can explain 83.2 percent of the variation in the dependent variable LGSE. The overall R^2 value of the model is high, indicating that it is statistically significant. The adjusted R-squared analyses the explanatory power of varying numbers of predictors in a regression model. It gives the exact and pure percentage of variance in the dependent variable caused by the four (4) independent variables. In this situation, it is 0.783, which means the independent factors account for 78.3 percent of the variability in the dependent variable. The following is the multiple regression model: DLGSE = 1.802 + 0.763DLINF – 0.892DLMPR – 1.352DLMS – 1.105DLNER; this

suggests that the linkage between exchange rate and stock prices ($\beta = -1.105$, $p < 0.05$) is negative or inverse in the Ghanaian context.

5. Conclusion

From July 2007 to December 2019; the Pearson's correlation coefficient (r = -0.912, p 0.01) demonstrates a strong negative association between the exchange rate and stock prices in Ghana. This supports the theoretical conclusion that exchange rates and stock prices are inversely connected, ceteris paribus. According to the regression coefficient of − 1.104, a one-unit increase in the exchange rate would result in a 1.105-unit fall in stock prices. The exchange rate and stock prices have a significant negative association (= -1.105, p 0.05), according to the regression analysis. The study's findings are consistent with those of Enyaah (2011) and Kuwornu and Owusu-Nantwi (2011), who discovered a substantial inverse link between exchange rate and stock market performance. Our findings on the sign and coefficient of the exchange rate variable, on the other hand, contradict those of Adu (2012), who found no meaningful relationship between exchange rate and stock market returns in his research.

Bello (2013) also identified a positive but non-significant relationship between the exchange rate and stock returns. Exchange rate changes and stock market volatility, according to Agrawal, Srivastav, and Srivastava, have a substantial negative link (2010). Mlambo, Maredza, and Sibanda (2013) discovered that currency volatility and stock market volatility had a weak, non-significant relationship. The study concludes that when considering the effects of macroeconomic variables on the stock market, Ghana's monetary policy committee should take into account not only interest rates and money supply but also exchange rates, which have a significant impact on variations in Ghanaian stock prices and the operations of the Ghana Stock Exchange as a whole.

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Posters and Development: A Case Study of Cell Phone Posters in the Rural Congo

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Abstract: One of the benchmarks of the information age often forgotten is the proliferation of posters or billboards in and around workplaces, neighborhoods, airports, shopping centers, restaurants, theaters, libraries, schools, etc. More interestingly, through cell phones, posters are rapidly entering rural areas in developing countries. Although these posters come with specific messages and graphics – continually upgraded and tailored to people's attention -- they hardly undergo scientific inquiry in circles concerned with information and communication technologies [ICTs]. The lack of attention raises questions on the role of information systems and related wireless devices being deployed in developing countries. The present paper aimed to canvass cell phone posters and unbundle the underlying practices and routines. As well as positioning posters at the center stage of ICT research, the present paper applied critical discourse analysis to inquire into ways in which development was represented or affected among populations in the rural Congo. The paper determined that posters were not centered on local populations and their day-to-day struggles/needs and that the information conveyed on posters was not geared toward the development of the world's poorest. The paper crafted some paths for future work in ICT fields and cell phone bodies of work.

Keywords: *Cell phone, development, poster, billboard, document, visual research, discourse analysis, social practice.*

1. Introduction

Posters or writings on artifacts have been furnished by humans since time immemorial. No product, business, or charity enters the public domain without supporting/campaigning posters or billboards, and cell phones are not an exception. Billboards have been used enormously for greater access to healthcare among patients (Elrod & Fortenberry, 2018; Fortenberry, Elrod, & McGoldrick, 2010) or for business efficiency (Taylor, Franke, & Bang, 2006). The advent of cell phones has brought added value to human activities/products, including messaging on billboards or posters. Indeed, due to their (wireless) ubiquity, cell phones are presented as an ideal tool for advertising (Peters, Amato, & Hollenbeck, 2007). However, a major gap exists between research into ICTs, more particularly cell phones, and the posters related to cell phones and ICTs. The three most important factors account for this gap. First, posters are commonly assumed to be the province of advertisement research. Schwab (2015) asserted that advertisement is no less than a profit-seeking endeavor. The second most important factor resides in the fact that writing, the central component of advertisement, is something generally relegated to literary work (Prior, 2003), which falls within non-ICT research.

An ICT researcher tends to regard posters along with their writings as foreign, faraway entities. The third and last factor eclipsing posters concerns graphics, an increasingly important component of posters. While graphics are becoming central to the design and display of modern writing for posters and similar documents, they still enjoy little to no critical discourse analysis. Indeed, graphics are seen as nothing but a feature of information display or visualization (van Biljon & Osei-Bryson, 2020). Posters are taken to be the tools needed for the esthetics of data or information display. Nonetheless, a domain that might motivate ICT researchers to rethink the place of posters is that of public policy and the campaign industry (Howlett, 2019). Of the essence here is the idea that public policy and campaign industry use posters with the goal to specifically yield social, behavioral change in a given society or community alongside varying policy areas (Walker et al., 2020). While information posters are being associated with behavioral change regarding policy goals, the dimension of advertisement more precisely mass consumption still persists behind the rationale of information posters.

Research Questions and Aims: Targeting cell phone posters, this study used critical discourse analysis to unearth the social practices, power relations, and representations concerning development. To this effect, this study addressed two research questions: **1.** Do cell phone posters produce development in rural areas of the

Congo? **2.** Do cell phones posters improve the living conditions of rural populations? Living conditions refer to easy access to human basic needs such as water, shelter, food, clothing, and health whereas development covers a broader scope of human life actualization (details below). While the above questions imply a yes or no answer, they go as far deep as unraveling the underpinnings behind the answers given -- namely behind the *whys*, *hows*, *whens*, *whats*, *whos*, etc. regarding development in that location. Two aims of the study were stated, namely to: **1.** Inquire into ways in which cell phone posters generate development in rural areas of the Congo. **2.** Inquire into ways in which cell phone posters give voice to rural populations and relay the lived experiences of these populations with respect to cell phone posters and development. One way that can be most helpful to picture the research questions and aims stated supra is with the idea of violence, a phenomenon unfortunately commonly seen or lived in modern societies.

Cell phone posters just like any document (e.g., graffiti, messages, pictures, news, statements, etc.) can produce violence in a given community or neighborhood, based on the messages/discourses conveyed on them intentionally or unintentionally. To take this point even further, technology just like any entity/agency (e.g., airport, port, school, military barrack, railroad, etc.) can produce or be a theater of development or underdevelopment, based on how the practices surrounding these entities are being handled in a given society/nation, intentionally or intentionally. The key is, per discourse analysis, not to consider documents/items as taken for granted because documents harbor or cover specific practice/power/role/routine (details below). Equipped with the research questions and aims listed above, the present study ascribed to cell phone posters the role needed to gain the most information out of them. Put differently, the more relevant information is gained as regards cell phones the more effective and efficient can be the management, design, and implementation of cell phone devices and services. The paper used materials of a case study borrowed from Cibangu (2016) dissertation. Like any document, cell phone posters are not neutral, the paper brought them to the foreground of ICT inquiry to unveil the practices and agendas behind the dissemination of new ICT devices.

Problem Statement and Significance of the Study: One area displaying the significance of this study stems from the paucity of inquiry into ICT posters as well as the concept development of the world's poorest (Avgerou, 2017; Qureshi, 2015, 2017, 2020; Unwin, 2017). Claims of ICT for development have been made, but the development of the world's poorest remains sketchy and the increasing uptake of social media has further blurred the development of the poorest populations. As R.F. Malaquias, F.F. Malaquias, and Hwang (2017) wrote, economic development matters, but, more so does social and human development. Not without merit, some ICT analysts have advocated for an integrated approach toward (Alderete, 2017) or inquiry into ICT potentials or threats to people's development. A thorough inquiry into cell phone posters constitutes a contribution to an integrated view of ICTs because cell phone posters can occult social practices and powers unconducive to development. While posters are endemic in modern-day societies, they are not the object of a specialized, discrete discipline or literature. Another challenge is that posters are so pervasive that they do not come as stand-alone products, but as part of an activity, technology, business, game, etc. This is mainly because of the message conveyed on posters, which might come and disappear with a given activity or event, such as 2016 Summer Olympics Rio de Janeiro (Brazil), 2014 Winter Olympics Sochi (Russia), 2018 Winter Olympics in Pyeongchang (South Korea), 75th Session UN General Assembly 2020 (New York, USA), 23rd International AIDS Conference Virtual 2020, 2018 FIFA World Cup Russia, etc.

Still another challenge comes from cell phones. Because cell phones are now fitted with multiple functions or technologies at the same time, they have become the shortcut for and/or the entry point of a vast array of technologies such as camera, clock, compass, flashlight, calculator, recorder, music player, TV, GPS, etc. This challenge is compounded by the fact that the fitted technologies can and should be studied in connection (confusion?) with cell phones. More interestingly, for rural populations cell phones might be the entry point to posters. Thus, for these populations, the role of posters cannot be severed from cell phones. Cell phones represent the foundational context in which posters are embedded. This is true also of other technologies listed above, which are beyond the purview of this paper. It can be said that the central role of cell phones explained here is true of individuals born in the digital era in developed countries. These digital-age-born individuals have been exposed to and/or familiarized with certain technologies only through cell phones. For the generations of these individuals, and rural populations are one of them, it would be unrealistic to separate several new technologies from cell phones. Besides, it bears underlining that ICT fields have barely engaged

with the decades-long discussions held about visual research, textual objects, or documentary materials (Prior, 2008, 2011a, 2011b; Rose, 2016).

One reason for this disregard might be for example that in the aftermath of the seminal work of Otlet (1934), published about the concept book as the document, most information research literature tends to refer to the term system or document for cataloging and organizing information in libraries and associated services. This means that studies of documents are undertaken primarily for bibliographical objectives, to borrow a pertinent description of Rayward (2014). By the same token, it needs to be clarified that upon closer examination Otlet's tenets imply numerous social topics deserving of scholarly attention (Cibangu & Hepworth, 2016). To clarify, this paper was not advocating the study of social topics apart from the concept document. Evidently, the main concern voiced in information studies about a document or visual systems was not about deconstructing, disaggregating, or shedding light on the concept document and underlying social episodes or tendencies, but rather about cataloging and organizing documents on library shelves or in like manner (Rayward, 2014). It follows from this that posters or billboards are information systems that escape scientific inquiry among information research outlets. The social practices or contexts in which posters are embedded remain in large part unknown and unaddressed in information research. Yet, as Case and given (2016) reminded us, the endeavor to look into a context's components such as geography, time, situation, and culture that shape people's experiences and their worlds in using the information or ICTs provides a researcher with a holistic approach toward the researched and the world thereof.

It becomes increasingly imperative to study the contexts or worlds in which information systems are rooted, and cell phone posters or any documents or visual systems should not be an exception. As is now clear, this paper sought to bring cell phone posters and development to bear on information systems or ICTs discussions. As well as completing an in-depth analysis of documents or systems, the study peered into ways in which cell phone posters were part of the social patterns and practices surrounding cell phones in the investigated area. This implied a rethink of the notion of document or system in information systems or ICT studies to unwrap the practices or routines, as Silverman (2016) suggested, found in the cell phone era. To preempt any confusion, this study was not saying that bibliographical studies bore no relevance to information systems/studies and the world, but rather they did not fit within the remit of the research questions and aims stated in the inquiry at hand. The point was to highlight the view needed in information systems research that the concept document or, as some would say, the visual is not separate from, but rather integral to social reality (Rose, 2016). Such an understanding opens novel research paths wherein documents are part of the everyday lifeworld (Prior, 2011). The everyday world of information systems has become a focal theme of information research in the last few decades. So this study inquired into cell phone posters as information systems being used or in action in the rural Congo.

Clarification of Terms: Four key terms bear attention here. First, the word poster was defined as a large, usually printed placard, bill, or announcement, often illustrated, that is posted to advertise or publicize something (http://www.thefreedictionary.com). In this study, a poster was taken to denote a material containing specific information and displayed in a public or community space to advertise or announce something. Incidentally, a poster may be large or small, depending on the message being posted or the space allowed. While billboard and poster are interchangeable terms, this paper kept the word poster for consistency's sake. Also to clarify, this study was not by any means research of graphic design (Noble & Bestley, 2011), video or multimedia (Marion & Crowder, 2013), medical diagrams, maps, movie posters, artistic representations, graphics (Rose, 2016), and the like. Rather the study aligns with the social science expertise of information research to unpack the human, managerial, organizational, or social implications of specific ICTs (i.e., cell phones and cell phone posters) in the selected area of study. Second, development is a concept in large part associated with the spread of cell phones among disadvantaged and low-income populations (Aker & Blumenstock, 2015; Unwin, 2009, 2017).

However, while the term development has gained popularity among a whole host of analysts, it has received different meanings from different researchers. The English word development comes from the French word *développer*, which comprises two particles *de- envelopper*, which means: to unroll, spread out, unwind, unwrap, expand, unfold, etc. (https://larousse.fr). Social science literature is shown to engage five key meanings assigned to the word development: (1) psychological, which entails the progression of human

personality (Lerner, 2011), (2) philanthropic, the most ref)red to in ICT studies and cognate disciplines, which realizes works of a humanitarian or small-scale and managerial nature conducted particularly in rural areas of developing countries (Kleine, 2013; Unwin, 2009, 2017), (3) urbanistic, which deals with houses, transportation structures, energy and water supply, facilities, etc. (Adams & Tiesdell, 2012), (4) economic, which supports selected statistical indicators, for example: health care, GNP, currency, capital, GDP, income, etc. (Weil, 2016), and (5) journalistic, which indicates specific facts, accounts, stories, events, etc. (*The Oxford American Dictionary,* 1999). All the same, mounting literature tends to uphold a holistic view of socio-economic development (Sen, 1999, 2009, 2012) – due to the wide-ranging facets pertaining to the phenomenon development. It was thus little wonder that this study took the development or socio-economic development of the world's poorest to be an integrated, holistic endeavor to unravel and ensure a fuller realization of individuals and societies (Sen, 2012). The definition is intended to best capture the daily struggles of this paper's selected population/region. This implied that the terms human flourishing, prosperity, development, and wellbeing were interchangeably considered in this study.

In this respect, the paper went past the concept of development as a mere accomplishment and improvement of economic metrics (e.g., GDP, GNP, income, etc.). Worth noting here is the fact that for clarity's sake this study made use of the word development in place of several variants present in social science literature such as social change, sustainable development, economic development, social impact, and socio-economic development. Also of note is the idea that this paper used the umbrella term information research or information systems to indicate the fields, systems, or practices that deal with the management, uses, or processes of ICTs (Cibangu & Hepworth, 2016; Hjørland, 2014; Robinson & Karamuftuoglu, 2010; Walsham, 2017), and more particularly ICT4D [ICT for Development] (Avgerou, 2017; Heeks, 2018; Unwin, 2009, 2017; Qureshi, 2015, 2017, 2019, 2020; Walsham, 2017). The term ICT4D has become the rallying point of ICT research and products involving a broad scope of specialties. This does not mean that both concepts information research and information systems are synonymous or arise from the same research. Information research is a kind of research that looks at information as the superhighway of economic growth (Röller & Waverman, 2001) and related goods while information systems.

Avgerou (2017) conducted research that regards systems/corporates as the end-product of economic growth (details below). It follows that both lines of research converge in ICT4D and that the development of information flow and/or that of systems/corporates cause the development of the world's poorest to be left unaddressed/secondary. This study argued for better management (i.e., design or implementation) of information advertised or displayed on cell phone posters. The third key term needing clarification after development is technique. The technique was regarded in this study as a procedure whereby a given task was achieved as part of the research being carried out. The fourth and last term to clarify applies to capability, which was considered in this study (details below) not as a mere ability to have or delighting in a thing or things possessed or produced, but rather as the extent of actual opportunities enabling a society's members to live better and fuller lives (Sen, 1999, 2008, 2009, 2012). The word maldevelopment is thus employed in this paper to signify a failure, impairment, or lack of or a barrier, hindrance, or obstacle to people's better and fuller lives. In addition to a conclusion, the rest of the paper is structured around five major topics: (1) literature review, (2) methodology, (3) findings, (4) discussion, and (5) limitations.

2. Literature Review

In the last few decades, the phrase literature review has been having a considerable vogue in textbooks (Babbie, 2021; Bryman, 2016). A literature review untangles the trends adhered to and the gaps left in a given body of works. While the concept poster has yet to emerge as a subject of research in information-related literature, it falls under ICTs, a theme broadly used to signify new digital devices, such as cell phones, laptops, Kindles, etc. ICTs have undergone scholarly scrutiny (Alderete, 2017; R.F. Malaquias, F.F. Malaquias, & Hwang, 2017; Qureshi, 2011, 2012, 2015, 2017, 2019; Samoilenko, 2016; Samoilenko & Osei-Bryson, 2014, 2017; Walsham, 2017) under the banner of eight overriding traditions or trends not necessarily mutually exclusive: (1) micro-loans or credits, (2) small enterprises, (3) social mobility or networks, (4) market prices, (5) m-banking, (6) GDP and cognate metrics, (7) health informatics, and (8) policies or regulations. These traditions have also implied concerted efforts toward ensuring somehow the wellbeing of targeted populations. The goal of these traditions ties in well with the aims stated in this study, namely to inquire into (1) ways in which

cell phone posters produce development among rural populations and (2) ways in which cell phone posters give voice to rural populations and relay the lived experiences of these populations about development.

Eight Overriding Traditions: The first overriding tradition under the banner of which ICTs were being scrutinized touches on micro-loans or micro-credits (Aminuzzaman, Baldersheim, & Jamil, 2003). Micro-credits tradition is a tradition whereby the poor are lent small credits for them to be able to undertake some services and earn small-scale savings. The typical example of a micro-credit project is that of Village Phone in Bangladesh wherein rural women were granted micro-credits through Grameen Bank (Aminuzzaman, Baldersheim, & Jamil, 2003) to allow them to sell cell phones and connected services and thus save small-scale earnings. Village Phone was one of the first projects that drew the attention of researchers and scholars to the developmental contributions of cell phones among rural communities. Created in 1981 with the idea of micro-loans bank services for rural populations in Bangladesh, the project evolved during the mid-2000s into cell phone-oriented micro-loans offered to the poor. Thus, micro-credits were or could be publicized on posters as a means or advertisement of development for the poor. The second overriding tradition based on which ICTs were conceptualized regards small enterprises. Small enterprises tradition teaches that cell phones enable individuals to launch or run small enterprises (Donner, 2006; Ilahiane & Sherry, 2012), revolving around the sale of specific items, for example: potatoes, clothes, grains, etc. So, posters would serve to announce or promote the sale or service of specific items.

Third, social mobility or social networks tradition conveys the belief that with the rapid expansion of social media forums cell phone posters can spur development among the poor through pro-poor advertisements placed on those sites. The idea is that just like cell phones or any communication means (Molony, 2008; Smith, Spence, & Rashid, 2011), cell phone posters (should) involve social networking, interaction, and communication pertaining to the poor. Hence, posters (would) become a channel of development among the poor. Fourth, market prices alternately known as market efficiency tradition (Aker, 2010) contends that with the information on the price of goods being communicated between traders across space and time, cell phone posters can reduce the information asymmetries and the costs incurred during transactions and travels needed to acquire those goods. One outcome of this trend is the advent of the market and entrepreneurship projects run in developing nations by governments, multinational firms, and social agencies (Rashid, 2017). The idea is that just like cell phones, cell phone posters can serve as signposts of the most cost-effective prices and transactions. Fifth, the m-banking tradition (Shaikh & Karjaluoto, 2015) is a tradition most celebrated in recent years among rural or low-income populations, especially in Kenya, Africa. M-banking tradition is premised on the principle that through cell phone keyboards the poor are able to send and receive money as well as to make transactions. The typical example often referred to in cell phone research in terms of m-banking among the poor is that of M-PESA (meaning: mobile money, in Swahili, the national language in Kenya and several countries of East Africa).

Sixth, GDP and associated metrics tradition is perhaps the first academically proven testimony (Waverman, Meschi, & Fuss, 2005) to the link placed between economic growth and cell phones or ICTs (Alderete, 2017). Authors of this tradition and accompanying indicators have argued that the boost of GDP, GNP, and several economic metrics driven by cell phones took place in a much shorter span of time than that spawned by landline telephones in Western Europe in the 18th-19th centuries. The tradition is best exemplified by a research series (Coyle, 2005; Goodman, 2005; Gough, 2005; Samuel, Shah, & Hadingham, 2005; Waverman, Meschi, & Fuss, 2005; Williams, 2005) sponsored by Vodafone Group or Vodafone.[1] As noted earlier, the key claim of this research series now widely accepted as landmark research into the economic effects of cell phones in developing countries is that ICT- or cell phone-driven economic growth is far less expensive and faster than the growth generated by landline telephones in Western Europe. As Coyle (2005) observed, in developing countries, mobile communications are seeing growth at a speed much faster than in developed countries, with the role of cell phones coming into effect in less than 10 years (see p. 3, see also Goodman, 2005, p. 55; Gough, 2005, p. 2; Waverman, Meschi, & Fuss, 2005, p. 11). The reason for such an accelerated

[1] A multinational cell phone company founded in 1982 in Newbury, UK, and headquartered in London (https://www.vodafone.com) -- to investigate the effects of mobile phones on people's development in developing countries, more particularly in Sub-Saharan Africa.

rate of economic development and investment is that, as Waverman, Meschi, and Fuss (2005) clarified, telecoms investment curtails interaction costs, extends market opportunities, and broadens information movement, unlike lined telephones that take longer and cost huge sums to physically reach every home and firm. As is now apparent, the investment in and the benefits of ICT networks presuppose a strong dimension of advertisement and related mass distribution of ICTs.

The present paper aimed to reverse this advertising dimension to drill deep into the processes (i.e., posters) used to spread cell phones. The potential of cell phones for development effects in developing countries is claimed to be faster and cheaper than the potentials of fixed-line telephones in high-income nations. However, the Vodafone series has raised a number of all-too-often forgotten questions regarding cell phones in developing countries. In other words, the Vodafone series study is known more for the rising adoption of cell phones than for the warnings made against biased or lax research into ICTs or cell phones. One potent criticism was, for example, about the conceptual framework or more exactly the manner in which cell phones were being transplanted from the West to the rest of the world, especially to infrastructure-deficient areas of the world's poorest. As Gough (2005) warned, cell phones that are claimed to have stunning effects enjoy loose research and little scrutiny, and that uses of, and more specifically, views held on and/or values assigned to cell phones in developing countries differ from those found in developed countries. However, due to the mounting popularity of cell phones the criticism raised has escaped and still does the attention of cell phone researchers and designers. Perhaps not surprisingly, Gough's (2005) remark is one of the least cited and known accounts of the Vodafone research program.

As a result, the idea of bias as regards cell phone research is hardly addressed in relevant ICT literature. It is thus believed that cell phone posters relaying sound GDP, GNP, and other metrics could be correlated with development among concerned populations. Seventh, the health informatics tradition (Kahn, Yang, & Kahn, 2010) professes that cell phones have the potential to enhance the provision as well as management of health products and information systems. It follows that cell phone posters can help optimize the management of health information systems. Eighth and last, policies or regulations tradition (Mohamad, 2014) is a tradition that holds that better regulations and policies are key to the implementation of a society's development through cell phones and posters thereof. To clarify, as explained earlier, cell phone posters are not as of yet a full-fledged topic of reviewed cell phone literature – albeit the attempts or assumptions made above incorporated them in development processes and traditions to situate the reader. That said, it is not unrealistic that cell phone posters are probed and categorized under the all-encompassing rubric of ICTs.

Studies of ICTs or ICT4D Research: The eight overriding traditions or trends are in no way exhaustive, but they supply a roadmap needed to surf the recurrent positions, along the lines of which ICT-versed researchers have come to grips with cell phones and development. The roadmap comes also as a pertinent venue for a discussion held (see below) in this study on cell phones and posters thereof. As seen above, while studies of ICTs have grappled with a variety of topics, comprehensive reviews show that critical discourse analysis and indeed critical scrutiny reflect something of a low-key affair in ICT4D research (Dé, Pal, Sethi, Reddy, & Chitre, 2018). As Denzin and Lincoln (2018a) wrote, social science armed with critical examination rejects the idea that a group of individuals claims to represent, know, or even define other individuals. This view privileges collaborative, unoppressive, trustful, and unintrusive relations between researchers and the researched to make the world a better place. As emphasized in the above statements, critical literature is one that no longer defines or represents others, but rather empowers them one way or the other. Most literature on ICTs is not so much concerned with discourse analysis, or criticism, or post-colonial movements as it is with the efficiency of ICT products (Samoilenko & Osei-Bryson, 2017). The main reason for this approach is that because of current connectivity or networks ubiquity the lack of access to ICTs entails exclusion from the information age and its benefits (Rashid, 2017). The fear of digital or connectivity divide has caused scores of ICT researchers to seek refuge in the abilities or skills of accessing ICT devices.

3. Methodology

The method applied in this study was discourse analysis aka critical discourse analysis to undertake more critical research needed in the ICT body of knowledge (Dé, Pal, Sethi, Reddy, & Chitre, 2017). In fact, discourse analysis is a critical inquiry most appropriate for the understanding of this study's chosen unit, namely cell

phone posters. As Livholts and Tamboukou (2015) explained, as a generic term originating from the work of Michel Foucault from the 1970s and onward, discourse is an analytical concept that acknowledges the active role of language in the production of knowledge and power through text and talk, genre and representation. As seen in the above explanation, discourse analysis is the tool needed to bring to light the social actions or practices lurking behind the façade of cell phone posters. This is particularly true because documents or "texts mirror conscious ideas as well as unconscious ones. They might reproduce, strengthen, or challenge power, and they also do myriads of other things in social settings. (Boréus & Bergström, 2017, p. 4). Discourse analysis scrutinizes the language used/practiced in producing knowledge and power by the means of conversations, symbols, texts, views, lifestyles, topics, etc. Nonetheless, partly because of its rapid use outside of the philosophy realm, discourse analysis can be the object of confusion and misleading interpretations/expectations.

Discourse Analysis: In this section, three points need attention: (1) etymology, (2) Foucault's philosophy, and (3) practical consequences/examples. First, the English word discourse is a transliteration of the French word *discourse*, which in turn comes from the Latin verb *discurrere* (Lewis & Short, 1879). This verb comprises two parts: *dis*, which means, from, away, away from, out of, etc. and the verb *currere* which signifies to run, to move, to fly, or to pass in a given direction or several directions. One word enriching the understanding of discourse analysis is the English word current. Current originates from the same Latin verb *currere*, meaning that which is moving, running in a given direction. The underpinning idea is that of disposition, course, trend, stream, tendency, practice, etc. Another enriching word is the English word course that forms the term discourse, which carries a stronger nuance of trend, current, way of behaving, procedure, or accustomed action, etc. taken in a given direction, path, or route (hence the concept routine). Discourse analysis is a study of trends, currents, routines, way(s) of behaving or acting, practices, etc. carried/encountered behind (written or visual) objects. This type of study is more relevant because documents are not random, extraterrestrial objects, but gateways to people's unconcealed, lived, or accustomed experiences. Posters are not random, stand-alone documents either, they are gateways to the aforesaid experiences as to where/how development stands or is lived. More precisely, messages printed on posters are discourses pointing to how (much) development or fuller human actualization is being lived, experienced, or fulfilled in the selected region/population.

After etymological considerations, the second point needed to further the understanding of discourse analysis is that of Foucault's (1972) philosophy. For the purpose of this paper, only a few ideas will be touched upon. One idea with which to best picture discourse analysis is the primary work published by Foucault under the title of *Archéologie du Savoir* (Foucault, 1969), basically standing for the archeology of knowledge (Foucault, 1972). The work is essential because it helps situate discourse analysis within its proper, original scope. The word archeology has the sense of digging, drilling into the dirt to extract objects/artifacts that appear trivial, but when submitted to thorough analysis, produce meanings far well beyond the appearance/nature of the unearthed objects. Discourse analysis goes further by applying the notion of archeology to knowledge (i.e., messages, symbols, phrases, statements, icons, etc.) to extract practices left or concealed beyond the objects found (see Foucault, 1969, pp. 9-12). It is useful to keep in mind that archeology and knowledge are not directly related to one another at all. This is because archeology is the task undertaken by historians to capture tendencies, processes (i.e., wars, famines, climates, events, kingdoms, navigations, irrigations, paintings, etc.) of mankind in light of the vestiges/artifacts extracted and analyzed. In no way are historians digging into/dissecting piece by piece the concept knowledge. The difference with discourse analysis is that while historians are unearthing and analyzing objects.

Discourse analysts are digging into ordinary documents (i.e., messages, languages, speeches, symbols, sentences, etc.) somewhat trivial, to unearth the practices left behind those documents well beyond the appearance, nature of those documents. The documents at hand in this paper are cell posters. While it can be argued that the conclusions made by historians in analyzing unearthed objects are (mere?) interpretations of historians because there is no empirical research involved other than the interpretation/analysis done by a given historian, it is nonetheless true that the proposed/reached conclusions bring further light/understanding on a given society, an otherwise unavailable understanding. For instance, a vestige of the rotten bracelet can reveal a society's culture, history, economy, technology, geography, event, religion, etc. that is otherwise unavailable. Indeed, when a person was wearing that bracelet, she and the maker of the

bracelet had no idea whatsoever on how the conclusions of that magnitude could be made by historians/archeologists about their society. Discourse analysis is a recuperation/application of an archeologist's research into day-to-day document/knowledge/power. A few practical consequences/examples will be most relevant. In ordinary life, people do practice discourse analysis without noticing it. Best practical consequences/examples can be found with forensic investigation. Forensic investigation is a type of discourse analysis, critical inquiry, or archeology made on a set of items left behind a scene/event. One case in point is the discovery of blood stains, broken utensils, dispersed furniture, spilled food, open backpacks, etc.

Can be interpreted as (discourses or patterns pointing to) crime/murder/injury. Other best practical consequences/examples are found with the attempt of retrieving a lost/misplaced object. The attempt to find/unearth a lost object is a type of discourse analysis, critical inquiry, or archeology made on a series of places believed or prone to hold the searched object. The interpretations advanced in those attempts are clues or conclusions (i.e., tendency/discourse) on the existence or non-existence of a given phenomenon/object. The search/inquiry comes with specific themes that emerge as the search unfolds and the sought object is kept in mind. In the case of forensic investigation, themes include but are not limited to: blood, sharp objects, fight, assault, overthrown items, etc. Themes emerging from an attempt to retrieve an object are: last place visited, last action, time past, presence of the second or third party, object left, etc. Needless to state themes depend on the topic at hand. One powerful characteristic of discourse analysis is that it does not take things for granted. As Foucault (1969, p. 85) noted, discourse embodies themes, related concepts, connected objects, etc. When scrutinizing/analyzing documents in critical discourse analysis, themes/topics/categories emerge from the unearthed meanings/messages.

The meanings can be grouped into given topics for visibility/readability purposes, not because one theme is more significant than the others. Authors can use coding in the event of large-scale data to group the themes collected, but in the case of small-scale data such as in this study, coding is not appropriate. In either case, readability is the key reason for themes grouping. Small-scale data doesn't mean a lack of in-depth, thick inquiry. Indeed, the smaller is the data, the deeper is the scrutiny. As explained above, the number of themes is determined per saturation technique when information starts being repetitive. Four themes or main levels have been identified in this study (details below). As seen in the above descriptions, discourse analysis is the tool needed to bring to light the social actions or practices camouflaged behind (the façade of) cell phone posters. This is particularly true because documents, texts, or symbols translate conscious and unconscious views that can reinforce or question power and accompanying social phenomena (Boréus & Bergström, 2017). However, while discourse analysis has been adopted in development studies (Andersson & Hatakka, 2017; Pieterse, 2011), it remains scant in ICT research. Indeed, discourse analysis in ICT research tends to be supplanted by gender and policy studies.

This study drilled deeper into the discourse used in cell phone posters to tease out the all-too-concealed practices, actions, powers, or representations concerning development in the rural Congo. The reason being, as Denzin and Lincoln (2018b) elaborated, it is time to explore new forums, new discourses, new identities, new voices, etc. to listen to those long silenced by power structures. As is apparent from the above remarks, new spaces of research ought to be open/willing to call into question taken-for-granted discourses and to start a bright future for those who have been silenced by unquestionable systems or practices. Most importantly, as Livholts and Tamboukou (2015) cautioned, while Foucault did not offer a how-to-do manual of discourse analysis, his writings on discourses regarding power, knowledge, and human expressions have inspired a wide range of approaches that study discourse. As is now clear from the above warnings, this study used critical discourse analysis as a valuable source of inspiration to look into the patterns of social practices, powers, and representations surrounding cell phone posters. To keep a clear focus, critical discourse analysis was narrowed down to the concept development understood by the capability approach as the basic capabilities executed to achieve fuller lives of people (details below). Because posters as documents are integral to and reflective of people's real life worlds, the uses of cell phones were given great weight in analyzing.

This study's targeted posters to yield a fuller picture or thicker description of cell phone effects in this particular region of the world. Thus, a focus placed on cell phone uses unravels the effects of posters rather

than deemphasizing them. Warranting mention here is an illustration with the notion ICT4D; in the sense that when cell phone studies are carried out with regard, for example, to health, gender, government, market, etc. those studies are not by and of themselves studies of health, gender, government, market, and the like, but rather the studies look into how cell phone uses related to health, gender, government, and market yield development. The current study is not a study of posters by and of themselves, but research into ways in which cell phone uses, with regard to posters, lead to or impinge adversely on development. The study inquired into how cell phone posters contribute to ICT4D, more precisely, how posters are ICT products *for* and not *at the expense of* people's development. Cell phone posters were found not too far away from cell phone kiosks and main roads. Because cell phone posters were properties (of communication firms) drastically copyrighted, their photographs were not allowed nor replicated in the present study.

Four Main Levels or Themes: The paper used qualitative research instead of quantitative research to allow for an in-depth inquiry, yielding rich, thick information -- something known to be typical of qualitative research (Patton, 2015; Tracy, 2013; Yin, 2014). Four main levels of in-depth, thick scrutiny were reached -- using saturation. First, characteristic refers to a distinguishing trait or sign of the thing or topic being investigated. Second, context originates in the Latin verb *con-texere* (Lewis & Short, 1879), which means to weave with, knit with, etc. Therefore, context constitutes the setting, environment, or milieu in which the phenomenon being dealt with is located. Third, experience comes from the Latin gerund *ex-periens*, which signifies feeling, enjoying, undergoing, or trying, etc. Experience is composed of the things going through or manifested from within, for example: perceptions, feelings, affections, emotions, etc. concerning the phenomenon being examined. Experience includes the lessons learned, meanings gathered, worldviews espoused, or reflections undertaken, all of which are shared or exchanged in connection with a given phenomenon or topic. Fourth and last, interpretation stems from the English verb to interpret, which is to act or live like the speaker (https://www.thefreedictionary.com). To interpret is not just about relaying a person's meaning or context, but rather unraveling, enacting, or unfolding a person's fuller life or reality.

Two Techniques: One technique implemented in this study is that of saturation. As described earlier, a technique represents a procedure in which a specific task is accomplished during given research. Examples of techniques are interviews, surveys, focus groups, group discussions, etc. (Yin, 2014). Saturation, equally termed informational redundancy or simply redundancy (Patton, 2015; Saumure & Given, 2008), is a technique applied when the researcher is or starts not finding newer information or details in the search for and/or analysis of data or information. This means that information is saturated or filled when the information collected starts being repetitive. Another technique performed in this study regards crystallization. Crystallization (Denzin & Lincoln, 2011) is a technique that -- as the word crystal suggests – consists in bringing into play several prisms or perspectives when collecting/seeking information to shed deeper/broader light on the phenomenon or topic being studied.

Crystallization enables the researcher to garner as thick/deep information as needed from the selected participants and/or from the units of analysis whereas saturation causes the researcher to determine the number/amount of collected sources of information (i.e.., levels, themes, participants, etc.). With the general gist being in-depth, thicker, or deeper examination, the paper belongs more, to fine-grained, qualitative research, where the chosen techniques saturation and crystallization rightly sit, than to coarse-grained, quantitative research that is inappropriate to a thorough probe of posters and underlying courses/trends. This study used the capability approach (Sen, 1999, 2008, 2009, 2012) to view development not as a simple implementation of fixated metrics (i.e., GDP, GNP, incomes, etc.), but rather as the broader extent of actual capabilities or opportunities that people have to maximize quality life, specifically concerning human basic needs such as shelter, housing, cloth, health, and food. This framework helps assess development, not in terms of things or possessions held such as cell phones, incomes, posters, properties, etc., but rather in terms of the fuller range of capabilities enjoyed by an individual in relation to concrete human basic needs (details below). An important clarification ought to be made concerning the materials used in this study.

Since the study borrowed materials from previous work (Cibangu, 2016), with the potential to infringe on an author's copyrighted properties, the study observed the guidelines proposed by the International Committee of Medical Journal Editors [ICMJE] (2019). The ICMJE (2019) recommendations have been followed partly because such exemplary work has yet to be done in most social science areas including the ICT4D field, the

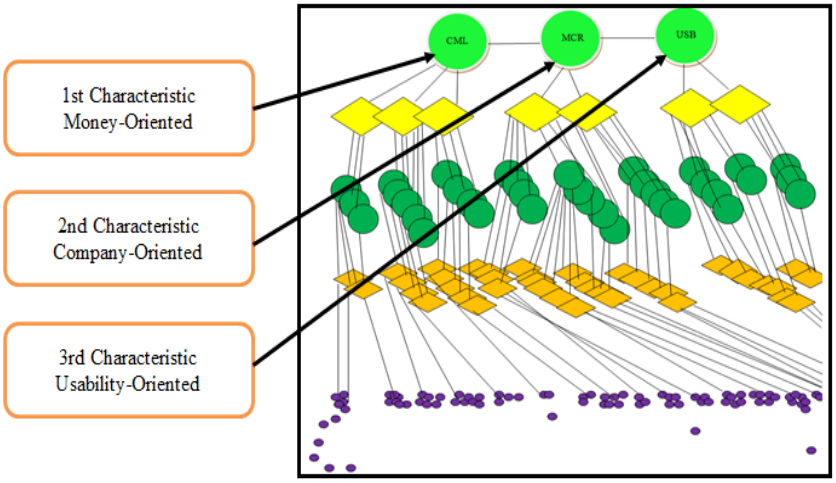
reason for this might be that medical fields find themselves on the frontline of copyrighted/sensitive information debate. The ICMJE recommends a republication or reuse of a given previous work for three key motives: (1) when the secondary work is designed to reach the largest readership. This is even more relevant when the previous work comes in a dense format and/or in a specialized jargon such as a doctoral work, (2) the previous work is acknowledged, with the secondary work being an abbreviated version of the primary work, and (3) the secondary work aligns itself with the data, interpretations, and author(s) of the primary work. The three key motives apply very well to the present paper.

4. Findings

Findings were/are facts collected from on-site observation of cell phone posters displayed to this research's targeted populations. In line with the stated research questions and aims, this study sought to grasp the lived experiences about cell phone posters and people's development as seen and reflected in the encountered posters. These posters have a direct impact on ordinary people in developing countries. As explained above, saturation was achieved and four levels of analysis were distinguished: (1) characteristic, (2) context, (3) experience, and (4) interpretation.

Characteristics: Cell phone posters were analyzed and three key characteristics were identified, by way of saturation (see Figure 1).

Figure 1: Characteristics of Cell Phone Posters



First, posters are clearly commercial, with the goal to make profits. This finding corroborates prior criticism that cell phone and development research in Africa was characterized by monetary and extractive motives (Carmody, 2011, 2012). Examples are as follows:
There is a poster that read,
Airtel money. (Poster IX)
A second poster said,
Earn more credits. (Poster III)
And a third poster indicated,
With your money, you can connect. (Poster XII)

Second, posters reflect the needs of cell phone carriers. Thirdly, posters center on the functionality of cell phone devices. For instance,
Poster VI noted,
Simple, sure, and instantaneous.
One poster read,
Easy to text with. (Poster IV)
And another poster showed,
Now with the Internet available. (Poster VIII)

The statements above demonstrate how the usability of cell phone devices prevails in the lives of individuals, regardless of whether individuals reside in urban or rural areas.

Context: Cell phone posters were analyzed and three major contexts were distinguished, upon saturation. The first context of cell phone posters is the satisfaction or gratification offered to people when they use cell phone devices. The use of cell phone devices is markedly commercialized, irrespective of the life of concerned individuals. The second context lies in the systematically advertised diffusion of cell phone uses.
As one poster claimed,
We cover all the provinces. (Poster I)
Another poster advertised,
With offices in remote places of Congo. (Poster VII)
These and similar statements or findings bear out the idea that cell phone spread is not something random, rather it is organized, encouraged, advertised, and sponsored to reach the largest number of consumers. The third and last context of cell phone uses and people's development according to posters relates to cell phone design, in which customers remain absent or unengaged. This shows cell phone users to be passive consumers, with their living conditions being the least concern of cell phone carriers.

Experience: Cell phone posters were analyzed and three core experiences were determined, by way of saturation. The first experience observed with cell phone posters with regard to cell phone uses and people's development covers the payment of bills or of cell phone devices. The payment of bills and ensuing elimination or avoidance of debt are central to cell phone posters.
As Poster II-related,
My cell phone is easy to pay, easy to buy, and easy to use.
Another poster noted,
Also with credits. (Poster IX)
Still, another stated,
Easy way to pay. (Poster III)

The statement does not imply the living conditions on account of which a person may or may not be able to buy a cell phone. The second experience regards the fact that cell phone posters serve or target the nation as a whole, irrespective of individuals and their daily struggles.
For example, Poster X indicated,
Congo my country. Airtel my network.
Another poster said,
Number one in the Congo. (Poster VI)
Still, another noted,
Best network for Congolese. (Poster II)

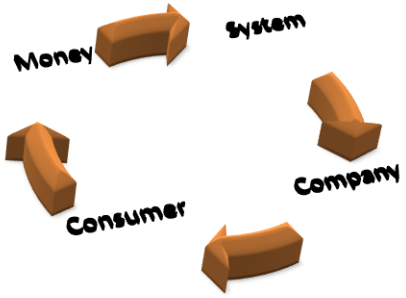
The above statement indicates the pressure placed on cell phone carriers to abide by a nation's regulations. This entails that the poor are not the main beneficiaries of cell phone carriers. The third and last experience has to do with the fact that cell phone posters are articulated in the form of orders and instructions, to which people must adhere.
Poster IX showed,
M-money.
One poster related,
Just click on text. (Poster IV)
Still, another claimed,
Talk and send messages. (Poster I)
The above statement presupposes that money is needed for a person to use cell phones. One consequence is that whether the user can or cannot afford the cell phone service does not matter for cell phone providers.

Interpretation: Cell phone posters were examined and three dominant interpretations were distinguished, by way of saturation the first dominant interpretation of cell phone carriers as revealed in posters is that of a company- or business-centered design. In other words, cell phone providers seek to ensure the maximum profit of cell phones and their businesses, leaving cell phone users unaddressed or ancillary.

As Poster VIII put it,
Join the biggest cell phone provider in the nation.
As one poster read,
With the highest number of customers on the continent. (Poster XII)

The lack of basic infrastructures might play a huge role as to why or how local individuals and their communities are not involved in the design of cell phone products and services. The second dominant interpretation, closely linked to the first, is that the need for the development of rural societies is not a concern among cell phone carriers. In effect, not one poster mentioned concepts such as the productivity, prosperity, wellbeing, infrastructure, etc. of cell phone users. The third and last interpretation regarding cell phone posters is that the policies and regulations in use neither include nor prioritize the development of rural societies. Cell phone carriers are rather keen to abide by government rules than address the situations of the poor in rural areas. This implies that the aims and expectations that cell phone providers hold about cell phone use clash with those of cell phone customers, and thus signal a money-centric cycle (see cell phone cycle in Figure 2).

Figure 2: Cell Phone Cycle (Cibangu, 2016)



Summary: The living conditions of investigated individuals and communities in rural areas tended not to be taken into account by cell phone carriers and wholesalers. As a result, it was assumed from analyzed cell phone posters that individuals in rural societies were so rich (having cash at all times) that they were basically expected if not obliged to cover fees and different expenses to ensure the highest, widest adoption of cell phone technologies in selected parts of developing nations. No indication of incentives or capabilities (details below) was found to be imparted to rural populations for them to move from grinding poverty to better and fuller lives. Messages placed on cell phone posters did not reflect well on rural populations and the realities of them. One finding of note was that the dissemination of cell phones was rather a well-organized, advertised, planned, and financed market than a random process.

Discussion

The idea of development has been supplanted by the advertisement of ICT mass consumption or adoption. ICT research is caught up in this conundrum. The key reason behind the mass advertisement of ICT vs development of concerned populations hearkens back to the history of cell phones or ICTs when the World Summit on the Information Society [WSIS] (2003, 2005) specifically defined the universal access of ICTs as key to the production, design, and use of ICTs (details below). Campaigned powerfully worldwide, the access of ICTs has had a direct effect in dampening the early claims of cell phones- or ICTs-driven development in developing countries (Aminuzzaman, 2002; Aminuzzaman, Baldersheim, & Jamil, 2003; Coyle, 2005; Waverman, Meschi, & Fuss, 2005; Williams, 2005). Universal access to ICTs has become a motivating force for ICT dissemination.

Advertisement of ICTs in Lieu of People's Development: A further boost for the mass production and/or advertisement of ICTs in lieu of people's development comes with the recent explosive proliferation of social media (Fuchs, 2017), which has heightened the social, relational dimension of ICTs. The sociality or relationality between family, community, or society members considerably reinforced by social media has

deemphasized the idea of development behind cell phones or ICTs. Mansell and Manyozo (2018) lamented that in the rapid diffusion and adoption of social media a primary focus has been placed on software and hardware. This paper went past the idea of information posters -- regarded as a mere advertisement, relational, or policy objectives of cell phone corporates to cause an audience to purchase cell phones -- to the idea of social and behavioral change to actualize a society's development. The production and dissemination of cell phone posters ought to be in tandem with the development of the world's poorest. In fact, there is an overwhelming consensus among ICT researchers that on the one hand, ICTs have the potential to generate the development or well-being of concerned populations. This las led to the concept ICT4D (Alderete, 2017; R.F. Malaquias, F.F. Malaquias, & Hwang, 2017; Qureshi, 2011, 2012, 2015, 2017, 2019, 2020; Samoilenko, 2016; Samoilenko & Osei-Bryson, 2014, 2017; Walsham, 2017). Concurrently, cell phones have evolved into a converging or desktop-like technology for populations living in rural regions of the world.

On the other hand, it is widely believed among ICT4D researchers that the causes of ICT-driven development involve areas much deeper and wider than those of traditional or widespread socio-economic factors (Alderete, 2017; Dé, Pal, Sethi, Reddy, & Chitre, 2018; Qureshi, 2011, 2012, 2015, 2019; Walsham, 2017). Thus, it has become unmistakably apparent that the causes of underdevelopment or poverty can be located in or promoted by various specific practices or technologies. While it is generally accepted that ICTs can fuel development and that socio-economic factors are not the sole proxies of development, cell phone posters have not received attention as part of the efforts toward eradicating the causes of underdevelopment or maldevelopment to use a vivid expression of Amin (1989/1990). Maldevelopment is a phrase taken from biology sciences to indicate an organism, organ, or society that undergoes a breakdown, malfunction, or impairment during its needed growth or activity. This paper was filling this gap to ensure a critical, thorough analysis of ways in which maldevelopment was being promoted, condoned, or averted.

Cell Phone Posters are in No Way Neutral: Indeed, just like any documents or ICTs, cell phone posters are in no way neutral. In the course of years, unsurprisingly, ICT discussions on development have shifted in the hopes of identifying the potential areas in which ICTs can retard or enhance people's development. For example, as Andersson and Hatakka (2017) indicated, while previous ICT conversations have focused on socio-economic development, the last decade's attention has been drawn on the question of how the use of ICTs could lead to development, with a multitude of documents being considered in this respect. ICT discussions have also centered on the topic of documents. Notwithstanding, cell phone posters are documents that cannot be taken for granted if ICT research claims to be in the vanguard of people's development. As Mansell and Manyozo (2018) affirmed, in this way, *local people may be able to shape their development in a way that reflects their ambitions and aspirations*… Yet, some of the contributors are less sanguine than others about this potential in view of local dependencies on external funding, on organizational strategies that are insensitive to local voices, and on the dynamics of global capitalism [emphasis added] (p. 330). The production and dissemination of cell phones cannot be thought of as entities separate from and disruptive of a community's destiny.

An important reason why cell phone posters warrant analysis is the call stridently made by Dé, Pal, Sethi, Reddy, and Chitre (2018) about a need for critical research in ICT literature. The authors elaborated on shallow criticism being rampant in ICT4D, hence they proposed a critical research method, not as an end-in-itself method in ICT4D, but as a way forward for stronger/firmer criticism in ICT4D. The same remark has been made by Heeks, Thapa, and Wall (2018) from a different point of view, bemoaning the paucity of deeper/thicker reflection in ICT4D. Fairly obviously, Ramadani, Kurnia, and Breidbach (2018) on their part bewailed the top-down approach crippling existing criticism seen in ICT4D. Discourse analysis is a tool noted for its criticism against taken-for-granted social practices, actions, relations, and representations. Pieterse (2011) elicited how discourse analysis is a viable instrument of criticism, particularly useful in piecing together the inconsistencies and complicities of organizational discourses and attendant practices. This paper was filling this gap by applying critical discourse analysis in looking at cell phone posters. In fact, as observed earlier, while discourse analysis has been used in ICT research, it has been overshadowed by or buried in focuses on gender equality or policy documents (Andersson & Hatakka, 2017). This paper applied critical discourse analysis to inquire into ways in which development was represented or affected through cell phone posters because cell phones were not neutral documents.

In the last few decades, the concept of information technology [IT] has evolved tremendously from being the property of organizations or corporates to being the media of people or social media used for an individual's as well as a community's needs such as economic development (Fuchs, 2017; Qureshi, 2017, 2019; Walsham, 2017). Perhaps one of the most prominent types of devices in our times are cell phones and related features or systems, whose debates cover a plethora of information fields. Yet, much of the rapid diffusion of cell phones is a function of the visuals that cell phones carry. Visuals are information systems in themselves. In recent years, extensive scholarly literature has proven that humans are visual beings (Lu & Dosher, 2014, Peoppel & Overath, 2012). Visuals span locations and times. Humans have always produced and used visual items despite an unparalleled overabundance or too often disruptive pervasiveness seen with visuals in recent years (Peoppel & Overath, 2012). To be precise, while posters abound in modern-day societies they hearken as far back as Antiquity in ancient Egypt with sculptural and pictorial paintings. This paper examined the experiences concerning cell phone use and people's development as reflected in encountered posters. Such an approach went a long way toward narrowing the study down to a specific phenomenon or topic.

The study regarded posters as integral parts of the development story in the selected area. The idea being, as Prior (2008) asserted, an understanding of documents as inert carriers of content is, unsurprisingly, well reflected in standard textbook statements on the place and position of documents in social research and it is often associated with the idea that documents and humans exist in entirely separate realms (p. 823). As explained in the above argument, posters are not inactive, ineffective entities placed on the side of a road or building, but they are part of a story, program, trend, practice, action, or behavior being lived, unfolded, and told in that specific place or context. This might well be justified by the tendency long established in academia, which separates action from system or document. As Prior (2011a) argued, this decades-long understanding of documents is prevalent in handbooks and textbooks and treats documents as inactive entities and humans as active agents. One powerful explanation for the dichotomy rebuked above is the belief that documents or images are mere creations or fabrications of humans. Nonetheless, as Prior (2011b) stated, documents are not just produced objects but also productive entities. In other words, posters are indeed produced, but they also produce social patterns or actions in which people's development is reflected and lived. Cell phone posters were chosen because they were perhaps the only posters to have entered rural populations in recent years. The reason being that in resource- and infrastructure-deficient contexts, the advantages of cell phones are higher or more urgent than in affluent societal contexts (Asongu, Boateng, & Akamavic, 2016). Traditional infrastructure would require an enormous amount of time and resources to be available to a society's members.

ICT4D Researchers: Since the world summits (WSIS, 2003, 2005) – held in 2003 in Tunis and 2005 in Geneva -- have proclaimed the universal and unobstructed access of all spheres of society to ICTs, there has been in ICT literature a crescendo of discussions referring to technical or ICT innovation, usability, or efficiency of ICTs, data visualization, corporate expansion, etc. (Avgerou, 2017; Qureshi, 2015, 2019, 2020; World Bank, 2017, 2020, 2021). Thus, the improvement of people's quality of life and discussions of that matter have slipped the mind of ICT4D researchers. These discussions come as a stark contrast to the WSIS (2003) caveat that ICTS be considered not as ends in themselves but as means to improve people's quality of life. Another reason for the little attention paid to cell phone posters despite their popularity in rural areas might be that posters are both sensitive and expensive intellectual properties. So an ICT researcher would most likely avoid potentially costly lawsuits and litigations by disregarding cell phone posters. However, a great many of ICTs investigated in information fields are just as intellectually protected as posters, for example: Facebook, Twitter, LinkedIn, Instagram, Skype, Bluetooth, e-books, etc. Still, another reason that posters do not appeal to information or ICT4D analysts might be that posters are constantly renewed or replaced, but so are iPhones and PCs, to name a few.

Meanwhile, Foucault (1969/1972) urged researchers (including those concerned with ICTs) to view discourses not as mere combinations of things and speeches, but as customs, systems, habits, powers, practices, etc. produced and hidden behind speeches. This study was thus as claimed earlier investigating the practices, actions, or representations of maldevelopment yielded in cell phone posters. As stipulated above, while there has been a heightened awareness both in information research and ICT scholarships about a holistic view of the topics being under investigation (Case & Given, 2016; Diga & May, 2016) research into the phrase cell phone posters as documents are lacking in social sciences in general and in information research

and ICT disciplines in particular. At the same time, for example, research done on ICTs or cell phones and micro-credits in Bangladesh, which claims that cell phones enabled women in rural areas to earn micro-credits, has met with rising skepticism since such research is shown to have caused discrepancies among concerned communities and individuals (Singhal et al., 2005). Sure enough, in Rwanda where the project was replicated, no evidence of impact on price and income was found (Futch & McIntosh, 2009). For all practical purposes, cell phone coverage was seen to be concentrated among the wealthier and elite (Blumenstock & Eagle, 2012). These and similar findings validate those of this study showcasing the commercial and monetary agenda of cell phone posters.

History of Information Research and ICT Fields: The history of information research and ICT fields has a lot to do with how the last several decades ICTs have been conceived of in academic literature. This also has set the tempo for ways in which documents such as cell phone posters are being (dis)regarded. The milestone momentum that has galvanized the attention of authors and researchers into ICTs came with the twin worldwide symposiums -- mentioned above -- convened on the information society (WSIS, 2003, 2005). To no small degree, the summits laid the groundwork for the concept of access to information, thought to be a universal aspiration to be attained around the world to eliminate the digital divide. The world was thus envisioned as an information society, and information was presented as the economic item or good – just like coffee, gold, grain, timber, cotton, oil, etc. were in decades past. So, knowledge was pursued as the enabler of the global economy (World Bank, 2003). A commercial and monetary agenda is one in which money and gain are the sole goal of the transaction, something that most cell phone and development literature in Africa has not called into question (Carmody, 2011, 2012, 2013). As a result, the concept of information as a superhighway (Röller & Waverman, 2001) with which to build the new global economy was treasured by numerous information or ICT researchers. It was theorized that, as seen above, investment in telecoms leads to economic growth in several respects (Röller & Waverman, 2001).

The primacy accorded to information as the lever of economy meshes well with the principles professed in the late 16th century more precisely in the Enlightenment era by Bacon (1597/1857) that knowledge in itself is power. This teaching falls in with the commercial and monetary agendas observed on cell phone posters. Thus, it was posited that information access was a means of development on the grounds that this access was viewed as the superhighway of economic growth. In addition, the stress heavily laid on information access traces as far back as Aristotle's (ca. 350 BC/1933, Book 1, 980a) thesis that humans by nature yearn for the act of knowing. In the same vein, Shannon (1948) propounded the information theory to best improve the transmission and channel of information. As is now apparent, information was conceptualized as essential to human nature, more exactly as an economic driver. Since the information was a universal good that every human must access or use, a suitable theory -- the diffusion of innovation (see Rogers, 1962/2003, pp. 1-35) -- was imported from sociology into the information research literature to optimize the access of information. At roughly the same time, economist Machlup (1962) wrote his famous work about the *production* and *distribution* of information or knowledge. This was in part because the information was deemed as an economic enabler.

Therefore, the idea of information society was replaced by the idea of universal information access along with the innovation and diffusion of information systems or ICTs. As can now be expected, cell phones have brought into greater light the idea of *mass* production and *dissemination or diffusion* of new digital technologies. This is also the context in which cell phone posters are being created and disseminated because the economy is believed to spring from the development of information systems or superhighways. It is not surprising that, as Cibangu (2015) stated, humans are defined to be conquerors of systems or of ICT devices. This view of individuals as conquerors or crusaders of systems has been magnified by the multiplication of social media encountered in recent years. The view understandably explains why cell phone posters serve the purposes of the crusade or conquest launched in rural areas to ensure the widest empire of cell phone consumers and buyers. As is now obvious, the idea of documents or visual materials coupled with cell phone posters in ICT and information fields is inescapably supplanted by that of the commercial, monetary, and extractive crusade. Thereby to fill this gap, as explained above, this paper was contributing by laying bare the social practices, routines, and trends concealed beneath (the documents) cell phone posters.

Commodification or Reification of Humans: Most pertinently, Marx (1867/1977) pondered extensively over the notion of *commodity fetishism* – which is a derivation of the German word *Warenfetischismus* – primarily meaning: objectivation, objectification, alienation, and exploitation of humans, wherein human interaction, achievement, and the like were considered or pursued solely for the sake of market, money, or gain. The concept of objectification of humans is an interpretation of Marx' original German concept *Versachlichung der Personen* (Marx, 1867/1977) -- rendered by some English commentators as *thingification* or *reification* of persons or humans, which derives from the Latin noun *res*, standing for the thing. Thingification, objectification, or reification signifies that humans are being viewed and utilized as *means*, *machines*, or *things* -- for the sheer purpose of productivity, production, or consumption. Because the research questions of this study sought to gauge ways in which cell phone posters generated development or broader opportunities to expand life on the one hand, and ways in which cell phone posters improved people's living conditions or access to human basic needs on the other, the *Versachlichung* or reification of cell phone users through cell phone posters warranted attention.

Of relevance here is the idea championed by Marx (1844/1959), namely the fuller actualization of humans or of a society's members. In this sense, the word fetishism stands for that which is thought to hold value in and of itself. In a way, fetishism regards something rather as *good in* and *of itself* than as simply pleasurable, profitable, or good. Another term employed to explain commodity fetishism is that of commodification or utilization of humans, meaning that humans can be used as mere commodities of a given market, profit, or company. The commodification or reification of humans comes under different disguises. One contribution of this study to be borne in mind is that of reification being applied to cell phone posters in such a way that humans are being objectified as mere observers, consumers, or receivers of documents or posters. The study sought to go past the reification of humans through cell phone posters to propose the fuller and better actualization of concerned humans or cell phone users. The point was to question the commonplace notion of documents as detached from social reality (Silverman, 2016). This presupposes a view of a document taken as portals, gateways, or milieus wherein that which is done by and within society comes to light rather than a traditional, widespread view of the document as a cosmetic or embellishment item put on a topic, material, or data to enhance the visibility, readability, or attractiveness of posted information /visual.

Readability or visibility of information has created an interest in information design or display (Ware, 2013). Information visualization comes to be a discipline of the display, visibility, and readability, leaving aside the disentanglements of and discussions on the fuller and better actualization of humans. Like any documents, posters are not just about pleasing individuals' eyes or cognition, but rather about marshalling individuals into the maze of practices and challenges that make up the social world. Also feeding into the reification of humans was the finding that the living conditions of the poor, the fight against poverty or the struggles of the poor, and the crying need for the development of rural societies were the least concerns among cell phone carriers and poster designers. The finding regarding reification raises a lot of questions. In truth, none of the posters mentioned the word poverty. Such a finding comes as a surprise in light of today's world. As Weil (2016) warned, the majority of the world's population has no access to safe water, sanitation, and food, and almost 5, 000 children under the age of 5 years, in developing countries die daily from diseases due to unsafe water. This happens despite the digital revolution arising in the contemporary world, with its cell phone-enhanced connectivity. Repeatedly, the World Bank (2016, 2017, 2020, 2021) cautioned the digital revolution and accompanying big data production have touched only a small portion of the world's population, with the majority still lacking internet access.

Digital Revolution and Data Revolution: The digital revolution and data revolution hailed in the name of the cell phone era and profusely propagated by cell phone posters are shown to make no difference in rural areas. Cell phone posters can very well be treated as the opium of rural populations. Therefore, one contribution of this study was the move from the commodification of humans (cell phone users) to the fuller *capabilization* or actualization of those humans. For cell phone designers and carriers, one way forward among others might be to engage local individuals with their various talents, worldviews, and experiences (i.e., artists, storytellers, poets, etc.) in the design and management of posters (i.e., upgrade, installation, removal, content, etc.). As described above, the eight leading traditions taken on more or less by ICT authors to interpret or assess information systems speak to the fetishism, reification, and commodification of specific individuals.

To illustrate, market prices or m-banking advertised on cell phone posters or any posters are demonstrated to be commodities in and of themselves. This is also one reason why this study applied Sen's (1999, 2009, 2012) capability approach to enable a society's members to live fuller and better lives by enjoying a broader spectrum of capabilities concerning human basic needs. The idea is not so much about the things, commodities, or utilities held or disseminated such as ICTs or cell phone posters, but about the range of actual capabilities that people have in real life regarding human basic needs. As Sen (2009) explained, the capability approach departs from the means, systems, and possessions of living to focus on the range of opportunities available to people to live better and fuller lives. Consistent with the above comments, this study contributed by using the capability approach to ensure a move away from the commodification and fetishization of new information devices or posters to the wider spectrum of capabilities needed for people to actualize better and fuller lives.

Specifically, as elaborated earlier, the move is one from things -, posters-, devices-, means-, or systems-centric information to that of broader opportunities surrounding human basic needs so that investigated or concerned populations can achieve better and fuller human lives. A few examples could help realize how messages conveyed on cell phone posters can be discourses in the direction of people's fuller actualization in targeted rural areas. Posters could advertise/announce/facilitate (discounts of) how, why, or where people could call in their neighborhood or apply online to get services offering better homes, schools, healthcare, bottled drinkable water, automobiles, groceries, clothes, etc. These kinds of announcements or facilitations maximizing opportunities/capabilities regarding human basic needs are becoming commonplace among cell phone users in developed nations, but that is absolutely not the case in rural areas of developing countries, not in the slightest. Thus, cell phone posters are the opium of the world's poorest and inactive, inert signs placed on the side of the road, leaving rural populations at their own risk with no capabilities in their day-to-day struggles/hardships to meet their human basic needs.

One final note of caution regarding this paper research might very well be in order here. As noted supra, this paper implemented critical discourse analysis to peer deep into the currents/routines underlying the documents cell phone posters. For focus purposes, the concept development -- known for its vast scope by most development literature -- was narrowed down to development as an actualization of people's fuller and better lives. This view has proven to be with the most consensus and the most effect in the matter of the topic development (Eekelen, 2020; Kingsbury, 2016; McGillivray, 2016). Unfortunately, this line of thought does not reflect well in and is usually dismissed by ICT4D scholarship. The reason for such a shortcoming of ICT4D is mostly that development continues to be poorly researched and rendered in ICT4D literature (Qureshi, 2015, 2017, 2020; Walsham, 2013; Zheng et al., 2018). Resulting from and exacerbating this shortcoming is the dominance of quantitative research found in ICT4D (Qureshi, 2015), whereby interpretive research done in ICT4D (i.e., discourse analysis, race theory, critical theory, etc.) is assumed/expected to produce -- in the collection and analysis of data -- so-called hard variables and techniques consistent with and proper to statistical and empirical standards of quantitative research. In a nutshell, it is not uncommon that qualitative research undertaken in ICT4D is and continues to be required by reviewers to behave in the same manner as quantitative research.

5. Conclusion and Recommendations

Limitations: This study exhibited several limitations, of which four most important bear mention here. First, being a compressed version of materials borrowed from a dissertation with the goal to fit the selected work into a paper-constrained format, the study might have been divested from important sections and details needed for a better understanding of the research performed. Second, with cell phone posters being monopolized by cell phone carriers, a study inquiring into cell phone posters might not be as reflective of rural populations and their realities as hoped. Third, since there is no such a thing as literature or discipline-specific to posters, finding stand-alone posters separate from cell phone uses in rural areas is nearly impossible. This is further complicated by the increasingly convergent or multi-tasked nature of cell phones. Fourth and last, with visual research being underutilized in information research and ICT venues, average readers might be unfamiliar with the methods espoused and the findings discussed. However, despite these and similar limitations, the study alerted ICT researchers and practitioners to one of the most pervasive

information systems of our times. To this end, the present study made contributions to an untapped area of social sciences in general and ICT4D fields in particular.

Conclusion: Cell phone policy in developing countries is most challenged and encouraged to align itself with the cause of the world's poorest living in rural areas. The answer no to the research questions posed supra is troublingly overwhelmingly clear from an analysis of posters. The point of the paper is that what is conveyed on posters can greatly contribute to awareness about and policy of poverty removal/alleviation in the Congo. Cell phone posters exhibit a remarkably monetary, commercial, and marketing role of cell phone uses and systems, with cell phone users being relegated to the position of passive consumers and rapid disseminators of cell phones and of associated corporates. The focus on money, corporate and systems leave cell phone users in rural areas with no actual opportunities to live better and fuller lives. Cell phone users have come to be reified, commodified, or seen as mere means in the pursuit of cell phone widest adoption whereas cell phones have come to be fetishized as easier, smarter, or more usable in the hands of users.

Transforming the lives of the world's poorest is thus given no priority. As was obvious in cell phone posters, the disregard or separation of cell phone industry from the local realities and struggles of the world's poorest in rural areas -- on whose behalf cell phone posters are being disseminated – bear sustained research as well as responsive design and management. Another startling finding to be brought into focus was that cell phone posters were based on commercial or extractive purposes, meaning that cell phones posters were seeking as many fees or monies from the poor as possible. For example, despite its being extensively reported in textbooks of information-related fields, poverty was one of, if not, the least concerns of cell phone posters and services. A good start might be to involve local artists and storytellers of rural populations in the design of posters so that the posters advertised or exposed might be beneficial to targeted individuals. This might not only empower relevant local individuals, but relay and bring to the forefront of the cell phone industry and academia the worldviews, expectations, and experiences of local individuals. Perhaps last and not least is the idea that user-friendly posters or visuals require full scholarly research in information research and ICT fields -- from design to implementation to management. Only then can posters in developing and developed countries foster rather the fuller and better lives of concerned individuals than the commodification and reification of humans.

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Exploring the Impact of Human Resource Management Practices on Employee's Retention: Evidence from the Food and Beverage Industry in the State of Qatar

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Abstract: Employee turnover is stated as a huge issue concerning business organizations in Qatar. The organizations in the food and beverage industry of Qatar try to retain the employees by using suitable and appropriate human resource policies. Consequently, the paper analyzed the influence of human resources management practices on employee's retention in the food and beverage industry of Qatar. In the present study, the researcher used a simple random sampling method to select the employees in the F&B industry in Qatar to minimize the chances of sampling error or fluctuations and biases in the data. According to the sample size calculation, 41 samples were used for data collection. But only 35 respondents were given responses to questionnaire filling. Therefore, 35 samples were only used in this study. Thus, a survey questionnaire was the research instrument. The questionnaire contained 14 close-ended questions, divided, into two sections, demographic and non-demographic. Considering the study objectives, the quantitative, data analysis method was applied in this study. The survey responses were converted into numeric values as those were collected through a replicable scale. Inferential, reliability, correlation and multiple regression analysis were applied to test the hypotheses. The study concluded that HR Recruitment policy, Training, and development program, Performance appraisal system; Reward system are important determinants of employee retention in the food and beverage industry of Qatar. Specifically, the reasons for increasing employee's turnover are lack of growth opportunities, poor communication, improper promotional activities, and misalignment of culture and value system, lack of decision-making ability, employee welfare, work-life imbalance and regular changes in job responsibilities. The study, therefore, recommended the following: greater employee's involvement in the HRM policy formulation and implementation, improved employee's compensation, social recognition, efficient top management support, as well as improved training and development in the food and beverage industry in Qatar.

Keywords: *Human Resource Management practices, employee's retention, factor analysis, Food and Beverage industry, Qatar.*

1. Introduction

Employee's retention is largely met and satisfied by the kind of Human Resources (HR) practices and policies that are adopted in an organization (Olayisade & Awolusi, 2021). Consequently, a good Human Resources Management (HRM) helps in the accurate amount and kind of employee retention in an organization as well as in the whole of the food and beverage industry. This amount of employee retention also affects the overall employee turnover in an organization. Employee turnover can be stated to be a huge issue for any business organization related to this industry in Qatar (Bratton and Gold, 2017). The organizations try their utmost to manage and retain employees by making use of suitable and effective HR policies and practices to make the maximum out of the people working in their respective concerns. The issue of low employee retention has been seen in this specific industry operating in the country of Qatar.

To see through the facts of the problem and sort out effective remedies, the study has been taken into account and a specific topic of study has been chosen. Employee retention is one of the challenging issues in the food and beverage industry operating in the country of Qatar. It can be said that each year, more than 100% of the previously working individuals leave the industry. These results are due to a high level of competition among the staff and lower level of payments and incentives offered to them. The industry has been plagued with a high level of employee turnover, which overall damages and weakens the financial stability and capability of the organization and the hospitality concerns associated with the particular industry in the state of Qatar

(Dzeno Poljac et al., 2017). Thus, it is very important to understand the fact that how HR practices affect employee retention in the industry.

The understanding of this statement can be said to be the main issue to be covered in this whole assignment. It can be said that the proper HR practices have to be brought into action. It is seen that most of the concerns and institutes in this industry fail to frame up and adopt the right kind of HR practices and measures. This leads to the rise of dissatisfaction and less amount of job satisfaction among the staff and employees (Elbanna and Kamel, 2015). Thus, they do not feel interested in working in the same place. This results in mass job shifts, resignations and absenteeism. This crops up to be a huge issue for the smooth operation of the whole food and beverage industry operation in the country. This study has a huge scope and significance. In the context of the high level of employee turnover which can be seen in the F&B industry in the land of Qatar. The use of ineffective HR policies by the food and beverage industry has been a huge problem for the retention of employees (Baumann-Pauly and Nolan, 2016). Many times, it is seen that due to poor management, high level of competition, lower payments and unsuitable work environment leads to discerning among the employees they take up decisions to leave their jobs frequently. The right job schedules and long hours of work also catalyze the whole situation of employee turnover.

The right choice of the kind of HR is very important to make sure that the employee turnover rate remains low. To understand the basics of the right kind of HR policy, the study can be said to be having a great significance (Hollis, 2017). The ways by which HR can help in the retention of employees can be pointed out after carrying on with this study. The food and beverage industry offers unsuitable working space and poor leadership and performance appraisal, which leads to a huge amount of employees being less satisfied with their job profiles. This brings in the decision for them to leave their work. This becomes a huge matter of concern for the different business organizations functioning in this particular industry (Lasrado, 2018). The lack of consistency among the staff and the employees also turns out to be less rewarding for them and this phenomenon is catalyzed by the acute lack of proper knowledge among them (Aktaş and Yeasmin, 2015). Thus, the study of proper HRM practices and their overall impact on employee retention has a greater significance keeping in mind the different issues that crop up with the increase of employee turnover and fall in the rate of employee retention. Consequently, the main objective of the present study is to examine the influence of Human Resource Management on employee's retention in the food and beverage industry of Qatar. However, the specific objectives are as follows:

- To find out the effect of recruitment on employee's retention in the food and beverage industry in Qatar.
- To examine the effect of training and development on employee's retention in the food and beverage industry in Qatar.
- To find out the influence of performance appraisal on employee's retention in the food and beverage industry in Qatar.
- To find out the effect of the reward system on employee's retention in the food and beverage industry in Qatar.
- Furthermore, to answer the above specific objectives, the following questions were construed:
- What is the relationship between recruitments and employee's retention in the food and beverage industry in Qatar?
- Is there any relationship between training and development and employee's retention in the food and beverage industry in Qatar?
- What is the influence of performance appraisal on employee's retention in the food and beverage industry in Qatar?
- To what extent is the relationship between reward system and employee's retention in the food and beverage industry in Qatar?

It has to be deduced upon the fact that employee retention diuretics affect the profitability of an organization. The food and beverage industry for the last five years has suffered a high setback due to a huge amount of employee turnover and failure in the retention technique taken up by the various institutions. It can be pointed out that the high rate of employee turnover takes place due to poor rewarding schemes and

performance appraisal. Poor working environment and conditions, high level of competition, lack of interest in work, long and weary working hours, lack of concerns and capability seen in the leaders and managers and widespread gender and racial discrimination have led to huge dissatisfaction and demotivation among the workers of the industry (Davis and Luiz, 2015). These all factors have thus contributed to the huge amount of employee turnover seen in this particular industry in Qatar. Thus based on the issues and problems, the different sets of research questions have been designed to enquire about the issue and take steps and alternatives to get rid of the serious problems and their fatal aftermath on the profitability of the food and beverage industry (Moayeri, 2014).

The first question has been designed to know-how and in what manner the HRM practices and management in the industry affect and influence the phenomenon of employee retention. The second question has been interrogated to know about the several factors, which affect employee retention. This shall help in improving the facts so that employees can be easily retained, and turnover of employees can be decreased. The next question has been designed to know about the different negative aftermaths that are brought by poor employee retention in the context of the food and beverage industry. The fourth question has been made to know about things, which can be acted upon to bring an atmosphere of balance between employee retention and organizational profitability (Peng, 2016). Last but not the least, the last question has been asked to enquire about the various HRM policies and practices which can be taken and considered to bring forth high employee retention and low employee turnover (Manalili, 2017). Consequently, the following hypotheses were construed:

HO_1: HR Recruitment policy significantly affects employee retention in the food and beverage industry in Qatar.

HO_2: Training and development program significantly affects employee retention in the food and beverage industry in Qatar.

HO_3: Performance appraisal system has a significant impact on employee retention in the food and beverage industry in Qatar.

HO_4: Reward system in organizations has a positive impact on employee retention in the food and beverage industry in Qatar.

The research on this particular topic can be said to be much of a new and uncommon one. The research on the topic of HR practice and its impact on employee retention and employee turnover has taken place, however, it has been conducted based on other sets of the industries or other organizations of different industries (such as retail, manufacturing, tourism, etc.). Such kind of research in the food and beverage industry has been not much conducted and not has been conducted by the researchers. However, by looking at the statistics of the last five years, it has been seen that the employee turnover has been highest in the food and beverage industry in the state of Qatar (Parsa and Kwanzaa, 2014). Thus, the topic has been chosen and brought into the light of the research and presentation. Considering the need and demand of the topic and the scope of research offered by it, the research objectives have been set up and on basis of that, the research questions have been made. The study shall align with the objectives and questions and to find detailed information and analyze them, the right kind of data and methodology has been considered for this study (Arkalgud, 2017). It can be also declared that I could easily perform with this research and I did not have to encounter any such kind of problems while carrying on with my research work. Further, I got enough help from the other researchers and my guides who have helped me by providing me with an encouraging environment. All these factors have helped to choose this topic and carry on with an extensive study on this topic. To understand the problem from a universal standpoint, different articles and research materials by others.

Researchers have been mentioned and critiques in the literature review part designed in this whole study. The biggest gap in this study is that it is based only on the food and beverage industry. The context of employee retention and factors affecting it in this industry is somewhat different from employee turnover and its causes in the other industries (Chen et al., 2014). Thus, this study cannot be applied to the paradigms of other industries. Further, this study is limited to only the country of Qatar. Thus, the student the perceptions arising from it are restricted only to that country. The study has been conducted based on primary and secondary data. Primary data is first-hand data and is more authentic than secondary data (Van der Wagen and White, 2014). However, the analysis standpoint becomes much strong and balanced when both data are being simultaneously used. Thus, in this case, the authenticity of secondary data put up in the

literature review part can be put too much question. These all facts can be painted out be major flaws and gaps present in this study. The study has been conducted keeping in mind the three focus areas of employee turnover, organization profitability and ways for retaining employees. The study has been conducted based on the viewpoints laid down by other previous researchers working on this topic. Many of the articles have been chosen and used in this study, which related to employee retention and HRM practices, but they are aimed to study the causes in other insurers. However, the overall study can be said to be reliable as themes from those studies have been considered here and have been articulated with the food and beverage industry.

2. Review of Related Literature

Conceptual Review: With the growing complexities and competitiveness in the Food & Beverage industry of Qatar, the essence of multiculturalism in HR is evident. These counts for the innovative HRM techniques needed to be applied within the organizations operating within the food industry of Qatar (Farou et al., 2016). Concentrating on the Food and Beverage Industry, irrespective of the country, the performance and approach of the employees in maintaining the standards is highly determined by the satisfaction of the HR. This on the other hand determines the performance of employees. The fact that is worth mentioning here before delving into the Food industry particularly, is that the HR in Qatar and other Middle East countries are majorly distributed into three sectors that include: professional sector, service sector and finally the technical and the scientific sector. This factor is contextual here, in terms of its indirect relation to the fact that the Food and Beverage industry is sub-categorized among industries within the service sector. On top of it, the service sector possesses the highest rate of labor (Farou et al., 2016). Employees are considered by the organizations as assets; however, this particular approach does not prevail universally.

The steady increase in the turnover of the employees within the food and beverage industry of Qatar reveals the fact that HR practices are the key indicators of whether employee retention is taking place or not. The food and beverage industry in Qatar can be said to be much negligent about the overall welfare of the employees. It is seen that the whole of the food and beverage industry is plagued with high work pressure and lower payments, which leads to a high level of dissatisfaction among them. Lack of training, lack of good leadership and communication also brings in different kind of issues. The employees are less efficient and informed about the things they need to do. They remain less motivated towards their work, which increases the level of satisfaction among their minds. The factors of service climate, organizational culture and internal marketing are very much related (Abston and Kupritz, 2011). These all factors play a great role in shaping up the kind of HRM practices that need to be adopted in an organization. As per the terms of the Social Exchange Theory, employees shall reciprocate if the right kind of reward is given to them and their performance is being recognized (Roloff, 2015). Such kind of performance appraisal is absent in the poor HR practices that are carried on in this industry. The employees if paid well, take it as a debt to the organization and remain faithful to it.

Theoretical and Empirical Reviews: Employee retention refers to the outcome of the different HR practices and the policies implemented by the HR department of an organization. The very basic HR management practices that are capable of employee retention include employee appraisals after evaluation, training and career development of the employees, incentives, compensations and other added benefits. The issue with the food and beverage industry is the lack of HR management practices about the development of the employees. In the first place, the employees are majorly not skilled or semi-skilled who are hired within the food and beverage industry. This is again aimed at providing less salary that does not match the industry standards. Thus, this particular reason of non-standard salary and low waged as well low skilled or semi-skilled employees leads to the high turnover (Bratton and Gold, 2017). To be more precise, they persist the low expectations as well as chances of growth prospects of the employees. Frustrations are ignited leading to employee turnover. According to (Selden and Sowa, 2015), one of the major aspects of the HRM prospects is achieving the satisfaction of the employees, this is crucial in yielding the bond between the employers and the employee. This bonding eventually gives rise to the employment relationship which when further established, is going to avail the company with the approach benefit of employee retention.

Employee turnover is the very result of faulty HRM practices (Bratton and Gold, 2017). As per the terms of the Leader-Member Exchange (LMX) Theory, the employees expect good treatment and behavior from their

managers or the superiors in return for good quality work. They try to abide by the terms put forward by their seniors (Bauer and Erdogan, 2015). However, many times, the seniors or managers provide ineffective and wrong guidance. Poor training and communication to the employees also may bring failure in their job, which may demotivate them, and thus leading to force leaving of jobs. Various factors affect the retention of the employee along with the theories. The factors such as job satisfaction, and job responsibility goes in hand in hand with the Leader-Member Theory, as the leader is responsible for bringing in job satisfaction among the employees, imparting proper training and education among them and making them capable to handle their job responsibilities (Olayisade & Awolusi, 2021; Awolusi, 2021). Motivation Theory: Needs-Based & Behavior-Based**,** suggests that if the job responsibilities become excessive and weary along with fewer amounts of job satisfaction and education, employees feel burdened up and are forced to leave their jobs (Glebbeek and Bax, 2004). This brings in a high turnover of employees for the organizations.

Another huge factor, which affects the overall standard of employee turnover, is age. If the age becomes high, employees fail to be less interested in their work. This results in leaving their jobs leading to more pressure burdened on the shoulders of the capable workers in the industry. The available ones are burdened with workloads and then they are forced to leave their jobs. Thus, this employee turnover cycle can be said to be continuing and viscous. As per the Organizational behavior theory, employee retention depends on the kind of demeanor that is shown by the management of the organization/industry towards the employees (Aguenza and Som, 2018). If they are well taken care of, their issues and complaints are properly addressed to and a good working environment is ensured for them, then the rate of employee retention can be increased.

Human Resource Practices Affecting Employee Turnover, Retention in Food & Beverage Industry in Qatar: In the context of the Qatar Food and Beverage industry, the reference to the existing concepts of HRM that is universally standardized in general is required. According to Hollenbeck and Jamieson (2015), the policies and the practices that are developed by any organization to effectively manage and utilize the manpower to its fullest as well as comply with legislation refers to the employee HRM. The practices that are integral and universally standardized in the functions of HRM to implement the HR practices include recruitment and selection, HR planning, training and development, performance appraisal, compensation, job analysis, and labor relations (Abakeret al., 2018). These are the practices that are monitored and controlled by the HRM and senior management of any organization (Hollenbeck and Jamieson, 2015). This is how the management of the human capital is done by the organization where the HR plays the role of bridging the gap between the employer and the employee. The HRM by devising the practices, (that are often custom based) functions in the protection of the rights of the employees as well as providing the companies with the best potential talent for high productivity (Bratton and Gold, 2017). This is done through different HR practices that include training and development, recruitment through different modes, creating a healthy competitive environment for evaluating and taking the best out of the potentials. The different innovative HR practices determine the employee retention capability of the company.

In the context of the food and beverage industry, special concern to the handling of the activities are required that has to be well aligned with the organizational objectives (Bratton and Gold, 2017). In that case, the organization operating within the food and beverage industry has to go for the development of goals of the company indicating towards increasing of profitability of the company. According to (Michele Kacmar et al., 2006), the growth of the company along with its sustainability can be determined only through the overall development of the company that includes the development and growth of the employees as well. This particular approach is lacking within the organizations operating in the Food and Beverage industry of Qatar that is contextual here (Farouet al., 2016). The workforce operates in the base in executing the organizational goals and objectives to achieve the mission as well as the vision of the company. As per Institution Theory, the environment and social structure of the organization have to be positive and encouraging to bring and inculcate work interests among the workers (Albrecht et al., 2015). Things such as effective communication, employee participation and decision-making are necessary to bring motivation among the minds of the employees and cater to all the HR needs. This fact helps in increasing the amount of employee retention and thus helps in decreasing the amount of labor turnover that is taking place in this industry. As per the Human Capital Theory: (Characteristics & Investment model), the kind of HR policy that is framed inside an industry and the steps that are taken to bring an overall development for the employees act positively and help in

influencing the overall rate of employee participation in the production and sales activities (Michele Kacmaret al., 2006).

As per the statements put forth by the Neoclassical Theory of HRM, the Human Relations approach holds a certain ground in influencing the kind of relationship that is held onto by the employee with the business, organization or industry. As per this theory, employees should be given work independence and their decisions should be taken into account (Zak, 2017). They should be given some discretionary power and should have a say in the organization. They should have fixed work hours and should enjoy at least a minimum of good pay to ensure good work from them. AMO (Ability, Motivation & Opportunities) Theory explains that effective training is necessary and good career development opportunities are necessary to ensure a good HRM practice to be initiated in an organization. The employees should be given good promotions and pay hikes along with the development of their abilities and the contribution made by them to the organization. The Optimal Turnover model as shown by Abelson and Baysinger (2017), depicts the effects of employee turnover in a business organization or specific industry. It shows that if the employee turnover increases due to poor HRM practices and management then it affects the profitability of a business concern. The food and beverage industry of Qatar has to take sharp turns in improving the scenario of HRM practices and bringing proper order in the whole of the industry. All these factors shall help in increasing the profitability of the industry and this shall further help in the process of best employee retention practices.

Relationship and Establishing a Balance between Employee Retention and Organizational Profitability: According to Benjamin (2003), the number of graduates is increasing day by day however, not all matches the expectations of the organizations in terms of becoming competitive and sustainable within the market competition. This reveals the fact that encouraging and implementing effective HR practices is crucial in retaining people for the organizations (Stone and Deadrick, 2015). The numbers of graduates with immense potential are increasing day by day but the organizations that are willing to achieve sustainability within the globe are often found to implement new ways of satisfying the employees (Albrecht et al., 2015). These include the well-planned and unique HRM strategies that are being efficiently adopted and implemented by the leaders and managers as well. The leadership approach introduced in the management of HR is often considered as the key to building employee relationships and thereby gaining the loyalty of the employees. This is, in the long run, it enhances the communication between the employers and the employee where the retention is facilitated (Glebbeek and Bax, 2004).

Thus, protecting the company from high turnover can be taken under control. This is how management practices are interrelated with employee retention. The factors that are considered by researchers as highly active behind huge employee turnover impacts employee's retention as well includes customer dissatisfaction. This leads to the loss of confidence within the employees on an individual basis as well as loss of the effective execution of the operations by the company owing to the inefficient management of the organization (Glebbeek and Bax, 2004). The necessity of skilled employees cannot be denied because of the requirement of special, proper and efficient services to the people and the customers visiting. They are well aware of the standards and obligations of the legislations of the national as well as international standards (Selden and Sowa, 2015) Nevertheless, it is one of the HRM practices, that is the training and the development of the employees is going to provide the companies with the loyalty of the employees that helps in the reduction of the employee turnover (Glebbeek and Bax, 2004). Therefore, it is quite evident that employee retention is the extended prospect of the HRM practices that are very crucial in this era of globalization.

The use of technology in developing the career of the employees is one of the most noted practices these, days that equip the employees with more efficiency (Stone and Deadrick, 2015). The use of technology for the execution of organizational operations or the purpose of the communication is familiar to the millennial. The experienced individuals are unaware or hesitant in using the technology in different departments of any company in the food and beverage industry. This is where the turnover of the employees is often witnessed (Albrecht et al., 2015). The HRM practices of training and development of the employees help these kinds of experienced employees who are beneficial for the company with their experiences as well as insights (Stone and Deadrick, 2015). During the new recruitments, there are often gaps found between the experienced managers and the fresher end up with a lack of vision, preferring techniques that are not suitable, resulting in taking risks (Bratton and Gold, 2017). Thus, managerial approaches about HRM play a pivotal of initiating the

new employees, the vision, mission as well as objectives of the company. This is known to reduce employee turnover, which has to be checked in sustaining the organization along with organizational structure and culture (Bratton and Gold, 2017).

3. Methodology

The researcher collected primary data through a survey on the employees, who had left their previous organizations in the Food and Beverage industry in Qatar in the past 6 to 12 months of the survey. To address the research question, the researcher adopted the descriptive research design (Rovai, Baker and Ponton 2013). Descriptive research is beneficial in presenting an in-depth overview of the research topic. This type of research design presents extremely valuable detailed observations. This allows the researchers to observe the research participants in an unchanged and natural environment and results in a more unbiased outcome (Awolusi, Onikoyi, & Akindele, 2015; Onikoyi & Awolusi, 2015). In the present study, the researcher used a simple random sampling method to select the employees in the F&B industry in Qatar to minimize the chances of sampling error or fluctuations and biases in the data. Consequently, based on a total targeted population of 104 employees, the sample size calculation yielded 41 samples. However, 35 respondents filled and submitted usable questionnaires.

Therefore, 35 samples were only used in this study. The researcher used primary data for data collection purposes by applying the survey method. Thus, a survey questionnaire was the research instrument. The questionnaire contained 14 close-ended questions, divided into two sections, demographic and non-demographic. The demographic section contained questions on gender, experience with current organization, and a few workplace-related factors, such as, top five reasons for leaving the previous organization, factors that made the respondents happy at work, their achievement, desires and goals at the workplace. This section aimed to gather an overview of the attitude of the respondents about their current or previous workplace. The non-demographic section contained two parts, a quantitative study on the effective HR practices and factors of employee retention. These sections cover 5-point Likert scale questions, in which 1 denotes 'strongly disagree' and 5 denotes 'strongly agree'. These questions were framed in a way that would best describe the factors influencing employee retention and HR practices (Joshi et al., 2015). This section aimed to gather information on the elements that influence the employees to stay associated with the organizations in the F&B industry or leave the organization. The survey questionnaire was designed by using Google Forms. Researchers have chosen two large F&B companies in Doha, Qatar and with the help of the HR database, the names and contacts of the employees were gathered. The chosen survey respondents were contacted via e-mail and face to face to inform them about the purpose of the survey and its terms and conditions.

They were given the questionnaire through their emails and hardcopies by meeting them in person. The survey was conducted for five weeks. Validity and reliability analysis was performed after the research instrument was prepared. Different types of validity processes are there, that are used to examine the accuracy of the research instrument (Awolusi & Atiku, 2019; Oladejo & Awolusi, 2017). Those are face validity, content validity and construct validity. Face validity is the estimate of if a test appears to evaluate a certain criterion (Bolarinwa 2015). However, there is no guarantee that it would measure the research phenomena. Content validity refers to a non-statistical type of validity involving a systematic evaluation of the study content. This is done to test whether it was covering all the relevant aspects or characteristics of the representative sample (Escamirosa et al., 2015). Lastly, the concept of measuring the extent of accuracy of the instrument, that is, to what extent the instrument is accurate in measuring the research topic is the concept of construct validity (Heale and Twycross 2015). In the given study, the survey questionnaire was designed to find out the HR factors that affect employee retention in the F&B industry in Qatar. The questionnaire used, had face validity as well as content validity as all the questions contained elements addressing HR practices and employee retention. The aspect of construct validity was examined by conducting a pilot study to check how far it was measuring the objective of the research. Reliability is also a measure of the quality of the instruments used for research. The results would only be considered valid when the measurement procedure is reliable (Heale and Twycross 2015).

It primarily measures the consistency of data collected using the research instrument. Cronbach's alpha is used to examine the reliability of the data. A score of 0.7 or more is considered as the acceptable score for

reliability. Hence, in the given research, the internal consistency of the data was measured by applying the reliability test. Considering the study objectives, the quantitative data analysis method was applied in this study. The survey responses were converted into numeric values as those were collected through a replicable scale. This was done to apply the scientific data analysis tools (Awolusi, Pelser, & Adelekan, 2016; Awosusi & Awolusi, 2014). Inferential, reliability, correlation and, multiple regression analysis were applied to test the hypothesis. Overall, some ethical issues in any research involve humans for data collection. Therefore, the researcher considered ethical issues in every research phase. Firstly, the legal, personal, and bureaucratic compliances met by the researcher. Informed consent was taken from the participants and also from the concerned organization before proceeding with the data collection as per the statement of (McDaniel and Gates 2013). The researcher further explains clearly the purpose of the study and also the rules of participation. The participants were also informed that they can withdraw from the survey at any time. They do not harm, force or bribe to answer the questions or manipulate the answers. Secondly, the researcher explains the confidentiality and anonymity agreement to the survey respondents. Moreover, it is made clear that the data will be kept secret and to be used only for educational purposes. The researcher has followed all these ethical aspects before surveying to avoid any type of ethical issues in the future.

4. Results and Discussion of Findings

The process leading to the reliability table ensures the validity and precision of the statistical analysis. The reliability statistics are used to build reliable measurement scales, improve existing scales and evaluate the scales already in use. The term reliability signifies a function defining the probability of failure.

Table 1: Reliability Table

Cronbach's Alpha	No of Items
.700	22

Cronbach's Alpha is used to determine the internal consistency. The items measure the same thing and should be correlated with each other. The alpha coefficient of 22 items is .700. It is acceptable and a good value. The Cronbach's Alpha offers a simple way to measure whether a score is reliable or not.

Demographic Analysis

Table 2: Gender

	Frequency	Per Cent
Female	16	45.7
Male	19	54.3
Total	35	100.0

Table 2: Represents the gender ratio in an organization. The total number of participants taken from random sampling was 35. Male are more compared to females in an organization with 54.3% with the frequency of 19 males whereas 45.7% are belonging to females with the frequency of 16.

Figure 1

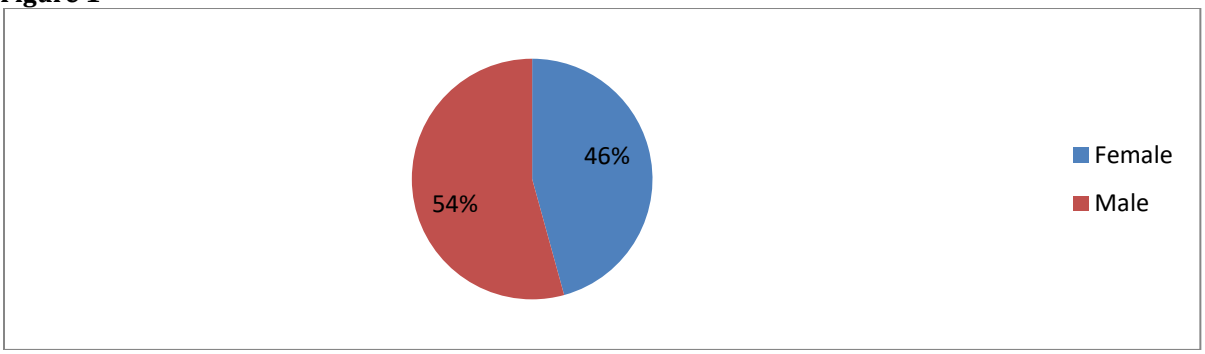

Table 3: Experience with the Current Organization

	Frequency	Percent
Less than 1 year	14	40.0
1-3 years	11	31.4
More than 3 to 5 years	6	17.1
More than 5 years	4	11.4
Total	35	100.0

To the maximum 40% of the employees are working in the organization for less than a year. 31.4% of employees are belonging with the experience of 1- 3 years. 17.1% of the employees belonging with the experience of more than 3 years to 5 years. A minority of the employees are with the experience of more than 5 years with 11.4%. It can be assumed that there are more new employees in the organization which is 40%. The retention rate is low in the organization represented by the people having experience of more than five years which is 11.4%.

Figure 2

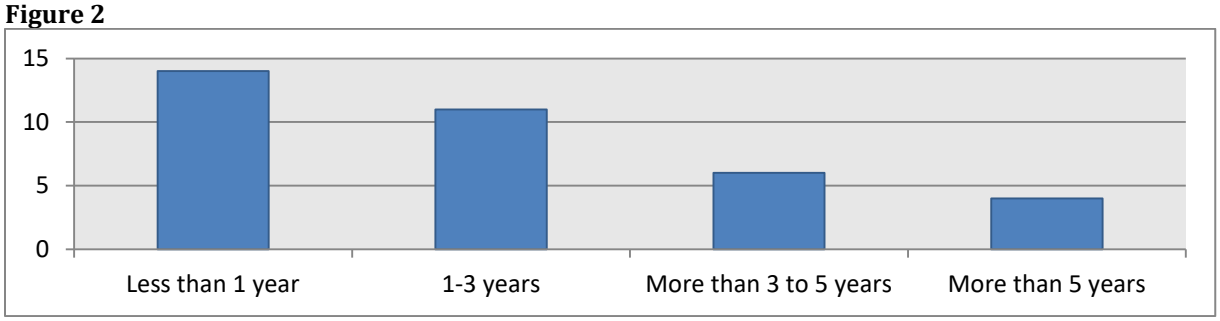

Table 4: Factors Contributing to a Happy Work Environment

	Frequency	Percent
Workplace environment	3	8.6
Support from leaders	4	11.4
Transparency in the workplace	4	11.4
Clear promotional goals	15	42.9
Opportunities for growth	9	25.7
Total	35	100.0

The majority of the employees feel clear promotional goals are one of the essential criteria for a happy working environment with 42.9%. 25.7% of the employees prefer growth opportunities. 11.4% of the employee prefers transparency in the workplace and another group of 11.4% of the employees prefers support from leaders. 8.6% of the employees feel that the workplace environment to be the important criteria for a happy working environment.

Figure 3

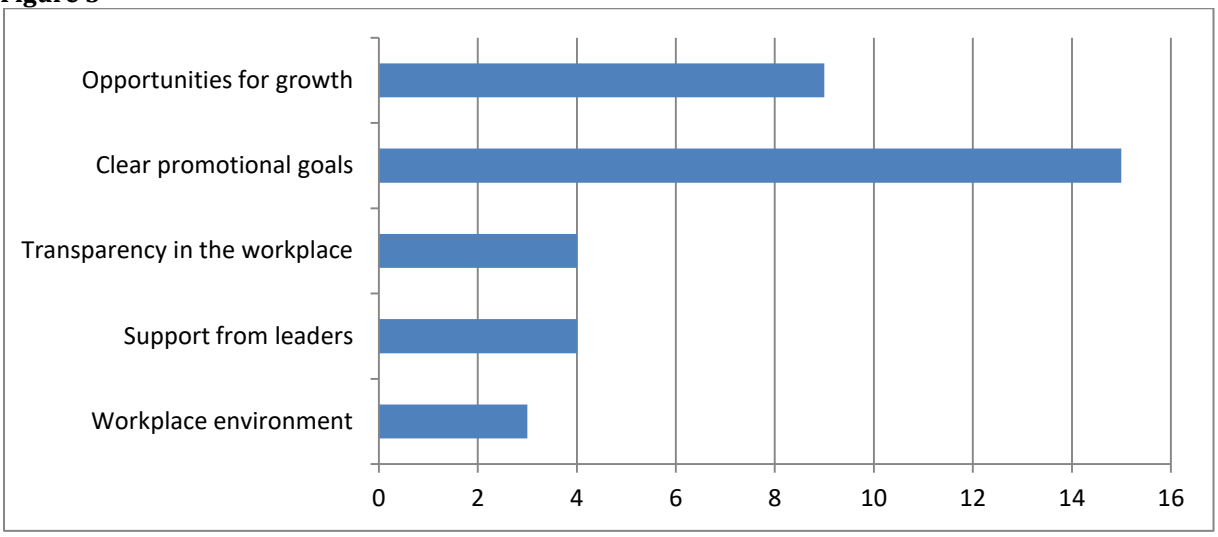

Table 5: Aim to Achieve at Work

	Frequency	Percent
Promotion	7	20.0
Social recognition	3	8.6
Appreciation	7	20.0
Extra rewards and benefits	8	22.9
Experience	3	8.6
Effective management and support from the top	2	5.7
Healthy environment to work in	1	2.9
Happiness at work	4	11.4
Total	35	100.0

The majority of the employees with 22.9% think that extra rewards and benefits can help to achieve their aim at work. 20% of the employees think that promotion will help to achieve the aim. It gives a kind of recognition to the employees. Another 20% of the employees think appreciation will help to achieve the aim. 11.4% of the employees prefer happiness at work. 8.6% of the employees think social recognition will help to strive for the goal. Another 8.6% of the employees think the experience will help to achieve aim at work. 5.7% of the employees prefer effective management and support from the top will help to achieve the aim. At least 1% of the employees think a healthy environment will assist to obtain the goal at work.

Figure 4

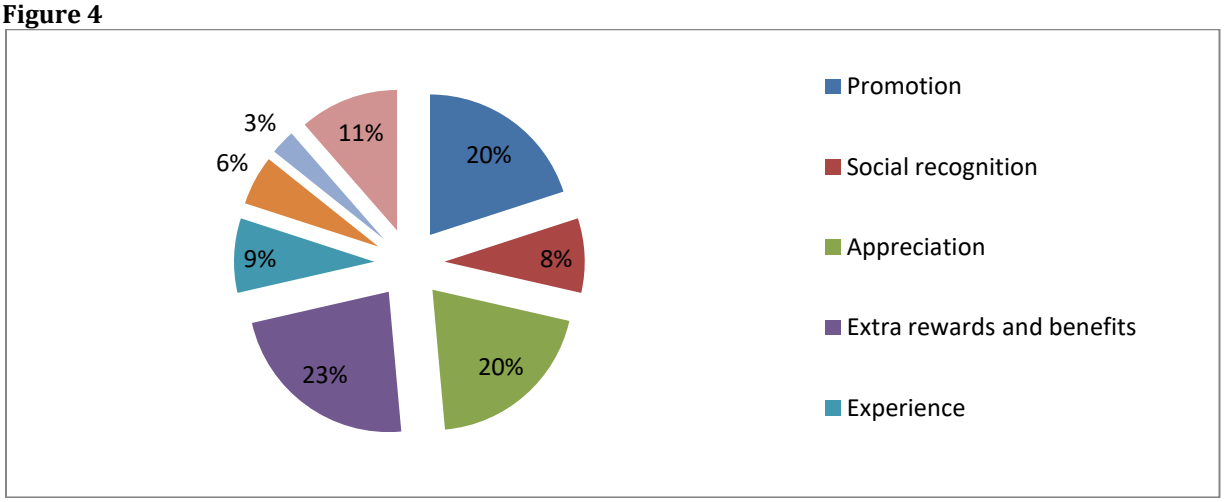

Table 6: Goals

	Frequency	Percent
Remain in the organization for a longer time	5	14.3
Search for other companies where you can showcase your skills better	15	42.9
Lead other members and guide them in critical situations	3	8.6
Become a leader after a certain number of years of experience	12	34.3
Total	35	100.0

Table 6 represents the goals of an employee. The majority of the employees with 42.9% are willing to search for some other companies where they can showcase their skills better. 34.3% of the employees are willing to become a leader after a certain number of years of experience. 14.3 % of the employees prefer to remain in the organization for a longer time. 8.6% of the employee are willing to lead other members and guide them in a critical situation.

Figure 5

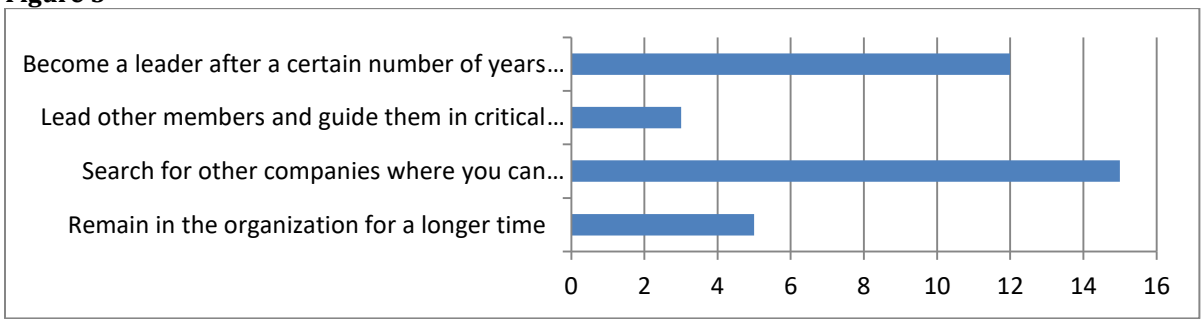

Table 7: Reason for Leaving the Organization

	Frequency	Percent
Work-life imbalance	5	14%
Discrimination/bias from the management	11	31%
Poor communication	15	43%
Feeling undervalued	11	31%
Lack of decision-making ability	5	14%
Improper promotional activities	22	63%
Lack of growth opportunities	29	83%
Poor communication	23	66%
Lack of inclusion in the organization	11	31%
Ineffective relationship with team members	0	0%
Regular changes in job responsibilities	2	6%
Insufficient rewards, recognition, and benefits	10	29%
Lack of employee welfare	8	23%
Misalignment of culture and value system in the organization	12	34%
Lack of support from line managers	11	31%

The employees are anticipated to leave the organization when they are not satisfied with the working conditions. The majority of the employees with 83% leaves their current job because of the lack of growth opportunity. 66% of the employees leave due to poor communication. 63% of the employees leave because of improper promotional activities. 43% of the employees leave due to poor communication. 34% of the

employees leave due to misalignment of culture and value system in the organization. 31% of the employees leave because of feeling undervalued. 31% of the employees leave because of discrimination/bias from the management. 31% of the employees leave because of a lack of inclusion in the organization. 31% of the employees leave due to a lack of support from line managers. 29% of the employee leaves due to insufficient rewards, recognition, and benefits. 23% of the employees leave because of a lack of employee welfare. 14% of the employees leave due to a lack of decision-making ability. 14% of the employees leave due to work-life imbalance. 6% of the employees leave due to regular changes in job responsibilities. None reasoned ineffective relationship with team members to leave the job.

Factor Analysis

Table 8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.383**
	Approx. Chi-Square	373.872
Bartlett's Test of Sphericity	DF	231
	Sig.	.000

Table 8 represents two tests that show the adaptability of the data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that represents the proportion of variance in the variables that could be occurred because of underlying factors. The lower proportion leads to suitable data. The value is .383 which represents the need for remedial action to be taken. Such results are probably not very useful. Bartlett's Test of sphericity examines the hypothesis that correlation matrix is an identity matrix that represents that variables are suitable and hence appropriate for structure detection. The small impact here represents that analysis may be useful for the data.

Hypotheses Testing: H1: HR Recruitment policy significantly affects employee retention in the food and beverage industry in Qatar.

Table 9: Relationship between HR Practices and Employee Retention

	HR Practices	**Employee Retention**
HR practices	1	.364*
Employee retention	.364*	1
*. Correlation is significant at the 0.05 level (2-tailed).		

If the value of HR practices 1 then the employee retention is .364*. When the value of employee retention is 1 then HR practices is 364*. *. Represents the correlation is significant at the 0.05 level (2-tailed).

Table 10: Association between HR Practices and Employee Retention

Model	**Unstandardized Coefficients**		**R Square**	**F Value**	**P-Value**
	B	**Std. Error**			
(Constant)	1.059	.364			
			.133	5.051	.031*
HR practices	.429	.191			
a. Dependent Variable: Employee retention					

The dependent variable in this table is employee retention. The unstandardized Coefficients for the constant the value of unstandardized beta (B) is 1.059 and the standard error is 0.364. The unstandardized Coefficients for HR practices of unstandardized beta (B) is .429 and the standard error is 0.119. The value of R square is 0.133, 5.051 is the value of F and 0.031 is the value of p. It was hypothesized that HR Recruitment

policy positively and significantly affects employee retention in the food and beverage industry in Qatar. From tables 9 & 10, results confirm the same. This implies the impacts of the HRM rehearses on the retention of the employee depend on HR Recruitment policy. Michele Kacmar et al. (2006) uncovered that the sort of HR policy that is encircled inside an industry and the means that are taken to bring a general improvement for the representative's demonstration in a positive way and aides in affecting the general rate of employee interest in the sales and production activities. This examination expresses that the HR enrolment strategy altogether influences the retention of the employee in the sales and production activities in Qatar. Hollis (2017) additionally expressed the equivalent. The correct decision of the sort of human asset is vital to beyond any doubt that the employee turnover rate stays low. **H2:** Training and development program significantly affects employee retention in the food and beverage industry in Qatar.

Table 11: Relationship between Training and Development Program and Employee Retention

	Training and Development Program	Employee Retention
Training and development program	1	.683**
Employee retention	.683**	1

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

If the value of the training and development program is 1 then the employee retention is 0.683**. When the value of employee retention is 1 then the training and development program is 0.683**. **. Represents the correlation is significant at the 0.01 level (2-tailed).

Table 12: Association between Training and Development Program and Employee Retention

Model	Unstandardized Coefficients		R Square	F Value	P-Value
	B	Std. Error			
(Constant)	.354	.286			
Training and development program	.774	.144	.683	28.802	.000**

a. Dependent Variable: Employee retention

The training and development programs are the initial things to go when the organization is expecting to lower costs. The unstandardized Coefficients for the constant the value of unstandardized beta (B) is 0.354 and the standard error is 0.286. The unstandardized Coefficients for the training and development program of unstandardized beta (B) is 0.774 and the standard error is 0.144. The value of R square is 0.683, 28.802 is the value of F and 0.000 is the value of p. It was hypothesized that between training and development program positively and significantly affects employee retention in the F&B industry in Qatar. The training and development program solves the problems faced by the organizations and fulfills their needs from time to time. This was in line with the previous study of (Abaker et al., 2018) revealed that the practices that are fundamental and generally institutionalized in the elements of HRM to actualize the human asset rehearses incorporate the performance appraisal, job analysis, HR planning, recruitment and selection, remuneration and labor relations.

AMO (Ability, Motivation and Opportunities) Theory clarifies that successful training is vital and great professional advancement openings are fundamental to guarantee a decent HRM practice to be started in an organization. One of the human assets the board rehearses, that is the preparation and the advancement of the employees will give the organizations the devotion of the representatives that helps in the decrease of the employee turnover (Glebbeek and Bax, 2004). The practices of HRM of training and improvement of the representatives help these sorts of experienced employees who are valuable to the organization with their encounters just as bits of knowledge (Stone and Deadrick, 2015). **H3:** The performance appraisal system has a significant impact on employee retention in the food and beverage industry in Qatar.

Table 13: Relationship between Performance Appraisal System and Employee Retention

	Performance Appraisal System	Employee Retention
Performance appraisal system	1	.630**
Employee retention	.630**	1

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

The performance appraisal system maintains the employee retention rate. It also has a role in shaping employment relationships. If the value of the performance appraisal system is 1 then the employee retention is 0.630**. When the value of employee retention is 1 then the performance appraisal system is 0.630**. **. Represents the correlation is significant at the 0.01 level (2-tailed).

Table 14: Association between Performance Appraisal System and Employee Retention

Model	Unstandardized Coefficients		R Square	F Value	P-Value
	B	Std. Error			
(Constant)	.248	.351	.397	21.697	.000**
Performance appraisal system	.829	.178			

a. Dependent Variable: Employee retention

The unstandardized Coefficients for the constant the value of unstandardized beta (B) is 0.248 and the standard error is 0.351. The unstandardized Coefficients for the performance appraisal system of unstandardized beta (B) is 0.829 and the standard error is 0.178. The value of R square is 0.397, 21.697 is the value of F and 0.000** is the value of p. The F&B industry provides an unacceptable working space and poor performance appraisal and initiative that prompts a tremendous measure of representatives being less happy with their activity profiles. This acquires the choice for them to leave their work. This turns into an immense matter of concern for the diverse business association working in this specific industry (Lasrado, 2018).

Table 15: Association between Reward System and Employee Retention

Model	Unstandardized Coefficients		R Square	F Value	P-Value
	B	Std. Error			
(Constant)	.186	.327	.450	26.981	.000**
Rewards	.866	.167			

a. Dependent Variable: Employee retention

The dependent variable in this table is employee retention. The unstandardized coefficient of the constant value of unstandardized beta (B) is 0.186 and the standard error is 0.327. The unstandardized coefficient of reward system the value of unstandardized beta (B) is 0.866 and standard error is 0.167. The value of R square is 0.450, 26.981 is the value of F and 0.000** is the value of p. The outcome contrasts with past investigations by Chew and Chan (2008) and Hong et al. (2012) that discovered that viable remuneration diminishes employee turnover and expands retention rate. Chew and Chan, (2008) utilized a Structural Equation Model to build up that compensation decidedly anticipated hierarchical responsibility and expectation to remain on work; Hong et al. (2012) utilized regression examination and discovered that there is an essentially positive connection between remuneration and retention. According to the terms of the Social Exchange Theory, representatives will respond if the correct sort of reward is provided to them and their execution is being perceived (Roloff, 2015). Another motivation behind why reward impacts retention is that employees who get great remuneration may feel that they are valued by the organization for their execution and commitments (Lai, 2011). They may then be persuaded to contribute more and remain with the association.

Table 16: Association between HR Recruitment Policy, Training and Development Program, Performance Appraisal System & Reward System, and Employee Retention

Model	Unstandardized Coefficients		R Square	F Value	P-Value
	B	Std. Error			
(Constant)	-.379	.351			
HR practices	-.091	.169			
Training and development program	.511	.196	.640	13.360	.000**
Rewards	.299	.201			
Performance appraisal system	.430	.176			
a. Dependent Variable: Employee retention					

The dependent variable for this table is employee retention. The unstandardized coefficient of the constant value of unstandardized beta (B) is -0.379 and the standard error is 0.351. The unstandardized coefficient of HR practices the value of unstandardized beta (B) is -0.091 and standard error is 0.169. The unstandardized coefficient of training and development program the value of unstandardized beta (B) is 0.511 and standard error is 0.196. The unstandardized coefficient of reward system the value of unstandardized beta (B) is 0.299 and standard error 0.201. The unstandardized coefficient of performance appraisal system the value of unstandardized beta (B) is 0.430 and standard error is 0.176. The value of R square is 0.640, 13.360 is the value of F and 0.000** is the value of p.

Discussion of Findings: The analysis helps analyze the employee retention of the organizations. The data analysis has comprised reliability statistics which helped in building reliable measurement scales. Cronbach's Alpha has been used in determining internal consistency which is .700 of 22 items. It represented an acceptable and good value. The frequency factors result from various factors like gender, experience with the current organization and factors contributing to the happy work environment. The gender statistics revealed that there are more males in the organization compared to females. The experience with the current organization revealed that more new employees in the organization have spent less than one year in comparison to the males having experience of more than five years. It reveals that the retention rate is low in the F&B industry of Qatar. The lower employee retention is faced due to the fewer promotions taking place in the industry. The struggle is faced for the factors contributing to the happy work environment in the F&B industry of Qatar. The aim towards achieving at work comprised factors like extra rewards, benefits and a healthy environment to work in the industry is aiming to provide extra benefits but lacks in maintaining the healthy working environment.

The goal of employees in the F&B industry is having the aim to search for other companies which can showcase the skills in a better way. The employees are likely to remain in the organization for less time. The major reason identified for leaving the organization by the employees is lack of growth opportunities. As a part of the factor analysis, KMO and Bartlett's test represented the higher value which demonstrated the need for the remedial actions to be taken. The hypotheses testing comprised relationship and association between HR practices and employee retention. The training and development program affects employee retention and represents the significant correlation at the 0.01 level. The relationship between performance appraisal and employee retention also represents a significant correlation at the 0.01 level. In summary, employee satisfaction has a role in employee retention. Employee satisfaction can be attained from promotions, incentives, rewards, training and more. This chapter analyzed the data to understand the factors behind the employees' retention. The frequency statistics, factor analysis, reliability test and hypotheses testing are used to find the significance of the retention of the employees.

5. Summary, Conclusion and Policy Recommendations

Summary and Conclusion: HR management practices are very much essential in modern-day business. HRM practices towards employee retention, HR recruitment, performance, appraisal system need to be designed strategically. Reward systems influence the overall employee retention program. Relationships, performance appraisal, training and development, reward system between employee retention are very high. It is evident from the above analysis results. The following are the conclusions obtained in this study. Initially, the conclusion of the study indicates the fact that HR Recruitment policy, Training, and development program, Performance appraisal system; Reward system are important and indeed influence employee retention in the F&Bf industry in Qatar. Then, this study gives proof that the reason for employees leaving the organization is because of the lack of growth opportunities in their current job. In addition to this, poor communication, improper promotional activities, misalignment of culture and value system, feeling undervalued, discrimination/bias from the management.

Lack of inclusion, lack of support from line managers, insufficient rewards, recognition, and benefits, lack of decision-making ability, employee welfare, work-life imbalance and regular changes in job responsibilities. Further, the study noticed that the employees have some goals include willingness to search for some other companies where they can showcase their skills better, employees are willing to become a leader after a certain number of years of experience, some employees prefer to remain in the organization for a longer time, they are willing to lead other members and guide them in a critical situation. Another conclusion drawn from the study is that the majority of the employees aim to achieve at work because of extra rewards and benefits provided by the organization. Additionally, they prefer social recognition, appreciation, promotion, experience and effective top management support. Although it is evident that some factors contribute to a happy work environment which includes clear promotional goals, opportunities for growth, transparency in the workplace, support from leaders and workplace environment.

Implications and Recommendations: The study findings comprise a few useful implications for organizations and practitioners similarly. This mainly helps the organization to insight on how they will enhance their employee retention approach. Likewise, this study has a few important lessons for the practitioners of HRM and gives effective answers for the employee turnover problems. First of all, F&B industries facing retention problems could be among other things, HRM practices such as HR recruitment policy, training and development program, performance appraisal system; reward system as part of their mitigation measures. The reason behind this is such practice was proved to give a positive impact on retention and so necessary HRM instruments. Such HRM practices should not be used extensively instead, a correct determination of the requirement of the employee particularly people at various levels should be done first to initiate the appropriate practices for assisting their strategic management. Secondly, the types of HRM practices introduced by organizations should differ periodically. This is due to the employees' requirement for HR could eventually get modified.

Therefore, if the given practice continued for some time, then its effectiveness would evade and so not accomplish the deliberated reasons. Thirdly, organizations in the food and beverage industry of Qatar should understand that employee's benefits and wages are essential for retaining employees. Thus, the organizations should try out and find other modern functions of HRM like employee engagement and work-life balance which can retain and attract the employees instead of using the conventional ones only. Further, the HR managers should create a useful retention program so that the employee satisfaction and best performance of more caliber employees are sustained. In addition, it offers F&B industries repeated pursuing of practices for supporting their employees to retain and provide them with an impulse on their competitors. In addition, training gives the employees veritable opportunities to produce superior work. It also looks like there are insufficient career advisers or mentorship to direct the employees regarding the selection of accurate careers. It does not matter that how many opportunities are available in the market.

But there should be mentorship and direction in respect of how they follow their career else employees might get frustrated about the job and choose to quit. Thus, food and beverage industries must intensify or introduce mentorship programs to make the employee clear with the idea regarding the ways to develop in their careers. Consequently, the current study gives certain necessary recommendations as follows: HR

managers must seek a comprehensive need analysis for future implementation of any innovative HRM practices on employee's retention. In this regard, the company must engage all employees in the policymaking process. This will bring new ideas to come up in the industry. Innovative practices must be justified by the laws and guidelines present in the country. HR managers need to understand their employee's views about their present organization and based on which they need to give proper motivation and training to retain them. This is possible when the company brings the most suitable communicational process into the HR management system. This will ensure that everyone will have their say in the process design and the way policies are made within the organization. This is a key to motivation as they understand that company also thinks about them. HR managers need to consider rewards and benefits for employees.

Further promotion and appreciation need to be given based on their performance in the job this would help the organization to retain its employees. Rewards and benefits must be provided according to the country's guidelines and at the same time, they must be provided as per the capacity of the organization. There must be universal within each department for giving rewards and benefits. There must be the use of a performance evaluation system that helps them to evaluate every individual's performance in a better manner so that no feeling of partiality comes into the minds of people. There must be the use of pre-defined metrics that could help in distributing the rewards and appreciation in a better way so that higher employee retention can be ensured. However, compensation has a major part in the employee's life but the employees were suggested not to interpret since it has been the only foundation to retain the employees within the other things, deserving compensation should be given to the employees. Indeed, their productivity, qualifications, and experiences should be appropriate with the compensation they get. The company must design effective compensation plans that are elaborated with common policies which apply to all the employees irrespective of their position. In the future, the company must ensure that they distribute compensations promptly. Social recognition needs to be given at the appropriate time.

In modern-day HR management practices, this has a greater role in employee retention as people think that their higher needs are being addressed. Social recognition needs to be given higher importance when it comes to motivating people. In addition, efficient top management support has been preferred by employees in general. Support in the areas such as helping them in achieving their personal goals as well as managing their work-life balance. Along with this, top management support is also required in the areas such as building leadership skills. Personal development of any employee helps them in grabbing opportunities that are available in the organization and hence ensures retention. Training and development are the basics of HRM and the significance of employees with great skills and knowledge can never be overlooked. Training and development certainly have a significant part in every organization and it has been considered as the main strength for executing the strategies. Moreover, it is essential to strengthen and nurture the employee's competencies. It is also recommended that in the future there must be an effective use of technology in the process of HR management. This is essential as sometimes in the larger organization mistakes can happen due to human flaws. This demotivates people and often led to conflict. In the future, the nature of the job is going to get complex.

In such an environment, HR managers must appropriately design the job roles. This is not only necessary for increasing the motivational level of the employees that they must stay in the company but it also ensures higher performance from the side of the employees. This is supported by the practice where HR must give importance to the fact that employees can perform better when they get job roles that are suitable to them hence HR managers should understand employees' interests and then make recruitment and selection accordingly. In the future, there will be a reduction in the number of jobs being available within the organization. This is because there is an increase in the use of technology which is removing people out of the organization. This is demotivating people and they are searching for safer jobs. This is the major reason why job retention in the unorganized sector is increasing and for resolving it skill development programs need to be conducted by the company which ensures that their skills are being developed as per the requirement of the skills. This study mainly gives the evidence that employee engagement and work-life balance problems as HRM practices may expect retention of the employee. Such modern HRM practices were getting more important and famous for application in the workplace.

Another important contribution to knowledge is that the study also illustrates that the F&B industry in Qatar needs to introduce new HRM practices if they are to retain their valued employees and remain competitive. Besides giving both practical and theoretical solutions regarding how to handle the crucial management problems of employee retention, the study even links the interval in the literature over the impact of HRM practices on the retention of the employee in the F&B industry, Qatar. Additionally, it functions as secondary data for future researchers and allusion for upcoming studies. Moreover, certain expansions in the present study might give an understanding of necessary problems of employee retention. The following are some of the recommendations for upcoming studies: Initially, because of the significance of HR, the research about HRM practices and their impacts on it employee retention became an important field. But the studies were mostly performed in the western world which requires the present study. Thus, more empirical studies are encouraged. In Qatar, the study was delimited to F&B industries because of time limitations.

Thus, in the future, the new researchers should study different industries to give a more comprehensive influence, of HRM practices on employee's retention in other industries. Researchers should concentrate on the developments in different industries and take the help of the experts from that industry to gain data that helps understand the practices of the employees. This study also significantly used quantitative techniques. So, further studies should use mixed techniques i.e. qualitative and quantitative techniques in uncovering the specific influences of the various HRM practices on employee's retention, specifically from the point of view of the food and beverage industry's HR managers in Qatar. This kind of research may even provoke secondary data for computing the rate of retention to get the appropriate retention image. A mixture of techniques will help the organizations to ensure that their results are according to the problems for which research has been conducted. This mixture of research methodologies will help in giving exact results in all the industries but it all depends on the type of data being collected by the researchers. The primary limitation of this study is that it cannot be applied universally to all industries.

It is not a totalizing theorization that shall hold relevance for any kind of industry. However, it can provide quite accurate insights regarding the HR practices on employee retention within the food and beverage industry. Another problem that arises in this aspect is that there are times when certain nuances under the domain of HRM cannot be empirically determined. Since it is a domain concerning human relationships there are a lot of personal and informal factors involved which cannot be effectively understood while conducting research (Kavanagh and Johnson, 2017). Employee retention, turnover etcetera is motivated to a large extent by these personal factors which cannot be studied on theoretical terms. This implies that how human interactions occur within the workplace is fluid. An overly mechanistic or rational analysis of the problem of retention might not always hold in practical contexts. Moreover, in the age of globalization where workforces have become multicultural, theories on race, gender and society have to be integrated with studies in HR (Brewster et al., 2016). Since such a comprehensive study is beyond the scope of this project, it has to be left out of my purview.

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Dragon Meets Camel: An Exploration of China's Engagement with Eritrea

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Abstract: Over the past several decades, the People's Republic of China's engagement with African countries has grown tremendously. China has emerged as Africa's largest trading partner, while Chinese investment and lending to African countries has grown rapidly. In Eritrea, a young, developing country located in the Horn of Africa, Chinese involvement has also considerably increased in recent years. However, although there has been extensive study of China's partnerships across the continent, very little work has been dedicated to examining its ties with Eritrea. What are the history and current scale of involvement? What has been the impact of this engagement on Eritrean society? What are locals' overall perceptions about the relationship or about China more generally? Utilizing a mix of qualitative research methods, including surveys, the current paper explores China's engagement with Eritrea, adding to the voluminous, ever-growing body of literature and helping to diversify and deepen understanding of this important topic. Additionally, although various narratives about the China-Africa relationship have arisen, often led and framed by non-Africans, the present study broadens the discussion by offering local, African perspectives on China-Africa links. Engagement and cooperation between China and Eritrea are longstanding and extend to numerous areas, driven by a range of interests, while local perceptions are quite nuanced and largely consistent with many cross-national studies.

Keywords: *Africa; China; Development; Economy; Eritrea; Investment; Politics; Trade*

1. Introduction

Over the past several decades, the People's Republic of China's (PRC, hereafter China) engagement with African countries has grown tremendously. China has emerged as Africa's largest trading partner, while Chinese investment in and lending to African countries has also grown rapidly. Across trade, investment, infrastructure financing, and aid, no other country have such depth and breadth of engagement in Africa (China State Council, 2021; Dollar, 2016; Sun, Jayaram, and Kassiri, 2017; Stein and Uddhammar, 2021). The relationship has also broadened to reach into an array of other sectors, including culture, digital infrastructure and technology, military and security, and health cooperation (Benabdallah, 2016; China Foresight, 2021; China State Council, 2021; Tugendhat and Voo, 2021; King, 2019). A myriad of intertwined factors has driven and shaped China-Africa engagement.

For China, African countries help it to meet its strategic need for natural resources, offer new potential markets and an opportunity to support the restructuring of its own economy, and represent a key support bloc for its "One-China Principle" and foreign policy agendas in international organizations.[i] On the other hand, for many African countries, China offers the benefit of unconditional loans and access to capital, while greater Chinese engagement has often been associated with better economic performance and growth, helped address critical infrastructure and development gaps, and presented important other economic opportunities (Calabrese and Tang, 2020; Cooke et al., 2015; Sun, 2014; Sun et al., 2017; Tull, 2006).[ii] However, the considerable growth and deepening of China's activity in Africa have not unfolded completely without criticism or controversy. There have been concerns raised about an impending debt crisis and "debt-trap diplomacy," which have received push back and are regarded as overly simplified or lacking nuance (Brautigam, 2009; 2019a; 2019b; Eom, Brautigam, and Benabdallah, 2018; Jones and Hameiri, 2020; Ryder and Fu, 2021; Shaomin and Jiang, 2020). Moreover, China's engagement across the continent has at times been described as exploitative or neocolonial and frequently criticized for a lack of transparency.

A failure to promote good governance or human rights, and poor labor and environmental practices (Brautigam et al., 2017; Dollar, 2016; Raine, 2009). In 2011, Hillary Clinton, then US Secretary of State, warned about the "new colonialism" by China in Africa (Quinn, 2011), while at a 2018 policy briefing, then US National Security Adviser John Bolton condemned China's activities in Africa, alleging that, "China uses bribes, opaque agreements, and the strategic use of debt to hold states in Africa captive to Beijing's wishes and demands" (Gearan, 2018). Africans, too, have at times expressed strong opposition to and critiques of China's

growing activities on the continent (Hanauer and Morris, 2014; Polgreen and French, 2007).[iii] At the same time, although many portrayals of China's engagement across the continent tend to be negative and highly critical, findings from numerous empirical studies and public opinion surveys suggest the situation is much more nuanced, with Africans' attitudes about China being variegated, complex, and often actually quite positive (Afrobarometer, 2016; 2020; 2021; Dollar, 2016; Pew Research Center, 2019; Rebol, 2010; Sautman and Hairong, 2009). In Eritrea, a young, developing country located in the Horn of Africa, Chinese involvement and cooperation have considerably increased in recent years.

Yet, while there has been extensive study of China's partnerships across much of the rest of the continent, relatively, little is known about its engagement with Eritrea. What are the general history and current scale of involvement? What has been the impact of this engagement on Eritrean society? What are locals' overall perceptions about the relationship or about China more broadly? Utilizing a mix of qualitative research methods, including surveys, this paper explores China's engagement with Eritrea, adding to the voluminous, ever-growing body of literature on China-Africa relations and helping to diversify and deepen understanding of this important topic. Furthermore, while various narratives have emerged about the China-Africa relationship, for the most part, led and framed by non-Africans, the present study broadens the discussion by providing local, African perspectives on China-Africa links. As the first study dealing with the topic in Eritrea, the present paper also represents an important starting contribution and serves as a useful foundation for future research. The outline of the rest of the paper is as follows. In the next section, a general overview of the literature is provided, followed by a review of the methods. Subsequently, the results and discussion are presented. The last section concludes and raises several recommendations for future study.

2. Literature Review

Historical Background: China's engagement with Africa is not new, dating back centuries and spanning a number of ancient dynasties (Jinyuan, 1984; Peterson, 1994). However, its modern ties with Africa can be traced back to the earliest years of African independence in the 1950s and 1960s. In 1956, Egypt became the first African country to establish diplomatic relations with China. Many other African countries quickly followed suit, and in the mid-1960s then Chinese Premier Zhou Enlai paid official visits to 11 countries in Africa. For the most part, China's role at the time was ideologically motivated and included support for national liberation movements, various forms of humanitarian assistance, and direct state-to-state aid. Of note, this support was extended despite China's own limited wealth and challenging economic circumstances.[iv] Another important factor underlying China's assistance to African countries was its attempt to secure diplomatic recognition for the PRC over Taiwan (Republic of China) at the United Nations (UN). China rewarded countries that sided with Beijing instead of Taipei.

When UN member states voted to recognize China during the 26th session of the UN General Assembly in October of 1971, 26 of the 76 votes came from African nations (FMPRC, 2004; Snow, 1989; Sun et al., 2017; Taylor, 1998). In response, Chairman Mao is purported to have said, "We were brought back into the United Nations by our black African friends" (Li, 2007: 78). Over the next several decades, due to a combination of factors, including poor overall results and prospects across the continent, limited funds, internal developments, and the prioritization of domestic reform and economic progress, China considerably scaled back its aid and general outreach to Africa. The continent's importance to China was additionally marginalized as Chinese tensions with the Soviet Union and the USA were decreasing, and China slowly began opening up to the rest of the world. China's influence and interest in Africa also waned as many African leaders sought to maintain a non-aligned position (Brautigam, 1998; Shinn and Eisenman, 2012: 45; Taylor, 1998: 443-44; Taylor, 2010). Chinese interest in Africa was reignited by the fallout of the Tiananmen Square protests in June 1989, when many African leaders supported Beijing in the face of intense criticism by the West.

The large student-led protests, which carried on for weeks and were mainly centered on calling for democracy, free speech, and freedom of the press in China, were finally halted through the government's harsh, bloody crackdown, known as the Tiananmen Square Massacre, on June 4 and 5. The events sparked an international outcry and condemnations. The UN Secretary-General raised concerns with the Chinese ambassador, while many states, particularly from the West, condemned the crackdown and imposed

economic sanctions and arms embargoes against China. Less than a month after the massacre, the United States Congress voted to impose economic sanctions against China, citing human rights violations. Facing international isolation, sanctions, and a tarnished global image, China remembered Africa was a useful support constituency if and when it was in dispute with other global actors, and also as a site where Beijing could continue to marginalize Taiwan. In addition, as Africa's economic reform programs started gaining momentum in the 1990s, the continent quickly regained prominence in China's overall foreign policy, and China began to increase political cooperation and strengthen economic ties with African countries (Sun, 2014; Taylor, 1998; 2004; 2006).

In 2000, the Forum on China-Africa Cooperation (FOCAC) was established, helping to strengthen China's links with Africa and advance them to a higher level. Since its establishment, FOCAC, which convenes triennially and alternates host sites between China and Africa, has become an important high-level platform for dialogue between China and Africa and an effective mechanism to promote stronger trade and investment relations between China and African countries in both the government and private sectors. Later, in 2013, Chinese President Xi Jinping launched the Belt and Road Initiative (BRI), a vast network of transportation, energy, and telecommunications infrastructure linking Europe, Africa, and Asia. The multi-billion-dollar initiative has created new policies and funding to deepen investment, infrastructure, and trade ties between China and Africa (China Policy Paper, 2015; China State Council, 2021; Hurley, Morris, and Portelance, 2018). Today, China has become Africa's most important economic partner. It is the continent's leading trading partner (eclipsing the US in 2009 and remaining Africa's top partner every year since), while Chinese investment in and lending to African countries has grown rapidly. According to the China Africa Research Initiative (CARI), a leading global source of aggregated data on China-Africa economic relations, in 2019 the total volume of Africa-China trade was approximately US$192 billion, a massive jump from 1992.

When it was about US$1.75 billion (CARI, 2022). More recent figures, available from the UN Comtrade database and official Chinese sources, show that the volume of China-Africa trade was about US$187 billion in 2020, and in 2021, just for the period spanning January to September, it was about US$185.2 - representing a year-on-year record (China State Council, 2021; UN Comtrade, 2022). In a similar fashion, Chinese foreign direct investment (FDI) surged from approximately US$75 million in 2003 to about US$4.2 billion in 2020, while between 2013 and 2018; nearly 45 percent of China's total global foreign aid expenditure went to Africa, mainly in the form of grants, interest-free loans, and concessional loans. In total, between 2000 and 2019, it is estimated that Chinese financiers signed 1,141 loan commitments worth US$153 billion with African governments and state-owned enterprises (CARI, 2022; China State Council, 2021).[v] Importantly, Chinese assistance has extended to helping address Africa's critical infrastructure gap, particularly through supporting the building or renovation of countless dams, stadia, bridges, hotels, roads, railways, airports, ports, telecommunications networks, hospitals and health facilities, schools, and other infrastructure.

From 2000 to 2020, China helped African countries build more than 13,000 kilometers of roads and railways and more than 80 large-scale power facilities, and it funded over 130 medical facilities, 45 sports venues, and over 170 schools (China State Council, 2021). Additionally, education and health have been areas of focus, with China providing African countries with thousands of scholarships and short-term training opportunities to African students, as well as billions of dollars for health projects, facilities, equipment, and programs. Over a period of several decades, numerous Chinese medical teams have volunteered across the continent, providing important, often life-saving, services and training to locals (China State Council, 2021; Chen et al., 2019; Lin et al., 2016) (Figures 1-4 Here).

In early 2020, following the emergence of the coronavirus disease (COVID-19) global pandemic,[vi] China was quick to step in with substantial aid and support to African nations.[vii] The Chinese government, alongside private companies and individuals, donated masks, testing kits, face shields, respirators, protective suits, and other medical equipment critically needed to fight the spread of COVID-19. Additionally, China provided extensive prevention and control support to various organs of the African Union (AU), deployed medical teams to the continent to offer help and train locals, and organized video conferences to share valuable COVID-19 response experiences (China State Council, 2021; Nantulya, 2021; Shurkin, Noyes, and Adgie, 2021). In June 2020, the "Extraordinary China-Africa Summit on Solidarity against COVID-19" was held, making China the only major country that convened a summit with countries across Africa in 2020 (Xinhua,

2020). After a vaccine for COVID-19 was eventually developed, China began supplying vaccines to dozens of African countries, while declaring its commitment to the local production of vaccines on the continent. Significantly, with Africa confronted by substantial social, economic, and other challenges, leading to the region's first recession in 25 years (AfDB, 2021a; World Bank, 2021a), a lot of Chinese-financed and supported projects across the continent maintained operation.

While China also extended a number of African countries' considerable debt restructuring or cancellations. China has additionally committed to reinforcing economic relations with Africa after the pandemic, such as investments in the digital economy, boosting renewable energies, and expanding the 5G network (China State Council, 2021; Xinhua, 2020). As part of the 2021 FOCAC meeting in Senegal, President Xi Jinping also pledged to ramp up support by providing another billion doses of vaccines to African countries, as well as extend a range of financial support measures to African countries and financial institutions, from credit lines and trade financing to the allocation of special drawing rights from global institutions (FOCAC, 2021). In recent years, China has steadily expanded its peacekeeping, military, and security footprint across Africa. Since 2008, it has supported counterpiracy operations in the Gulf of Aden, while Chinese peacekeepers and personnel have participated in various missions, including in the Central African Republic, the Democratic Republic of Congo (DRC), Liberia, Sierra Leone, South Sudan, Sudan, and Mali. In a September 2015 speech at the UN General Assembly, Chinese President Xi Jinping pledged to provide US$100 million to create an AU standby force (MFA, 2015). In August 2017, China opened its first overseas military base in Djibouti (with reports of plans for more);[viii] while in July 2019 Beijing hosted the first China-Africa Peace and Security Forum, bringing together nearly 100 security officials from 50 African countries and the AU.

Notably, China has developed direct defense and security cooperation with African counterparts, directs a significant part of its military assistance (e.g., funds, equipment, and training) towards sub-regional organizations, and is a major supplier of arms to African countries (Duchâtel, Gowan, and Rapnouil, 2016; Large, 2016; Taylor, 2004; Zürcher, 2019). There have also been increasing reports in recent years of Chinese plans to establish a permanent military installation on Africa's Atlantic coast, possibly in the small Central African country of Equatorial Guinea (Phillips, 2021; The Economist, 2021). China's growing military and security engagement and presence on the continent are driven by a number of factors. While Western donors and international financial institutions tend to condition support on democracy. These include advancing its foreign policy goals and safeguarding its substantial and growing economic interests and investments, protecting Chinese citizens, strengthening multilateralism and the UN system, promoting stability, enhancing its reputation as a benevolent rising superpower actively engaged within the UN system, extending its diplomatic influence and soft power, training its personnel and acquiring much-needed skills or experience, and testing new military equipment (Benabdallah, 2020; Cabestan, 2018; Duchâtel et al., 2016; Fleurant et al., 2016; Zürcher, 2019).[ix]

Issues within the China-Africa Relationship: For many African countries, China is an attractive partner due to its explicit "non-interference" principle, which offers them greater policy space and allows them to maintain, sovereignty over their development strategy. While Western donors and international financial institutions tend to condition support on democracy, human rights, economic liberalism, and good governance,[x] China extends loans, grants, investment, and other assistance with interest rates significantly below market value, no political strings, and a pledge not to interfere in their internal affairs (Alden, 2007: 44; Brautigam, 2011; Breslin, 2007: 2; Naidu and Davies, 2006: 80; Obiorah, 2007; Regilme Jr. and Hodzi, 2021). However, there is also some empirical evidence indicating that China may similarly condition its assistance to Africa on support for its foreign policy objectives, such as voting at the UN and its "One-China Principle" (Dreher et al., 2018; Dreher and Fuchs, 2015; Strüver, 2016). Furthermore, for many African countries, China, as a formerly poor, mostly agrarian country that has experienced foreign invasion, plunder, and enslavement by foreign powers before later going on to achieve rapid economic growth.

Massive poverty reduction, and development, represent a viable and attractive model (Cabestan, 2012; Hodzi, 2018).[xi] In 2008, former Senegalese President Abdoulaye Wade made this point, stating that, "The Chinese model has much to teach Africa" (Wade, 2008), while in 2018, during his opening address at the FOCAC summit in Beijing, South African President Cyril Ramaphosa explained that, "There are many valuable lessons that Africa can learn from China's impressive growth model and its approach to meeting the needs of its

people" (RSA, 2018). Many other leaders, officials, and notable figures from across the continent have expressed similar views (Shangwe, 2017; The Economist, 2010). One persistent criticism of Chinese engagement in Africa has been that many projects built on the continent overwhelmingly rely on Chinese labor or resources, and fail to encourage local linkages (Alden, 2007; Cabestan, 2012; Corkin, 2012; Rocha, 2007). The reality, however, is more complicated, with much empirical work demonstrating that Chinese engagement can contribute to job creation, skills development, and technology and knowledge transfer (Brautigam, 2015; Brautigam et al., 2017; Calabrese and Tang, 2020; Chen et al., 2016; Sun et al., 2017; Tang, 2016).[xii] Moreover, it is well to recall that some local African companies often lack the capacity for large projects.

While both local and Chinese officials frequently point to Chinese firms' cost-effectiveness, administrative efficiency, and speed of delivery (Sun et al., 2017). Another topic of controversy has been the influx of Chinese exports into African markets, with critics claiming that it overwhelms local producers with large volumes of cheap products that are difficult to compete with (Taylor, 2010: 192; Warmerdam and Van Dijk, 2016; Waweru, 2021). For instance, in the past, South African trade unions claimed imports from China closed more than 800 companies in their country and left 60,000 workers unemployed (Alden, 2007), while Edwards and Jenkins (2015a; 2015b) found that increased Chinese import penetration into African markets significantly reduced South Africa's regional exports by 20 percent, manufacturing output by 5 percent, and manufacturing employment by 8 percent. Interestingly, in a study of the period from 1995 to 2005, Giovannetti and Sanfilippo (2016) also found that Chinese exports crowd-out African manufacturers not just locally, but in third markets as well. However, some points are worth bearing in mind. In particular, Africans are themselves actively facilitating the penetration of Africa by Chinese-manufactured products, and it is the failure of African economies to industrialize and develop that means they produce very few processed goods and are thus a natural target for Chinese exporters (Taylor, 2010: 192-93).

As well, the influx of Chinese products has benefited African consumers by allowing them to access new products and services that were previously unaffordable or inaccessible (Haroz, 2011; Sigalla, 2014; Zafar, 2007).[xiii] Another topic of concern and controversy has been China's longstanding engagement with corrupt, authoritarian governments (e.g., Angola, DRC, Sudan, and Zimbabwe). Through supporting weak, authoritarian, and repressive governments, it is alleged that China helps these regimes stay in power and gain legitimacy, while also potentially undermining long-term stability in those countries (Alden, 2007: 66; Taylor, 2010: 192).[xiv] In addition, there have been instances of environmental violations by Chinese-owned businesses, as well as illegal extraction of natural resources, including timber and fish (Lemos and Ribeiro, 2007; Lyman, 2006; Sun et al., 2017). Chinese firms and projects have also been accused of poor or unsafe working conditions, low wages, abuse, and exploitative practices (IHLO, 2006; McGreal, 2007; Tang, 2016).[xv] Finally, while portrayals of China's engagement across the continent are often negative or highly critical, many studies and public opinion surveys have suggested that Africans' attitudes.

About China are variegated, complex, and often positive (Afrobarometer, 2016; 2020; 2021; Dollar, 2016; Pew Research Center, 2019; Rebol, 2010; Sautman and Hairong, 2009). Notably, during the COVID-19 pandemic, anti-Chinese maltreatment and discrimination broke out in many African countries, which were mirrored by anti-African sentiment, discrimination, racism, and harassment in parts of China (Asiedu and Kazeem, 2020; HRW, 2020). Overall, although there has been considerable coverage and extensive study of China's engagement across Africa, increasing understanding of this important topic, to date there have been no studies exploring relations between China and Eritrea. The present study thus helps to fill the void, providing a broad review of China's engagement in Eritrea and also offering insight into locals' general perceptions of the relationship and about China more generally. In the following section, an overview of the methods is presented.

3. Method

The present study relied on a variety of methods. Data were collected through a comprehensive review of the general literature and an examination of numerous materials collected from an assortment of sources (e.g., regional or global institutions, non-governmental organizations, government offices and ministries, etc.), public open-access databases, and various secondary data sources (Snyder, 2019; Vartanian, 2011). Some of

the documents and materials examined include books, datasets, general reports and reviews, websites, newsletters and newspapers, press releases or statements, government publications, and countless articles in leading academic journals available from electronic academic databases (e.g., EBSCO, Lexis-Nexis, JSTOR, etc.) or general online searches (to ensure breadth and include relevant information, resources, and knowledge not always indexed in academic databases). As well, between August 2018 and June 2021, in-depth, semi-structured interviews were conducted with key informants from across the country. Key informants, selected through convenience and snowball sampling techniques, were from educational institutions, various ministries, and local and international organizations or businesses, and possessed first-hand knowledge and experience, deep understanding, and key insights about different aspects of China-Eritrea history and engagement. The wide array of sources helps provide a diversity of views and perspectives, ultimately broadening and enriching understanding of the topic (Flick, 2018).

In-depth, semi-structured interviews are effective in providing rich data and particularly useful since the research topic under investigation retained many exploratory features. Furthermore, open-ended questions offered respondents an opportunity to organize responses within their framework, thus potentially increasing the validity of responses and promoting understanding. While the interviews and questions were semi-structured, they involved many follow-up queries and creative locutions (such as, "why" and "what else") to further probe issues of merit or pursue clarity (Hammer and Wildavsky, 1989; Morris, 2015). All interviews began after obtaining verbal consent and were generally conducted in person or by telephone. Conversations lasted between one and two hours and were conducted in either Tigrinya or English (which are two of Eritrea's three national working languages). During all interviews, handwritten notes were taken, with transcription conducted shortly afterward, often the same day, to reduce errors and ensure a high degree of accuracy and detail (Newing, 2011). Additionally, utilizing anonymous survey questionnaires, data was collected from 237 students (mean age 21.83, SD 2.74) from a large college in Eritrea. Students were selected randomly from an enrolment list provided by the college and written consent was obtained from all respondents before distribution. The questionnaire was guided and informed by past surveys conducted by Afrobarobeter.

A non-partisan, pan-African research institution that has carried out numerous public attitude surveys on a range of topics in many African countries, including local perceptions about China (Afrobarometer, 2016; 2020; 2021). Inter alia, the questionnaire covered demographic characteristics, as well as explored respondents' general perceptions about China and its engagement in the country. Finally, the paper is also guided by numerous informal conversations and several focus group discussions. Notably, focus groups are practical and effective as they can reveal "how several people work out a common view or the range of views, about some topic" (Fielding, 1993: 141). Moreover, the utilization of focus groups helps to stimulate fruitful discussion and bring to the surface locals' responses and perspectives about China that otherwise might lay dormant. For example, participants, based on engaging with others, may be able to articulate more clearly their thoughts or views than they otherwise might if alone (Babbie, 2007: 308). Data analysis is based on data triangulation: obtaining, comparing, and contrasting evidence from a wide range of data sources. Relying on multiple sources of data allows for the convergence of various lines of inquiry and strengthens validity (Bieri, 2010; Creswell and Miller, 2000: 126; Yin, 2003), and is important in gaining cumulative insights and acquiring a broader, richer perspective of China-Eritrea engagement.

4. Results and Discussion

General Background: After waging one of Africa's longest and most destructive liberation wars of the 1900s, Eritrea won its independence in 1991 (de jure in 1993). Possessing a long coast on the Red Sea, the country shares land borders with Djibouti, Ethiopia, and Sudan. Eritrea has an area of approximately 117,600 square kilometers and is divided into six main political administrative regions (locally called "*zobas*", these individually vary in terms of size, population, and socio-economic conditions). The population of Eritrea is approximately 3.5 million, which is distributed between nine separate ethnolinguistic groups and split almost evenly between Christianity and Islam (with each representing nearly half of the population). Eritrea's per-capita gross domestic product (GDP) is approximately US$626 (at current prices), while the economy is largely based on subsistence rainfed agriculture and pastoralism. These sectors constitute between one-quarter and one-third of GDP, although in recent years, mining copper, gold, iron ore, nickel, silica, sulfur,

marble, granite, potash, and tin) has emerged as an increasingly significant sector (AfDB, 2021b; IFAD, 2021; IMF, 2021; World Bank, 2021b). (Image 1 Here)

Despite its relatively modest resources, Eritrea is one of the few countries that entered the UN Sustainable Development Goals period having achieved most of the UN Millennium Development Goals targets related to health (Ministry of Health and UNDP, 2014; Pose and Samuels, 2011; UN Eritrea, 2017; WHO, 2018). At the same time, although these developments reflect considerable progress and improvements, the country continues to be confronted by a myriad of significant issues, including regional conflict and instability, an extended period under international sanctions; poverty reduction, socio-political challenges, emigration, climatic shocks, erratic rainfall and the potential for severe, recurrent drought, infrastructure development, food and nutrition insecurity; a shortage of skilled labor; and macroeconomic imbalances (AfDB, 2021b; IFAD, 2021; Ministry of Health and UNDP, 2014; Pose and Samuels, 2011; UN Eritrea, 2017; World Bank, 2021b).

Historical Overview: China's relationship with Eritrea is not a new or recent one; it stretches back almost 2,000 years, to as early as about 100AD, involving maritime trade and commercial activities, as well as the dispatch of emissaries (Bing and Dashu, 2018; Li, 2005; 2012).[xvi] However, contemporary ties can be traced back to Eritrea's long struggle for independence from Ethiopia. China gave a small load of rifles to the Eritrean Liberation Front (ELF) in 1966; while a small number of Eritrean independence fighters were also sent to study and train in China.[xvii] The earliest group of fighters sent to China included Isaias Afwerki, a key figure throughout the country's independence struggle and the country's current president. Having successfully navigated a long revolutionary struggle, China was also a source of useful insights, ideas, lessons, and encouragement for the growing independence movement in Eritrea. For example, the fighters drew insights and lessons from Chairman Mao's principles of guerrilla warfare and peasant-based social revolution.

As well, translations of Maoist texts reflected an adaptation of the tactics and strategies of the "People's War", while "criticism and self-criticism" sessions became an integral feature of units within the Eritrean People's Liberation Front (EPLF) (Iyob, 1997: 659). China's initial benevolence towards the Eritrean independence fighters was intended to exert pressure on Ethiopia, ruled by Emperor Haile Selassie, to diplomatically recognize the PRC and cease its opposition to China's admission to the UN. When these aims were eventually attained in 1970, the PRC quickly shifted to strengthening its relations with Ethiopia and rejecting further aid or support to the Eritreans (Markakis, 1988). After overthrowing Emperor Haile Selassie in September 1974, the Derg, Ethiopia's left-wing military junta, dispatched missions across the world, including to China, to stress the revolutionary character of the new regime, while at the same time branding Eritrea's independence movement as anti-progressive and reactionary. In 1976, China also sent 200 tons of light arms to the Ethiopian regime, which was preparing for a military solution to the longstanding Eritrea question (Ottaway and Ottaway, 1978: 176).

China's abandonment of Eritrea's cause and general support for Ethiopia (notwithstanding a strained relationship due to ideological differences and Ethiopia's close relationship to the USSR) meant that Eritreans no longer regarded them as a genuine ally or credible partner.[xviii] Relations between China and Eritrea would eventually recommence upon Eritrea's independence. The two countries established diplomatic relations on May 24, 1993, and China quickly opened an official embassy in the newly independent country. Months later, in September, Isaias Afewerki, the President of Eritrea, met with China's Minister of Foreign Affairs at the 48th UN conference. China and Eritrea also signed a deal on trade, economic, and technological cooperation, with China also agreeing to provide some military aid. Subsequently, in 1994, China extended a US$4.3 million interest-free loan to Eritrea, which in the aftermath of a long, extremely devastating war, was confronted by a massive need for reconstruction. Since then, Chinese engagement with Eritrea has steadily increased, extending into many different areas and sectors.

Health and Education: Among the most extensive and important areas of Chinese involvement in Eritrea have been the health and education sectors. Regarding the former, China helped to build and upgrade Eritrea's largest medical facility, the Orotta Hospital, which is located in the capital, Asmara. Opened in 2003 following three years of construction, the country's first fully-equipped, modern hospital was financed through a US$10 million interest-free loan from the Chinese government. Subsequently, China has also extended support for regular upgrades and expansions. In 2009, Eritrea's Ministry of Health and the Chinese

International Trade Engineering Design and Research Institute signed an agreement to construct a heart surgery room, physiotherapy and oxygen production facilities at the hospital, as well as to develop an underground pond with a capacity of 500 cubic meters of water and repair water pipelines and other facilities. In 2014, new cardiac and neurology facilities, worth approximately US$5 million, were also added. Furthermore, since 1997, well over 200 Chinese doctors and health professionals have provided free medical services and training (including on Chinese traditional medical practices) in the country. China has also donated significant amounts of medical equipment and medicines.

While a Chinese company built a pharmaceutical plant in Keren in 2003. Regarding education, China has supported the building and renovation of schools and universities across Eritrea. In 2010, a large college, located in Adi Keih, in the south of the country, was opened, with the Chinese government donating over US$10 million toward its construction. Another college, located near Asmara, was opened in 2017. Construction of the US$25 million projects, the largest ever Chinese aid package in the country, was led by the Chinese Civil Engineering Construction Corporation. That year also saw yet another college, north of the capital, constructed by a Chinese company. Alongside its support for developing institutions of higher learning, China has contributed to the building of elementary schools across the country, including the Erafaile Elementary School in Asmara, which was built at a cost of US$4 million and opened in 2014. Importantly, China has provided Eritreans with government-funded scholarships to study or train in China, as well as organized numerous training programs and exchanges for ministries, organizations, and public enterprises. The Chinese Embassy in Eritrea, too, has offered courses and workshops for locals. Finally, China has donated a substantial amount of educational resources, such as books, computers, printers, stationary materials, and other supplies.

Through its considerable and variegated assistance, China has played a positive, supportive role in some of the significant improvements in health and education in Eritrea. Notably, a large body of work from various settings around the world has demonstrated that improved, modernized, and better-equipped health facilities can raise the standard of care, strengthen health capacity, and promote positive outcomes (CGD, 2015; Datar, Mukherji, and Sood, 2007; Marrufob, 2007; WHO, OECD, and World Bank, 2018). Similarly, the construction of schools, improvement of infrastructure, and expansion of resources or learning materials can raise access and enrich educational experiences (Ahiakpor, Nunoo, and Alnaa, 2014; Glewwe and Jacoby, 1994; Handa, 2002; Lavy, 1996). Around two-thirds of the country's population lives in rural areas, with farming, animal herding, and fishing being the mainstay of livelihoods for a large percentage of the population. What is more, China's assistance to these sectors has augmented Eritrea's own efforts to strengthen its human capital development, which numerous empirical studies have often shown to be vital to socio-economic growth, productivity, and development (Bleakley, 2010; Haldar and Mallik, 2010; Krueger and Lindhal, 2001; Sweetland, 1996), while Chinese assistance to ministries and public enterprises helps improve productivity and efficiency.

Agriculture: Another area of considerable Chinese assistance to Eritrea has been agriculture. The Eritrean economy is largely based on subsistence agriculture and pastoralism, which constitutes approximately one-quarter and one-third of GDP. However, food security, low productivity, and archaic farming practices are significant challenges (AfDB, 2021b; IFAD, 2021; IMF, 2021; World Bank, 2021b). Within this context, Chinese cooperation has been important. In 1994, shortly after its formal independence, Eritrea borrowed US$3 million from China to purchase Chinese agricultural machinery. The debt was eventually canceled in 2003, as China extended Eritrea a grant for the same amount. During that year, which saw a regional draught, Eritrea also received 2000 metric tons of maize donated by the Chinese government. In 2010, China extended a US$6 million interest-free loan to Eritrea for food security development, while in July 2013, the Shanghai Corporation for Foreign Economic and Technological Cooperation (SFECO) began work on several agriculture-related projects: three cold food-storage facilities.

An aluminum-can manufacturing plant and a high-quality PVC drip-irrigation pipe production line. The projects were financed via a preferential loan of US$103 million to Eritrea from the Chinese government. As well, the Xinjiang Autonomous Region of China donated a solar power drip-irrigation project to Eritrea, which was completed by China's Tianye Company in 2015. Notably, a number of Chinese agricultural experts, in cooperation with national ministries and institutions in Eritrea, have regularly organized training workshops

in the country to promote modern cultivation techniques and improve productivity. China's assistance to Eritrea's agricultural sector has been important and useful, as it has helped it to overcome many constraints. In particular, Chinese support has aided the expansion of irrigation and improvement of productivity and food security, as well as contributed to the raising of incomes, poverty reduction, and economic growth. What is more, modernization and progress in the sector can help Eritrea to reduce its heavy dependence on the extractive sector as the main driver of the country's economic growth.

Infrastructure: Decades of war led to massive destruction in Eritrea, with buildings, roads, schools, and other structures destroyed. Against this backdrop, Chinese assistance and financing have been instrumental in addressing the country's massive infrastructure deficit. In 2005 and 2006, China's Export-Import Bank granted Eritrea loans of US$21.45 and US$23 million, respectively, to build infrastructure for fixed and mobile telephones and to improve the national telecommunications network. The projects, involving Zhongxing Technologies, a Chinese state-owned company, established and renovated facilities, greatly expanding network coverage, while China has also regularly donated communications equipment and technology. Additionally, in recent years China has made some contributions to Eritrea's efforts to develop its radio and television broadcasting capacity through donating equipment, offering several scholarships, organizing training programs and workshops, and making films and television programs available. China has also supported power generation in Eritrea, an area that has historically been insufficient. In 2018, a solar plant project was completed, financed by grants from the Chinese government, while in November 2017, a US$99 million project to upgrade and expand Eritrea's largest power plant, Hirgigo, located in Massawa, on the country's long Red Sea coast, was completed. Financing for the two-year project was provided by China's Export-Import Bank and construction work was contracted to SFECO.

Which implemented the project in close cooperation with the Eritrean Electric Corporation? The project added two 23-MW oil-fired power generators, supplied under contract by China-based Qingdaohaixi Marine Diesel, to the power plant, increasing the country's installed power capacity by about 60 percent. Another Chinese company, Shanghai Bluestar Cleaning Company, completed a US$130,000 contract to restore the power station's water desalination plant, where heavy scaling adversely affected the quality and output of water used for electricity generation. Additionally, in 2011, the Gedem Cement Plant was completed. Its establishment was financed by Chinese preferential loans totaling US$108 million, and the project was implemented by the China New Era International Engineering Corporation. Like it has done in other parts of Africa, China has helped construct roads in Eritrea. In the mid-1990s and early 2000s, several major roads projects were completed in Massawa and Asmara, with the works being led by China's Sichuan Road and Bridge Mining Company (SRBM). More recently, in early 2018, China extended a US$87 million loan to Eritrea for the construction of the 29km first phase of the Adi Guadad - Habela - Agordat road. China's support for infrastructure development in Eritrea is important for raising living standards, spurring growth, promoting poverty reduction, and improving socio-economic development. For example, while Eritrea's telecommunications network is still relatively underdeveloped, it has expanded substantially.

The number of mobile users has dramatically increased and mobile phones are now widely used in many parts of the country (including in rural areas and on islands), while access to internet services has also grown. The Gedem Cement Plant, which has supplied cement locally and to surrounding countries, created jobs for hundreds of locals, while the expansion of Hirgigo improved power generation and significantly reduced frequent and costly halts for maintenance. Improved electrical supply lowers costs for users, encourages private sector development, and increases productivity among both households and businesses.[xix] Finally, developing road and port infrastructure helps address the significant costs and delays faced by exporters and importers while helping Eritrea to better capitalize on its strategic location.

Economy: China has become an increasingly important trade and economic partner to Eritrea. At present, it is the country's main investor, creditor, and trading partner. Along with the assistance and projects detailed above, from 2002 to 2004 China extended Eritrea several grants, worth a total of US$6 million, for use in economic and technical sectors. Regarding trade, China is the principal destination of Eritrea's exports and has remained among the leading sources of Eritrea's imports (behind the United Arab Emirates and Egypt). Total trade between the two countries increased from less than US$1 million in 1994 to US$8.24 million in 2005, nearly US$40 million in 2010, and was approximately US$360 million in 2020. In January 2007, China

and Eritrea signed economic deals, which included the removal of tariffs on Eritrean products imported to China and the partial cancellation of Eritrea's debt to China. (Figure 5 Here)

Worth keeping in mind, however, is that although the volume of trade between the two countries has considerably increased, it still represents only a minuscule share of China's total trade on the continent and lags far behind some of the annual volume figures of China's trade with countries in the region. For instance, in 2020 the volume of China-Africa trade was about US$187 billion (China State Council, 2021; UN Comtrade, 2022). Trade between China and Eritrea tends to follow the general pattern of other countries in Africa. Eritrea mainly exports natural resources (e.g., copper and zinc), while Chinese exports to Eritrea consist of industrial machinery and equipment, as well as finished products. China has been the main customer for copper from Eritrea's Bisha mine since copper production began in 2013. Eritrean exports to China rocketed from US$1.26 million in 2012 to US$50.93 million in 2013 and were about US$289 million in 2020. Eritrea's extractive sector is one of the country's most vital, and nearly 20 international companies from around the world are involved in projects at various stages of development. Similar to its engagement in many other African countries, China has been especially active within Eritrea's extractive sector.

Eritrea has two operational mines. Bisha, the first significant mine in Eritrea for over 75 years and the country's first major international investment, produces gold, copper, and zinc. It was originally a joint-venture between the state-owned Eritrean National Mining Corporation (ENAMCO), which now holds a 45 percent interest, and the Canadian company Nevsun Resources Ltd. (55 percent), before the latter was acquired by China's state-backed Zijin Mining Group Company in 2018.[xx] In 2007, the China Export-Import Bank provided Eritrea with a US$60 million soft-loan to help finance its purchase of an initial 40 percent stake in the Bisha mine. Eritrea's other operational mine, the Zara gold mine, is owned by ENAMCO (40 percent) and SFECO (60 percent), with the mine's two-year engineering, procurement, and construction project, worth US$84 million, having been undertaken by SFECO. Another mine, the Asmara Project, is expected to commence production in the near future, is owned by ENAMCO (40 percent) and China's SRBM (60 percent), while numerous other Chinese exploration and surveying companies are also active in the country. The mining sector, within which China has been highly active and supportive.

Has been Eritrea's primary source of income and economic growth. For years, the Bisha mine has remained Eritrea's single most productive economic asset, contributing to about 8-10 percent of the country's total GDP and providing over US$1 billion in revenues since it began commercial production in 2011. As well, mining companies have made significant payments for local goods and services, while Eritrean companies have earned money for constructing infrastructure for the mines (e.g., roads and staff accommodations). For example, in 2011, Nevsun spent US$43.2 million on purchases of fuel, heavy mobile equipment, construction materials and other goods and services from Eritrean vendors. Millions are also received every year in the form of taxation, royalties, and various fees. Doubtless, revenues from the mining sector have helped to lighten the country's debt burden and provided much-needed foreign exchange, which is in short supply. (Figure 6 Here)

In terms of FDI, China is the leading investment country of origin for Eritrea; from 1994 to 2019, the total Chinese investment in Eritrea was about US$400 million. As well, China's FDI stock in Eritrea, largely driven by mineral resources, increased from about US$1.9 million in 2003 to about US$379 million in 2016, before dropping to about US$224 million in 2019. (In contrast, there is no direct Eritrean investment flow to China.) While this growth is significant, the figures are considerably smaller than China's FDI stock in other African countries. For instance, the total FDI stock in Africa in 2019 was about US$44.4 billion**.** Of note, Chinese firms have dominated contracts to upgrade infrastructure in the country, and in 2012 SFECO won a contract worth US$162 million from the Eritrean government to deliver heavy industrial machinery, transport equipment, and spare parts (e.g., buses, tractors, cranes, etc.). Between 1998 and 2019, annual gross revenues for Chinese construction companies working in Eritrea have ranged from about US$3 million to US$366 million. (Figure 7 and Figure 8 Here)

An interesting aspect of Chinese economic activity in Eritrea is that unlike in many other countries across the continent, the number of Chinese workers active in Eritrea has remained limited. While this is partly down to China's relatively low level of involvement in Eritrea compared to other countries in Africa, it is also a result

of Eritrea's policies regarding foreign workers. Specifically, Eritrea has strict national regulations about foreign workers, with companies having to first offer positions to locals and also to demonstrate that there are no suitable or qualified local candidates. There are also strong regulations in place about training locals and knowledge or skills transfer. Notably, in November 2021, Eritrea signed a memorandum of understanding to join China's BRI. Not long after, during the first week of January 2022, Wang Yi, State Councilor and Foreign Minister of China traveled to Asmara, where he met with his counterpart, Foreign Minister Osman Saleh, and President Isaias. The two foreign ministers also signed a joint statement laying out plans for further cooperation, and the relationship between the two countries was elevated to the level of "Strategic Partnership" (among the highest designations within China's hierarchical categorization of foreign partnerships), thus signaling a further consolidation of their relationship. China also extended $US16 million to Eritrea in assistance (Shabait, 2022a; 2022b).[xxi]

International Relations: Among the central planks underlying the longstanding relationship between Eritrea and China has been their firm commitment to the principle of mutual respect. This is just one part of their shared broader views of international relations and the global system. In particular, along with mutual respect, both states emphasize sovereignty, non-intervention, and non-interference in internal affairs. Both also believe in the centrality of multilateralism and the UN-centered international system, generally agree on a wide range of international issues, and share similar views and approaches to global organizations and human rights. For instance, China and Eritrea have called for changes to the framework and functioning of the UN (FMPRC, 2005; Shabait, 2016a), and even participated in initiatives to reform its structure or processes. In July 2021, for instance, the two joined a group of nearly 20 countries to establish the "Group of Friends in Defense of the Charter of the United Nations" at the UN (Group of Friends, 2021). As well, both countries have opted into the international human rights framework by signing up to many international and regional human rights treaties. At the same time, China and Eritrea have challenged the often dominant Western-centric view of human rights and expressed reservations or concern about perceived Western control over the human rights agenda (China State Council, 2016; 2019; Chen, 2019; Shabait, 2015; 2016b; 2018).

For China, Eritrea is a source, albeit a relatively modest one compared to some of its other partners, of natural resources. It also holds significant untapped potential, represents a credible, reliable partner, and offers a fairly easy, stable environment. China's growing ties with Eritrea not only provide it a gateway to the continent and help integrate its links across the region (China has invested heavily and maintains significant economic interests in neighboring Ethiopia, South Sudan, and Sudan); it also strengthens its foothold in a vital geostrategic area and along critical transit routes for global trade. The Bab el-Mandeb Strait forms a vital link in the maritime route between the Mediterranean Sea and the Indian Ocean via the Red Sea and the Suez Canal. The rapidly rising significance of the region for Chinese foreign policy is evidenced clearly in the fact that its first overseas military base was recently established in the Horn of Africa (Djibouti), while in January 2022 it also announced it would assign a "special envoy" for the region (Miriri, 2022). On the other hand, beyond the various socio-economic and development benefits that it accrues (including the potential to become an important regional hub); Eritrea is drawn to working with China because doing so comes with no overbearing provisions or stipulations of conditions.

This allows Eritrea to maintain its independence and retain autonomy and ownership of its development path and policies. Although Eritrea has been criticized by some Western countries for its internal policies and rights record, China has not pressured it or interfered in its domestic affairs. As a part of their diplomatic relationship, and likely since they have experienced similar criticisms, China and Eritrea have frequently extended each other moral and political backing within international fora. For instance, since the establishment of diplomatic relations between the two countries, Eritrea has consistently reaffirmed its support for the "One-China Principle", while also backing China within international human rights bodies. At the 44th session of the UN Human Rights Council in mid-2020, Eritrea was part of a group of 53 countries that released a statement backing China's Hong Kong Security Law, under its right to enact legislation. Also, in July 2019, Eritrea was a signatory, along with 36 other countries, to a letter to the UN Human Rights Council praising Beijing's, "remarkable achievements in the field of human rights" (Xinhua, 2019), while during the 2014 UN Universal Periodic Review (UPR) Eritrea congratulated China on, "its efforts to discharge its obligations in the promotion and protection of basic human rights" (UN HRC, 2014). China, for its part, has reciprocated. At the UN Human Rights Council in 2019, in the face of Western pressure, China explained that

as a young, developing country Eritrea faces many challenges and the international community should bear this in mind to provide a fair, objective, and comprehensive view of the human rights situation in the country (OHCHR, 2019).

Additionally, during a 2016 hearing on human rights in Eritrea, as some Western countries criticized Eritrea's rights record, China instead reiterated its opposition to country-specific mandates, thus aligning with Eritrea's position, and praised the country for making "steady progress in human rights in recent years, with particularly remarkable results in economic, social and cultural rights" (China Mission, 2016). Notably, for years Eritrea was saddled by UN Security Council sanctions and attempts at regional and international isolation, led by the US and previous Ethiopian governments.[xxii] Although China did not veto the UN resolutions to sanction or maintain annual monitoring procedures on Eritrea (and also adhered to the arms embargo placed on the country), it was one of the few countries that continued to invest in, trade with and engage Eritrea. This filled an important void and provided critical support to Eritrea. Perhaps because it was itself a country that was often on the receiving end of international sanctions and rebukes, China also frequently expressed moral backing for Eritrea's stance or voiced concern about the procedures taken against it within international fora. Doubtless, China's approach during the period was influenced by the fact that it needed to balance its support for Eritrea with its own much closer and considerably larger economic relationship with Ethiopia, Eritrea's vastly more populous neighbor and rival. (Eritrea and Ethiopia peaceful resolved their conflict in 2018 and are now close allies.) More recently, China has repeatedly criticized and more forcefully objected to the imposition of unilateral sanctions on Eritrea by the US, regarding them as "illicit" and "groundless under international law" (FMPRC, 2021; Shabait, 2022a).

Local Opinions: Overall, survey results indicate that Eritreans generally view China and its engagement with the country quite favorably. In response to a question about China's influence on the world, 61 percent of respondents saw it as having a "positive" or "very positive influence," while 19 percent saw it as having a "negative" or "very negative" influence. When asked whether China's influence on Eritrea, specifically, was positive or negative, 70 percent of respondents regarded it as "somewhat positive" or "very positive," with 12 percent seeing it as "somewhat negative" or "very negative." Notably, this is in alignment with other works exploring Africans' perceptions about China. For instance, in the most recent series of Afrobarometer national surveys, which polled nearly 50,000 respondents in 34 African countries between the years 2019 and 2021, almost two-thirds (63 percent) of respondents felt the influence of China in their country was "somewhat positive" or "very positive," while only about one in seven (14 percent) considered it "negative" (Afrobarometer, 2021).

Additionally, recent examinations of global views of China, conducted by the Pew Research Center, found that 70 percent of Nigerians and 63 percent of Tunisians held favorable opinions about China (Pew Research Center, 2019). Many other works have had similar results (Afrobarometer, 2016; 2020; Dollar, 2016; Rebol, 2010; Sautman and Hairong, 2009). A longstanding controversy surrounding Chinese engagement in Africa has been about its effectiveness and also whether it may lead to the loss of local jobs or displacement of local businesses. When asked to consider how helpful Chinese assistance is in Eritrea, a majority of respondents (64 percent) said it was "very helpful" or "somewhat helpful," with 13 percent responding that it was "somewhat or "very unhelpful." The majority of respondents (71 percent) were "somewhat satisfied" or "highly satisfied" with Chinese-supported infrastructure projects in the country, with 15 percent of respondents "somewhat or highly dissatisfied." These particular findings may be attributable to the fact that large projects, such as hospitals, schools, and roads, are highly visible and easily recognized, as well as the fact that many people directly benefit from them.

In addition, 62 percent of respondents "agreed" or "strongly agreed" with the statement, "Chinese companies and investment create employment opportunities," with 21 percent "disagreeing" or "strongly disagreeing." By comparison, a Pew 2019 survey in Nigeria found that a sizable majority of Nigerians, 82 percent, said Chinese investment is a good thing because it creates jobs in their country (Pew Research Center, 2019). While Eritrea has experienced extended periods under sanctions and been on the end of efforts at isolation, China continued to engage with and invest in the country, supporting socio-economic growth and helping keep the economy afloat. It is also important to note that the number of Chinese workers in Eritrea has remained limited, with strict labor regulations stipulating the hiring and training of locals. Thus, increased

Chinese involvement does not directly threaten local jobs or businesses. Interestingly, while results indicate that Eritreans hold overall positive perceptions of China.

There were negative views about Chinese products. 71 percent of respondents "disagreed" or "strongly disagreed" with the statement, "Chinese companies offer products and services of high quality," with only 18 percent agreeing or strongly agreeing. This is consistent with surveys conducted in other settings. For example, in Afrobarometer's 2014/2015 surveys in 36 countries across the continent, more than one-third (35 percent) of Africans said that the poor quality of Chinese products damages China's image (Afrobarometer, 2016). Also, in a survey of over 1,000 respondents across 15 African countries, 68 percent "disagreed" or "strongly disagreed" with the statement that, "Chinese products and services are of high quality" (Geerts, Xinwa, and Rossouw, 2014). During interviews and discussions with Eritrean respondents, many claimed that products "didn't last long" or "performed poorly." However, it was also frequently pointed out that the availability of Chinese products was quite important because they provided many Eritreans with access to goods and amenities they otherwise would not be able to have (Table 1 Here).

5. Conclusion and recommendations

Although a large and growing body of literature has explored China's growing activities across Africa, the present study is the first to explore its engagement with Eritrea. Contemporary ties between China and Eritrea, which can be traced back decades, have considerably grown and intensified in recent years. China has become an increasingly important partner for Eritrea, and today it is the country's leading creditor, investor, and trade partner. Chinese assistance and cooperation across various sectors within Eritrea has helped support socio-economic growth and general development. While China's activities in Africa have been heavily scrutinized and garnered criticism, survey results indicated that young Eritreans hold largely positive, favorable perceptions of China and its engagement with their country. Notably, these findings generally align with results from other work exploring Africans' perceptions about China and its activities on the continent. For Eritrea, China's engagement is welcomed because it comes without conditions and allows it to maintain its independence and sovereignty, an issue of paramount importance for the country. Moreover, China has been a "reliable friend" to Eritrea, retaining and even strengthening its ties with the country, even as Eritrea has faced international sanctions, criticism of its internal policies, and efforts at isolation. On the other hand, China's engagement with Eritrea has served its interests and been driven by economic and geostrategic considerations.

Cooperation with Eritrea not only provides natural resources, but it also creates business opportunities for Chinese service contractors (e.g., construction companies), helps it link and integrate its interests in the region, offers another gateway to the rest of the continent, and allows it to strengthen its foothold in a vital geostrategic area. Furthermore, Eritrea unwaveringly expresses its backing for the "One-China Principle", fundamental bedrock of Chinese policymaking and diplomacy, and it also serves as a source of support within multilateral fora. As cooperation between China and Eritrea continues to evolve and appear set to deepen further, there is an abundance of possible avenues for further debate, research, and investigation. For instance, while surveys in the present study were cross-sectional and based on a sample of undergraduate students, future research could explore the views of a broader swath of the general population or adopt a longitudinal approach to consider possible shifts over time. Additionally, future work may examine specific, narrower dimensions of their relationship or examine how China's growing activity in the country or region influences local and regional peace, security, and stability.

Image 1: **Eritrea Geographic Setting**

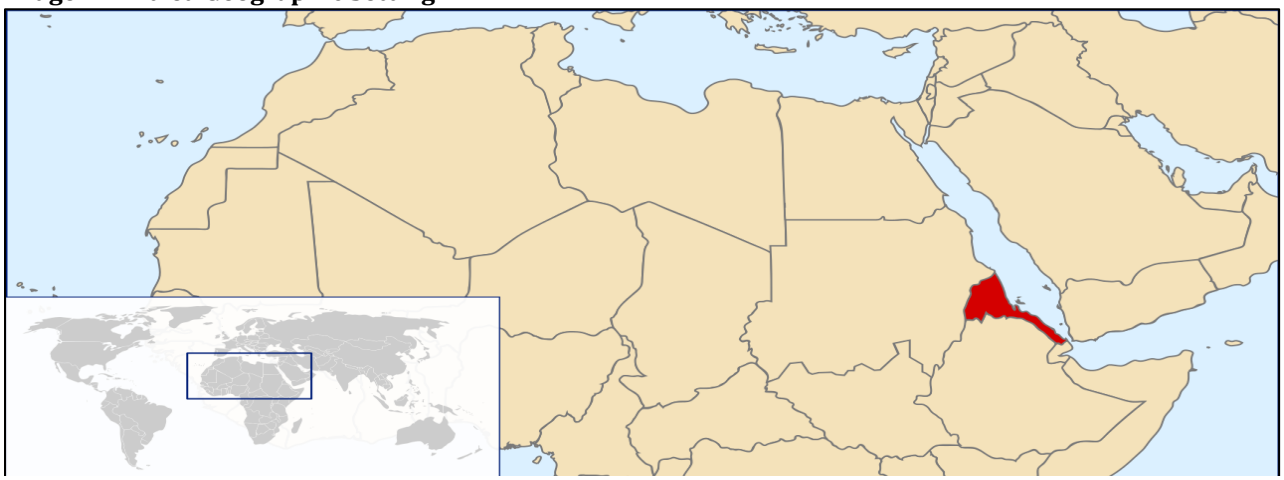
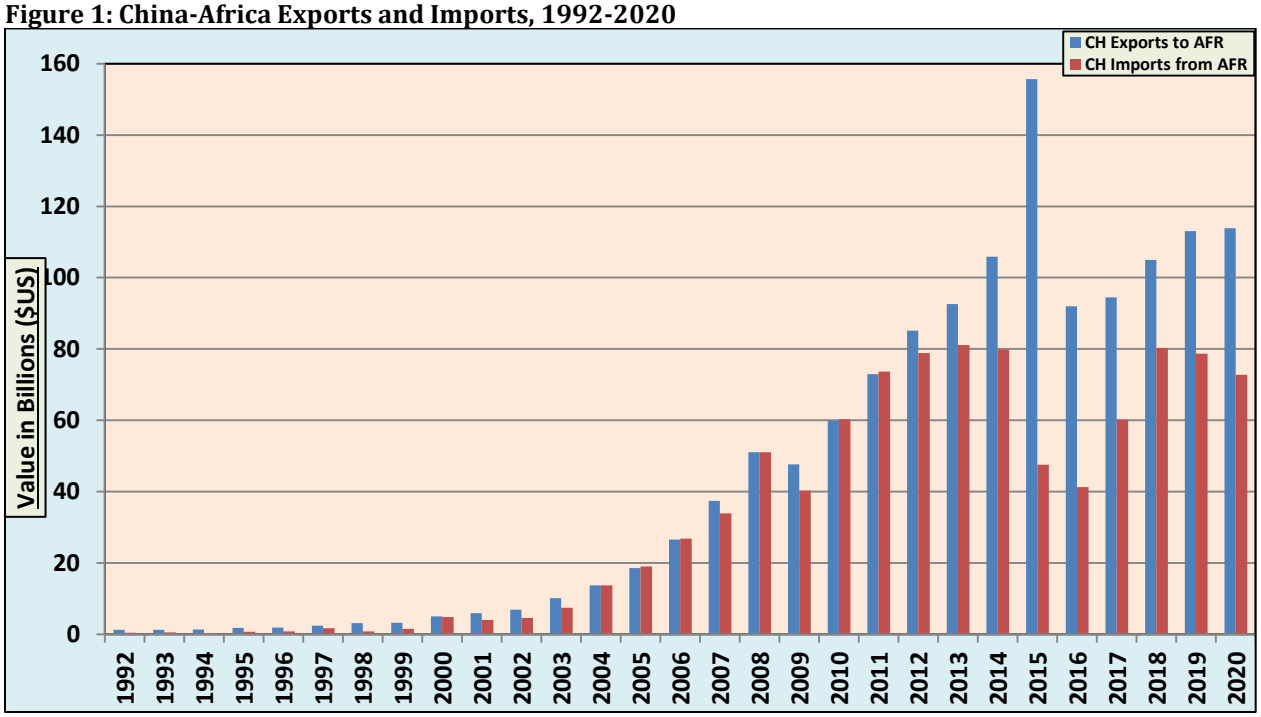


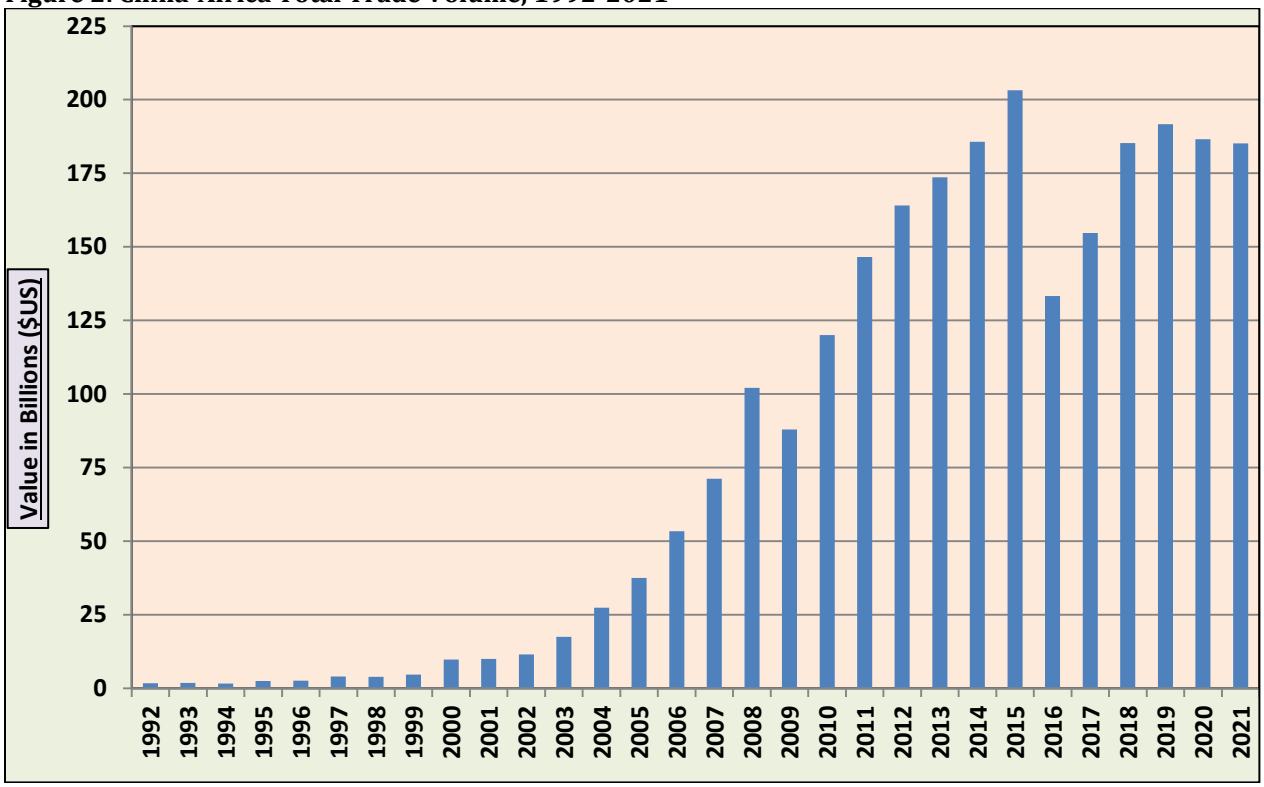
Image credit: https://commons.wikimedia.org/wiki/File:LocationEritrea.svg

Figure 1: China-Africa Exports and Imports, 1992-2020



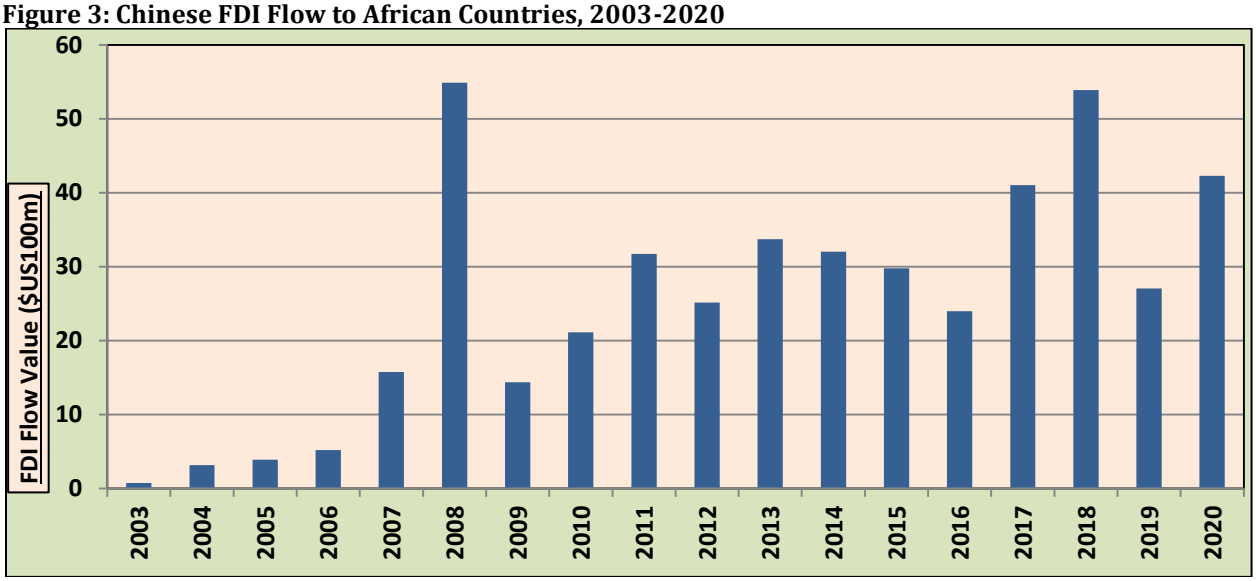
Data are retrieved from CARI (2022), which provides aggregated data on China-Africa trade from 1992 to 2019. (These data are from the UN Comtrade database.) The data for 2020 are retrieved directly from the UN Comtrade database (UN Comtrade, 2022). Although complete data for 2021 are unavailable, official Chinese sources show that for the period spanning January to September trade between Africa and China was about US$185.2. This data is presented only as a total, rather than in terms of imports and exports (China State Council, 2021). Note that while UN Comtrade and Chinese government sources do not report the same trade figures, the two sources are very similar.

Figure 2: China-Africa Total Trade Volume, 1992-2021



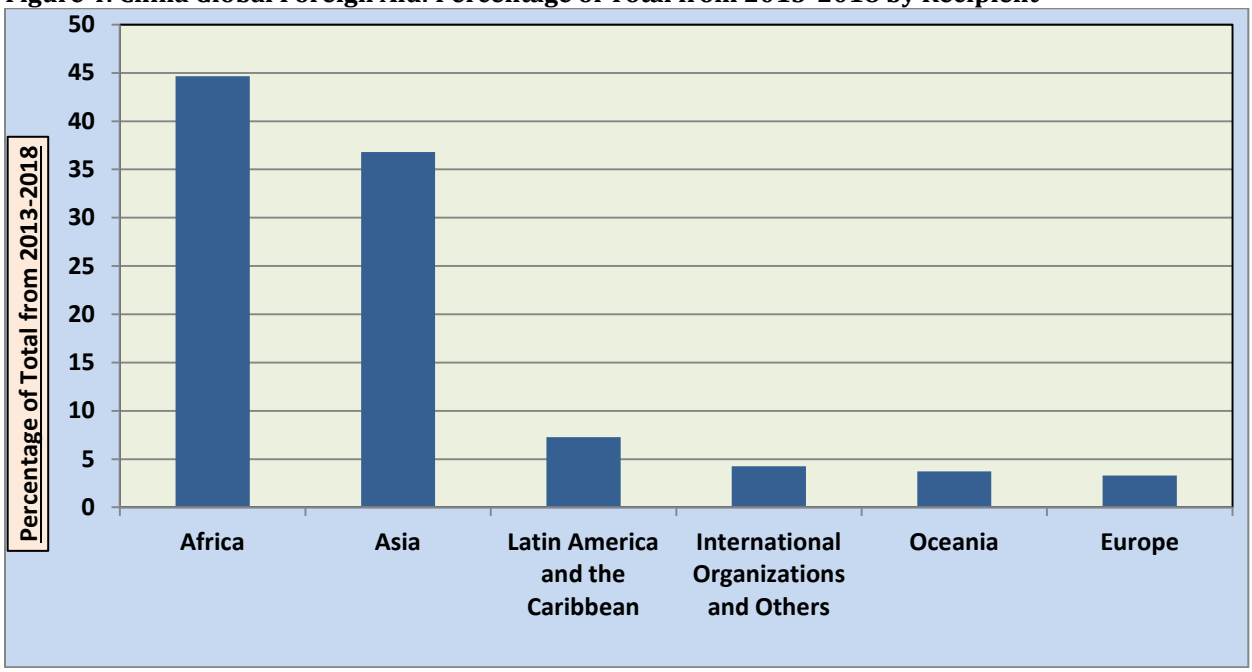
Data are retrieved from CARI (2022), which provides aggregated data on China-Africa trade from 1992 to 2019. (These data are from the UN Comtrade database.) The data for 2020 are retrieved directly from the UN Comtrade database (UN Comtrade, 2022). Although complete data for 2021 are unavailable, official Chinese sources show that for the period spanning January to September trade between Africa and China was about US$185.2 (China State Council, 2021). Note that while UN Comtrade and Chinese government sources do not report the same trade figures, the two sources are very similar.

Figure 3: Chinese FDI Flow to African Countries, 2003-2020



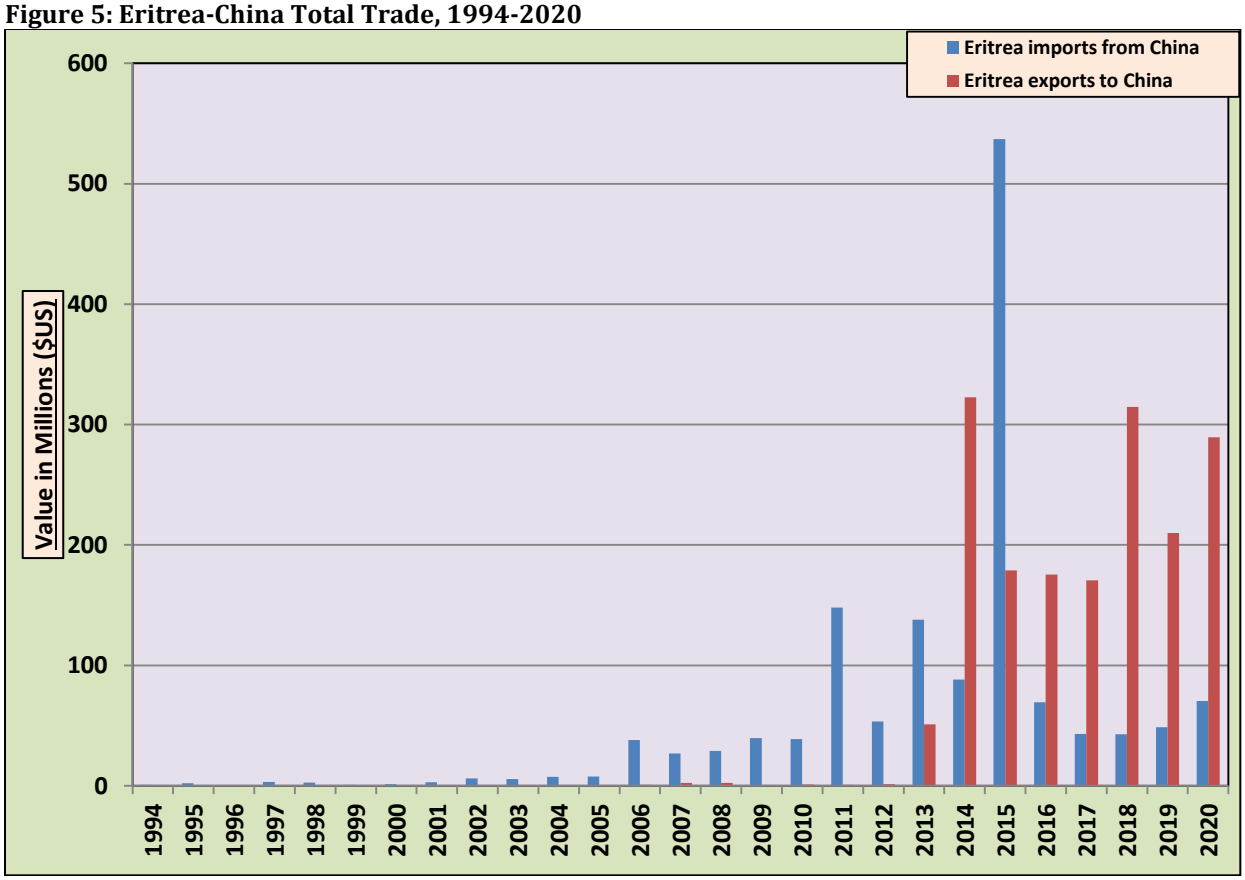
Data for 1992 to 2019 are retrieved from CARI (2022), while data for 2020 are from China State Council (2021).

Figure 4: China Global Foreign Aid: Percentage of Total from 2013-2018 by Recipient



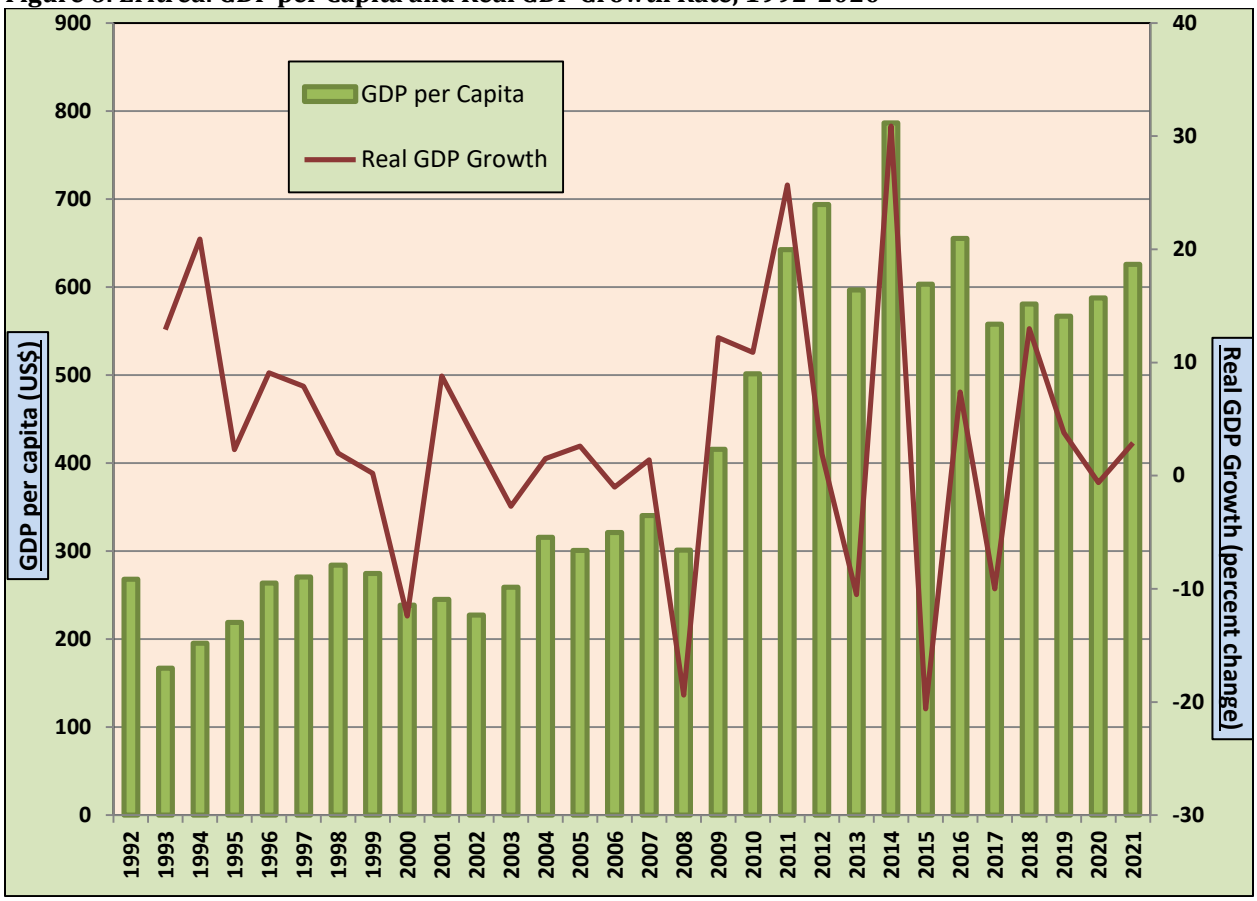
Data are retrieved from China State Council (2021).

Figure 5: Eritrea-China Total Trade, 1994-2020



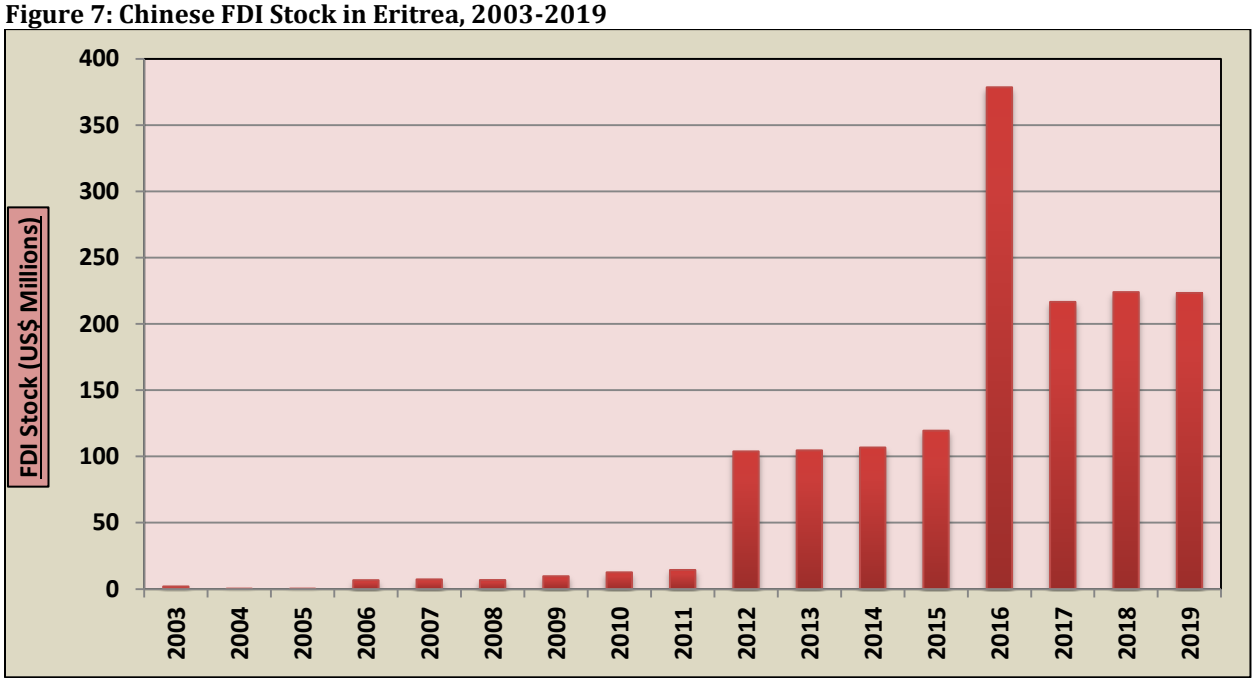
Data are retrieved from CARI (2022), which provides aggregated data on China-Africa trade from 1992 to 2019. (These data are from the UN Comtrade database.) The data for 2020 are retrieved directly from the UN Comtrade database (UN Comtrade, 2022).

Figure 6: Eritrea: GDP per Capita and Real GDP Growth Rate, 1992-2020



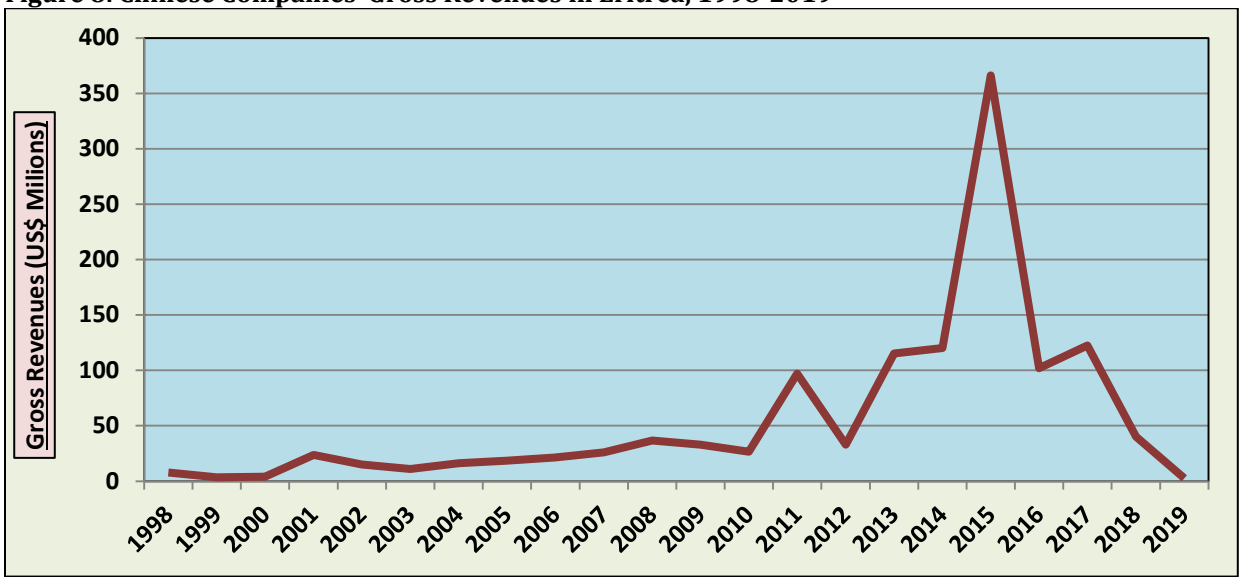
GDP per capita is presented in US dollars and current prices. Real GDP growth is presented in terms of annual percent change. The figure is based on the author's own calculations and data retrieved from IMF (2021).

Figure 7: Chinese FDI Stock in Eritrea, 2003-2019



Data are retrieved from CARI (2022).

Figure 8: Chinese Companies' Gross Revenues in Eritrea, 1998-2019



Data are retrieved from CARI (2022).

Table 1: General Perceptions about China and its Influence

	Positive or Very Positive	**Neutral or Don't Know**	**Negative or Very Negative**
China's influence on the world	61	20	19
China's influence on Eritrea	70	18	12
	Somewhat or Very Helpful	Neutral or Don't Know	Somewhat or Very Unhelpful
How helpful is China's assistance?	64	23	13
	Somewhat or Highly Satisfied	Neutral or Don't Know	Somewhat or Highly Dissatisfied
Satisfaction with Chinese projects	71	14	15
	Agree or Strongly Agree	Neutral or Don't Know	Disagree or Strongly Disagree
Chinese engagement creates jobs	62	17	21
Chinese products and services are of high quality	18	11	71

Overall N = 237 (mean age: 21.83; SD: 2.74). All figures are percentages.

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Endnotes

[i]The "One-China Principle", sometimes referred to as the "One-China Policy", is a principle asserted by the Chinese government declaring that, "there is only one China in the world, Taiwan is a part of China and the government of the PRC is the sole legal government representing the whole of China" (Wei, 1999; White Paper, 2000).

[ii]China may also have another advantage vis-à-vis the West and Africa's receptivity to cooperation: it does not have the West's fraught legacy in Africa (e.g., slavery and colonialism), which may engender a crisis in legitimacy for the West in Africa that China can leverage to its advantage (Were, 2018).

[iii]For instance, during 2006 elections in Zambia, the late Michael Sata, an opposition candidate, campaigned on an anti-China platform and claimed that, "Their [China's] interest is exploiting us, just like everyone who came before. They have simply come to take the place of the West as the new colonizers of Africa" (Polgreen and French, 2007). However, it is worth recalling that China has no history of colonialism, nor does it have an extensive history of invading other states. Moreover, many of the criticisms are often tinged with hypocrisy, since they may equally apply to Western states as well. Last, criticisms must also be placed firmly within the context of the growing and rapidly intensifying US-China rivalry for global influence, as well as China's surging presence in Africa, which has raised competition and posed challenges for the US (Campbell, 2008; Lei, 2020).

[iv]One of the most well-known projects from this period was the nearly 2000-kilometer-long Tan-Zam Railway, which linked landlocked Zambia with the Port of Dar es Salaam in Tanzania. Constructed between 1968 and 1976, the project was China's largest turn-key foreign aid project at the time (Snow, 1989; Sun et al., 2017; Taylor, 1998).

[v]In terms of loans, it should be pointed out that the figures presented are not to be regarded as equivalent to African government debt, as the source, the China Africa Research Initiative, does not track disbursement or repayment (CARI, 2022). Notably, as a result of Africa's growing levels of debt owed to China, criticisms have been raised about "debt diplomacy" and potential asset seizures. With many Chinese-backed projects lacking profitability, there are concerns that overburdened countries will struggle to service loans and become politically beholden to China. However, these concerns are generally not empirically supported and a large body of research suggests Chinese loans are not a major contributor to debt distress in Africa. Also worth noting is that the secrecy surrounding many contracts makes it difficult to judge conclusively (Brautigam, 2019a; 2019b; Eom, Brautigam, and Benabdallah, 2018).

[vi]Coronavirus disease (COVID-19) is an infectious disease caused by a recently discovered coronavirus. On 31 December 2019, Chinese media reported for the first time on an outbreak of viral pneumonia in the city of Wuhan. Months later, in early March 2020, COVID-19 was declared a pandemic by the World Health Organization, with Africa reporting its first case in mid-February 2020.

[vii]China's support to Africa has been driven by several different motives, including altruism, geopolitical aims, an attempt to divert attention away from the alleged origin of the virus in China, seeking to lay the groundwork for future partnerships, and attempting to showcase itself as a responsible global leader and reliable partner during crises (Rudolf, 2021).

[viii]The military base in Djibouti, which hosts several thousand personnel and is operated by the People's Liberation Army Navy Marine Corps, includes a pier that can accommodate an aircraft carrier, a large assault vessel, and other military vessels.

[ix]While there are no reliable data on the number of Chinese migrants or workers in Africa, in the past about one million Chinese migrants was a commonly used estimate (Dollar, 2016: 73; French, 2014).

[x]Of course, many Western countries also extend support to authoritarian regimes and overlook their deplorable human rights situations, driven by political and security interests.

[xi]China regards its own development path as an example that other developing countries can learn from. At the opening of the 19th National Congress of the Communist Party of China, Xi Jinping explained that the Chinese model, "offers a new option for other countries and nations who want to speed up their development while preserving their independence" (Xinhua, 2017).

[xii]As wages and costs in China rise, manufacturing will likely gradually shift to lower cost regions, including Africa (Dollar, 2016; Lin, 2011; Sun, 2014).

[xiii]The influx of goods may also induce "creative destruction" or technology transfer.

[xiv]Again, however, there are elements of double standards and politicization to these criticisms. In particular, many Western countries have a long history of financing and supporting dictators and authoritarian regimes,

mainly in pursuit of advancing their geostrategic and political interests (Afoaku, 2000; Owen IV and Poznansky, 2014; Smith, 2000).

[xv]Generally, China's approach to funding overseas projects is to follow the rules and regulations of the country in which it is investing, which can be problematic when recipient countries have poor standards and regulations (Dollar, 2016: 66-67). Notably, in a 2012 New York Times op-ed, Dambisa Moyo, a Zambian economist, argued that, "the bulk of responsibility for abuses lies with African leaders themselves" (Moyo, 2012).

[xvi]Several items in Eritrea's national museums also suggest extremely early connections, while a large body of work has demonstrated considerable historical contact between China and the broader region (Fauvelle, 2018; Kusimba, Zhu, and Kiura, 2020; Li, 2012; Smidt, 2001).

[xvii]The ELF began the armed struggle for independence, before being superseded by the Eritrean People's Liberation Front (EPLF). Estimates suggest about five hundred Chinese automatic weapons were received.

[xviii]Within the context of Sino-Soviet tensions, as the Derg heavily relied on support from the USSR, the EPLF received several Chinese overtures. However, the EPLF refused to meet Chinese conditions and no aid was forthcoming.

[xix]Such as gold and cement production at the Zara mine and Gedem Cement Plant, respectively.

[xx]In 2018, the Zijin Mining Group Company acquired Nevsun following a friendly takeover offer of around $US1.41 billion. Additionally, while Eritrea's state-owned ENAMCO held a 40 percent interest in the Bisha mine for many years, in April 2019 it acquired a further 5 percent interest for around $US10 million.

[xxi]Over the years, China has established a number of special partnerships with other countries and organizations. Partnerships are classified hierarchically, with levels corresponding to the importance that Beijing attaches to each partner, the substance of China's relations with that country or organization, and other factors (Li and Ye, 2019; Strüver, 2017).

[xxii]The UN Security Council imposed sanctions on Eritrea in December 2009 over the government's alleged role in insecurity in the Horn of Africa. The sanctions were broadened in 2011, before being lifted in November 2018.