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Editorial Note

The Malawi Journal of Social Science (MJSS) is a publication of the Faculty of Social Sciences (now split between the School of Law, Economics and Government and the School of Humanities and Social Sciences) at the University of Malawi. Because of the splitting of the Faculty of Social Sciences, this is the last issue of the MJSS under the Faculty of Social Sciences. Publication of this issue has been completed by the School of Law, Economics and Government, but the School of Humanities and Social Sciences will publish subsequent issues.

The purpose of the MJSS, which is published annually, is to serve as an outlet for publication for both emerging and established scholars in Malawi, within the region and even beyond. The MJSS publishes theoretical, empirical and review articles as well as book reviews in the field of social sciences from scholars, practitioners, and students. Priority social sciences fields for the MJSS include demography, public administration, political and policy sciences, human resources management, social work, sociology, anthropology, psychology, history, economics, and development. The MJSS is very strict with the word length of its publications. The theoretical and empirical articles, including tables and references, shall not be more than 8000 words long. The review articles shall not be more than 4000 words long, while the book reviews shall not be more than 800 words long.

Articles submitted to the MJSS are subjected to a standard double-blind peer review process. The papers are therefore accepted or rejected based on their own merit. Results of the review process are normally available within three months of submission. Outcomes of the review process include acceptance, acceptance with minor revisions, acceptance subject to major revisions, and outright rejection. If authors are encouraged to revise and resubmit, there is no guarantee that the same reviewers will review the resubmission or that the revised submission will be accepted.

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“Is it bulletproof?” Correlates of perception on the protective effect of male circumcision in Malawi

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Abstract

Voluntary male medical circumcision (VMMC) is a highly cost-effective intervention in the fight against new HIV infections. However, despite efforts to scale up VMMC in Malawi uptake remains below the intended target. One potential contributing factor to this issue is a lack of correct understanding regarding the protective benefits of VMMC. This paper is the first to use nationally representative data to find the correlates of understanding the VMMC protective effect. We used data from the Malawi Population-based HIV Impact Assessment (MPHIA) of 2015. The findings show that a large proportion of respondents still lacked a clear understanding of the protective benefits of VMMC. These findings highlight the need for increased efforts to disseminate correct information regarding the protective benefits of male circumcision. Furthermore, integrating this information into the school curriculum could be another effective way of increasing knowledge. Overall, this paper underscores the importance of improving public knowledge and awareness of the benefits of VMMC in Malawi as part of a comprehensive approach to reducing the transmission of HIV.

Keywords: HIV and AIDS; circumcision; MPHIA; Malawi

1. Introduction

Studies have shown that voluntary medical male circumcision (VMMC) can have a protective effect against HIV of up to 60% (Auvert *et al.*, 2005; Bailey *et al.*, 2007; Gray *et al.*, 2007; Procter and Kaul, 2017; WHO, 2019). VMMC is currently the only one-off HIV prevention tool available, making it a long term cost-effective tool, as demonstrated by some studies (Galárraga *et al.*, 2018). Following the WHO recommendation in 2007, several countries have rolled out its implementation with a concentrated focus being made in countries highly affected by HIV and AIDS (Ledikwe *et al.*, 2014; Hines *et al.*, 2017). The 2019 UNAIDS report reaffirms the social and clinical benefits of VMMC as an effective HIV prevention method. In addition, the report highlights that VMMC serves as an entry point for providing men and boys with a range of health services, leading to broader health benefits and improved health outcomes. At the United Nations High-Level Meeting on Ending AIDS in June 2016, a new target was set in political declaration to reach 25 million young men with VMMC services in high incidence areas by 2020 (Assembly, 2016). By the end of December 2018, only 11 million circumcisions had been performed in 15 priority countries in eastern and southern Africa, including Malawi. Given the current pace of implementation, achieving the 25 million circumcisions by 2020 may be unrealistic.

VMMC scale-up and uptake have varied across countries due to several factors. Previous studies have documented a combination of factors that have led to either increased as well as low uptake of VMMC across countries and communities. In Kenya fear of pain during and after the procedure, concerns about loss of income during the healing period and fear of being shunned by the community have been identified as some of the factors contributing to low uptake of VMMC (Galárraga *et al.*, 2018). Similarly in Zimbabwe, the fear of the unknown and concerns about potential unsatisfactory sexual performance are among the primary reasons for the low uptake of VMMC among eligible individuals (Chikutsa and Maharaj, 2015).

Several studies have focused on studying the level of knowledge about the protective effect of VMMC, yet to date, little is understood about the factors that contribute to one's level of knowledge about the protective effect of VMMC. In a study to understand the meaning attached to circumcision among men and women in Zimbabwe, it was found that being circumcised is considered to be clean and that a circumcised penis is much cleaner compared to an uncircumcised one (Chikutsa and Maharaj, 2015). In a study looking at knowledge attitude and acceptance of VMMC among male students in Botswana, the differences in the level of knowledge about the protective effect of VMMC were higher than previously reported in other studies (Tapera *et al.*, 2017). However, the sample from this study was not nationally

representative as it focused on the younger population, hence raising questions regarding the generalisability of the results.

A more recent systematic review noted that women’s knowledge about the protective effect of VMMC also plays a critical role in promoting uptake in their communities. However, the proportion of women with the correct knowledge of the VMMC effect between countries and groups ranged from 9.8% to 91.8% (Grund *et al.*, 2019a). With reference to Malawi, the need for further studies regarding VMMC information has been established (Maughan-Brown *et al.*, 2015). Very few papers touch on the angle of perceived benefits of male medical circumcision for sexual pleasure and HIV protection in Malawi (Mkandawire *et al.*, 2014; Rennie *et al.*, 2015; Shacham *et al.*, 2014; Zamawe & Kusamula, 2016). Contrary to popular belief, such studies have found that most women would indulge in risky sexual behaviour if they learnt of their partners’ partial HIV-protective benefits due to circumcision (Kapumba and King, 2019). The results vary substantially among these studies, thereby allowing for further inquisition. Not only that, the studies were of limited samples, thereby providing less generalisability to the nation as a whole, as compared to our sample size, which is national.

Knowledge about the protective effect of VMMC plays a big role in the uptake of VMMC services (Chikutsa and Maharaj, 2015). Therefore, this paper will contribute to the existing literature gap relating to factors contributing to knowledge about the VMMC protective effect. Our study goes beyond the analysis from the previous studies in the literature as it answers three questions; (1) Does male circumcision alone reduce the risk, or chance, of a man getting HIV completely? (2) Do you agree or disagree with the following statement: Men who are circumcised do not need to use condoms to protect themselves from HIV? (3) Do you agree or disagree with the statement: Circumcised men can have multiple sexual partners and not be at risk for HIV? Furthermore, our data is nationally representative compared to most studies and much more recent, beyond the VMMC intervention periods. This is therefore important as it makes the results generalisable to the whole country. We use data from the Malawi Population-based HIV Impact Assessment (MPHIA) 2015-16 national survey, involving an analytical sample of respondents aged 15-64 from 11000 households.

Conducting this analysis in Malawi is important considering that Malawi is one of the countries with low VMMC uptake, well below its national target and could benefit considerably from insights generated from this analysis (NSO and International, 2016; Carrasco, Nguyen and Kaufman, 2018). The 2015 to 2022 National HIV Strategic Plan planned to conduct 2,458,727 VMMCs to be performed among males aged 10-34 years from 2015 to 2020 to achieve 60% coverage. This was meant to avert 91,746 new infections by the end of the year 2050. However, from 2012 to 2017, Malawi had

only performed a cumulative total of 561,313 VMMC representing 23% of the number of VMCMs required to reach the 60% coverage.

On the other hand, the current National HIV Strategic Plan (2020-2025) sets a target of 940,000 VMCMs to be performed over 5 years to attain 80% coverage in the 15-49 age brackets in the 12 priority districts in Malawi. However, only about 939 573 VMCMs were conducted by 2020, approximately 38% of the target (NAC, 2020; Matoga *et al.*, 2022). Given the current pace of implementation, achieving the 2025 target would, therefore, require accelerated efforts toward increasing uptake among eligible people. Hence, understanding people's perceptions towards VMCM is key to successfully implementing and achieving the above target.

Apart from the above, understanding people's perceptions of circumcision may be important to unearth factors that have the potential to hamper the Malawi Development Goal of reducing HIV. Not only that, but it would also help identify potential factors that could impinge on the reduction of HIV prevalence as set out in the Sustainable Development Goal 3.3. This would also mean that the country would identify potential factors that may feed into policy, which would help reduce the socio-economic inequality in HIV knowledge (Chirwa, Sithole and Jamu, 2019; Chirwa, 2020).

2. Material and methods

Data

The study used data from the Malawi Population-Based HIV Impact Assessment (MPHIA). This was a household-based national survey conducted between November 2015 and August 2016. The survey aimed to measure the status of Malawi's national HIV response. This was the first survey in Malawi which measured national HIV incidence, pediatric HIV prevalence, and viral load suppression. In terms of design, the MPHIA used a two-stage, stratified cluster approach based on the 2008 Malawi Population and Housing Census. The first stage involved selecting 500 Enumeration Areas (EA) using a probability proportional to size method. In the second stage, a sample of households was randomly selected within each EA or cluster (MoH, 2017; MPHIA, 2019).

The survey was implemented by ICAP at Columbia University in collaboration with local partners, including the Centre for Social Research (CSR) at the University of Malawi, the National Statistical Office (NSO), and the College of Medicine-Johns Hopkins Project (COM-JHP) at the University of Malawi (MoH, 2017; MPHIA, 2019). The data is in a public repository. For a detailed description of the data and download, please visit <https://phia-data.icap.columbia.edu/>.

Ethical clearance

This paper uses secondary data from MPHIA. All survey procedures comply with the World Medical Association Declaration of Helsinki (World Medical Association, 2008). Ethical clearance for the study was done by the Institution Review Boards from Malawi and the USA. These include the National Health Sciences Research Committee in Malawi (NHSRC) and the Institutional Review Boards at the Center for Disease Control and Prevention (CDC; Atlanta, USA), Columbia University Medical Center and Westat (a statistical survey research organisation). Consent was obtained using an electronic tablet, where the participant had to sign or use a fingerprint as a sign of agreement. The respondents were recruited only if they agreed to the consent. During the consent process, respondents were told in advance that the data would be used in future research. Data were anonymised to allow for secondary data use in research (MoH, 2017; MPHIA, 2019).

Dependent Variables

In the survey, people were asked to indicate their understanding of three questions regarding circumcision. The first question was, does male circumcision alone reduce the risk, or chance, of a man getting HIV completely? The responses were 1 - protects completely, 2 - protects somewhat, 3 - not at all, 4-do not know. We thus coded this variable to take a value of 1 if a respondent answered that circumcision offers partial protection, i.e. the respondent said “protects somewhat” and zero otherwise. The second question which was asked was, do you agree or disagree with the following statement: Men who are circumcised do not need to use condoms to protect themselves against HIV? The response to this question was 1 – agree, 2 – disagree, 3 - unsure/do not know. This variable was assigned a value of 1 if a respondent indicated that they disagreed and zero otherwise. The third question was, do you agree or disagree with the following statement: Men who are circumcised can have multiple sexual partners and not be at risk of HIV? To this question, the participants were asked to select from one of the responses, 1 – agree, 2 – disagree, 3 - unsure/do not know. In the analysis, this variable was assigned a value of 1 if the respondent disagreed (i.e. option 2) and zero otherwise.

Independent variables

We based our choice of dependent variables on the previously mentioned studies. In this paper, work status was recoded as 1 if the respondent was working and zero otherwise. The gender of the respondent was coded as 1 if male and 0 if female. Residence took the value of 1 if the respondent was from an urban area and 0 if they came from a rural area. Marital status referred to whether the respondents were married or not. All married respondents were assigned a value of 1 and 0 if otherwise. Education was classified into four categories- no education, primary, secondary, and post-secondary were all recoded 1 if the condition held and 0 otherwise. Having no formal education was the reference category.

Religion was categorised into three; Christian (1 or 0), Muslim (1 or 0) and no religion (1, or 0). Wealth quintiles were used to measure the socio-economic status of the respondent (Filmer and Pritchett, 2001; ICF Macro, 2018). These were split into five quintiles -quintile 1, quintile 2, quintile 3, quintile 4, and quintile 5. Age was categorised into, age:15-24; age: 25-34; age: 35-44; age:45-54 and age: 55+. Each was assigned a value of 1 if a condition was met and 0 otherwise. Taking into account the positive role HIV testing programmes have had in the country in disseminating HIV and AIDS messages, we also incorporated HIV testing as a variable. This took the value of 1 if a person had ever been tested and 0 otherwise.

Statistical analysis

We analysed the data on two levels. First, the univariate statistics were calculated to show the distribution of the variables. Second, we adopted the logit regression models to assess the relationship between the dependent variables and the independent covariates. From the logit model, we interpreted the relative risk (odds) ratios (Cameron and Trivedi, 2010; Wooldridge, 2012).

Methodological framework

Our analysis used the health belief model to develop a conceptual framework to understand the factors that affect the perceived effect of circumcision on HIV and AIDS and behaviours. The theory was developed by social psychologists Hochbaum, Rosenstock and others in the 1950s. The theory was initially used to explore people's perceptions of a personal threat to diseases and their belief that the recommended intervention will influence their decision to adopt the intervention or behaviour. The model was later on extended to behavioural responses to health-related conditions. Among the many facts of the theory, the theory explains perceived benefits and how it helps reduce perceived threats to health behaviour. We have adapted and developed to suit this study as in Figure 1;

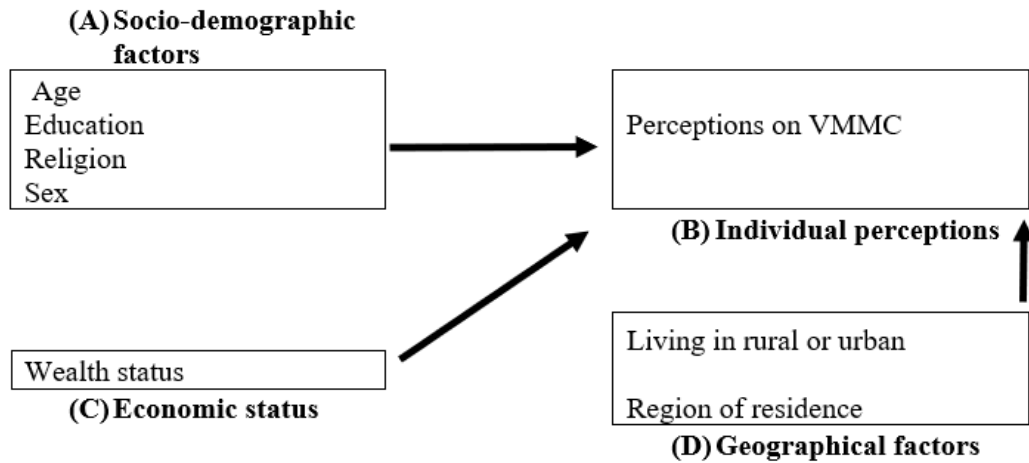


Figure 1: Conceptual framework for understanding perceptions regarding VMMC

3. Results

The univariate analysis is presented in Table 1. In the survey, 31% reported that they were working. Males comprised 42% of the sample, and 18% lived in urban areas. In terms of marital status, 85% were married. The predominant education qualification was primary education (85%), and the lowest percentage was post-secondary education (3%). Most respondents were Christians (81%), and those without religion made up 8% of the sample. The percentage of people who had ever been tested for HIV was 86%.

Table 1: Sample Characteristics

| Explanatory Variables | Mean | N | Min | Max |
|-------------------------|------|-------|-----|-----|
| Work status | 31% | 4298 | 0 | 1 |
| Sex of respondent | 42% | 5823 | 0 | 1 |
| Residence | 18% | 2496 | 0 | 1 |
| Marital status | 85% | 11784 | 0 | 1 |
| No education | 12% | 1664 | 0 | 1 |
| Primary | 65% | 9012 | 0 | 1 |
| Secondary | 20% | 2773 | 0 | 1 |
| Postsecondary | 3% | 416 | 0 | 1 |
| Christian | 81% | 11230 | 0 | 1 |
| Moslem | 12% | 1664 | 0 | 1 |
| No religion | 8% | 1109 | 0 | 1 |
| Quintile 1 | 17% | 2357 | 0 | 1 |
| Quintile 2 | 20% | 2773 | 0 | 1 |
| Quintile 3 | 20% | 2773 | 0 | 1 |
| Quintile 4 | 21% | 2911 | 0 | 1 |
| Quintile 5 | 22% | 3050 | 0 | 1 |
| Age:15-24 | 19% | 2634 | 0 | 1 |
| Age: 25-34 | 35% | 4852 | 0 | 1 |
| Age: 35-44 | 24% | 3327 | 0 | 1 |
| Age:45-54 | 14% | 1941 | 0 | 1 |
| Age: 55+ | 8% | 1109 | 0 | 1 |
| <i>N</i> = 13864 | | | | |

Table 2: Perceptions on circumcision

| Perception | Mean | N | Min | Max |
|---|-------------|-----------|------------|------------|
| Circumcised do not need a condom to protect from HIV- Agree | 10% | 1386 | 0 | 1 |
| Circumcised do not need a condom to protect from HIV -Disagree | 69% | 9566 | 0 | 1 |
| Circumcised do not need a condom to protect from HIV -Not sure | 21% | 2911 | 0 | 1 |
| Male circumcision alone reduces the risk, or chance, of a man getting HIV -Completely | 13% | 1802 | 0 | 1 |
| Male circumcision alone reduces the risk, or chance, of a man getting HIV -Somewhat | 56% | 7764 | 0 | 1 |
| Male circumcision alone reduces the risk, or chance, of a man getting HIV -No at all | 8% | 1109 | 0 | 1 |
| Male circumcision alone reduces the risk, or chance, of a man getting HIV -Don't know | 23% | 3189 | 0 | 1 |
| Men who are circumcised can have multiple sexual partners and not be at risk for HIV - Agree | 9% | 1248 | 0 | 1 |
| Men who are circumcised can have multiple sexual partners and not be at risk for HIV - Disagree | 72% | 9982 | 0 | 1 |
| Men who are circumcised can have multiple sexual partners and not be at risk for HIV - Not sure | 20% | 2773 | 0 | 1 |
| Ever tested for HIV | 86% | 1192 3 | 0 | 1 |
| N = 13864 | | | | |

In Table 2, we investigate the perceptions on voluntary male circumcision. Regarding whether circumcised men do not need a condom to protect themselves, 10% agreed, 69% disagreed, and 21% were unsure/did not know. On whether male circumcision alone reduces the risk, or chance of a man getting HIV, 13% suggested that it completely protects against HIV, 56% indicated it somewhat protects, 8% said it does not offer complete protection, and 23% did not know or were unsure. Regarding whether circumcised men can have multiple sexual partners and not be at risk for HIV, 9% agreed, 72% disagreed, and 20% were not sure. Moving away from the descriptive statistics, we also assessed whether the questions of interest varied according to social and economic status. The results are shown in Figures 1, 2 and 3.

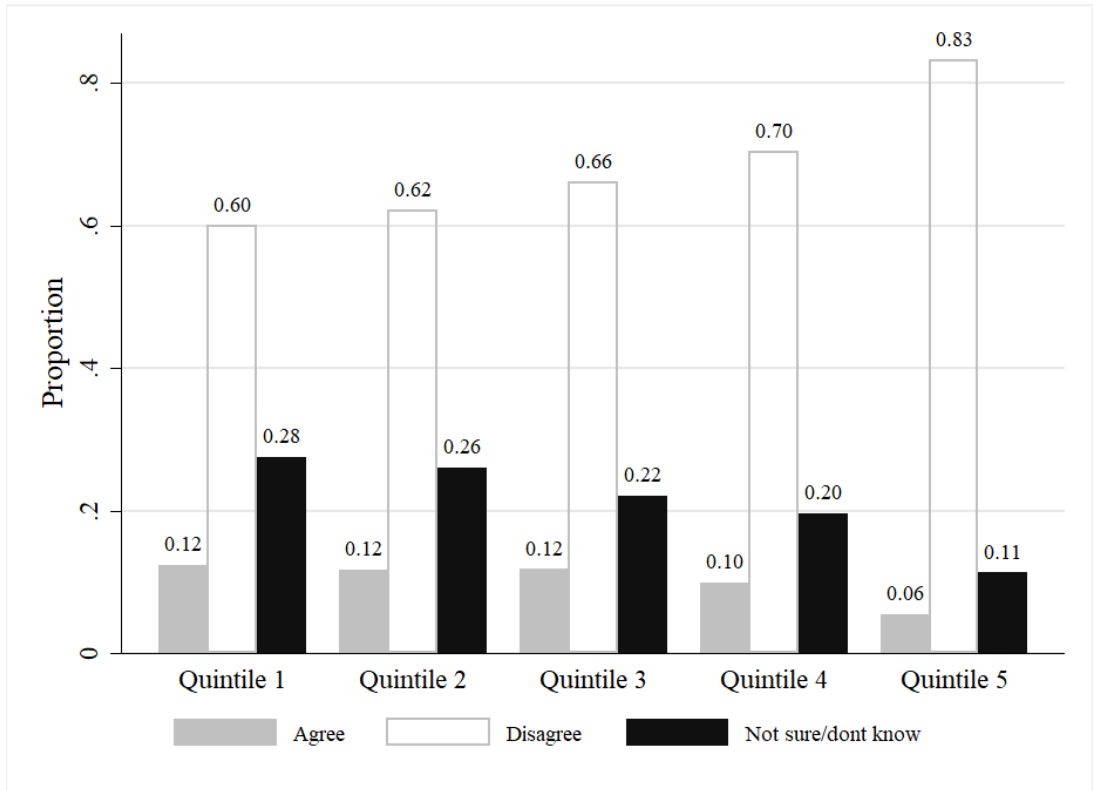


Figure 1: Men who are circumcised do not need a condom to protect themselves from HIV

Respondents were asked whether they agreed with the statement that men who are circumcised do not require a condom to protect themselves from HIV. This was assessed across wealth status to check socio-economic differences. As indicated in Figure 1, it shows that in quintile 1, 12% of the respondents agreed with the statement, 60% disagreed, whereas 28% were not sure. This is somewhat different from the observation made in quintile 5, where 6% agreed, 83% disagreed, and 11% were not sure. Furthermore, we observed two important trends in the response. First, the wealthier were more likely to disagree. Second, those who were wealthier were also less likely to be unsure of the response and third, they were less likely to agree.

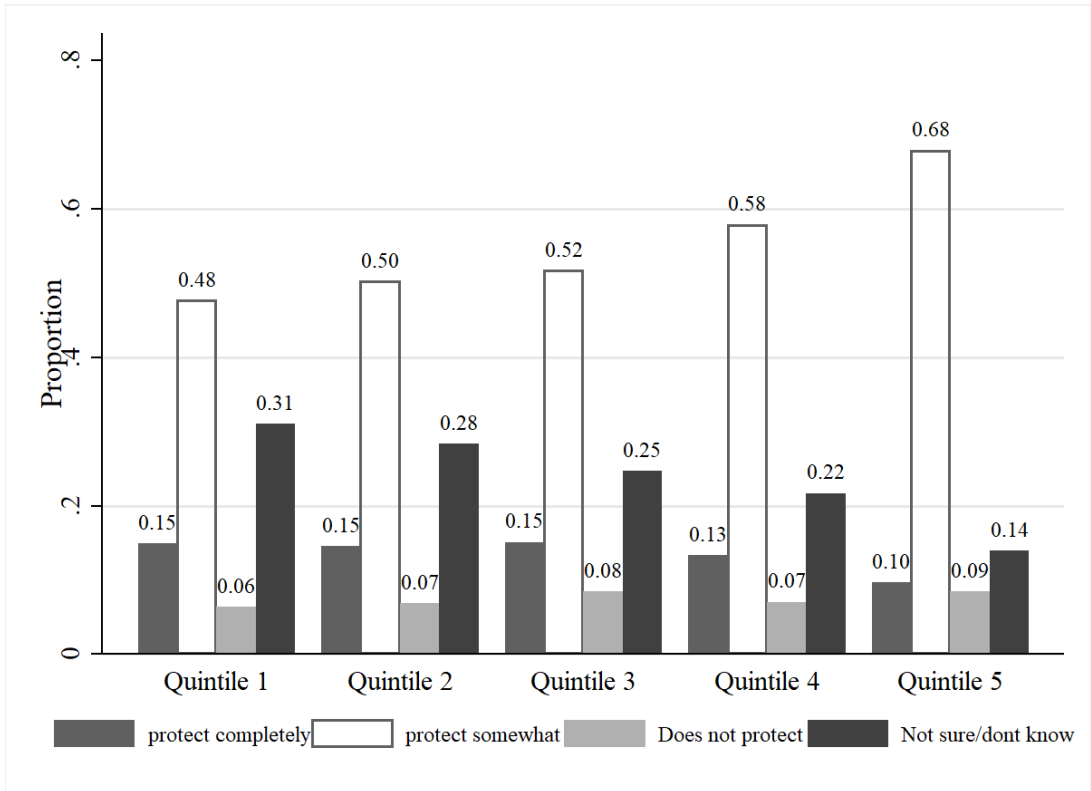


Figure 2: Does male circumcision alone reduce the risk, or chance, of a man getting HIV completely?

In addition to the previous question, respondents were further asked to respond to the question of whether male circumcision alone reduces the risk or chance of becoming infected with HIV, as shown in the figure above. This was again assessed across wealth quintiles. In quintile 1, 15% agreed that circumcision alone gives complete protection, while 48% indicated that circumcision provides partial protection, whereas 6% indicated that circumcision does not protect, and 31% were not sure about the protective effect of circumcision. In quintile 5, about 10% of the respondents agreed to the full protective effect of circumcision, and 68% indicated that circumcision provides partial protection, whereas 9% stated it provided no protective effect, and 14% were not sure about the protective effect at all. This confirms that the wealthier the individual, the more likely they know about the partial protective effect of VMMC.

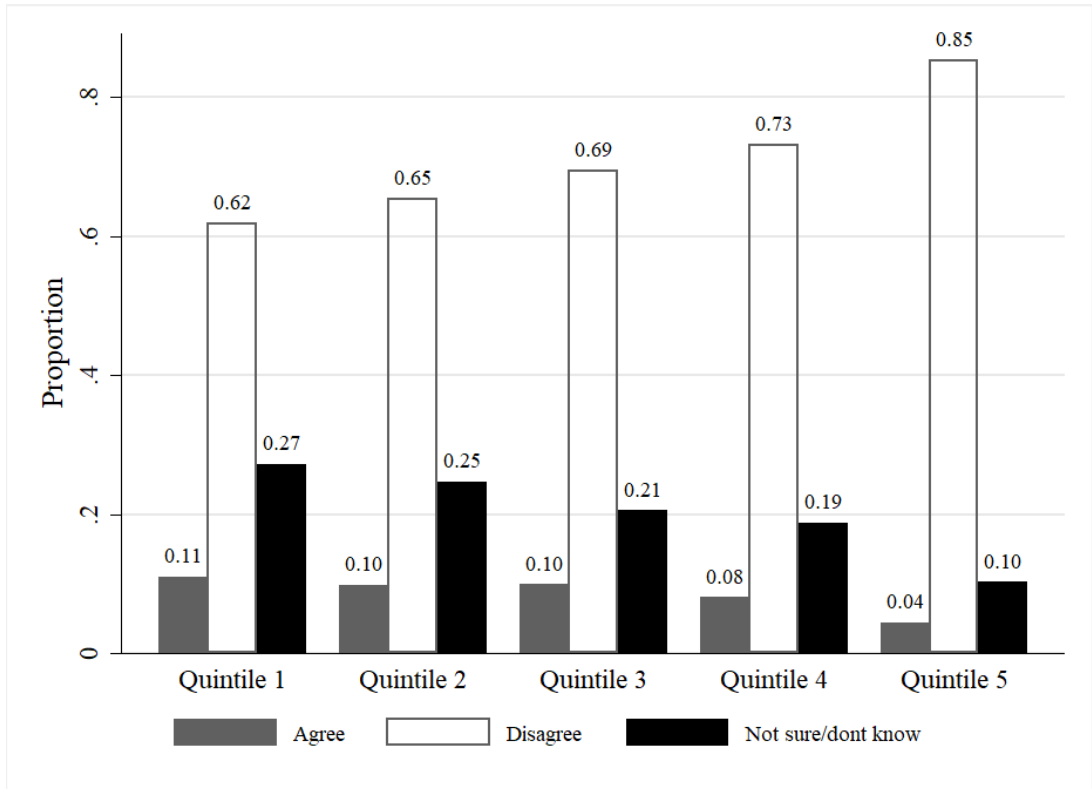


Figure 3: Men who are circumcised can have multiple sexual partners and not be at risk for HIV

Regression results

The results regarding whether the respondents agreed or disagreed with the following statement: Circumcised men can have multiple sexual partners and not be at risk of HIV are reported in column A of Table 3. No significant difference was observed in terms of work status. In terms of being male, we observed that males were likely to disagree. Those who lived in urban areas, were more likely to disagree; than the rural dwellers. We found no statistical difference in terms of marital status. Respondents who had primary, secondary and post-secondary education were more likely to disagree with the statement—than those without any formal education. In terms of wealth status, we found that being in quintile 2; quintile 3; quintile 4 and quintile 5, were more likely to disagree than those in quintile 1. Similar to the previous analysis, respondents who had had an HIV test were likely to disagree. These results are in Table 3, column A.

Table 3- Regression results

| Variables | A | | B | | C | |
|--------------------------|----------|----------------|----------|---------------|----------|---------------|
| | β | 95%CI | β | 95%CI | β | 95%CI |
| Work status | 1.052 | [0.942,1.174] | 1.099* | [0.987,1.225] | 1.064 | [0.968,1.170] |
| Sex of respondent | 2.192*** | [1.962,2.449] | 2.449*** | [2.198,2.730] | 1.794*** | [1.634,1.969] |
| Urban residence | 1.629*** | [1.391,1.907] | 1.590*** | [1.367,1.848] | 1.095 | [0.966,1.240] |
| Marital status | 0.983 | [0.868,1.113] | 0.912 | [0.808,1.030] | 0.944 | [0.844,1.056] |
| Primary education | 1.583*** | [1.381,1.813] | 1.574*** | [1.375,1.802] | 1.306*** | [1.145,1.488] |
| Secondary education | 3.950*** | [3.273,4.767] | 3.675*** | [3.064,4.408] | 2.317*** | [1.968,2.727] |
| Post secondary education | 6.976*** | [4.329,11.240] | 5.265*** | [3.262,8.498] | 2.514*** | [1.879,3.363] |
| Christian | 0.966 | [0.819,1.138] | 0.948 | [0.809,1.111] | 0.992 | [0.857,1.149] |
| Moslem | 1.966*** | [1.563,2.472] | 1.961*** | [1.571,2.449] | 1.634*** | [1.350,1.979] |
| Quintile 2 | 1.171** | [1.015,1.350] | 1.091 | [0.946,1.257] | 1.114 | [0.971,1.278] |
| Quintile 3 | 1.308*** | [1.132,1.512] | 1.210*** | [1.050,1.396] | 1.131* | [0.986,1.296] |
| Quintile 4 | 1.464*** | [1.260,1.700] | 1.384*** | [1.196,1.602] | 1.415*** | [1.234,1.623] |
| Quintile 5 | 1.987*** | [1.646,2.400] | 1.895*** | [1.578,2.275] | 1.746*** | [1.484,2.055] |
| Age: 25-34 | 1.118* | [0.983,1.272] | 1.190*** | [1.049,1.351] | 1.191*** | [1.061,1.336] |
| Age: 35-44 | 1.097 | [0.955,1.260] | 1.170** | [1.021,1.341] | 1.087 | [0.961,1.230] |
| Age:45-54 | 0.998 | [0.852,1.170] | 1.010 | [0.864,1.181] | 1.002 | [0.868,1.157] |
| Age: 55+ | 0.900 | [0.745,1.088] | 0.971 | [0.807,1.168] | 0.857* | [0.724,1.014] |
| Ever tested for HIV | 1.343*** | [1.167,1.546] | 1.380*** | [1.201,1.585] | 1.211*** | [1.068,1.373] |
| Northen region | 0.341*** | [0.299,0.389] | 0.369*** | [0.324,0.419] | 0.532*** | [0.472,0.599] |
| Central region | 0.650*** | [0.588,0.719] | 0.690*** | [0.625,0.760] | 0.862*** | [0.790,0.941] |
| N | 13856 | | 13864 | | 13852 | |

Exponentiated coefficients; 95% confidence intervals in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The results for the question of whether the respondents agreed or disagreed with the statement that men who are circumcised do not need to use condoms to protect themselves from HIV are in Table 3, column B. We found a difference between people working and those not working. In terms of being male, we observed that males were likely to disagree. Those who lived in urban areas, were more likely to disagree than the rural dwellers. In terms of wealth status, we found that being in quintile 3; quintile 4 and quintile 5, were more likely to disagree than those in quintile 1. Similar to the previous analysis, respondents who had had an HIV test were likely to disagree. These results are in Table 3, column B.

Apart from the above-narrated results, respondents were also asked their opinion about whether they agreed that male circumcision alone reduces the risk, or chance, of a man becoming infected with HIV completely, somewhat or not at all. Findings are reported in column C. Regarding gender, we observed that males were likely to indicate that circumcision partially protects from HIV. Those who lived in urban areas, were likely to indicate that circumcision somehow protects them. Respondents who had primary, secondary, and post-secondary education were more likely to disagree with the statement, than those without formal education. We found no statistical difference in terms of marital status or being a Christian. However, Muslims indicated that circumcision offers some protection from HIV compared to those with no religion. All the wealth status quintiles were significant at the 1% level, implying that those with some formal education were more likely to indicate that circumcision somewhat protects from HIV than those in quintile 1. Similar to the previous analysis, respondents who had had an HIV test were likely to say that circumcision offers partial protection from HIV. These results are in Table 3, column C.

We also analysed the outcomes in three level categories for all the results. Our results were consistent as the case in the findings from the binary variables above. The tables in the Appendix show the outcomes.

Discussion

Based on the existing evidence which suggests that VMMC has some preventive effect on HIV and other sexually transmitted diseases (Quinn *et al.*, 2000; Bailey *et al.*, 2007; Gray *et al.*, 2007; Feldacker *et al.*, 2020), many countries in SSA have scaled up the VMMC intervention. Current statistics indicate that by the end of 2017, around 18.5 million men in the priority countries had been medically circumcised. However, since 2011 when the intervention was introduced in Malawi (GoM and NAC, 2014), there has still been a low uptake of VMMC (Carrasco, Nguyen and Kaufman, 2018), which may, to a large extent, be an issue of understanding the

protective effect of VMMC. In this paper, we used nationally representative data from the MPHIA national survey to find out the association between socioeconomic factors and the various aspects of VMMC. Our salient findings are as follows.

We found that there is an understanding that circumcision offers partial protection. This is in line with a qualitative study conducted in Kenya (L’Engle *et al.*, 2014). At the same time, we also found that despite having the circumcision program implemented for an extended period in Malawi, some still think that it offers complete protection- a development that was quite worrisome. Nonetheless, others noted some similar outcomes in other countries (Mattson *et al.*, 2005; Figueroa and Jones-Cooper, 2010; Jones *et al.*, 2014; Grund *et al.*, 2019b; Mangombe and Kalule-Sabiti, 2019).

Our study also demonstrated that there are significant differences in the level of knowledge between men and women on the protective effect of circumcision. Males seem to have higher odds of knowing that circumcision offers partial protection and that men should use condoms despite being circumcised. The gender differences in understanding is an issue that should warrant more investigations, given that other studies have shown that women also have their preferences with regard to the circumcision of men (Westercamp *et al.*, 2012).

The findings on the effect of education on various perceptions towards circumcision mirror the results from other countries (Chikutsa and Maharaj, 2015; Mangombe and Kalule-Sabiti, 2019). Those with primary, secondary and higher education were likely to be associated with a likelihood of having much more knowledge regarding the correct effect of circumcision and also knowing that circumcised men ought also to use protection during sexual intercourse. The result is not so surprising given the emphasis placed on educating the masses through the radio and other means.

We found an encouraging result regarding having had an HIV test and perceptions of circumcision. We found that the HIV test is positively associated with having correct knowledge about circumcision than not having an HIV test. In Malawi, the HIV messages regarding circumcision have also been put out as part of the package during the counselling session of the HIV test. Although we found such a result, we found it difficult to compare with other studies in Malawi, given that this was one of the variables that was not considered in previous papers. Although the message is given as part of the counselling, those who do not go for HIV testing at facilities will not receive the message this way.

The role of wealth in our findings cannot go without mention. Our results point to a positive association between one’s wealth status and having correct knowledge regarding HIV and circumcision. As wealth status offers people different opportunities, such as access to information, it may help explain the positive

association observed. The role of wealth in socio-economic inequalities in HIV-related knowledge has been reported elsewhere (Ochako *et al.*, 2011; Chirwa, 2020). Regarding marital status, we found no significant correlation between marital status and the understanding of the protective effect of circumcision.

Our findings can be explained using a number of factors. First, there has been an improvement in the general HIV and AIDS messaging through radios and television; which, to some extent, may have contributed to the improvement in the HIV and AIDS knowledge (Chirwa, Sithole and Jamu, 2019; Chirwa, 2020). Second, the implementation of the intervention in 2011 has enabled people to obtain first-hand information and access to VMMC, which in one way or another, may have contributed to the proper understanding of the protective effect of VMMC. The interventions involved community outreach, plays and community workshops, where people in rural and urban areas would directly interact with the circumcision service providers. Furthermore, the role of NGOs to support the government initiative was also instrumental. Lastly, since some still consider it part of a culture which serves as a rite of passage (Parkhurst, Chilongozi and Hutchinson, 2015; Rennie *et al.*, 2015), they may find it difficult to link it to HIV prevention.

This study has some important limitations. Firstly, the findings from the study should not be interpreted as causal, given that our identification does not address endogeneity. Some of the variables may have a bi-directional effect on our dependent variables. Secondly, circumcision is a sensitive issue and is considered to be a custom among the Muslim and Yao ethnic groups in Malawi (Rennie *et al.*, 2015). Therefore, since we do not have control over ethnicity, we may potentially suffer the problem of omitted variable bias. In this regard, the results bear some important implications for future research in that there is a need to use other techniques such as instrumental variables to establish causality (Angrist and Pischke, 2008). In addition, it may also be of interest to assess socio-economic related inequality in having the correct information regarding circumcision. This may involve the use of concentration indices (O'Donnell *et al.*, 2008). As of now, it is not clear whether the poor and the rich in society have the same level of understanding regarding circumcision.

The results in this paper have some important implications for public health policy. The findings that correct information varies with wealth status suggest that there is a danger that people from poorer backgrounds are at a higher risk of catching HIV if they perceive that there is complete protection from the virus through circumcision than the wealthier ones. They may be susceptible to behaviour that may put them at a much higher risk of HIV infection due to an incomplete understanding. Hence, there is a need to intensifying information-sharing programmes targeting the poorer communities. Implementation of programmes aimed at improving the wealth status of the poor could also help increase their access to the correct information.

Furthermore, since those with no formal education are unlikely to have the correct information, there is a need to scale-up information regarding VMMC, beyond the education circle. It may be essential to use social media, especially to capture the attention of the youth, since circumcision is aimed at young people (Chikutsa and Maharaj, 2015).

Conclusion

In conclusion, this study has established that misconceptions regarding the protective effect of VMMC still exist and vary according to socio-economic factors. Thus, this remains a potential threat in the fight against HIV. The results, therefore, make us question the extent to which the interventions associated with VMMC messaging are working. The findings in this study suggest the need for designing and implementing strategies that address the misconceptions about male circumcision. This will help address misconceptions such as; if one is circumcised, there is no need to use a condom during sex, and that being circumcised is a licence to have multiple sexual partners since a circumcised penis has a “natural” condom or they consider it as a “bulletproof”. Clearing these misconceptions may lead to a good fight against HIV and AIDS in Malawi.

The findings that a large proportion of respondents still have no clear understanding of the protective effect of male circumcision calls for more campaigns to disseminate correct information regarding circumcision. Furthermore, since we find education to be important, there may be a need to introduce topics in secondary school biology and social studies courses regarding the protective effect of circumcision. In addition to the above, colleges and universities, can use “Social Weekends” to share more information on VMMC during the health talks. Thus, if such messages are disseminated during that time, they may have long-lasting effects. Universities can also use HIV and AIDS-related activities organised during the university orientation weeks for freshers to share more information about VMMC (Chirwa, Sithole and Jamu, 2019). Making use of that time to disseminate information regarding circumcision may be helpful. Lastly, since we observed that the respondents from rural areas were less likely to have the correct information, there might be a need to intensify rural campaigns aimed at disseminating correct information.

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APPENDIX

Appendix 1 - Does male circumcision alone reduce the risk, or chance, of a man getting HIV

| Explanatory Variables | A | | B | | C | |
|---------------------------|----------|---------------|----------|---------------|----------|---------------|
| | β | 95%CI | β | 95%CI | β | 95%CI |
| Protect completely | | | | | | |
| work status | 1.207** | [1.026,1.420] | 1.198** | [1.017,1.410] | 1.203** | [1.022,1.417] |
| Sex of respondent | 1.498*** | [1.272,1.764] | 1.397*** | [1.183,1.650] | 1.411*** | [1.194,1.668] |
| Residence | 1.275** | [1.015,1.601] | 1.373*** | [1.151,1.638] | 1.280** | [1.020,1.606] |
| Marital status | 1.039 | [0.868,1.243] | 1.083 | [0.906,1.295] | 1.051 | [0.878,1.258] |
| Christian | 1.041 | [0.818,1.326] | 1.043 | [0.819,1.327] | 1.026 | [0.806,1.306] |
| Moslem | 2.112*** | [1.524,2.926] | 2.228*** | [1.607,3.089] | 2.193*** | [1.582,3.041] |
| Quintile 2 | 1.140 | [0.921,1.413] | | | 1.113 | [0.898,1.379] |
| Quintile 3 | 1.314** | [1.059,1.630] | | | 1.267** | [1.021,1.573] |
| Quintile 4 | 1.407*** | [1.132,1.750] | | | 1.315** | [1.055,1.638] |
| Quintile 5 | 1.410** | [1.075,1.849] | | | 1.276* | [0.966,1.684] |
| Age: 25-34 | 1.077 | [0.894,1.298] | 1.113 | [0.923,1.341] | 1.098 | [0.910,1.323] |
| Age: 35-44 | 0.856 | [0.701,1.046] | 0.942 | [0.771,1.152] | 0.916 | [0.747,1.122] |
| Age:45-54 | 0.704*** | [0.560,0.887] | 0.810* | [0.643,1.021] | 0.777** | [0.614,0.982] |
| Age: 55+ | 0.696*** | [0.531,0.911] | 0.817 | [0.622,1.073] | 0.787* | [0.597,1.037] |
| Ever tested for HIV | 1.418*** | [1.143,1.759] | 1.391*** | [1.121,1.726] | 1.388*** | [1.118,1.723] |
| Northern region | 0.236*** | [0.193,0.289] | 0.229*** | [0.187,0.281] | 0.224*** | [0.183,0.275] |
| Central region | 0.444*** | [0.383,0.515] | 0.426*** | [0.367,0.493] | 0.436*** | [0.375,0.505] |
| Primary education | | | 1.481*** | [1.212,1.809] | 1.441*** | [1.178,1.763] |
| Secondary education | | | 1.988*** | [1.518,2.603] | 1.858*** | [1.406,2.454] |
| Post secondary education | | | 0.902 | [0.449,1.812] | 0.828 | [0.409,1.678] |
| Protect Somewhat | | | | | | |
| work status | 1.290*** | [1.145,1.454] | 1.207*** | [1.069,1.363] | 1.210*** | [1.071,1.367] |
| Sex of respondent | 2.843*** | [2.520,3.207] | 2.415*** | [2.139,2.727] | 2.500*** | [2.212,2.826] |

| | | | | | | |
|--------------------------------|----------|---------------|----------|---------------|----------|---------------|
| Residence | 1.371*** | [1.160,1.620] | 1.828*** | [1.603,2.085] | 1.342*** | [1.134,1.588] |
| Marital status | 0.974 | [0.850,1.117] | 1.052 | [0.919,1.204] | 0.989 | [0.862,1.135] |
| Christian | 1.026 | [0.857,1.229] | 1.011 | [0.845,1.211] | 0.974 | [0.813,1.167] |
| Moslem | 2.188*** | [1.685,2.843] | 2.407*** | [1.852,3.127] | 2.322*** | [1.786,3.019] |
| Quintile 2 | 1.212** | [1.032,1.424] | | | 1.173* | [0.998,1.378] |
| Quintile 3 | 1.415*** | [1.202,1.666] | | | 1.303*** | [1.106,1.535] |
| Quintile 4 | 1.871*** | [1.588,2.205] | | | 1.610*** | [1.364,1.900] |
| Quintile 5 | 2.962*** | [2.423,3.622] | | | 2.050*** | [1.668,2.520] |
| Age: 25-34 | 1.263*** | [1.095,1.456] | 1.330*** | [1.153,1.535] | 1.283*** | [1.111,1.481] |
| Age: 35-44 | 0.946 | [0.815,1.098] | 1.150* | [0.991,1.336] | 1.068 | [0.918,1.242] |
| Age:45-54 | 0.785*** | [0.662,0.930] | 1.043 | [0.879,1.237] | 0.947 | [0.796,1.128] |
| Age: 55+ | 0.644*** | [0.527,0.788] | 0.898 | [0.733,1.099] | 0.811** | [0.660,0.997] |
| Ever tested for HIV | 1.444*** | [1.237,1.685] | 1.353*** | [1.161,1.577] | 1.355*** | [1.161,1.582] |
| Northern region | 0.305*** | [0.265,0.350] | 0.293*** | [0.255,0.337] | 0.279*** | [0.242,0.321] |
| Central region | 0.597*** | [0.534,0.666] | 0.567*** | [0.507,0.633] | 0.591*** | [0.529,0.661] |
| Primary education | | | 1.665*** | [1.432,1.937] | 1.558*** | [1.338,1.814] |
| Secondary education | | | 4.168*** | [3.414,5.087] | 3.428*** | [2.796,4.204] |
| Post secondary education | | | 5.984*** | [3.880,9.230] | 4.401*** | [2.841,6.818] |
| Does not protect at all | | | | | | |
| Work status | 1.435*** | [1.196,1.722] | 1.335*** | [1.109,1.607] | 1.347*** | [1.119,1.622] |
| Sex of respondent | 3.435*** | [2.855,4.132] | 3.039*** | [2.519,3.667] | 3.098*** | [2.566,3.740] |
| Urban residence | 1.701*** | [1.314,2.204] | 1.989*** | [1.635,2.419] | 1.678*** | [1.294,2.176] |
| Marital status | 1.192 | [0.929,1.530] | 1.253* | [0.978,1.606] | 1.199 | [0.935,1.538] |
| Christian | 0.913 | [0.682,1.223] | 0.898 | [0.671,1.203] | 0.875 | [0.653,1.171] |
| Moslem | 1.220 | [0.792,1.879] | 1.316 | [0.857,2.021] | 1.283 | [0.833,1.974] |
| Quintile 2 | 1.182 | [0.875,1.597] | | | 1.148 | [0.850,1.550] |
| Quintile 3 | 1.643*** | [1.234,2.188] | | | 1.544*** | [1.159,2.056] |
| Quintile 4 | 1.533*** | [1.142,2.058] | | | 1.366** | [1.016,1.836] |

| | | | | | | |
|--------------------------|----------------------|---------------|----------------------|----------------|----------------------|---------------|
| Quintile 5 | 2.255 ^{***} | [1.615,3.148] | | | 1.644 ^{***} | [1.164,2.323] |
| Age: 25-34 | 1.284 [*] | [0.999,1.652] | 1.316 ^{**} | [1.024,1.690] | 1.289 ^{**} | [1.002,1.657] |
| Age: 35-44 | 0.964 | [0.739,1.257] | 1.104 | [0.845,1.441] | 1.054 | [0.808,1.377] |
| Age:45-54 | 0.977 | [0.726,1.313] | 1.188 | [0.881,1.603] | 1.114 | [0.825,1.504] |
| Age: 55+ | 0.905 | [0.644,1.271] | 1.134 | [0.805,1.598] | 1.072 | [0.760,1.512] |
| Ever tested for HIV | 1.188 | [0.932,1.514] | 1.124 | [0.882,1.431] | 1.128 | [0.884,1.439] |
| Northern region | 0.350 ^{***} | [0.273,0.447] | 0.334 ^{***} | [0.261,0.428] | 0.326 ^{***} | [0.254,0.418] |
| Central region | 0.625 ^{***} | [0.522,0.748] | 0.596 ^{***} | [0.498,0.714] | 0.619 ^{***} | [0.517,0.742] |
| Primary education | | | 1.566 ^{***} | [1.184,2.072] | 1.499 ^{***} | [1.132,1.985] |
| Secondary education | | | 2.967 ^{***} | [2.120,4.151] | 2.624 ^{***} | [1.861,3.701] |
| Post secondary education | | | 5.865 ^{***} | [3.335,10.317] | 4.862 ^{***} | [2.737,8.638] |
| <i>N</i> | 13852 | | 13852 | | 13852 | |

Exponentiated coefficients; 95% confidence intervals in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 2 - Men who are circumcised do not need to use condoms to protect themselves from HIV

| Variables | A | | B | | C | |
|--------------------------|----------|---------------|----------|---------------|----------|---------------|
| | β | 95%CI | β | 95%CI | β | 95%CI |
| Agree | | | | | | |
| Work status | 1.173* | [0.979,1.406] | 1.193* | [0.997,1.429] | 1.179* | [0.984,1.413] |
| Sex of respondent | 1.426*** | [1.184,1.719] | 1.449*** | [1.205,1.742] | 1.426*** | [1.182,1.721] |
| Urban residence | 1.429*** | [1.164,1.754] | 1.487*** | [1.150,1.924] | 1.498*** | [1.160,1.935] |
| Marital status | 1.283** | [1.046,1.574] | 1.259** | [1.024,1.549] | 1.265** | [1.029,1.556] |
| Primary education | 1.137 | [0.919,1.405] | | | 1.125 | [0.908,1.394] |
| Secondary education | 1.196 | [0.885,1.617] | | | 1.187 | [0.867,1.624] |
| Post secondary education | 1.322 | [0.521,3.352] | | | 1.371 | [0.535,3.514] |
| Christian | 0.831 | [0.637,1.084] | 0.827 | [0.634,1.080] | 0.825 | [0.632,1.077] |
| Moslem | 1.012 | [0.694,1.475] | 0.983 | [0.675,1.433] | 1.005 | [0.689,1.464] |
| Age: 25-34 | 1.002 | [0.816,1.231] | 0.997 | [0.811,1.225] | 1.000 | [0.813,1.230] |
| Age: 35-44 | 0.803* | [0.643,1.002] | 0.785** | [0.629,0.979] | 0.795** | [0.636,0.995] |
| Age:45-54 | 0.628*** | [0.484,0.815] | 0.607*** | [0.469,0.785] | 0.619*** | [0.475,0.806] |
| Age: 55+ | 0.547*** | [0.400,0.749] | 0.525*** | [0.385,0.716] | 0.542*** | [0.395,0.745] |
| Ever tested for HIV | 1.161 | [0.918,1.468] | 1.164 | [0.920,1.472] | 1.159 | [0.915,1.466] |
| Northern region | 0.178*** | [0.142,0.224] | 0.181*** | [0.144,0.227] | 0.177*** | [0.141,0.223] |
| Central region | 0.359*** | [0.304,0.423] | 0.367*** | [0.311,0.433] | 0.363*** | [0.308,0.428] |
| Quintile 2 | | | 1.069 | [0.849,1.346] | 1.058 | [0.840,1.333] |
| Quintile 3 | | | 1.208 | [0.957,1.524] | 1.200 | [0.950,1.516] |
| Quintile 4 | | | 1.213 | [0.953,1.542] | 1.185 | [0.929,1.512] |
| Quintile 5 | | | 1.000 | [0.736,1.357] | 0.974 | [0.710,1.338] |
| Disagree | | | | | | |
| Work status | 1.166** | [1.026,1.324] | 1.254*** | [1.106,1.421] | 1.169** | [1.029,1.329] |
| Sex of respondent | 2.689*** | [2.364,3.058] | 3.180*** | [2.798,3.614] | 2.773*** | [2.435,3.158] |
| Urban residence | 2.432*** | [2.093,2.826] | 1.870*** | [1.555,2.250] | 1.847*** | [1.531,2.227] |

| | | | | | | |
|--------------------------|----------------------|----------------|----------------------|---------------|----------------------|----------------|
| Marital status | 1.044 | [0.908,1.200] | 0.973 | [0.845,1.120] | 0.989 | [0.858,1.139] |
| Primary education | 1.753 ^{***} | [1.505,2.042] | | | 1.656 ^{***} | [1.420,1.932] |
| Secondary education | 4.685 ^{***} | [3.801,5.774] | | | 3.939 ^{***} | [3.179,4.882] |
| Post secondary education | 7.981 ^{***} | [4.655,13.684] | | | 5.988 ^{***} | [3.477,10.311] |
| Christian | 0.909 | [0.753,1.099] | 0.931 | [0.770,1.125] | 0.880 | [0.728,1.063] |
| Moslem | 2.024 ^{***} | [1.535,2.668] | 1.837 ^{***} | [1.394,2.420] | 1.959 ^{***} | [1.485,2.584] |
| Age: 25-34 | 1.231 ^{***} | [1.061,1.429] | 1.173 ^{**} | [1.011,1.360] | 1.192 ^{**} | [1.026,1.385] |
| Age: 35-44 | 1.152 [*] | [0.984,1.348] | 0.945 | [0.808,1.105] | 1.080 | [0.921,1.266] |
| Age:45-54 | 0.935 | [0.783,1.117] | 0.701 ^{***} | [0.588,0.836] | 0.860 | [0.718,1.030] |
| Age: 55+ | 0.872 | [0.706,1.076] | 0.622 ^{***} | [0.505,0.765] | 0.800 ^{**} | [0.646,0.991] |
| Ever tested for HIV | 1.437 ^{***} | [1.227,1.683] | 1.536 ^{***} | [1.311,1.801] | 1.440 ^{***} | [1.228,1.689] |
| Northern region | 0.220 ^{***} | [0.190,0.255] | 0.234 ^{***} | [0.203,0.270] | 0.211 ^{***} | [0.182,0.244] |
| Central region | 0.447 ^{***} | [0.398,0.503] | 0.472 ^{***} | [0.420,0.531] | 0.465 ^{***} | [0.413,0.523] |
| Quintile 2 | | | 1.156 [*] | [0.983,1.358] | 1.113 | [0.946,1.310] |
| Quintile 3 | | | 1.407 ^{***} | [1.194,1.657] | 1.287 ^{***} | [1.091,1.518] |
| Quintile 4 | | | 1.732 ^{***} | [1.465,2.049] | 1.469 ^{***} | [1.239,1.741] |
| Quintile 5 | | | 2.796 ^{***} | [2.268,3.448] | 1.879 ^{***} | [1.514,2.332] |
| <i>N</i> | 13864 | | 13864 | | 13864 | |

Exponentiated coefficients; 95% confidence intervals in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 3- Men who are circumcised can have multiple sexual partners and not be at risk for HIV

| Explanatory variable | A | | B | | C | |
|--------------------------|----------|---------------|----------|---------------|----------|---------------|
| | β | 95%CI | β | 95%CI | β | 95%CI |
| Agree | | | | | | |
| Work status | 1.235** | [1.023,1.492] | 1.236** | [1.024,1.492] | 1.242** | [1.029,1.500] |
| Sex of respondent | 1.777*** | [1.463,2.160] | 1.797*** | [1.484,2.177] | 1.787*** | [1.468,2.175] |
| Urban residence | 1.452*** | [1.160,1.817] | 1.435** | [1.082,1.903] | 1.452*** | [1.099,1.920] |
| Marital status | 1.119 | [0.905,1.385] | 1.092 | [0.879,1.355] | 1.099 | [0.886,1.364] |
| Primary education | 1.167 | [0.931,1.463] | | | 1.151 | [0.917,1.444] |
| Secondary education | 1.072 | [0.770,1.491] | | | 1.040 | [0.739,1.464] |
| Post secondary education | 0.446* | [0.173,1.150] | | | 0.439* | [0.169,1.142] |
| Christian | 0.870 | [0.659,1.150] | 0.859 | [0.649,1.136] | 0.863 | [0.653,1.141] |
| Moslem | 0.927 | [0.621,1.384] | 0.901 | [0.604,1.344] | 0.919 | [0.616,1.371] |
| Age: 25-34 | 1.066 | [0.854,1.332] | 1.052 | [0.842,1.314] | 1.061 | [0.849,1.326] |
| Age: 35-44 | 0.908 | [0.716,1.152] | 0.883 | [0.697,1.120] | 0.894 | [0.703,1.138] |
| Age:45-54 | 0.661** | [0.499,0.876] | 0.638*** | [0.481,0.846] | 0.646*** | [0.485,0.861] |
| Age: 55+ | 0.531*** | [0.377,0.747] | 0.509*** | [0.364,0.712] | 0.522*** | [0.369,0.738] |
| Ever tested for HIV | 1.061 | [0.833,1.352] | 1.058 | [0.830,1.348] | 1.059 | [0.831,1.350] |
| Northern region | 0.182*** | [0.142,0.233] | 0.183*** | [0.142,0.234] | 0.180*** | [0.140,0.231] |
| Central region | 0.375*** | [0.315,0.446] | 0.387*** | [0.324,0.461] | 0.380*** | [0.319,0.454] |
| Quintile 2 | | | 1.045 | [0.821,1.332] | 1.035 | [0.812,1.319] |
| Quintile 3 | | | 1.221 | [0.956,1.560] | 1.221 | [0.955,1.562] |
| Quintile 4 | | | 1.165 | [0.901,1.506] | 1.157 | [0.892,1.500] |
| Quintile 5 | | | 1.017 | [0.732,1.414] | 1.070 | [0.764,1.499] |
| Disagree | | | | | | |
| Work status | 1.134* | [0.996,1.291] | 1.219*** | [1.073,1.385] | 1.139* | [1.000,1.297] |
| Sex of respondent | 2.578*** | [2.263,2.938] | 3.065*** | [2.692,3.489] | 2.662*** | [2.333,3.037] |

| | | | | | | |
|--------------------------|----------------------|----------------|----------------------|---------------|----------------------|---------------|
| Urban residence | 2.481 ^{***} | [2.129,2.892] | 1.874 ^{***} | [1.553,2.260] | 1.850 ^{***} | [1.530,2.237] |
| Marital status | 1.076 | [0.935,1.239] | 0.995 | [0.862,1.148] | 1.012 | [0.877,1.169] |
| Primary education | 1.775 ^{***} | [1.523,2.069] | | | 1.668 ^{***} | [1.429,1.946] |
| Secondary education | 4.846 ^{***} | [3.911,6.004] | | | 4.022 ^{***} | [3.228,5.010] |
| Post secondary education | 7.633 ^{***} | [4.420,13.181] | | | 5.594 ^{***} | [3.224,9.708] |
| Christian | 0.946 | [0.782,1.146] | 0.966 | [0.797,1.171] | 0.914 | [0.754,1.107] |
| Moslem | 1.950 ^{***} | [1.480,2.570] | 1.768 ^{***} | [1.342,2.329] | 1.886 ^{***} | [1.431,2.486] |
| Age: 25-34 | 1.183 ^{**} | [1.019,1.373] | 1.126 | [0.970,1.306] | 1.143 [*] | [0.984,1.328] |
| Age: 35-44 | 1.137 | [0.972,1.331] | 0.927 | [0.792,1.084] | 1.061 | [0.904,1.244] |
| Age:45-54 | 0.956 | [0.801,1.141] | 0.710 ^{***} | [0.595,0.846] | 0.872 | [0.728,1.044] |
| Age: 55+ | 0.819 [*] | [0.663,1.010] | 0.578 ^{***} | [0.469,0.713] | 0.746 ^{***} | [0.602,0.924] |
| Ever tested for HIV | 1.355 ^{***} | [1.155,1.589] | 1.449 ^{***} | [1.235,1.702] | 1.357 ^{***} | [1.155,1.594] |
| Northern region | 0.215 ^{***} | [0.186,0.249] | 0.228 ^{***} | [0.198,0.264] | 0.205 ^{***} | [0.176,0.238] |
| Central region | 0.439 ^{***} | [0.390,0.495] | 0.466 ^{***} | [0.414,0.525] | 0.458 ^{***} | [0.406,0.516] |
| Quintile 2 | | | 1.230 ^{**} | [1.046,1.446] | 1.186 ^{**} | [1.008,1.395] |
| Quintile 3 | | | 1.524 ^{***} | [1.292,1.796] | 1.395 ^{***} | [1.181,1.646] |
| Quintile 4 | | | 1.813 ^{***} | [1.533,2.146] | 1.537 ^{***} | [1.297,1.823] |
| Quintile 5 | | | 3.031 ^{***} | [2.449,3.751] | 2.039 ^{***} | [1.637,2.539] |
| <i>N</i> | 13856 | | 13856 | | 13856 | |

Exponentiated coefficients; 95% confidence intervals in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The Cotton Industry and the Struggle to Arrest Poverty in Malawi: A Historical Stocktaking

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Abstract

In more recent years, scholars of Malawi's agricultural history have attempted to rehabilitate colonial and postcolonial economies, often doubting the exploitation narrative that characterised the literature of the 1970s and 1980s. This article traces the historical trajectory of the relationship between rural cotton farmers in Malawi, on the one hand, and the state and other multinational companies, on the other, to contribute to the debate on the state and agricultural transformation in Malawi. It addresses the question of the extent to which attempts to intensify cotton production have improved the lives of ordinary farmers who dominate the crop production in the country. Locating the article within colonial and postcolonial times, we argue that although the Malawi Government has produced development plans and initiatives promoting cotton production among rural farmers, the targeted farmers have not benefitted from such interventions. Instead, the cotton industry displays an element of exploitation akin to that which characterised colonial and early post-colonial economies. Documentary and oral sources from farmers in the Balaka district allow us to demonstrate how production bottlenecks, poor markets, and weak public-private partnerships continue to define an industry that is anchored by small-scale farmers yet benefits cotton buying firms. Beyond emphasising an exploitation narrative, we propose that the state could address these concerns to make the cotton industry remain a significant component in fighting poverty in line with Sustainable Development Goal number one.

Keywords: Balaka; Cotton; Development Plans; Malawi; Rural Poverty; SDGs.

1. Introduction

Two years after the global community adopted the United Nations Sustainable Development Goals of 2015, Malawi domesticated them by raising the 2017-2022

Growth and Development Strategy (MGDS) III. As was the case with Millennium Development Goals (MDGs), which expired in 2015 having achieved little for Malawi, the need to arrest poverty through a transformed agricultural sector ranked high on the agenda of MGDS III. Now that the country has just embarked on its latest development trajectory, following the creation of the *Malawi Vision 2063*, launched in January 2021, and the subsequent ten-year implementation plan of 2021-2031, we take a historical stocktaking of the struggles that Malawian cotton farmers face to better their lives. Although the article focuses on a single commercial crop, such an exercise is scholarly rewarding because it zeroes in on a deep-seated historical debate on how the state in Malawi has balanced the interests of the rural smallholder and large-scale commercial farmers. Scholars argue that the plight of rural agricultural communities in Malawi centres around a culture of exploitation in which the state, often acting on behalf of large-scale farmers and merchants, has helped to suppress the progress of rural farming communities in the country (Mhone, 1993; Kydd and Christiansen, 1982).

Studies on the state and its limits have increasingly challenged this exploitation narrative by pointing to the contradictions that states often grapple with in seeking to satisfy the interests of diverse groups in a society. Migdal (2010:115-116) and Berman (1990), for example, made it clear that states do not necessarily seek after a leviathan character Mhone (1993) and colleagues emphasise – one of subjecting smallholder farmers to the exploitative tendencies of larger capitalist groups. Instead, they point to the need to analyse a web of relationships state officials are caught up in or the multiple contradictions they seek to resolve, which sometimes lead to unintended outcomes such as exploitative state behaviour. Other studies, such as that by Green (2007), point to the methodological limitations in this ‘exploitation literature,’ blaming it for concentrating entirely on the country’s southern region, where land alienation was more intense than in the other two regions, the centre and north.

This new direction notwithstanding, evidence in the cotton industry in Malawi, we argue, corroborates the same exploitation narrative, making it nearly impossible to reform. The argument is particularly compelling when we compare the experiences of the country’s smallholder cotton farmers as they played out in the distant colonial and immediate post-colonial past to that of the most recent period, particularly the first two decades of the 21st century. The latter period has not enjoyed a good scholarly coverage, for even the work by Elias Mandala (2018), which by far affords us the best experience of cotton farmers in the country, did not cover the period beyond 1994. To what extent do colonial and early post-independence exploitative economies show similarities with production trends in 21st century Malawi? How far have rural cotton farmers benefitted from recent attempts to revamp the cotton industry through the Chinese merchant capital? The article addresses these and related questions. The result is a paper that undertakes a historical stocktaking of the relationship between

Malawi's rural cotton farmers, on the one hand, and the state and other multinational companies (MNCs) from Britain and China, on the other. We discuss the MNCs from Britain to cover the colonial period and the ones from China for the most recent postcolonial present.

We argue that government efforts to spur the cotton industry have not addressed the deep-seated historical challenges that have long affected the progress of cotton farmers in the country. Production bottlenecks, poor markets, and weak public-private partnerships, among others, characterise the industry that is anchored by small-scale farmers yet continues to benefit owners of the merchant capital. The recent entry of a Chinese company into the cotton industry has helped to reveal the industry's very contradictions. If the government perceives agricultural commercialisation as central to arresting poverty in line with SDG number one, the story we present is the exact antithesis of this optimism. It is a story that shows the continued struggle and failure of the state to balance the goals of raising the country's Gross Domestic Product (GDP) without sacrificing the interests of the rural poor. The article emphasises the resilience of the exploitation narrative from the distant colonial past to the 21st Century. Beyond contributing to the literature on cotton production and marketing in Malawi, the paper's findings should appeal to key stakeholders in government, and local and international development partners, especially those aiming to address rural poverty through agricultural transformation.

2. Research Design and Methodology

This historical study is predominantly qualitative and relies on primary and secondary sources to understand the experiences of cotton farmers in Malawi, with a particular focus on Balaka District, where we conducted some oral interviews. We interacted with cotton farmers through face-to-face interviews and Focus Group Discussions. We also held discussions with government extension officers and some officials working for the Malawi Cotton Company (MCC) through Key Informant Interviews. The choice of Balaka, particularly the areas the MCC targets, was deliberate. Balaka district ranks among those in which serious cotton farming takes place in the country with the support of both public and private entities. In the latter category, the MCC, a Chinese entity, plays a significant role in supplying cottonseed to local farmers and purchasing their products. We asked questions about the recent Chinese involvement in the cotton sector and its benefits on local farmers, how farmers perceive recent government attempts to revamp the cotton sector, and the extent to which farmers have benefitted from Chinese involvement in the cotton industry. Our analysis of oral interviews was thematic and fell within the questions listed here. We present this data through narrative vignettes, descriptions, and direct quotes, while keeping the responses anonymous for ethical purposes.

Beyond these oral interviews, this study also relies on archival materials to understand the experiences of cotton farmers and how they interacted with the state and its proxies in the distant colonial past and the early postcolonial period. These include colonial agricultural reports, annual government reports, official government correspondence, and other print media publications. Because of their nature, we have cited archival sources in the footnotes section. Also, invaluable have been secondary sources, which allow us to contextualise the study within the literature on agricultural production and marketing in colonial and postcolonial Malawi; explain the involvement of MNCs in Malawi's agriculture sector; and highlight the formulation of development plans and programmes, some of which are essential in eradicating rural poverty. In the next section, we provide a brief background to the cotton industry in Malawi and the significant themes that have attracted scholarly attention so far.

3. Background and Brief Overview of Literature

Since the colonial era, the state in Malawi has not run short of development instruments. The ten-year post-war development plan, which ran between 1945 and 1955, but was revised in 1947, probably inaugurated Malawi's economic planning culture.¹ The plan emerged as a response to Britain's renewed commitment to developing its colonies in the post-World War Two era. Each recipient of the British development grants had to produce a schedule of activities duly approved by the colonies/protectorates before the Imperial Treasury released funding. What is significant here is the agrarian bias in this plan. It emphasised the agricultural sector, particularly those activities that aimed to create progress in rural areas. Between 1961 and 1967, Malawi boasted two development plans. The first (1961-1965) was drafted when Malawi achieved self-rule status in 1961 with Dr. Hastings Kamuzu Banda as the Prime Minister. The second came in 1965, barely a year after the country gained independence from Britain. Like the previous plans, much focus was on agriculture in both cases. The plans aimed to transform the agricultural sector and pay attention to social engineering projects to help rural farmers become efficient commercial producers.

By 1967, the country had abandoned this planning, favouring one-year rolling programmes. The decision coincided with the dissolution of the Ministry of Development and Planning, which Aleke Banda headed. That decision was condemned by officials from the Bretton Woods institutions, namely, the World Bank and International Monetary Fund who believed that development plans represented a step towards organising and planning economies. But Malawi argued that effective economic planning was impossible for a country that relied on outside financing for its development and recurrent budget (Kayira, 2020). After pressure, Malawi

¹ See British National Archive, Hereafter BNA, CO 525/208/4, Nyasaland Post-war Development Plan, 1945-1955.

produced the ten-year development policies (Devpols), the first of which became operational in 1971. However, if under the Devpols the country registered an impressive economic growth of the 1970s as scholars have observed, this progress was not without contradictions. By the late 1970s, the country experienced a structural crisis that hit the rural poor the most (Pryor, 1990). Commentators argue that the 1970s crisis, which eventually led to the structural adjustment reforms of the 1980s, had to do with the government's exploitative tendency. For example, in their separate works, Mhone (1993) and Kydd and Christiansen (1982) note that the structural adjustment crisis in question came in the wake of rather punitive economic policies of Dr. Banda's regime which favoured large-scale producers at the expense of the majority rural farmers. Such policies, it is argued, included using the state marketing Board, the Agriculture Development and Marketing Corporation (ADMARC), to extract surplus from smallholder farmers through low producer prices. The other mechanism had to do with the conversion of customary to leasehold land to support estate agriculture. By suppressing the majority of rural farmers, the policies failed to create economies of scale and deprived the local farmer's contribution to the development process. These strategies represent the resilience of the colonial exploitation policies in which similar interventions favoured non-African settlers at the expense of African producers.

In the next section, we highlight how cotton production in colonial and later post-colonial Malawi speaks to such a narrative in ways that reflect the deep-seated historical problems cotton farmers have had to endure. The choice of the cotton industry to understand the limits to agricultural commercialisation in Malawi's countryside is deliberate. Cotton ranks among the few, if not the only crop, where smallholder farmers have had a dominant position in its production from colonial times to the present. The cotton industry provides better lessons on how to spur the rural economy through local agency instead of large-scale producers, who have so far restricted themselves to the arena of exchange or market as opposed to the actual production of the crop.

We begin by explaining the activities of the British Cotton Growers Association (BCGA) in Malawi and how, in partnership with the colonial state, it sought to encourage cotton production among rural Africans in the country to support Britain's cotton companies in Lancaster. We compare this experience with the contemporary one, where the cotton industry has attracted multiple buyers, chief among them being the MCC, which rolls on the wheels of China's merchant capital. We argue that despite framing sound instruments to transform the agricultural economy and make it work favouring the rural poor, experience with the cotton industry displays the government's failure to balance the interests of large-scale cotton merchants and those of small-scale cotton producers who anchor the industry. For the most part, state policy continues to serve the former group, whether in the distant colonial past or the

immediate present. In emphasising the resilience of the exploitation narrative, the article offers some lessons that would help to reorient the industry towards a more balanced approach that could work in favour of all the parties involved.

4. The colonial state and cotton production

Although Africans in the Lower Shire Valley of Malawi had grown cotton before the establishment of British colonial rule in 1891, it was not until 1901 that the colonial state sanctioned cotton production (Terry, 1962:59-61). Its production was preceded by tests in cotton growing by the Scientific Department, headed by a Mr. Maclounie based at Zomba. The colonial authorities approved the cottonseed and initially offered it to European settlers for purchase in 1902. The following year, the government extended the opportunity of growing cotton to African peasant farmers. In that year, the Department of Agriculture distributed ‘Egyptian cotton seed,’ variety to African farmers in the Upper Shire District (Shire Highlands) and the Ulongwe areas (near the Lakeshore). This variety was preferred in Lancaster cotton factories in Britain to local varieties. By the 1904/05 growing season, cottonseed distribution had reached all parts of the Lakeshore region, including Salima and Karonga districts. In those early years, African farmers took up cotton growing to earn their money through cotton sales instead of seeking employment on European-owned estates (Terry, 1962:59-61). As a result, cotton production among Africans increased steadily, as the following figure illustrates:

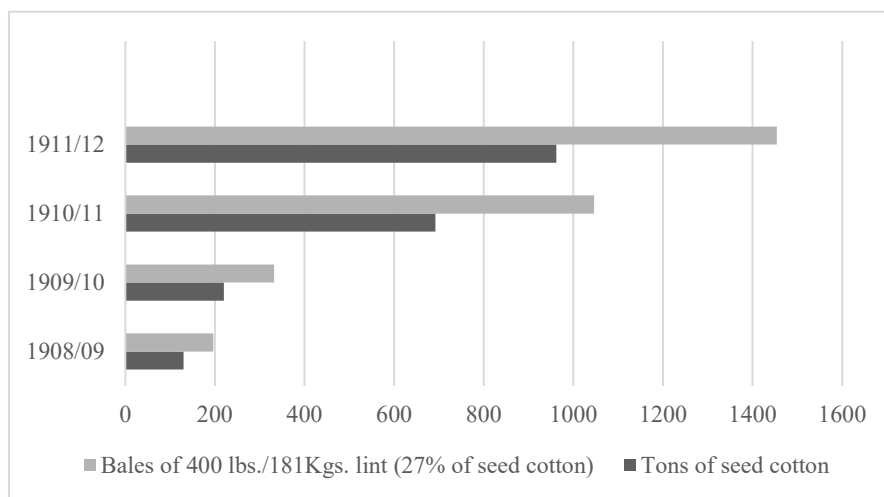


Figure 1: Early progress for African-grown cotton in Nyasaland

Source: Compiled from PRO, CO/626/1, Annual Report of the Department Agriculture of Nyasaland for the year ended 31 March, 1912,” p. 6.

As African peasants became permanent players in the Nyasaland cotton industry, the next phase was establishing cotton buyers. Colonial records indicate that to promote cotton planting, the government purchased the crop from African farmers at 1 penny per pound and resold it at the same price to the British Central Africa Company (BCAC). Apart from the BCAC, the other company with British origins involved in cotton purchases was the African Lakes Cooperation (ALC), established by the Moir Brothers (John and Frederick) in 1888. The ALC conducted export trade, agricultural production, and general transportation in British colonial Africa among other businesses. The ALC was sub-contracted to buy cotton in Nyasaland by yet another entity, the British Cotton Growing Association (BCGA), whose activities we will return to shortly (Terry, 1962: 60-62; Moir, 1924). This story suggests a growing international interest in the Nyasaland-grown cotton, especially in the Lower Shire districts where climatic conditions had proven favourable to its production. Because the BCGA emerged to be a significant player in cotton production and marketing, it deserves a lengthy discussion here.

5. The BCGA and its Activities

The BCGA was established in June 1902. Its main objective was to establish and extend the growing of cotton in the British Empire. At that time, there were fears and uncertainty about the position of the Lancashire cotton industry in Britain. For a long time, the Lancashire cotton industry depended on the USA to source raw materials, including cotton. However, Lancashire experienced a shortage in cotton supplies between 1901 and 1903. Speculative activities of cotton dealers who caused artificial cotton scarcities to obtain higher prices on the international market ranked among the factors that influenced this shortage. The increased demand for cotton in the USA was also partly responsible for the shortages in Britain, hence the rise in prices for raw cotton. These changes forced Britain to search for alternative reliable and cheaper sources of cotton elsewhere. The BCGA was created to meet this demand. The association operated in such colonies as Egypt, Sudan, Nyasaland, Uganda, Nigeria, South Africa, and Rhodesia. The BCGA also ran similar operations in the West Indies (Onyeiwu, 2000: 89-94).

The BCGA's first president was Sir Alfred Jones, K.C.M.G. During its formative years, the association survived with funds from several individuals and organisations. These were drawn from Lancashire manufacturers and merchants from Liverpool and Manchester. The BCGA started with a guarantee fund of £50,000, which was later increased to £100,000. After two years of its existence, the BCGA applied for and was granted a Royal Charter by the British Government, registering capital of £500,000. In the early years, the British Government also supplied the BCGA with an annual grant of £10,000. This money was to help the association conduct experimental work in the African colonies (Hutton, 1914: 811; Robins, 2013: 100-101). For Nyasaland, while the BCGA had previously ran its activities by sub-contracting the

ALC, it was not until 1910 that the association (BCGA) established its first branches and ginneries. In between, the BCGA had assisted the Nyasaland government with funds to construct the railway line from Port Herald (now Nsanje) to the Zambezi (Hutton, 1914).²

The BCGA often collaborated with the colonial governments to boost cotton production in the colonies. This collaboration played out in the maintenance of buying and cotton ginning stations, including transporting the cotton to seaports via trains. The BCGA also offered price incentives to local farmers. The aim was to increase the production and supply of cotton by offering slightly higher than usual or recommended prices. As an incentive, the BCGA also offered higher prices for quality cotton presented at the market by the farmers. The 1912 Annual Report of the Department of Agriculture of Nyasaland (PRO, CO/626/1) indicated that the BCGA purchased all marketable cotton presented to the association.

There were also instances where the BCGA provided financial assistance to cotton-growing companies and planters in the colonies. This support came in the form of grants, loans, and advances. For instance, in 1915, the association provided Nyasaland with US\$48,000 to finance cotton-related projects. The BCGA also provided technical advice, particularly toward research to produce better cotton varieties. Some of the technical advice helped to establish experimental stations, demonstration plots, and new cotton farms. Lastly, the BCGA also collaborated with colonial governments to provide free cottonseed, an intervention that aimed at discouraging the production of local cottonseed varieties (Onyeiwu, 2000:96-99). In 1912, the BCGA supplied or paid the cost of the cottonseed, which the Department of Agriculture (DoA) distributed to African farmers (See PRO, CO/626/1).

Despite these seemingly positive ventures, the BCGA would also exploit African cotton farmers and did so with knowledge of British colonial states. Scholars of British colonial Africa, including Onyeiwu (2000), Robins (2013), and Mandala (2018), among others, have tackled these issues. Although it was a private venture, the BCGA collaborated with British authorities at the metropole and in the colonies. The association convinced the governments that increasing cotton production in the overseas colonies was essential for enhancing Britain's industrial production. According to Onyeiwu (2000), colonial states used their powers and resources in several ways in the overseas colonies. Firstly, the colonial governments used their coercive capabilities to regulate and control the sale and export of cotton. Influenced by the BCGA's demands, colonial governments enacted "cotton ordinances" that regulated the industry to ensure it favoured the state and the BCGA. The other form of coercion came in the form of taxation. One of the taxes introduced was the so-

² See also Public Records Office (PRO), Colonial Office, hereafter CO/626/1: "Nyasaland Protectorate: Annual Report of the Director of Agriculture for the year 1909-10," 45.

called “cotton tax,” of which in Nyasaland was pegged at two pounds on raw cotton and tobacco. The money raised helped to subsidize the association’s activities (Onyeiwu, 2000: 105-109). Mandala also highlights that in Nyasaland the Department of Agriculture had by the 1909/10 growing season began to ask the African farmers to pay their “hut tax” in cotton (Mandala, 2018: 180). Nyasaland introduced the hut tax in 1894. Under it, Africans paid the government three shillings per year. In 1901, the hut tax was revised upward, and Africans had to pay 12 shillings per year.

The BCGA also employed what we could describe as non-coercive measures to achieve its aims. One strategy was to play around with laws of supply and demand by deliberately publicising a high demand for raw cotton in some years even when none existed. This simple economic practice, as Robins (2013:103-104) calls it, made the company maximise its use of funds to buy cotton at deflated cost and build cotton ginneries from the resources realised. The purported high demand for cotton lured African farmers into producing more cotton. The plan was not always successful. Low cotton prices often turned away African farmers, who channelled their labour to other alternative sources of livelihood rather than toiling for the state and the BCGA. The latter explains why coercion, especially that of taxation, was often preferred to lure Africans back into cotton production. The other non-coercive measure saw the BCGA and the colonial governments select and use indigenous educated and capitalist elites involved in cotton cultivation. These were offered more opportunities when they elected to grow cotton on their farms (Robin, 2013).

Apart from introducing tax measures that induced Africans to either pay tax on cotton or work on the few European-owned cotton plantations, the Nyasaland government also enacted the 1910 Cotton Ordinance to support the BCGA’s activities. The ordinance appeared as Cotton – Rules, no. 7 of 1910. It had 17 rules in total, ranging from land preparation, distribution of seeds by the government, the operations of cotton ginneries, the issuing of licenses and marketing of cotton, market tolls, and penalties for breach of government set rules. Rule number four demanded that all native (African) grown cotton using seed issued by the colonial government must be ginned in the Protectorate. Rule number five saw the government retain the right to all the cottonseed from the previous cotton harvest whose seed the government had distributed. Other interested parties could only access such seeds upon the approval of the DoA. In rule number six, Africans were not allowed to access seeds unless the DoA approved them. Those wanting to buy the African-produced cotton were subjected to rule number eight, which saw the DoA retain the right to issue cotton purchasing licenses. The cotton purchasing license was restricted to an allocated area and in government-established markets, was pegged at 10 shillings, and was renewable on the 31st of March each year (Nyasaland Protectorate, 1915: 199-201). In 1923, the Nyasaland Government granted the BCGA monopoly to purchase all African-grown cotton in the Protectorate (Chirwa, 1997: 269). In the Lower Shire

region, monopoly over cotton saw the Indian cotton buyers being driven out of their “catchment area” where they had been operating since the early 1910s. The agreement was based on the following conditions: that the local BCGA manager and Director of Agriculture were to determine and announce the minimum prices for the cotton growing season at the time of seed distribution. Seeds were to be given free of charge. Then there was also the provision that the colonial state would receive fifty percent of the annual profits made by the BCGA but the Nyasaland government would not suffer any losses (Elias C. Mandala, 1990: 142-143).

These tactics and interventions undermined any meaningful benefits Africans could have obtained in an otherwise promising industry, forcing scholars such as Allen Isaacman to describe the cotton industry in Southern Africa as the ‘mother of poverty’ (Isaacman, 1996). Writing on the Lower Shire Valley, Mandala summarises the experiences of farmers with a phrase: ‘we toiled for a white man in our own [cotton] fields’ (Mandala, 1995). Noteworthy here is how the state did little to support African cotton growers. However, Africans did not suffer in silence as they were not always passive victims of the state and its proxy, the BCGA. They often found ways to either resist or accept the colonial agricultural and marketing policies by, among other strategies, resorting to alternative markets both within and without the protectorates and colonies (Robins, 2013: 101-102). In a related work, Mandala (2018:71-82) has highlighted how farmers in colonial Malawi shunned foreign cotton varieties the DoA provided as a strategy of resisting hostile taxation and marketing measures to which cotton production was subjected. Others trekked to South African mines rather than working under the industry that did little to change their lives (Chiudza Banda, 2020: 71-82).

Lacking other promising alternatives, some Africans continued to participate in an otherwise hostile industry despite their frustrations. From the early 1920s onward, the African peasant farmers presented the most reliable source of cotton, which the BCGA bought. By the close of the 1920s decade, just before the onset of the Great Economic Depression, cotton production among African producers increased sharply, as Table 1 illustrates.

Table 1: Nyasaland African-produced cotton in tons (by district), 1928 and 1929

| District | Lower Shire Valley | Chikwawa | Central Shire | Mlanje | Blantyre | Upper Shire | South Nyasa | Ntcheu | Dedza | Dowa | Total (Tons) |
|-----------------|--------------------------|----------|------------------|--------|----------|----------------|----------------|--------|-------|------|-------------------------|
| 1928 | 1,377 | 889 | 129 | 10 | 4.5 | 8 | 1.5 | 19 | 19 | 11 | 2,486 |
| 1929 | 1,809 | 1,248 | 195 | 14 | 10 | 18 | 18 | 47 | 47 | 51 | 3,505 |

Source: Adapted from Nyasaland Protectorate, “Annual Report of the Department of Agriculture, 1929,” 366, PRO, CO/626/7

This growth was not sustained. With the onset of the Great Economic Depression from 1929 onwards, the Nyasaland African-grown cotton industry also took a significant hit. Reportedly, this led to a reduction in prices offered at the cotton market, and in turn, the farmers focused on food production for bare survival. The Nyasaland government's annual report of 1931 on the Protectorate's social and economic progress emphasized that 'the depressed condition of the market [did not only cause] a further reduction in the local purchase price of this native produced commodity but [also] restricted purchases to first grade:'

The acreage planted was less and to aggravate the position, the rains were unfavourable. The net result was a weight shipped during the year of 2, 263, 728 lbs (5, 659 bales), or a drop of 3, 837 bales, equal to 40.4 percent, when compared with the quantity exported during 1930.... All was consigned to England" (Nyasaland Annual Report for 1931, 42, PRO, CO/626/10).

Due to such depressing economic trends, in August 1931 the BCGA refused to renew its five-year agreement to purchase cotton, which it had signed with the Nyasaland government. The association argued that it did not need to renew it in an international environment with low cotton prices. As such, the BCGA and the Nyasaland government agreed to open the market to other interested buyers. Perhaps more significantly, the government decreed that cotton production stop in the Lower Shire Valley effective 1932. The only exception to this pronouncement was Lisungwe district (Central Shire and Blantyre), where a few cotton growers were allowed to produce the crop using government-distributed seed.³

After close to three decades of its operations, the BCGA had little to show off regarding how it had transformed local cotton producers. Cotton production in the Lower Shire Valley remained a shadow of its former self until much later in the 1960s when plans to revive production of the crop re-emerged under the postcolonial regime. But if the colonial state did little to further the interests of the local cotton farmers, how far did the distant or more present postcolonial state transform the cotton industry? It is to this question that we now turn.

6. Cotton Production in Post-colonial Malawi

After independence in 1964, Dr. Hastings Kamuzu Banda's government prioritized smallholder-produced cotton as one of the cash crops needed to address rural poverty. This was in line with the new government's development strategy, which focused on two key sectors, namely, agriculture and industry or manufacturing. Agricultural production, which was considered the primary sector, was divided into two main

³ PRO, CO/626/10, Annual Report of the Department of Agriculture for 1931, pp 100-101.

sectors, appearing in the form of large estates and smallholder agricultural production. The smallholder farmers, the focus of this article, operated on traditional lands (customary land) and they accounted for about 90 percent of the country's cultivated land on which cotton was one of the main crops rural farmers grew. The gap left by the departure of international cotton buyers, such as the BCGA, was since the early 1960s filled by state-run marketing bodies that monopolized the purchasing of cash crops in the country. The first was the Farmers Marketing Board (FMB) the colonial state established in 1962. In April 1971, the Banda government replaced the FMB with ADMARC. ADMARC operated and still operates as a parastatal, with the legal mandate to buy and export smallholder-produced cash crops, including cotton. However, while ADMARC prospered, including operating over 2,000 markets countrywide and employing over 24,000 staff, by the 1980s, it did so by offering very low prices to Malawian cash crop and food crop growing farmers (Sindima, 2002: 95-101; Smith, 1995, 561-562; Kutengule, et al, 2006: 415-420).

Just like the colonial state, the Banda government also enacted several development plans and programs with a special focus on the agricultural sector. In 1967, for instance, the government planned a 5-year duration Lower Shire Valley rainfed Agriculture Development Project (LSADP) intending to help cotton farmers in this region adopt improved agricultural practices, graduate into capitalist farmers with the potential to improve their lives and those of others (Malawi Government, 1967: 4). Like was the case with the colonial era, the Lower Shire Valley was a particular target for a project of this nature because over '70 percent of the total output of cotton in Malawi' came from there (Malawi Government, 1967: 4). This project ranked among four other social engineering projects that specifically targeted rural agricultural communities. Others included the Lilongwe Land Development Project, the Central Region Lake-Shore Development Project, and the Karonga-Chitipa Rural Development Project (Nankhumba, 1981: 31-37).

In analysing the shire valley project, Mandala concluded that it did not achieve its intended objectives. In his words,

the plan foundered under the weight of low producer prices resulting from high freight rates and systematic transfers of income from the cotton trade into non-peasant enterprises. Villagers were left with no money to specialize in cotton farming, and the industry survived as a smallholder undertaking only because it received the uncompensated labour of dependents and resources from other sectors (Mandala, 2018: 173).

Such was the plight of cotton farmers in Malawi until more recently, when plans were hatched to revamp the industry under Dr. Bingu wa Mutharika's administration. The section below discusses some recent developments in Malawi's cotton industry. Critical here is a similar level of exploitation cotton farmers have been subjected to

under a liberalised market where both international and local companies are involved in purchasing Malawi's cotton produce.

6.1 A "Fresh Breath" on the Cotton Industry

From the late 1970s onward, the Banda (Dr. Hastings Kamuzu Banda) administration faced economic challenges. As outlined by Christiansen and Stackhouse (1989: 729-730), these included an increased balance of payment deficits, large public sector deficits, higher external debt and debt-servicing obligations, and lower levels of income growth. Such economic challenges compelled the Malawi government to seek assistance from the Bretton Woods institutions, namely the World Bank and the International Monetary Fund (IMF). These institutions compelled the Banda government to adhere to the Structural Adjustment Programme (SAP), aimed at increasing the efficiency of parastatals, one of which was ADMARC. The SAP recommended and required that ADMARC privatize part of its crop (food and cash crop) purchasing operations and allow smallholder farmers to find other alternative markets for their agricultural produce (See also Gulhati, 1989: 52). It was in that state of reduced monopoly for ADMARC that Banda's immediate successors (Bakili Muluzi, 1994-2004; and Bingu wa Mutharika, 2004-2012) operated. The liberalised market also affected the rural farmers who cultivated cotton, who now had the opportunity to access other 'non-state' markets.

The 'fresh breath' on the cotton industry came in the wake of Malawi's diplomatic switch from Republic of China (ROC), otherwise known as Taiwan to Peoples Republic of China (PRC) in 2008. When Mutharika visited the PRC that year, he met representatives of the China Africa Cotton Development Limited (CACDL) on the possibility of extending the company's trading deals to Malawi. By 2009, a subsidiary of CACDL, the China Cotton Africa Malawi or Malawi Cotton Company (MCC), opened its branch in the country with Balaka District as its headquarters. Like the British Cotton Growers Association before, the MCC does not produce cotton. Instead, it provides cotton farmers with agricultural inputs such as cottonseed, fertiliser, and chemicals. In partnership with government agricultural officials and other non-state actors working in rural areas, the company also provides extension services to farmers, teaching them modern ways of growing cotton. Most significantly, the company champions breeding new cotton varieties for distribution to farmers and purchases cotton for export to China. During its inception, the MCC promised to open an oil processing unit and a textile mill as one way of adding value to the cotton industry (WITS Journalism, Africa China Reporting Project, 6 June 2019).

Mutharika's visit also brought about the Agriculture Technology Demonstration Centre (ATDC) in Salima District. The PRC has established several ATDCs across

Africa to train local farmers in modern agriculture and its associated technology. The ATDCs also support farmers with agricultural technology. Initially, PRC sponsors the construction of the training facility and provides necessary personnel which are expected to work with local staff and communities (Lu, et al., 2016: 10-11). After about four to five years of operation, the centre is expected to be handed over to the government. Because of inadequate funding, the Chipoka centre in Salima is yet to be transferred to the government and keeps on relying on PRC's financial support. The ATDC is a good model for revamping the cotton industry in Malawi because of the success stories farmers have told regarding its performance (Banda and Kayira, 2022) However, the case of the MCC and cotton marketing, in general, is worrying and deserves a careful analysis.

When Mutharika courted Chinese firms to assist in revamping the cotton industry, he did so against a backdrop of declining interest in cotton production among farmers. In addition to the activities of the Malawi Cotton Company, the government allowed 11 other cotton ginners, both local and international, to operate in the country. It also deliberately assisted cotton farmers with agricultural inputs on loan, which seem to have worked a miracle for the dying industry. Figure 2 below shows that total cotton output in sales rose tremendously between 2011 and 2013.

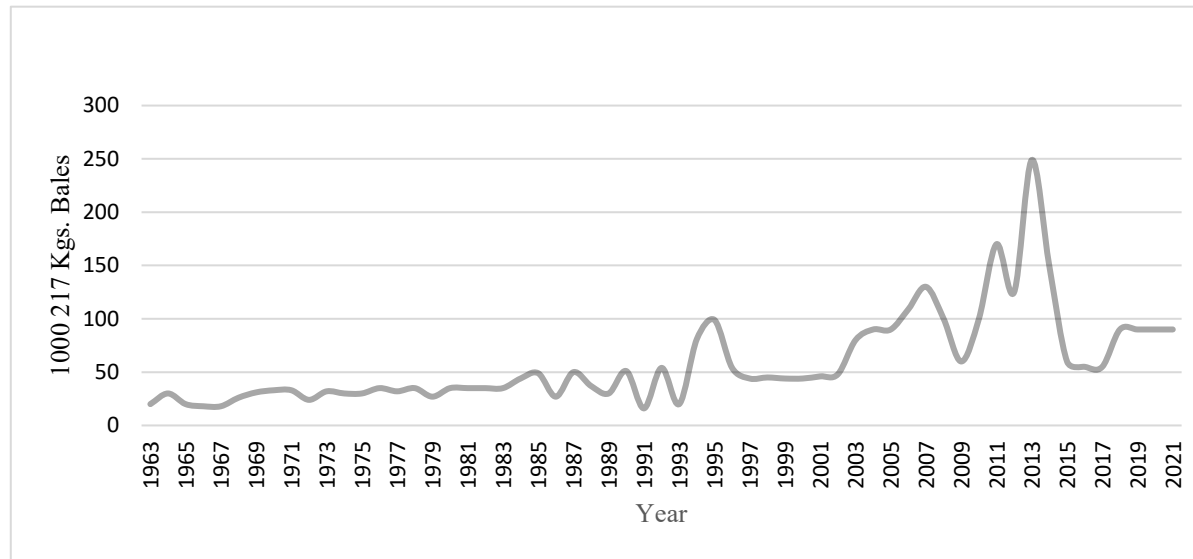


Figure 2: Malawi Cotton Production by Year

Source: Adapted from U.S Department of Agriculture Data⁴

⁴ Data available on <https://www.indexmundi.com/agriculture/?country=mw&commodity=cotton&graph=production>. Accessed on 20 November, 2021

However, this success story was never sustained as the rest of the years after 2013 demonstrate. Equally disappointing are the stories farmers told when we interviewed them in early 2021 in Balaka District.

Cotton production is no longer rewarding for most farmers because of many problems, ranging from poor producer prices to expensive agricultural inputs. When asked to explain why there has been a sharp decline in cotton production since 2014 as figure 2 illustrates, one farmer of Traditional Authority Nkaya in Balaka district had this to say:

There are a lot of problems in the village. As a farmer, you always want to make money but cotton farming has a big problem because of the low prices by companies. They [cotton companies], sell their seeds at a high price, and are slow in opening markets to buy our cotton. But even when they open them, they will purchase cotton at MK150 [per kilogram]. Does this make sense? (Member of FGD, T/A Nkaya, Balaka, 18 March, 2021).

The MK150/Kg (US\$0.18Kg) cotton market price cited here might seem an understatement, especially because official records indicate that the minimum producer price of cotton for the 2020/2021 growing season was MK320/Kg (*The [Malawi] Times*, 12 November 2021). However, the Malawi Nation Newspaper corroborated this figure through a 20 June 2021 story where Dickson Gundani, the Cotton Farmers Association of Malawi president, shared similar remarks. But even the MK320 (US\$0.39) cited here was far lower than what is required to provide meaningful returns to farmers. Not surprisingly, when the 2020/2021 growing season opened, farmers in the Balaka district and other places in the country refused to sell their cotton (Member of FGD, T/A Nkaya, Balaka, 18 March 2021). We should understand their actions within the context of other related causes of farmers' frustration, such as expensive cottonseed, as the abovementioned sentiments suggest. On average, farmers require MK33,000 (US\$40) worth of improved cottonseed for a hectare, representing a jump from MK5,000 (US\$6), which local cottonseed would previously fetch to cultivate a similar hectare (Interview with MCC official, 18 March 2021). In the context of declining cotton returns, the amount is significantly higher for an average farmer.

To mitigate for poor market prices which cotton fetches on the market, some farmers have refused to sell their cotton to buyers who provided them with inputs. Instead, they have sold it to other firms which did not support them with inputs. The arrangement has allowed farmers to systematically default loan repayments, which has continually frustrated buyers, including the Malawi Cotton Company (Interview with MCC official, March 18, 2021).

High default rates in input loan repayment among farmers forced the MCC and others to lobby the government to find better ways of encouraging farmers to honour their loan obligations. The Malawi Cotton Council introduced the zoning system to regulate cotton marketing in response. Under this arrangement, farmers are mandated to sell their cotton only to those companies that provide them with inputs. By 2019, the cotton industry boasted five cotton buyers and ginners, a drop from 11 registered in 2011. These are ADMARC, AFRISIAN Ginning Limited, Malawi Cotton Company (MCC), Mapeto-David Whitehead and Sons (Malawi) Limited (MDWS), and AVC. The country has 66 cotton production and marketing zones, of which 17 belong to the MCC. In Balaka, the company has control over 2 of the six zones allocated to the district. If the state and marketing companies view the zoning system as a workable arrangement, cotton farmers consider the strategy punitive and only works in favour of buyers. ‘We work as slaves to cotton companies because the system does not give us the freedom to choose our buyers,’ was a remark from one member of the Focus Group Discussion who commented on this production and marketing system (Member of FGD, T/A Nkaya, Balaka, 18 March 2021). Farmers have a point. Although the country boasts five ginners which should encourage competition and hence provide better prices for farmers’ produce, the monopoly buyers have over specific areas should be regarded as a big part of the problem to the plight of farmers in the country. It reminds us of the British Cotton Growers Association’s monopoly over cotton marketing in colonial Malawi for close to three decades. For both the state and its proxies, cotton farmers are a problem because they default on loan repayment and frustrate an otherwise lucrative industry. There is little effort to understand the struggles cotton farmers have faced over time and which define their unique behaviour.

Despite the current low production levels, which bring an annual income of about US\$4 million to the country, cotton potentially ranks fourth as the country’s foreign exchange earner after tobacco, tea, and sugar. Solely anchored by 300,000 local farmers who cultivate about 250,000 hectares of cotton land at the national level in normal times, the crop can significantly contribute towards uplifting the welfare of farmers in the countryside.⁵ Now, however, the industry’s future remains uncertain and even worse for local farmers who cultivate the crop for sale to local and international cotton firms. Unlike cotton merchants who do not invest their capital in the production sector and can easily adjust cotton prices in bad years to avoid potential

⁵ Brief for the on Cotton Market Revolution in Malawi, (not dated). Available at https://www.wto.org/english/tratop_e/agric_e/10_malawi.pdf

losses, or greater still suspend cotton purchases altogether, cotton producers do not enjoy a similar leverage. Local farmers face the economic brutality of the industry at full throttle. In the wake of the COVID-19 pandemic, ‘over 10,000 farmers...have abandoned cotton production...due to lack of loans and poor market prices’ (*Global Times*, 28 February 2021).

Notwithstanding the devastation COVID-19 has brought on the global economy, the story farmers tell is the same old one of poor markets, low cotton prices, expensive agricultural inputs, and others. Yet, they still cultivate the crop for lack of alternative sources of livelihood. If farmers in colonial Malawi toiled for a ‘white man’ in their own fields as Elias Mandala argued, contemporary cotton farmers cultivate the crop to feed local and international cotton ginners, who are equally at a loss to transform an otherwise lucrative industry into a sustainable one. Although the MCC promised a lot when it first came into the cotton industry in 2009, it too has done little to transform the industry in the interest of farmers. A Chinese firm wholly owns the company, and there is little effort to organize farmers into a strong cooperative with the potential to earn shares. In thinking about addressing these deep-seated historical problems, a workable intervention should also aim to empower local cotton clubs into active cooperatives with the potential to produce, sell, and process cotton in ways that would add value to it before selling it to third parties.

7. Conclusion

As highlighted earlier, Erick Green and others have doubted the exploitative label that scholars have ascribed to colonial and post-colonial agricultural economies in Malawi. Evidence presented in this article does not corroborate this view, particularly as it relates to the 21st-century Malawi. Instead, the article has emphasised the struggles that Malawi’s smallholder cotton farmers have endured from the colonial era to the present. We have focused on the roles played by the colonial and postcolonial states, and other multinational companies, namely, the BCGA (for the colonial period) and the MCC (for the postcolonial period). At the level of production and marketing, both the state and the companies have registered little success to create opportunities for smallholder cotton farmers to flourish. Farmers’ experiences from the Lower Shire Valley and Balaka districts illustrate the enduring exploitation narrative in which both the state and private companies have done little to transform an industry that is wholly anchored by smallholder farmers. Just like the BCGA monopolised markets and influenced the making of policies that least brought benefits to farmers, ADMARC, as reconstituted in 1971, employed similar tactics. The monopoly it enjoyed over marketing of cotton and other products, and the uncompetitive prices it offered for agricultural produce it offered frustrated cotton farmers. A similar story emerges in the immediate post-colonial present where cotton

buyers, including the MCC, have bought farmer's produce below the government approved minimum price. Moreover, the zoning cotton marketing system has reduced competition among cotton ginners thereby denying farmers an opportunity to bargain for better terms with buyers. As a result, the system has created a marketing environment akin to that in which BCGA and ADMARC operated before the era of market liberalisation.

Throughout the article, we have acknowledged efforts by successive governments to initiate development plans and programmes, some targeting the agricultural sector, including the *MGDS III* and now, the *Malawi Vision 2063*. We argue that these plans can succeed along a strategy that looks back to address the deep-seated historical challenges farmers have faced over time. Cotton farmers and others should have better access to farm inputs and markets and cotton buyers should offer competitive prices. Again, the idea of farmers' clubs needs to graduate into workable cooperatives that can keep both the state and cotton buyers under check while aiming at having a stake in the cotton marketing business. More significantly, the state should make deliberate efforts to curtail the 'culture' of exploitation to which smallholder farmers have been subjected. This study makes a unique contribution to literature on Malawi's cotton industry by extending it beyond the 20th century to analyse how the distant experiences of cotton farmers compare with the contemporary ones.

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Reforming the Public Sector in Malawi: A Gateway to Improved Service Delivery

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Abstract

This paper analyzes the quality of service under the Public Service Charter reform initiative implemented in Malawi. Public sector reform has for several years been one of the policy agenda issues in Malawi. A Service Charter is a social pact written by service providers in consultation with service users. It outlines the nature and quality of a service that beneficiaries should expect from a provider. The current understanding in Public Sector Reforms is that since 2014, the momentum towards reform has significantly increased due to, among other things, political pressure to deliver quality public services to the citizenry. Despite an abundance of literature on the public sector reform in Malawi, there is limited discussion or understanding on the quality of public service after each reform exercise. Quality of services in this paper is understood to constitute the state of how well the tangible and intangible public services match the citizen expectations on a consistent basis over and above what has been prescribed. Using a qualitative data collection approach in the districts of Salima and Dedza, the paper, among other things, finds that where the institutionalization of the Service Charters reform in the public service delivery chain in Malawi is done, citizens have experienced enhanced service delivery. Data was analysed by coding the audio transcripts in order to establish themes and patterns of the responses based on the objectives of the study.

Keywords: Service charters, Quality service, Malawi, Public sector reform, Public service delivery

Introduction

This paper is part of a larger study whose main objective was to analyse whether the public sector reforms lead to enhanced public service delivery using the Malawi Public Service Charter as a case study. Malawi became independent from Britain on 6th July 1964 and, just like most developing countries, one of the issues that was

immediately observed was that the country's public sector needed reform. The public sector was mainly geared towards maintaining law and order and not necessarily to facilitate development. For many years, the Malawi public service has faced serious criticism for failing to deliver quality services (GoM 2010). Several reforms have over the years been undertaken "to ensure increased effectiveness, efficiency, sustainability and affordability...to raise the quality of public services delivered to citizens" (Tambulasi and Kayuni 2013: 253). Chasukwa and Kayuni (2018) observe that public sector reforms in Malawi tend to take the institutional mimicking approach hence lack the proper bona fide local identity. This paper discusses the public sector reform exercise that was initiated in 2015 but with special focus on service charters. Despite an abundance of literature on the public sector reform, there is limited discussion or understanding of the quality of public service after each reform exercise. In other words, the available literature has mainly focused on the nature, type and key stakeholders in the reform but the element of quality of public service has not been adequately interrogated. Service Charters aim to improve quality of public service. Therefore, investigating public sector reform initiatives from a quality of service perspective is a task worth undertaking. An analysis of the said Service Charter reform initiative shows that where the institutionalization of the Service Charters reform in the public service delivery chain in Malawi is done, citizens have experienced enhanced service delivery.

Methodology

The study, from which this paper is derived, aimed to measure perceptions, experience, and feelings of people on public services they consume. This makes the choice of interpretive methodology appropriate. In this case, qualitative data was collected. Given the choice of methodology adopted, what follows is a brief discussion of research methods that were used to collect data.

The initial phase of the study was done in 2018 and a follow-up in some cases was done in 2020. The study focused on central and local government service providers. The units of the study selected were Office of the President and Cabinet as the designer of the Malawi Public Service Charter and local level service providers in Salima and Dedza District Councils. Salima District Council was selected because it was one of the first to implement the service charter reform initiative in 2008 (GoM 2010; MHRRC, 2011). In contrast, Dedza was selected as a late implementer of the service charter hence it provided a better comparative view on the impact of Service Charters on service delivery. The specific sectors analysed at local level in the said districts were health, agriculture and education. These were selected because they are some of the frequently consumed services and would, therefore, give a fair picture of the effects of the service charter system on services delivered. Desk review of the relevant literature on Service Charters in Malawi was also conducted. In total, the data collection exercise involved six FGDs, 31 KIs, and 304 randomly sampled citizens

within Salima and Dedza responded to the questionnaires. Qualitative data was analysed by coding the audio transcripts in order to establish themes and patterns of the responses based on the objectives of the study.

The Customer Service Charter Reform Initiative

Tritter (2004), cited in Mahoo (2016), defines Service Charters as public agreements between citizens and service delivery providers that clearly codify expectations and standards in the realm of service delivery. Rahman et al (2022) point out that public sector leaders face numerous competing demands which may derail reforms but some enterprising leaders find ways of ensuring that the process achieves its goals. In this case, as Ohemeng and Akonnor (2022) argue, it is possible for public reforms to break the previous inertia and gain momentum. Service Charters are opportunities presented before public sector leaders to ensure that reforms are not stalled.

If designed and implemented correctly, Service Charters have the potential not only to foster greater public satisfaction with a government's service by enhancing responsiveness, among others, but also increase confidence in the government (Joshi, 2010; Tamrakar, 2010; Fox, 2014). In making the transition from comparatively unresponsive bureaucracies to adopting a clear user focus in the delivery of public services, national administrations have adopted a variety of approaches in the broader terms of public governance, often and in particular involving the adoption of an explicit statement of standards in the form of a charter (Joshi 2010). These explicit statements of standards are known by different names in various jurisdictions. Some more common nomenclatures include 'Customer Service Charter, Citizen Charters, Performance Pledges and Client Charters (Drewry, 2005).

The specific elements of Service Charters vary from place to place. Many charters, however, are largely characterized by defined services and standards that the public entity offers; the procedures to be followed in accessing services; cost and conditions required for the service to be accessed; publicizing of standards of services and location of where services can be accessed; and provision of a complaints and redress mechanism (Tamrakar, 2010, OPC, 2010). Service Charters outline the mandate of the public institution, the kind and nature of services that a particular public entity offers, including time frames for delivery of services. Service Charters also include any charges, if at all, that users of the services are expected to pay, the responsibilities of service providers as well as the service users, and finally the means of recourse in circumstances where users experience a poor service.

Public Sector Reforms in Malawi And Beyond

Public sector reform has recently gained prominence because of the purported link of the said reforms to effective development. For instance, during the 24-26 June 2019

UN Public Service Forum (UNPSF) conference in Baku, Azerbaijan, it was observed that the United Nations' Sustainable Development Goals (SDGs) cannot be achieved if the public sector is not reformed (UN 2019). More importantly, the 31st January 2011 African Union's "African Charter on Values and Principles of Public Service and Administration" clearly highlights the relevance of public sector reforms especially in the area of innovativeness (AU 2011).

Research endeavours on quality of service in public services have been made by several researchers, including Wisniewski and Donnelly (1996), Rowley (1998), Wisniewski (2001), and Brysland and Curry (2001). Quality of services in this paper is understood to constitute the state of how well the tangible and intangible public services match the citizen expectations on a consistent basis over and above what has been prescribed – that is confirmation or disconfirmation of expectations (Parasuraman et al, 1985; Barbier and Tenenge 2022). In other words, quality is what Zeithaml et al (1990) describe as the difference between customer expectations of service and perceived service. Quality of service is embedded in the concept of customer satisfaction against perception. It can be defined as an overall judgment similar to attitude towards the service and generally accepted as an antecedent of overall customer satisfaction (Olsen, 2002).

Customer satisfaction refers to 'the utility value derived by the customer upon consumption of a product or service as attested by the independent opinion of the consumer of the product or service' (GoM, 2014). The core indicators of such customer satisfaction are speed of delivery of service /product, quality of service/product, ease of accessibility of product/service, and affordability (GoM, 2014). High quality of service is experienced if expectations are more than performance. In other words, quality is less than satisfactory when a customer experiences dissatisfaction measured against perception (Parasuraman et al, 1985). These indicators notwithstanding, it is challenging to achieve a high level of citizen satisfaction with public services because of different expectations for the same services by the citizens. In light of this, and as discussed earlier, public services in most developing nations have been adjudged not to deliver quality services to their citizens due to a number of factors, including lack of accountability and responsiveness mechanisms to citizen needs, hence the introduction of reforms as defined in the NPM. The challenge, however, is on how to measure quality in public services which are collectively and monopolistically delivered, satisfaction being subjective to individuals. To this end, models have been developed that assist in measuring quality in delivery of public services.

The public sector management reforms Malawi has undertaken since her independence in 1964 may fall into five generations. The first-generation reforms are those that were implemented between 1964 and 1980. The second-generation reforms

are those implemented from late 1980 to 1993 with the third implemented after the advent of multiparty political democracy from 1993 to April 2012. The fourth constitutes the post April 2012 reforms to May 2014. The fifth category of these reforms was instituted after May 2014 Presidential and Parliamentary General Elections. This paper focuses on the fifth category of reforms within the realm of Public Service Charters.

The Democratic Progressive Party (DPP) became victorious after the May 2014 Presidential and Parliamentary elections. According to Kayuni et al (2018), although Malawi had previously embarked on numerous reform initiatives, the post-2014 reforms were exceptional in several ways:

First, there was a strong political will to drive the reform agenda. As Kayuni et al (2018) further explain, DPP's campaign manifesto specifically mentioned a comprehensive public sector reform programme. Immediately the DPP took over government, the President of Malawi established a seven-member Public Service Reforms Commission (PSRC) in June 2014 chaired by the Vice President of the Republic (GoM, 2015). The Commission was established against a background of general public outcry that public service delivery was poor and duty bearers were not responsive to the citizen needs. The main function of the Commission was "to chart the national direction and establish national priorities in PSRs that would ensure successful change towards a modern, efficient and effective public service" (GoM, 2015).

Second, the government's reform agenda was developed after nation-wide consultations. Specifically, meetings were organized in all regions of the country and citizens were given a chance to ask questions or contribute ideas. Special consultations were also organized involving professional bodies such as Malawi Law Society, Institute of People Management and several others. This format of consultation was unprecedented in the Malawi public sector reform initiative because it was wide and robust. Third, the commission tried not to be 'politically correct' in dealing with the critical issues affecting the sector. Finally, the commission produced a report, launched in February 2015, which spelt out steps to be taken in order to address challenges that the sector faced (GoM 2015).

The philosophy of the Fifth Generation of reforms was to find local solutions to local challenges in the delivery of public services and management of public service reforms while learning from other jurisdictions (GoM, 2015). Indeed, the philosophy of localization of solutions was considered important on two fronts. First, it embraced views of the many stakeholders that were consulted in order to gain confidence of the new reform agenda and second, it implemented quick win reforms that had immediate impact on the citizen service demands (GoM, 2010).

When Malawi was commemorating Africa Public Service Day in 2008, the president announced that government was going to introduce Service Charters as part of the reform initiatives and also as an instrument for raising quality, effectiveness, efficiency and responsiveness in the delivery of public service (GoM, 2008). Many public service organizations started introducing Service Charters in their system (GoM, 2008). However, full implementation in most public sector institutions was pursued after 2014 within the ambit of fifth generation reforms.

Measuring Quality Service

The model that has been most used to measure quality is the SERVQUAL (not necessarily an acronym) instrument, developed by Parasuraman et al (1985). It uses 22 statements for assessing consumer perceptions and expectations regarding the quality of a service (Ramseook-Munhurrun et al, 2010). Ideally, the model rests on five distinct dimensions that customers use to evaluate the quality of a service: reliability, responsiveness, assurance, empathy, and tangibles. This model has been criticized by scholars, including Cronin and Taylor (1992), for emphasising expectations. Critics have instead proposed the SERVPERF (not necessarily an acronym) Model which coincidentally consists of 22 perception items, but which excludes any consideration of expectations. As Ramseook-Munhurrun et al argue, citing Cronin and Taylor, the ‘unweighted SERVPERF measure (performance-only) performs better than any other measure of service quality, and that it has the ability to provide more accurate service quality score than SERVQUAL’ (Ramseook-Munhurrun, 2010: 4). Their argument is that performance best reflects a customer’s perception of service quality, and that expectations are not part of this concept. However, SERVQUAL is much more versatile in its application and it has been widely used in the assessment of quality in a number of services, including health, policing and public utilities services.

Parasuraman et al (1985) noted that even if it may be necessary to reword or modify some of the items, the SERVQUAL scale remains applicable in a wide range of business services. Indeed, the study opted to use the SERVQUAL Model as it relates more to the element of the Service Charters in public service delivery, in addition to its wide range applicability. The basic idea being that Service Charters set quality standards against which performance can be measured, and standards will rise as a result of the pressure that users can put on the service providers. To this end, the study chose to use the following variables to constitute some of the key determinants of quality service (a) Reliability: which is manifest through consistent performance and dependability of provision of a service; (b) Responsiveness: which relates to how timely service providers react to citizen needs and demands as well as their willingness or readiness to provide a service; (c) Competence: possession of required skills and knowledge for one to execute or provide a service; (d) Access: which

involves approachability to the service providers by service users as well as convenience of location of a service. Depending on the services sought, this may also include waiting time spent to receive a service and hours of service operation; (e) Courtesy: involves politeness, respect, consideration and friendliness of contact persons in the public service chain; (f) Communication: this constitutes mechanisms through which service users are informed in a medium that they will clearly understand. This, therefore, involves explaining the kind of services, the cost if any; (g) Credibility: included in this are elements of trustworthiness, believability, honesty; and (h) Tangibles: included in this determinant are physical evidence of the facilities, the appearance of the human resource, tools and equipment. Some of the determinants herein applied are beyond the SERVQUAL but critical to the study (Ramseook-Munhurrun et al, 2010).

Evaluation of quality is mainly based on responsiveness to customers' needs instead of conformance to specifications, procedures and standard (Tuomi, V., 2012). Critical in public service chain delivery quality assessment is the citizens' ability to know what they can expect from the service providers for them to qualify the level of satisfaction. In turn, this requires access to information on service standards. This is what the Service Charters reform initiative seeks to achieve among other objectives.

Results and Discussion: Public Service Charters and Quality of Services

Analysis of data from KI, FGDs and the questionnaire concludes that the Service Charters reforms initiative has had a positive impact on public service delivery in different dimensions ranging from improved service provider-service user relationships, satisfaction to improved access and quality of services. The perception on the quality of services was within Zeithaml et al's (1990) description of quality being the difference between customer expectations of service and perceived service. Quality of service is, therefore, embedded in the concept of customer satisfaction against perception. As discussed elsewhere in this paper, customer satisfaction refers to the utility value derived by the customer upon consumption of a product or service as attested by the independent opinion of the consumer of the product or service (GoM, 2014). To this end, the yardsticks used to measure the quality of services or the utility value in this paper are reliability, accessibility, responsiveness, credibility, and courteousness based on the SERVQUAL Model (Ramseook-Munhurrun et al, 2010). In view of this the findings in this section are discussed under these indicators. However, before these dimensions of quality service are discussed, an overall picture as well as mode of interpretation need to be presented.

Following the above understanding of what constitutes quality services, the focus of the paper was on perceptions of service users. This paper is largely on perceptions, experience, and feelings of people on services they consume. Therefore, the results

are treated as positives as far as services are perceived to have improved as a consequence of the institutionalization of Service Charters reform initiative. Since Dedza district started implementing late while Salima district has been implementing Service Charters for a comparatively longer period of time, a positive outlook in Salima as compared to Dedza implies that the objectives of the Service Charters are being achieved.

Given the dimension in which quality was interpreted in the study, a general position that is based on the analysis of the responses from the KI, FDG participants and the respondents from the questionnaire on the selected indicators of reliability, responsiveness, accessibility, and courteousness, is that the quality of services had improved as a result of institutionalizing the service charter reform initiative. The rating is based on the questionnaire responses on whether Service Charters have made any difference to the quality of services, as seen in Table 1 below.

Table 1: Introduction of Service Charters and Quality of Services

| | | Has the introduction of Service Charters made any difference to the quality of services? | | Total |
|--------------|--------|--|------------|------------|
| | | No | Yes | |
| District | Dedza | 82 | 17 | 99 |
| | Salima | 103 | 100 | 203 |
| Total | | 185 | 117 | 302 |

Given the above information in Table 1, in Salima 100 out 203 respondents said the introduction of services had a positive impact on quality of service delivery translating into 49%. In Dedza 17% (17 out of 99) were of the perception that the Service Charter had a positive impact. Although the approval rate from questionnaire respondents for Dedza is very low, it can still be said that overall the average was higher if we compare with the views that were expressed during KI and FGDs.

Reliability

Reliability manifests through consistent performance and dependability of provision of a service by duty bearers (Ramseook-Munhurrun, et al, 2010). In this regard, when asked if the service providers had become more reliable when providing services as a result of the institutionalization of the Service Charters, many respondents, both KIs and participants in the FDG, were of the view that there was improvement. For example, according to the participants at the FDG, reliability included experiencing better relationships with health personnel in the three health facilities in TA Mwanza

and, as a result, more women are now giving birth at the facilities. People know that health facilities are supposed to be open from 07:30 – 16:30 hours and indeed the health facilities do open and facilities and services can be accessed off these hours on emergency (FGD, TA Mwanza June 2018).

In another case one KI (Dedza, July 2018) rated the duty bearers' reliability at 60%. His argument was that this would have been much more were it that the Service Charters were consistently disseminated. He further argued that the limited dissemination was a deliberate move by some duty bearers to bar communities from accessing information on service for fear that they would be exposed. Disaggregated data for the two study districts shows that in terms of their perceptions on how the Service Charters had impacted on reliability of service delivery, the figure is higher in Salima (54%) than Dedza (13%).

Accessibility

Accessibility involves approachability to the service providers by service users as well as the convenience of location of a service (Ramseook-Munhurrun et al, 2010). Depending on the services sought, this may also include waiting time to receive a service and the time a service is offered. Given that understanding of accessibility, KIs at the central, local and village level were of the opinion that accessibility to services had improved as a result of Service Charters. To this end, in the agriculture sector, a KI (Salima, June 2018) cited the way farmers get information at Agriculture Offices where there was increased accessibility to services as a result of the introduction of the Service Charters reform initiative as time is clearly indicated. Through the Service Charters, Lead Farmers get information regarding farming and this is passed on to all farmers.

One KI (Salima, June 2018) at the district level, in his narration, argued that Service Charters have improved relationships between service users and service providers, especially in areas where there were conflicts previously. The health sector was cited as one such sector which was characterized by conflicts. An example of an outstanding conflict revolved around the opening times of health facilities in the rural areas, and the reporting time of health attendants. The study found out that before the introduction of Service Charters, health personnel could open health service centers anytime they wished against the provisions in the Health Policy of 2017 and the Malawi Public Service Regulations which state that citizens can still access health services from 07:30 a.m. to 5:00 pm as outpatients and that citizens can access these facilities anytime beyond normal working hours in case of emergencies (KIs, Dedza July 2018). The Service Charters promoted knowledge among citizens on the operating hours and, therefore, the health personnel could no longer behave as if the health facilities were operating at their mercy. Citizens are no longer denied services as was the case before. The conflicts have significantly reduced as the Service

Charters have exposed the citizens as to what they can expect from duty bearers in the health sector.

The above assertion was well corroborated with KIs at the TA level. The study found that in Traditional Authority Mwanza, the KIs, the FGD participants were of the view that there has been an improvement in the delivery of services since the introduction of Service Charters in the sectors that had the Service Charters namely, Health, Education, Social Welfare, Police and Agriculture. The improvements included resolving conflicts that arose between duty bearers and citizens due to citizens not knowing what to expect from service providers. To that end, the FGD in TA Mwanza (Salima, June 2018) revealed that the opening time of the health center is no longer an issue as it opens on the prescribed times defined in the service charter.

Confirming that there were some improvements in accessing the health services, another KI (Dedza, July 2018) summarized the situation as follows:

the service charter is encouraging all patients to know what to expect when they go to the hospitals to seek medical attention and patients should be able to demand better services unlike just waiting as it has been happening in the past. The charter is helping people know what services are offered at the hospitals they visit so that they should know in advance that their other expectations cannot be met at certain hospitals.

In the education sector the study found out that the Service Charters were being used to lobby for more teachers to be placed in schools thereby lessening the tensions that arose due to dysfunctional pupil-teacher ratios. This assertion was well corroborated with KIs at the TA level. In TA Mwanza, for example, the FGD participants (Salima, June 2018) revealed that the number of teachers in schools within the area had improved following the introduction of Service Charters as communities were told of the standard number of teachers required at a school and wherever there was a gap they were able to demand from duty bearers to post more teachers. This in turn has enabled more children to be going to school because they are being attended to. In his own words, one FGD participant said that

we have more than 10 teachers/school which never used to be the case before we knew the minimum number of teachers in primary schools. Having known, we are now able to demand. For example, at Kalokola School, there was only 1 Teacher but after a complaint was raised with the PEA within a short period 4 more teachers were posted (FGD participant, Salima, June 2018).

The FGD participants (Salima, June 2018) also explained changes in the agriculture sector where an extension worker just disappeared from the area denying citizens the much-needed services. The Service Charter User Committee in conjunction with the ADC wrote the relevant office with the support of the Traditional Authority and a replacement was eventually made while acknowledging that it took a bit of pushing and time. The FGD revealed that agriculture productivity had also improved due to the ability of the people to reach them for advice where necessary following the empowerment experienced through the Service Charters reform initiative. One KI (Salima, June 2018) also indicated that more students are on bursary due to their increased awareness of the functions of the Social Welfare Department and more importantly they were able to demand the services. In general, the qualitative data affirm that accessibility of services had improved as a result of institutionalizing the Service Charters reform initiative.

Responsiveness

Responsiveness relates to how timely service providers react to citizen needs and demands as well as their willingness or readiness to provide a service (Ramseook-Munhurrun et al, 2010). In that vein, an informant in the Office of the President and Cabinet (OPC) indicated that the institutionalization of the service charter reform initiative has assisted the office in enhancing responsiveness in the course of service delivery. The informant qualified his assertions by saying:

the objective of Service Charters is to improve the service delivery in the public service. We, therefore, made commitments in the service charter that if someone just wants to enquire on a matter, he/she can be assisted within a day and within minutes depending on the complexity of the issue being enquired on. Secondly, we also committed to say when an applicant comes here for change of name or to use the protected names like Malawi, we will ensure that any applicant gets an approval or feedback by the end of 14 days. To this end, the service is forcing us to fulfil our commitments (OPC Officer, Lilongwe, May 2018).

He further said that sometimes they deliver the service before the two weeks' elapse. In that case he argued that the Service Charters have helped duty bearers in the OPC to improve on timelines, as previously they could exceed that time frame without fear of any repercussion.

In responding to whether the Service Charters had improved responsiveness to customers in the Ministry of Health, one KI (Lilongwe, November 2018) said that there were improvements at the Head Office, but he was not sure of the impact at the

district level. In affirming that service delivery has improved, he gave an example of the front desk where clients/service users commended the way they were being welcomed following the introduction of the Service Charters. In addition, the study also found out that duty bearers that were aware of the Service Charters were cautious and responsive except where resources were not available. One KI said that the service charter had improved time management both on patients' side as well as on health workers since there were disclosures on times that services would be offered and therefore improved on responsiveness.

However, another KI (Salima, June 2018) said the workers seem to be responsible, at times, but their reaction suggests they are not concerned at all. To that end, one respondent felt the duty bearers were not responsive. Said he, for example,

“Citizens arrive at the health facilities in the morning but service providers just dillydally and eventually they tell you to go back without attending to you... and those who go to health facilities at night are not attended to, instead they are just rebuked by health workers. On the list of the services they offer they indicated time as well what they offer but what they do is contrary”.

The findings from Dedza District Council on the impact of the Service Charters, particularly on accountability and transparency and citizen participation, were not very different from those from Salima. This is despite the fact that the period of implementing the reform initiative in Salima was deemed short for a meaningful assessment. To that end, an informant from the Directorate of Planning and Development (Dedza July, 2018) stated that there was some change in terms of performance. Much as he was of the opinion that the time factor was a limiting issue to assess the effect of the Service Charters, he acknowledged that there are key areas where he could say that there have been some key improvements mainly in the health-water sector and security. In that vein, therefore, he gave examples in the health sector that

“we had one health centre in TA Kaphuka where the service provider used to close during the weekends, which is not supposed to be the case. Once the Service Charter was introduced, the locals knew the standards concerning how these health personnel should conduct themselves. So, through their Citizen Forum...they raised a concern to the DHO and the Council and that problem was resolved. And as I am talking to you now, that Health Centre is operating all days of the week. I may attribute this success to the Service Charter...”.

Another case cited as an example was in the Water Sector where there are prescribed standards to be followed when the sector had to provide potable water to locals. The

informant said there are a number of players in the sector on the ground. These players include the Water Department which is the Policy Holder. There are also NGOs and Faith Based Organizations (FBO) which are also providing the same services to the locals. To augment the case on the impact of the service charter in the Water Sector, the informant narrated that there was this other FBO which, instead of drilling boreholes, it was merely providing shallow wells against the set standards of a borehole. In addition, the District Water Office was not consulted and did not even know that there was another player on the ground. Because these communities were empowered through the service charter, they informed and queried the District Water Office to provide reasons why they allowed this malpractice. The issue was resolved as well as the KI indicated. Another KI, concurring with the informant from the Department of Planning and Development, said that he was of the view that, to some extent, the service charter has had an impact as there were some communities that were aware of the standards and were able to demand services in reference to the Service Charter (KI, Dedza July 2018).

While Informants acknowledged some improvements in the efficiency of service delivery at the Ministry of Education, Science and Technology head office, the study noted a number of issues that may have contributed to the improvement of delivery of some services that were not necessarily as a result of the introduction of the Service Charters. For example, the Ministry had decentralized management of Basic Education Teachers to the Local Authorities Service Commission and District Education Managers Office more or less at the same time of formulating or implementing Service Charters (KI, Lilongwe November 2018). The transfer of this function led to decongestion at the head offices which came as a result of teachers who were visiting the office to process their leave grants.

The respondents' perception on the responsiveness of duty bearers as a result of the introduction of the Service Charters in the public was at about 42% on average. But more respondents in Salima (72%) were of the view that responsiveness had improved and this owes to the fact that the service charter reform initiative was more institutionalized in Salima than in Dedza.

Credibility

According to Ramseook-Munhurrin et al (2010) credibility includes elements of trustworthiness, believability, and honesty of duty bearers in the course of discharging their duties by service users. In that regard, FGD participants (Salima, TA Mwanza June 2018) said that with the introduction of Service Charters the situation has improved and citizens are having some confidence in the duty bearers, citing the case of health services where, according to the participants, included better relationship with health personnel in the three health facilities in TA Mwanza and, as a result, more women are now giving birth at the facilities. This finding is supported by one of the

objectives of introducing Service Charters which is to build and harness trust of the citizens on the Malawi Public Service (OPC, 2010). In that regard, an informant from the MHRC (Lilongwe, November 2018), in outlining the rationale for establishing the Service Charters, said that among the objectives of the Service Charters there was the issue of building confidence of citizens in the public service by ensuring that public servants were delivering services according to law and their mandates.

On the other hand, the study encountered concerns regarding the construction of school blocks, suggesting that the service charter did not improve the quality of services in terms of credibility. A case in point is that of Ching'ombe Primary School block in Salima. Funds depleted before construction of the structure was completed, prompting some individuals to cite it as a case of corruption (Salima, June 2018). Another case of lack of credibility was when one respondent said that the duty bearers prescribed medication even before patients finished explaining their problems (Respondent to Questionnaires, Salima Boma, June 2018).

Respondents said that credibility of service users as well as services had improved by about 36% as a result of the institutionalization of the CSC Service Charters reform initiative. A number of respondents said now people have confidence in duty bearers (Respondent to Questionnaires, Salima, June 2018; Dedza July 2018).

Communication and Courteousness

Communication, on one hand, constitutes a mechanism through which service users are informed in a medium that they will clearly understand and listen and courteousness, on the other hand, involves politeness, respect, consideration and friendliness of contact persons and it is dependent on communication skills or public relations (Ramseook-Munhurrun et al, 2010). This, therefore, involves explaining politely the kind of services, the cost, if any, in a friendly manner by the street-level bureaucrats. In that regard, out of the 304 respondents, when asked if communication to them by duty bearers on the services they expected had improved as a result of the introduction of the customer service charter, those who said yes represented about 42.3%. However, more respondents in Salima (56%) were in the affirmative to the question, a factor that could be related to the fact that Salima had implemented the service charter reform earlier and for a longer period than Dedza.

Conclusion

The objective of this paper was to present findings on the institutionalization of public Service Charters and enhancement of public service delivery. Specifically, the discussion and analysis were premised on the question of whether the public sector reforms lead to enhanced quality public service delivery using the Malawi Public Service Charter as a case. The overall conclusion is that Service Charters lead towards enhanced service delivery if the said charters are institutionalized.

The conclusion is arrived at as the KIs and FGD participants' indicated improvement in key indicators of enhanced service delivery namely, accountability and transparency, citizen empowerment, and quality of services defined in reliability, responsiveness, accessibility and credibility of duty bearers in the execution of their duties. The findings also justified the conceptual framework of the study that postulated that realization of enhanced service delivery is dependent on the institutionalizing of accountability and transparency being indicators of good governance; citizen empowerment and service quality standards in the public service delivery chain.

The paper also concludes that the service charter was duly promoted through legislated structures namely, the district councils, and area development committees. In addition, there were other informal structures like Community Citizen Forum and Social Accountability Monitoring Committee, though only in Dedza, that enhanced citizen participation. These factors are at the core of the Service Charters reform initiatives and the Service Charters, it is argued, were enablers in enhancing public services delivery (Drewry, 2005).

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A Critical Gender Analysis of Public Works Programmes in Malawi: Using Naila Kabeer's Social Relations Approach (SRA) to Analyse Intra-Household Gender Relations

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Abstract

In this paper, we critically gender analyse public works programmes (PWPs) in Malawi to identify parameters of PWPs that affect gender relations within the household. This analysis is critical as evidence suggests that although PWPs are recognised globally as poverty reduction policies, their impact on engendering job creation, economic empowerment, and poverty reduction is questionable. We used the social relations approach (SRA), developed by Naila Kabeer, to implement the gender analysis. We found that at the local level, PWPs are implemented differently from how they are designed at the national level, with local leaders and project implementation committees (PICs) changing the programme's scope of work and the wage rate. We further find that these local adaptations negatively affect intrahousehold gender relations, thereby reducing the impact of PWPs on gender relations at the household level. We recommend that the government and its development partners ensure that PWP design and implementation modalities are maintained across all institutions involved in implementing the programme, if PWPs are to be gender transformative.

Keywords: Public works programmes, social relations, intrahousehold, gender relations, participating households

1. Introduction

With high levels and depth of poverty in Malawi, programmes that create mass employment, such as PWPs, have become popular instruments of poverty reduction and resilience building. By definition, PWPs are a subset of social protection policies where the poor who have labour are recruited to work on community labour-intensive

projects and, in return, receive a transfer in cash or in-kind (Barrientos, 2008). The condition is that the participating household, in exchange for the transfer, provides labour that is invested in building or maintaining a community or public asset, such as roads, bridges, and others (National Local Government Finance Committee, 2019). The beneficiary household benefits through the transfer received, which can be used at their discretion and the transfer can be in the form of cash or in kind, such as food, agricultural inputs, training, or otherwise as defined by the available public policy. In Malawi, historically, the largest PWP has been the one implemented by the Government of Malawi through the National Local Government Finance Committee (NLGFC), formerly (before 2018) the Local Development Fund (LDF), which, as a programme was called the Malawi Social Action Fund (MASAF) between 1995 until 2018. The MASAF programme was the object of this study.

PWPs target both the moderately poor and the ultra-poor as long as they have labour. According to the Government of Malawi, the objectives of PWPs are: (i) to enhance paid labour and employment and (ii) to produce an asset, with the overall objective of promoting social protection for the targeted poor who have labour (Barrientos, 2008; GoM, 2012). Due to the conditionality for households to provide labour in exchange of a transfer, PWPs are forms of conditional cash transfers. The PWP being analysed was implemented in Lilongwe district in the year 2014/2015 and aimed to improve resilience among the poor and strengthen social safety net delivery systems and coordination across programs (National Local Government Finance Committee, 2019). PWPs, like many social protection programmes, target the household as the primary beneficiary of the cash transfer, with the household head as the participant and recipient of the transfer. The targeting assumption is that the transfer will benefit the household in terms of the expected objectives of the programme. Many scholars, including Kabeer (2004, 2010), Beegle, Galasso, & Goldberg (2015), Holmes & Jones (2011) and evidence from this study suggests that this assumption is seriously problematic because of how individual members of the household behave towards each other (intra-household gender relations), the choices they make on how to use wages, and the needs of individual members, can affect the extent to which PWP objectives are achieved at household level.

Typical PWP projects include construction and maintenance of roads, afforestation, irrigation farming, construction of dams and other associated water facilities (ponds). In turn, these assets provide benefits to the community, households and individuals. The benefits include income, food, both agricultural and non-agricultural inputs and improved access to social services by poor people (Barrientos, 2008; GoM, 2011). In Malawi, by 2018, PWPs had reached about one million households (985,635), of whom 53% were women. In terms of impacts, a study by Phiri, Chilongo, & Phiri (2017) showed that participation in PWP activities contributed to improved food security at household level with 54% of the sampled beneficiaries reporting that they

were in the high improved food security category, 45% reporting to be in the medium food security category and less than 2% had poor food security category. According to NLGFC (2019), the main lessons learnt from the PWPs include, but not limited to, the problem of poor quality of projects implemented, corruption where non-beneficiaries also receive wages, poor record keeping and poor targeting with high exclusion rates. McCord and Slater (2009) reviewed 167 PWPs in Sub-Saharan Africa and identified four distinct forms of PWPs. The forms of PWPs were defined on the basis of their core design features and primary objectives of the programmes. These were 1) PWPs that offered short-term employment (Type A), 2) PWPs that were government employment programmes (GEPs), which offered some form of employment guarantee (Type B) for the poor, 3) PWPs that promoted labour intensification of government infrastructure spending (Type C) and 4) PWPs that enhanced supply-side characteristics, promoting 'employability' (Type D). According to McCord and Slater (2009), while some PWPs may include more than one aspect and have a range of objectives, PWPs tend to have a primary design identity under one of the four categories; and this primary design identity has a significant influence on programme design. The PWPs that were studied under this research were short-term Type A projects implemented during food lean months to cushion household food insecurity.

According to Kabeer, (1994), gender relations refer specifically to those aspects of social relations which create and reproduce systematic differences between men and women in relation to their status and positions in the society in which the two live. It defines their roles, responsibilities and obligations and governs the division of resources between them. Gender relations are also defined as a complex system of personal and societal relations of domination and power through which women and men are socially constructed, maintained and deconstructed, through which men and women access power and material resources within society" IFAD, (2000, p4).

Gender and power relations within the household are important concepts that can determine the impact of a national public policy or programme at household level. However, most programmes are designed without examining the gender and power relations associated with their programmes (Kabeer, 2004). A case study of Ethiopia's Productive Safety Net Programme (PSNP) by Holmes & Jones (2011) acknowledged that the programme strongly focused on women's role in agriculture and food security, paying attention to women's specific needs and vulnerabilities on several levels. However, the authors identified some major design weaknesses that are relevant to this research and have strong implications for the programme's implementation and its impacts on gender relations within the household (Holmes & Jones, 2011). Arguably the most important weaknesses noted were a) inadequate attention as to how to promote women's meaningful participation in the programme beyond focusing on numbers and b) limited emphasis on addressing unequal gender

relations in food security and agriculture productivity at the household and community levels (Holmes & Jones, 2011). These limitations are in line with critiques made in gender studies that showed that Women in Development (WID) and Women and Development Approaches (WAD) in development intervention had failed to achieve sustained empowerment of women as well as addressing engrained household and community level inequalities (Icaza & Vázquez, 2016). Tebaldi & Bilo (2019) have argued that much more can be done to ensure women's participation in PWP work activities on more equal terms, suggesting that quotas for women and vulnerable groups, provisions for equal wages, child-care and breastfeeding facilities and breaks and flexible working hours, incentives for women to take on leadership roles can be measures that can be strengthened to ensure gender equality.

In a study of a public works programme in Chivi District in Zimbabwe, Moyo, Oluyinka, & Onyenankeya (2014) found that community-run PWP projects gave sufficient priority to women and that their participation helped to break down unfairness, which is an indication of unequal power relations within the household. Despite bringing equity, providing opportunities to women was believed to provide household welfare, over and above the benefits derived from giving men an equal opportunity (Moyo, Oluyinka & Onyenankeya, 2014; Hanna & Karlan, 2016). In that study, the typology of gender and power relations that were found to be critical in the transformation debate but which had not been studied adequately in PWPs included issues of who has access and control over the productive household as well as community assets, division of labour within the household, access to skills and knowledge and others. Building on these knowledge gaps, the overall objective of this research was to critically gender-analyse public works programme in Malawi, and to identify what parameters of the programme and its participants that influence gender relations and eventual programme impact at household and individual levels. This research was interested in unearthing these gender and power roles within households that participate in PWPs, exploring whether or not PWPs can be a vehicle for transforming gender and power relations within the household. The specific objectives of the study were to 1) analyse how PWPs influence gender relations at various institutional levels, 2) analyse how rules, resources and other dimensions of the SRA affect gender relations and finally 3) identify policy options that can be used to ensure that PWPs best implement gender objectives at all institutional levels.

2. Ontology, epistemology and framework for analysis

Given the nature of the phenomenon under study (individual practices and gender relations), the researcher opted for a constructivist or post-positivist epistemological position (Bryman, 2016). This study was concerned with how participants of public works programmes behave towards other household members. The social concepts and categories which are central to this research were public works, gender relations, power relations, individual social behaviours and decision-making, within the context

of a household that has received the benefits of a public policy programme, which is, in this case is an external actor or catalyst. These concepts are dynamic and cannot be purely understood using deductive and positivist theories, and this is what motivated the researchers to take a constructivist and interpretivist ontological and epistemological position, respectively, while mindful of the warning provided by Bryman (2016) that research does not need to focus on purely one epistemological theory. Given this epistemological position, the researchers used mainly a descriptive case study approach as the research design. To operationalise the epistemological position taken and given the objective of the research, the authors found it prudent to use the Social Relations Approach (SRA), a framework that Kabeer & Subrahmanian (1996) developed for the analysis of gender inequality. The SRA focuses on the institutional construction of gender relations and hence the institutional structure of gender inequality. The framework looks at gender relations as a continuum of institutions setting rules and norms at household, community, market and state levels. While Kabeer's institutions are different and occur at different levels, the framework identifies five distinctive elements that are common to all institutions, which include: 1) rules (i.e. how things get done), 2) resources (i.e. what is used and what is produced), 3) people (who is in, who is out and who does what), 4) activities (what is done) and finally 5) power (who decides) Kabeer & Subrahmanian (1996). This framework does not, however, look at an individual as an institution. But in this study, the researchers viewed an individual as an institution of its own because individuals also set their own rules, have individual resources and implement activities that may or may not affect others. Therefore, the Kabeer framework was adapted to start with the individual before the household, community, markets and the state. As indicated in the methodology chapter, data for this section was collected using focus group discussions and key informant interviews.

3. Methods

The study was conducted in Lilongwe District in Malawi in 2019. Lilongwe District, located in the Central Region of Malawi, was chosen because of its proximity to the author's university, the Lilongwe University of Agriculture and Natural Resources (LUANAR). To assess how the programme interfaces with gender relations at the individual and household levels, individual in-depth interviews were done at the household level with individual members of households that participated in the programme. Table 1 shows the number of individual interviews done at the household level by a study using six field teams.

Table 1: Number of interviews done using individual in-depth interviews

| TEAM | Field Team 1 | Field Team 2 | Field Team 3 | Field Team 4 | Field Team 5 | Field Team 6 | TOTAL |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------|
| Male spouse | 6 | 7 | 7 | 8 | 7 | 8 | 43 |
| Female spouse | 6 | 7 | 7 | 8 | 7 | 8 | 43 |
| Male children | 5 | 6 | 1 | 1 | 4 | 4 | 21 |
| Female children | 4 | 3 | 4 | 4 | 7 | 4 | 26 |
| Total per household | 21 | 23 | 19 | 21 | 25 | 24 | 133 |

To get perspectives of the broader community, an important analytical level in the SRA, eight focus group discussions were conducted with programme beneficiaries to complement individual and key informant interviews. To this effect, seven key informant interviews were done at the three levels: national, district and community. And finally, key informant interviews were conducted at the national level to understand the PWP's statutory provisions and policy perspectives of social protection and public works in Malawi. To this effect, officials from the Ministry of Local Government and Rural Development, Ministry of Gender and Community Services, the National Local Government Finance Committee and the Lilongwe District Council were interviewed. The main issues covered during interviews included; the design, objectives and scope of PWPs in the country, the successes and lessons learnt, key challenges, their views about the programme, and how beneficiaries are selected. For the analysis of qualitative data, a phenomenological analysis was carried out on all interview notes. The interviews were read repeatedly to identify themes and patterns aligned with the SRA. This methodology was chosen because it is mainly concerned with 'the participant's view of the topic under investigation' (Smith et al. 1999: 218 cited in (Uny, 2008) and Bryman (2016).

4. Results and discussion

This section presents and discusses the findings of the study. The study used the Social Relations Approach (SRA), which analyses gender from four institutional levels (household, community, market and statutory), and the framework identifies five dimensions of social relations that produce gender differences through the distribution of resources, responsibilities and power, and are thus used to analyse gender inequality in society: power, resources, rules, activities, and people. The institutions and their dimensions are used to present and argue the findings of this study. As indicated earlier, the framework was adapted to include the "individual" as an institution that plays a critical role in the construction and engineering of gender relations.

4.1 Individual level factors

The study found that individual factors that include demographic, social and economic factors play an important role in determining how a participant behaves (the rules and standards they set for themselves to govern what they do) individually and how he or she relates with other members of the household as they participate in PWPs. The first important individual factor that influenced practices and gender relations was the type of information or education provided by the programme to the individual PWP beneficiary. The study found that the information provided to participants to guide their participation and behaviour in the PWP was inadequate to influence changes in gender relations and individual behaviours at the household level. It was noted that while policy documents are clear about the objectives of PWPs and what outcomes are expected amongst beneficiaries, only local leaders and programme

implementation committees are oriented and provided with information on the objectives in the study sites, which created an information vacuum for PWP beneficiaries (Rowlands, 1997). In addition, a review of the PWP manual found that the manual does not include guidance or “rules” on gender relations and how wages should be specifically used at household level. Instead, the manual only focuses on sectoral technical guidelines to ensure that quality projects are implemented. As a result, during the orientation of local leaders, District Officials focus on technical specifications for the sectors whose projects have been selected by that community. For example, for road projects, the orientation would only cover technical elements of road construction as explained in the PWP road sector guidelines. While participants are told about the need to use “wages” wisely, there is limited emphasis and guidance on what is using wages “wisely”, and generally the orientation does not cover behavioural issues at individual and household levels, which may affect the achievement of objectives of the programme.

Local leaders interviewed who had been oriented on the PWP and had been orienting participants reported that the duration of the training is too short to cover all the materials required and because of the limited time, the focus is usually on covering technical aspects of implementation. They reported that they cannot keep participants longer because there are no financial resources allocated for participant orientation workshops to cover lunch and refreshments for participants. However, both local leaders and participants are told that the wages are meant to improve their well-being and address their poverty. One local leader interviewed said that how this message translates into what one would call well-being at the household level depends on the individual understanding and wisdom. Within the study sites, no specific information, education and communication materials were produced and disseminated to participants to explain anything about the programme. And perhaps this explains why the majority of participants interviewed reported that they were not told or guided on how to use the money.

The lack of key information to beneficiaries defeats the empowerment process, as argued by Rowlands (1997), who says that generative empowerment requires that programmes implement processes by which people become aware of their interests and how those relate to the interests of others, for both to participate from a position of greater strength in decision making and actually to influence such decisions. This implies that for PWPs to have an impact, people should be aware of the expectations of the programme and government at individual, household and community levels. In relation to Kabee's SRA, it means that the state, as represented by the NLGFC and District Councils, has the power to determine how the programme is implemented and that power affects how communities participate in PWPs. If the state does not have adequate resources (access to resources), then it is not able to provide sufficient

training to communities and cannot even increase wages so households benefit more from PWPs.

4.2 Household level factors

The study found that the household's demographic characteristics strongly influenced how one behaved as an individual and towards others. Household sizes were identified as a critical factor. The study found an overall household size range of 1-18, with the range being larger for female-headed households compared to male-headed households and higher for Nathonje (semi-urban) than for Chadza Headquarters (rural area). In the SRA framework, the distribution of resources at the household level is an important phenomenon. The implication of household sizes in terms of distribution of resources and intrahousehold gender relations is that larger household sizes have more complex and diverse intrahousehold and power relations than smaller households, which could negatively affect the impact of PWPs at the household level. Since the size of the wage is the same across all households, large household sizes have smaller per capita wages, implying that the PWP wage is shared between more people, which weakens the impact of PWPs at the household and individual levels. It also means that whatever the wage is used for, the period it will last within the household, which is called gender remnantism in this study, will be shorter for larger households compared to smaller households. This argument is consistent with what Barrientos (2008) and Quisumbing and Maluccio (1999) put forward that the size of the household is an important consideration for an effective social protection programme. In the social cash transfer programme (another large social protection programme in Malawi), the size of the household is one of the determinants of the size of transfer that a beneficiary household receives, which is not the case with PWPs. Since institutions are selective about whom they include and exclude, who has access to various resources and responsibilities, and who is positioned where in the hierarchy, the large households might mean that the weaker members of the household are excluded from benefitting from PWPs. This selection may reflect class, gender, or other social inequalities and may constitute a form of gender injustice by the programme.

According to one focus group discussion with women, when the household size is large, there is also pressure and expectation from more household members, especially spouses and children, who also expect to benefit from the wages. When benefits are not satisfactory, it leads to quarrels between the PWP participant and the spouse, which negate relationships within the household. The quarrels can lead to gender-based violence manifested as physical, economic and emotional relations between spouses, which can also affect relations with children. The age of a participant or household member was an important attribute in determining relations between household members. It was reported that children do not access certain assets because they are young, and parents fear that they can damage such assets and also that some

assets can injure children. Therefore, households make rules that govern access and control over assets and some of such rules restrict what children can access or control. In addition, it was reported that the personal health status of individual members of the household was key in determining how they related to PWP participants: a married man said:

Normally it is me and my wife who would use a mosquito net, but the priority went to my wife when she became pregnant. Since we had only one mosquito net, it was only her who was now using it to protect her and the unborn baby (Married Male Participant 1, 2020).

Age also affected production relations in deciding who would allocate what task at the household level. Very young children, for example, would not help their parents with PWP activities because they are too young and expected to be in school, as exemplified by the quote below by another male participant.

My children did not help because they were too young and were going to school. I did not think it would be right to ask them to help with PWP work. In terms of protecting and controlling the assets, we are the only elder ones to do so since our children are young. Due to that reason, they are barred from accessing some sensitive assets like finances of the family because they cannot manage to take good care of them and giving them that responsibility they may put the entire family on the risk of starvation and bankruptcy (Married Male Participant 2, 2020).

The study, however, found that the PWP was not implemented in a gender-structured way, hence some of these engendered rules were broken by the programme. It was implemented as a gender-neutral project, where men and women were allocated tasks in the same way. Only the elderly were assigned lighter tasks. Allocation of tasks without considering what women and men are expected to do by the society allowed both men and women to do what is not expected of them from the society, which breaks the norm that certain tasks are for men and others are for women. For example, women were also maintaining roads and digging holes for planting trees, while men could also draw water to water tree seedlings planted by the community. These role-changing tactics were, of course, not planned as a gender mainstreaming strategy by the project, but were coincidental, although they had impact further downstream at the household level. This accidental gender mainstreaming was also reported by Holmes, Jones, & Vedas (2010), who found that PWPs in South Africa and Ethiopia had actually mainstreamed gender, not by plan, but by coincidence. But they had impacts on changing production and power relations within the household. In the context of SRA, it means that the rules that make women and men work on the same tasks, without regard to gender, are transformative in nature because they allow, for

example, women to engage in productive tasks at the same level as men, hence transferring skills to women, who are often disadvantaged.

The current study further noted that children who attend school are likely not to be used to support their parents in actually doing PWP activity and supporting them to domestic work on behalf of the parent who is participating in PWP activity, which is important because it enables them to concentrate on and in school and improve their likelihood to continue their education. This is also a progressive rule that the community as an institution in the SRA has set. However, for children, who are not in school, the study found that they are likely to be the ones to support parents with PWP activity and work on the roles that the participating parent could have done had they been at home. These results indicate that if PWPs can empower individuals through knowledge and skills, it will enhance their ability to act or do something because their actions will be determined by the skills or means that influence them to act or do something (Mntambo 2017).

The study found that households in which a husband is economically active (i.e. has access to resources) and is a participant in PWPs tended to delegate both reproductive and productive work to their spouses and children more than others. In contrast, those household where the man is not actively involved in small-scale business, tended to get involved even in reproductive roles, which are generally spaces for women. Both scenarios have implications on women and children, with the earlier scenario tending to overload women and children with work while the other scenario might reduce women's work at the household level. The study found that in married households, men are called “mutu wa banja”, i.e. head of households, and therefore, they are expected to have control over everything, which is a symbol of power. When asked about what factors couples consider when allocating tasks in their household, a woman said that she assumed the position of a wife and, therefore, she takes care of responsibilities and tasks that are socially expected to be conducted by a wife, such as collecting water, fetching firewood and other similar household chores. Further, the same respondent reported that she learnt to be disciplined from her grandmother before getting married and added that her husband takes care of the roles meant for men.

The study found that men generally considered women as their subordinates (with a lot of power over and controlling behaviours over women), and hence women are allocated tasks related to reproduction and maintenance. In the context of the SRA, this confirms that the household, as an institution, allocates 'rule-governed' sets of activities to different members of the household in order to meet specific needs or the pursuit of specific goals (Kabeer & Subrahmanian, 1996). These activities can be productive, distributive or regulative but their rule-governed nature means that institutions generate routinised practices, which are carried over between generations (ibid). For example, a 43-year old male respondent said, ‘my wife is the one handling

all chores such as cooking, cleaning the house and washing plates because that is her duty as a woman and that is what is expected of her. It is what she was taught by her parents before she got married’.

Further, the study found that because women have too many tasks in the household, they are time-poor, which limits their ability to perform activities outside their home, as evidenced by the quote below:

As a woman, I am always home to take care of the children. So, I cannot travel to far places to fetch money. For example, I cannot travel long distances, leaving children alone at home as a man is usually involved in other distance activities like tilling the land. Since a man has nothing to do at home and has no obligation by culture to nurture the children, his responsibility rests in pursuing for food for the family (Married Female Participant 1, 2020).

The study found that children were not allowed access to high-value assets, for fear of causing damage, which is also a rule that governs access to assets by the rule of exclusion. Related to this rule, it was also found that access and control of assets were also determined by the one who earned that asset. One woman explained that because a lot of assets were fetched by the husband as the head of the family, it is wise for him to be in control of the assets. In this case, the study finding implies that if a PWP enables women to buy assets, the programme would then improve asset ownership amongst women, contributing to their economic empowerment and reducing their vulnerability to shocks, including climate-related shocks.

The study found that there are individuals and households where issues of privacy and transparency are quite respected to the extent that spouses are not allowed to access each other assets, such as phones; to preserve each other’s privacy. In other households, this was not an issue; spouses could access each other’s phones. In one household, we found that the woman was not ready to buy a phone of her own because she was afraid the husband would ask her who she was talking to if a phone rang. The implication is that even if the woman had enough resources, she is not free to invest in the assets that she wanted because she is afraid of losing her marriage, which confirms what many studies have reported that married women are controlled by their men, and for that reason, they are not free to do what they would like to do on their own (Holmes, Jones, & Vedas (2010). This finding also affects access to information communication and technology (ICT), which can affect the adoption of agricultural, health and development technology by women, given that assets such as phones come with many value-added services, which include health information, financial inclusion, agricultural and weather information and disaster management information.

I do not use or own a phone to avoid my husband and people in the village raising suspicions like whom am I talking to apart from my husband, and he

too may have infidelity suspicions of his own when he sees me with a phone (Married Female Participant 2, 2020).

As participants work on PWPs, they create a labour/role/leadership vacuum at the household level. In the study area, participants worked between two to four hours per day for 14 days. With more Type B PWP projects being implemented in the country, participants work for about the same time per day for 24 days. While a participant is participating in PWP, someone else at home must, therefore, take up their roles, regardless of the type of roles. The following quotes by two women provide evidence of this argument.

At one point, for example, as a woman, I had to thatch the bathroom with grass... it is normally my husband who does that, and he is the one who constructed it in the first place. But since he was not around doing PWP and the bathroom was in bad shape, I had to take the task on his behalf (Married (Married Female Participant 3, 2020). I had to spend more hours at the farm than before to cover for the work that would have usually been done by my husband, who was now busy with MASAF... I had to employ ganyu (casual labour) to help me with the work ((Married Female Participant 4, 2020).

Married men whose wives were PWP participants had these words to say in supporting the fact that they help their wives during the programme:

My wife was working hard to help provide for the family, as such, I was merely supporting her by taking up some tasks that she was no longer available to carry out because she was participating in the PW project ((Married Male Participant 1, 2020).

My wife was working to help provide for the family as such, I was merely supporting her by taking up some tasks that she was no longer available to carry out ((Married Male Participant 2, 2020).

Analysis of the four quotes above shows that men and women can perform the roles of each other if the space or opportunity to do so is available. This confirms that the division of labour is not because one sex is not able but because it has been constructed by the society to be so. It can also be argued that if PWPs are longer, then these reversed roles will be performed on a more regular and repeated basis, which means that it may later become a behaviour by each gender to perform functions that are not ascribed to them by the community, transforming gender relations temporalism into a permanent behaviour. This would be needed if PWPs were able to transform gender relations(Kabeer & Subrahmanian, 1996).

4.2.1 Community level factors

The most important community factor that drove individual practices and intrahousehold gender relations was that PWP failed to change cultural norms, traditions and beliefs to transform gender relations at the household level. For example, for division of labour, it was reported by almost every interview that according to rules and norms set by the community culturally, women and men are already assigned roles to do and, therefore, it is not expected that a short-term programme like PWP can structurally change these norms, which agrees with Kabeer (1994) that deep-rooted norms dictate gendered divisions of labour (Kabeer, 1994). Through these community norms and expectations, reproductive roles, such as cooking, drawing water, fetching firewood and cleaning utensils, are expected to be done by women and girls, while boys and men are expected to perform productive tasks that generate income, assets, and food for the household.

Secondly, the PWP failed to change men's control over household decisions and assets. The study found men had control over everything their household had, and PWP had no effect on the men throughout the programme's three phases. When asked about why the situation was so gendered, one man who was a respondent in the study and was a participant in the PWP said emphatically in this following quote:

It is my wife who does almost all the all the household work especially kitchen work and house cleaning while I am busy with gardening or tilling at the farm or doing ganyu to earn money for the household. This is what our culture says. Cooking, collecting firewood are the duties of the woman at home. My job is to look for money to feed the family. I am the household's head. I proposed her and I build a family. I am the one who decides and she must just agree with me. I look for money, and when I get it I give her to buy household needs. In other words, I am the one who dictates what is supposed to be done, and she just has to take what I say (Married Male Participant 3, 2020).

The rules that govern institutions are protected by those who benefit from those rules, such as the man in the quote above. For example, when asked about the state of affairs with the division of labour after the man participated in the programme, he reported that nothing changed because, to him, because, according to him, "PWP did not come to the village to change gender relations", implying that PWP should not be affecting cultural norms. Not only do men assert their roles within the household, but they are supported by women, as evidenced by this female PWP participant, who, when asked about who controls assets within the household, had this to say:

My husband has control over assets because a husband is the head of the house, and me as a wife, I respect that just as I was taught by my grandmother before

I got married. ‘osakalamulira katundu mnyumba mukasiyire abambo’¹. Whatever good the husband does in the family is for the benefit of everyone, whether he has the assets or not. It is culture, and I have to respect it (Married Female Participant 5, 2020).

Fourthly, the study found that local leaders modified the PWP designs at the community level. Some of the modifications weakened the PWP’s potential to transform gender relations in the household. While Government creates rules that govern the PWP, such rules are modified by local leaders to suit their needs and the local operating environment. Local leaders reported that they face pressure from communities to be included on the programme and when those eligible to participate are excluded because of the ceilings provided by the Government, some communities members withdraw from participating in other development projects while others threatened violence against leaders. Because of the high levels of poverty in the community, many people qualify for PWP, against a limited number that can participate due to resource constraints. In turn, the excluded community members threatened not to participate in other community activities. To mitigate this problem, the study found that local leaders recruit more beneficiaries than the ceiling per project as provided by the government. This means that the work and the wage were shared between participants, leading to participants receiving lower wages than what was prescribed by Government (the entitlement). For instance, some beneficiaries reported that they were promised to receive MK28000, but they only got half of it, suggesting that one more person worked on the same wage. They explained that some of the money gets back to the leaders, through rent-seeking behaviours by leaders, who were also allegedly involved in recruiting even ghost workers. Other beneficiaries reported that they are told that they would be in four PWP cycles (Type B) in a year but that this often does not happen.

The implication of local adaptations to the design and implementation of the PWP on individual practices and gender relations at the household and individual levels is that the actual wage is smaller than the entitlement, which reduces the potential transformative impacts at the household level. The wage can no longer support the household at the level that Government envisages, because its value has been reduced by splitting it, which is an indication of a conflict between the rules and goals of the community as an institution and those of the state. Surprisingly, in their argument, however, JIMATT Consulting Group (2008) concluded that local adaptations, such as shortening the duration of the contracted time, were good in order to maximise the number of beneficiaries reached and help more people and reach the participation of larger sections of the vulnerable population (JIMATT Consulting Group, 2008).

¹ Do not go to the marriage to rule the husband

Local leaders and beneficiaries reported that during PWP implementation, there are rules that community leaders formulate to govern the programme's implementation. An example is the rule that when a participant is absent, they are not paid that day. To enforce this rule, a daily participation register is kept, where every day, a foreman conducts a roll-call and marks in and out who has worked and not worked on the programme. In terms of the impact of this rule on gender relations, the study found that it was the main cause of participants using proxies to represent them when they were not able to participate for various reasons. In some cases, the study found that such proxies were older adolescent children, who, for that day or days, tend to absent themselves from school to participate in the programme on behalf of their parents and guardians, so that the household does not lose that day's wage entitlement. Potentially, this is a cause for concern, as it may be a form of child labour if children work more than what is allowed under the labour laws of Malawi. The findings agree with studies in Ethiopia which reported that PWPs might have substitution effects on child labour because, although the programme aims to provide employment opportunities during off-pick agricultural seasons, its implementation coincided with peak agricultural seasons in some parts of the country (Sharp, Brown, & Teshome, 2006; World Bank, 2011). Similar arguments have also been made by Dinku (2019), who reported that to the extent that labour supply commitments of adult household members conflict with their responsibilities in household production, households might resort to children to meet their labour demand, which necessitates an increase in child labour.

4.2.2 Market level factors

The study found that the type of products and services available within the area, which has to do with what assets and resources are available for the community, played an important role in determining the individual practices and gender relations between participants and household members. Firstly, at an individual level, regarding decision-making behaviour about choices of sources of income, the study found that the availability of alternative and better sources of income in the area influences a participant's choice on whether to participate in the PWP or not. In this study for example, 19% of all who were selected to participate in the programme either refused or dropped out of the programme early. According to focus group discussions, the main reasons for dropping out were that some participants viewed the wages as being low compared to the scope of work to be done under the PWP. Others found new economic opportunities which were better paying, and yet others were reported to have dropped out because they did not want to be viewed as being poor since the PWP targets the poor.

It was also reported that while Government promotes the use of wages for investments in savings groups and encourages participants to open bank accounts, this was not always possible in the area, because savings groups are quite limited and worse still, formal banks are very far and largely not available and accessible to the community.

This is why the study found that only 19% of beneficiaries had used wages for saving in village savings and loan groups and banks, respectively. In this case, the study showed that PWP is limited in promoting financial inclusion because financial markets are not functional in rural areas, and the Government and the private sector have not done enough to provide financial products and services to rural areas. A critical finding reported by a local leader, which is also related to financial products and services, was that because of the lack of loan services in the area, most participants tend to borrow money from village loan shacks at an interest rate of 50%. In some cases, individual participants borrow such money without their spouses knowing. Because of high illiteracy, some beneficiaries keep borrowing during participation and by the time wages are paid, the money borrowed surpasses the amount of wages received, which means that such participants receive nothing on the payday and instead, they have to source additional money to pay the loan shacks. In such cases, it was reported that there are often disagreements and suspicion from spouses, leading to violence within the home.

4.2.3 Statutory level factors

According to key informants from Government and documents reviewed, the amount of wages that participants receive is determined by Government, and the main factors that government considers are the availability of resources and the current minimum wage rate (Phiri, 2012). Most respondents in the study complained that the wage they received was small, affecting what they could use it for and for how long (gender relations remnantism). What the wage is used for and how long the wage or what it is used to buy was reported to influence gender relations within the household. The longer the wage stays or its effects (such as food security) remain in the household, the more members relate well and love each other without arguments. This is the concept that the authors have termed “*gender remnantism*”, which in simple terms, is the gender effect that remains within the household after the wage is used up. Most importantly, it affects who can benefit from the wages because the limited wage means that the participants cannot support many members of the household, which means he or she will do some intrahousehold targeting by excluding some members who would eventually feel excluded and disenfranchised. Those household members not supported because of the prioritisation feel excluded and not loved, which can damage relationships with the participant.

It was also reported by beneficiaries that because the wage is small, it loses its transformative abilities because beneficiaries cannot invest in long-term resilience and development activities at the household level. As a result, the wages are only used for smoothing consumption, which only improves temporary gender relations, which has been confirmed through this study. A 67-year-old female, who is also the head of her household, had this to say, ‘the money was too little to change my behaviour. The only thing that changed was my food consumption pattern because I was at least able

to buy some meat and tea “popita kokatenga ndalama ndidamwa chikapu chachikulu chimodzi cha tea wankaka ndi bread pa ngongole kenako pobwerera kotenga ndalama ndidalipira ngongole ija ndikumwanso chikapu china kenako kumabwera bwino kunyumba’²

When wage payments are delayed, it also creates tension in the household because spouses and children think the participant may have already used up the wages when actually they have not been paid. The amount of wages to be transferred to beneficiaries is also determined by the Government. At a household level, most participants feel the wage is too small to transform gender relations. As argued earlier, this is why many participants suggested that there is a need for Government to change the PWP and increase the frequency of the work from once a year to two to three times so that beneficiaries earn wages (predictable income) several times a year, which could allow them to invest in meaningful developments at individual and household level, which transforms gender relations at the household level, through the wage transfer itself, the assets created, the skills development or work experience (McCord & Farrington, 2008).

One key targeting rule by the government is that only poor households with labour should be enrolled in the PWP. The community also confirmed this rule. However, this rule is rarely followed, as even those with limited labour are provided for in the programme because the community adjusts such targeting criteria. The need for many people to participate in the PWP results from limited employment and economic opportunities. The state’s dictate is that each project should have 200 participants. There is no consideration of where they come from, who they are and whether that corresponds to the number of eligible people in that community.

5. Conclusion and recommendations

In summary, the paper has critically gender-analysed the PWP in Malawi and has identified parameters of both the PWP at five institutional levels that affect gender relations within the household.

The study has also shown that these parameters do not operate in isolation, they are interlinked and overlap, and if PWPs have to be impactful at the household level, it has to understand and unpack the issues and mitigate against them at their operational level.

The study, therefore, recommends that Local Government Authorities or Councils should properly orient and train local leaders and PWP participants on the objectives of the PWPs and their linkages to gender issues. Training modules on gender should

² As I was going to collect the pay, I took a big cup of tea with bread on credit and repaid when I got paid and then returned home

be included in the operational manual for PWP, with the aim of building the capacity for communities and households on gender issues. Local leaders should not change the design and rules of the programme, which weakens its impact on the household. LGAs should put in place measures (such as e-payments) to ensure that wages are paid in time to reduce frustration amongst beneficiaries. Priority sectors within Local Government Authorities, such as agriculture, environment, climate change, health and education should coordinate and develop gender-sensitive extension and training messages that are directed at specific contexts in the country and use public works programmes as a means of delivering extension messages on various technologies. Gender analysis to understand specific factors that may influence implementation and impacts of the programme should be done as part of programme implementation and management.

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Good Governance and Human Welfare Development in Malawi

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Abstract

The United Nations, regional economic communities (RECs), donors, theorists, and researchers have prescribed good governance to remedy the African underdevelopment pathogen. In contrast to existing literature that measures the impact of good governance on economic growth using the gross domestic product-related indicators, this paper examines the effect of governance on human development in Malawi. Using the Autoregressive Distributed Lag (ARDL) model and data from 1990 to 2020, empirical results revealed a significant positive long-run relationship between good governance and human development. However, the results found that good governance worsens human well-being in the short run. Consequently, this study suggests that the implementation and strengthening of governance institutions should take a holistic pace. For example, there is a need for massive supply-side initiatives to circumvent governance's negative influence on human development arising from good governance-neopatrimonialism crashes in the short-run like potential inflation and exchange rate fluctuation.

Keywords: Capabilities Approach, Human Welfare, Neopatrimonialism, Malawi

1.0. Introduction

The significance of good governance to development has been highly assessed from the economic performance refracted acute angle of view using the gross domestic product (GDP) or GDP per capita or GDP per capita growth. GDP and its related measures are very crude measures of development because they can hardly explain significant aspects of human well-being. For example, health and education as included in the human development index (HDR 2020). The quest for governance – prescribed as a potential remedy for the underdevelopment of Africa, is at the heart of regional and national plans. Research on the effects of good governance and development remains an ongoing business. Good governance can restore all countries and make citizens of many developing nations find more relief from socio-economic

burdens. This hypothesis only holds if governance is transparent, fair, judicious, participatory, accountable, well-managed, responsive, and leads to efficient institutions. Grindle (2010) argued that good governance is the only source of hope for the plagued population throughout the world whose living conditions are characterised by absolute poverty, public insecurity, abuse of law and political instability, public service inefficiency, corruption, and inequality.

Since 2015, the world has taken a serious step toward development, especially with the initiation of Sustainable Development Goals (SDGs) (United Nations, 2015). The doctrine contains 17 broad and independent global goals. However, there is a strong consensus among the United Nations (U.N.) executive, its agencies, and member countries that achieving all other goals is constrained by international goal 16, which is about strengthening governance foundations. That means global goal 16 has the multiplier effects to achieve all human welfare-oriented goals such as (1) mitigating poverty, (2) absence of hunger, (3) good health and well-being, (4) better education standards, (5) gender balance, (6) clean water and sanitation, (10) reduced inequalities and, (13) life on land. These human welfare-oriented goals are critical to economic development beyond the economic growth prescribed in SDG eight. According to the California Association of Local Economic Development (CALED) (2021), economic development is the propensity of a nation to create wealth from which societal benefits are realised, where societal benefits refer to an improvement in human development.

SDGs are the brainchild of the 1995 Copenhagen Declaration on Social Development, the 1996 International Development Goals, and the 2000 Millennium Development Goals. These SDGs are not new but intensifying the transhistorical western campaign for good governance, especially in their use as a precondition for loans and aid (Carlos, 2001; Bräutigam & Stephen, 2004; Kwakye, 2010). For instance, Baroness Chalker, the overseas Development Minister, was reported reaffirming the policy in blunt terms as:

"Where a government wants aid to help with a transformation to democracy, to strengthen its institutions, to weed out corruption and incompetence, we will give it. Nevertheless, where a government turns its back on democracy, ignores accountability, disregards human rights, and allows corruption to flourish, our aid will be humanitarian to help the people in real need..." (Quoted from McAuslan, 1996).

While Africa harbours most of the least developing countries globally, the adoption of governance is at the epitome of the African regional blocks and individual countries' vision and goals. The belief that the main obstacle to economic and human development in Africa is poor governance was further intensified in 1988 when a report from the World Bank stated that catastrophic governance is the only pathogen to Africa's underdevelopment (Mkandawire, 2007).

The publication of the African Agenda 2063 in 2015 provided a shred of solid evidence that good governance is a new truth hammering and thrashing the benighted minds of African policymakers. Descending from the United Nations, the African Union (A.U.) has gaudily savoured good governance in its African Agenda 2063. For instance, aspiration 3, goal 11 of the Africa Agenda 2063, envisages a complete transformation in governance status and democracy among all African countries by 2063 (African Agenda 2063, 2015). Consequently, Africa's regional economic communities (RECs) have equally adopted the agenda, such as the Southern African Development Community (SADC) and the Economic Community of Central African States (ECCAS) (UNHR, 1998). Similarly, SADC and ECOWAS recognise good governance as an essential enabler for regional economic integration. These organisations support member countries in various elements of good governance, such as political pluralism, peace, and elections (ECOWAS, 2001; GIZ, 2018).

As a U.N., A.U., and SADC member, Malawi has inevitably resisted good governance initiatives as a potential remedy to its underdevelopment hitches. The time trend analysis shows that Malawi's human development has fallen within the category of low human developed countries throughout the period covered in this study (See Appendix A2). According to UNDP (2020), Malawi is ranked 174 out of 189 countries and territories assessed by the United Nations Development Programme (UNDP). Nevertheless, Malawi is striving to achieve the sound well-being of all its residents. For example, the three pillars of the Malawi Vision 2063: agricultural productivity and commercialisation; industrialisation; and urbanisation, and all its enablers aim to drive the economy to economic independence, inclusive wealth creation, self-reliance, and high quality of life for all its citizens.

Due to the multifaceted effects of enabler 2, Malawi considers effective, active, and competent governance systems and institutional foundations to be a driving force to its 2063 goals (National Planning Commission, 2015). Indeed, good governance will propel adherence to the rule of law, whose observance and enforcement help empower and make citizens cultivate belief and trust in their leaders. The rule of law in particular, is important if impunity is to be denounced and eradicated. Besides, the rule of law can mitigate political instabilities, strengthen honesty, promote transparency, reduce corruption and ensure an equitable allocation of public goods and services. All these encompass fundamental conditions if Malawi can realise the desired human welfare development due to Vision 2063.

Nevertheless, there are still negligible guiding ideas and research studies that link good governance to human development, even though governance has captivated the minds of international and regional agencies, state leaders, researchers, and policymakers for an inestimable period. Most of the econometric research on governance has been fervently obsessed with assessing the impact of governance on economic growth (Dollar & Kraay, 2002; Fayisa & Nsiah, 2013; Murtaza & Farid,

2016). According to the Human Development Report (2020), economic performance measured by national output is a crude measure of human welfare and can hardly be relied on. In essence, the existing literature is rich in assessing the impact of governance on economic development and not on human development and other forms of development.

Furthermore, most of the available studies on this subject in Africa and globally are panel data analyses whose single eye and attention spreads wide and seldom to critic individual country specifications. It is of little surprise that the results are highly mixed. For example, Adzima and Baita (2019) noted that good governance positively influences economic growth in sub-Saharan Africa. However, Ekpo (2020) noted that governance negatively impacts economic growth in the same study area. Circumscribed in Sub-Saharan Africa, Malawi also suffers from the same mixed research findings. This study focuses on Malawi's sound governance system and institutions and how it affects the well-being of its residents.

In Malawi, there are no studies conducted to investigate the relationship between governance and human development. A study by Chinsinga et al. (2010) was a follow up of the 2006 corruption baseline survey. One of the study's conclusions was that corruption is the main obstacle and the overarching enemy to development in Malawi. Other documents on governance are projects and conference papers. For example, Msukwa (2021) examined the impact of strengthening land governance systems for smallholder farmers in the Malawi OXFAM project.

On the other hand, Malawian law researchers have studied the rule of law, a component of governance, as a standalone topic without linking it to human development. For example, Gloppen and Kanyongolo (2007) looked at the poor people's access to courts and justice. Nkhata (2017) only focused on the legitimacy of public universities on issues of academic freedom. While Kamchedzera and Banda (2002) only looked at the legislative duties on development during the first five years of multiparty politics. Overall, there is no forecasting knowledge of the impact of governance on human development in Malawi. Since 1994, Malawi has been classified as a low human developed country (UNDP 2020). With fluctuations and deterioration in governance and human development (see Appendix A3), it leaves a lot to be desired in the governance and human development field.

This study is organised such that section 2.0 outlines the review of literature, theory, and empirical underpinnings, which establishes the interaction between good governance and development. Section 3.0 outlines data and model estimation methods. Section 4.0 outlines statistical model results from summary and correlation analyses, diagnostic tests, bounds cointegration test, ARDL results, and the block exogeneity Wald test. Lastly, section 5.0 provides the conclusions of the study.

2.0. Theoretical and Empirical Review

2.1. Capabilities Approach

The study adopts the Amartya Sen Capabilities approach instead of governance-growth nexus studies, which employ the Solow growth model. According to Sen (1993) in Walker and Unterhalter (2007), development should be based on capabilities – the potential of an individual to do certain socio-economic activities and live their desired lifestyle. Therefore, we argue that people must be entitled to good health care, quality education, sanitation, social relations, and a safe living and work environment to achieve specific functions. These act as synergies for them to fetch their food and secure their home while observing societal norms.

According to Sen, differences in well-being among people and nations are not necessarily caused by disparities in income levels but by capabilities. These capabilities are classified into instrumental and substantial freedoms, and the former is critical in achieving the latter. Sen's instrumental freedoms reflect good governance elements: political freedom, economic facilities, social opportunities, transparency guarantees, and protective security. For example, political freedom concerns pluralism ranging from voting and uncensored press to contesting for office. Social opportunities include freedom to education, healthcare, gender equity, childcare, and social services. Transparency guarantees encompass assurances of legitimate business and government dealings. These arguments entail the absence of or minimal corruption, access to police, mechanisms of seeking justice, and the speed of court decisions (Walker & Unterhalter, 2007).

On the other hand, the success of economic freedoms depends on economic infrastructures critical to production and exchange systems in an economy, such as roads, railways, telecommunication systems, waterways, airways, financial institutions, electricity, water supply, freedom of women to seek work or business outside the home, and most importantly, access to global markets (Walker & Unterhalter, 2007; Abusharar, 2012; Reddy, 2018). Indeed, these freedoms focus on the empowerment and urgency required to attain substantial freedoms such as material wealth. From this perspective, this study deems governance as critical instrumental freedom for people in an economy to choose and attain something that helps them attain welfare.

Unlike GDP, the capabilities approach provides an essential tool for analysing well-being. Sen has shown that though India and China are equivalent in GNI. However, their survival capabilities, such as quality of education, life expectancy, mortality rate, and literacy rate, are significantly different (Sen, 1993; Gaertner, 2003). Regarding human development, survival is better in China than in India. This phenomenon is the case in many countries of the same economic status. Some countries have a better economic position in the gross domestic product (GDP) per capita but poor human

development. For example, in 2019, Malawi's GDP per capita was US\$411.5. However, its HDI was higher than that of Mozambique, Rwanda, and Zimbabwe, whose GDP per capita was US\$503.57, US\$820.03, and US\$1,463.99, respectively. Therefore, researchers and policymakers should not view development only in terms of economic performance but also its inclusiveness to the well-being of people. From this perspective, this paper employs the human development index as a dependent variable in its analysis. The indicator combines economic performance with characteristics of human welfare – income, health, and education.

2.2. Empirical review

In 2020, Ekpo conducted a panel study to investigate the impact of governance on development using data from all Sub-Saharan countries from 1996 to 2018. However, this study employed GDP per capita as a proxy for development. It is not unfathomable that the findings of this paper dwell much on trickle-down effects. Ekpo argued that as governance positively influences economic growth, the rest of the people will reap its benefits due to the increased likelihood of pro-poor policies. Similarly, Earl and Scott (2009) argued that good governance with strong democratic regimes could direct a country to achieve optimum economic performance and pro-poor policies.

The impact of democracy - an outcome of voice and accountability's indicator of good governance was loud in Malawi and Uganda. Multicandidate presidential elections in 1994 and 1996 prompted Bakili Muluzi and Museveni to spearhead the abolition of tuition fees in primary education (MacJessie-Mbewe, 2002; Stasavage, 2005). Good governance can only improve well-being where it yields pro-poor policies. However, Varshney (2000) argued that democracy does not improve well-being but rather economic strategies. He suggested that policymakers should at first determine economic policies for alleviating poverty with full attention before democracies decide whether to adopt them or not.

Chinsinga *et al.* (2010) dubbed corruption as cancer and an overarching enemy to Malawi's economic performance and general development, despite concerted efforts to alleviate the scourge by preceding administrations. Consequently, Chinsinga *et al.* (2010) conducted a study to determine monitoring patterns of governance trends and corruption emanating from the 2006 inaugural corruption baseline survey. The paper established various policy implications, such as cultivating vivid political will to fight corruption in public and private sectors. The article suggested that the quest to increase welfare and sustainable development requires solid efforts to promote socialisation and civic education programs to boost honesty, hard work, and awareness campaigns on how people can report and deal with corruption.

In a qualitative study, Dzvimbo (2019) reviewed the link between governance systems and sustainable development, emphasising Malawi and Zimbabwe. The comparative review study established that good governance is desirably noble in theory, and its tenets can be deduced only based on acceptance or rejection in polity practice. The study found that the political process in Malawi and Zimbabwe instigated cronyism which foils the opportunity to grab the desired economic growth and overall social development. Furthermore, Dzvimbo observed that political leaders are highly preoccupied with short-term goals due to re-election pressure at the expense of long-term sustainable development goals.

Related to the impact of governance and welfare, Zouhair (2019) investigated the possible effects of governance indicators to reduce poverty in the Sub-Saharan region. The paper applied the static panel model, which employed data from 44 Sub-Saharan countries between 1996 and 2016. The analysis used household consumption expenditure as a measure of human welfare. Empirical results revealed regional differences in the impact of governance on well-being. For example, political stability showed a negative and statistically significant in the Southern part of Africa (SSA and SADC), East African Countries (EAC), Economic Community of Central African States (ECCAS), and Southern African Customs Union (SACU). Political stability was positive in the West African Economic and Monetary Union (WAEMU), Economic Community of West African States (ECOWAS), and Central Europe & Middle East Africa (CEMA). On the other hand, the rule of law was found statistically significant and negative (ECCAS and IGAD) and positive in WAEM and SADC.

Pere (2015) investigated how good governance influences economic development in seven countries of the western Balkan regions. The paper sought to address whether economic development in the Balkans region depends on good governance. The study used the real GDP growth rate as a measure of economic development. Like other studies, the estimated coefficients confirmed that some indicators of good governance are significant, such as voice and accountability and control of corruption. In contrast, other pointers are insignificant in explaining economic development.

Similarly, Afolabi (2019) employed the GDP per capita growth rate to measure development in West Africa. The study incorporated all the good governance indicators instead of the composite governance index (CGI). He observed that four indicators, except for control of corruption and regulatory quality, positively influence development.

Indeed, a wide range of literature exists on the governance-development nexus globally. However, most of these studies have used the gross domestic product to measure development (Liu et al., 2018; Noha, 2016, Samarasighe, 2018; Ekpo, 2020; Fayisa and Nsiah, 2013, Ndulu and O'Connell, 1999; Murtaza and Farid, 2016). Implicitly, existing studies have emphasised economic growth so far. It, therefore,

opens up to explore the impact of governance on human development and other human welfare-related measures such as the human development index and economic freedom index.

3.0. Data and Model Estimation

3.1. Data

This study's analysis used Malawi's annual data from 1990 to 2020 to analyse the interaction among the variables. The composite governance index (CGI) is this study's primary explanatory variable of interest. This variable is computed from the six worldwide governance indicators (WGI), whose data was obtained from the Worldwide governance database (Appendix A1). The United Nations Development Programme (UNDP) index of human development is the dependent variable representing human welfare development due to its composition of education, health status, and economic status. While data for regression's additional terms, rate of change of Gross Domestic Product per capita and employment rate, is obtained from the World Bank and Fred Economic Databank, respectively. The rate of GDP per capita change is incorporated due to its trickle-down effects on human well-being. Scholars have argued that it is impossible to achieve improved living standards without economic growth (Ekpo 2020; Riggs 1970). On the other hand, an increase in employment levels improves incomes and the ability of people to afford essential goods and services.

3.2. Methodology

The study adopts the Autoregressive Distributed Lag (ARDL)/bounds testing cointegration procedure, also called Pool Mean Group (PMG), to estimate the long-run and short-run dynamic relationship among the variables of interest. Pesaran *et al.* (2001) proposed an ARDL model to investigate the existence of a cointegration relationship among variables. The research with 31 observations is econometrically healthy when run using the ARDL approach. This approach is valid for small sample sizes and yields valid t-statistics even in the presence of endogenous regressors with desirably unbiased long-run model estimates (Pesaran et al. 2001; Harris & Sollis 2003). For example, Banda (2021), Naseem (2021), Jeke & Wanju (2021), Chirwa (2003), Simwaka et al. (2012), and Udoh et al. (2015) respectively used 30, 17, 25, 24, 30, and 32 observations in their research incorporation of the time series ARDL technique. Most importantly, the ARDL testing approach helps circumvent the order of integration associated with the Johansen likelihood approach (Johansen and Juselius, 1990). The ARDL approach can be applied even if the variables are not integrated in the same order, purely I(1), I(0), or both.

The following ARDL model, specified as an Unrestricted Error Correction Model (UECM), was estimated to test the cointegration relationship between the variables: human development, governance, gross domestic product, and employment rate.

$$\begin{aligned} \Delta \ln HDI_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta \ln HDI_{t-i} + \\ & \sum_{i=1}^{q1} \alpha_{2i} \Delta \ln CGI_{t-i} + \sum_{i=1}^{q2} \alpha_{3i} \ln GDP_{t-i} + \sum_{i=1}^{q3} \alpha_{4i} \Delta \ln EMP_{t-i} + \beta_1 HDI_{t-i} + \\ & \beta_2 CGI_{t-i} + \beta_3 GDP_{t-i} + \beta_4 EMP_{t-i} + V_{1t} \end{aligned} \quad (1)$$

Where the mathematical triangle notation (Δ) is the first difference operator, V_{1t} denotes the white noise disturbance term. Upon the establishment of cointegration relationships, the above ARDL model of order (p, q1, q2, q3) can be presented using vector equilibrium or error correction model (VECM) as follows;

$$\begin{aligned} \Delta \ln HDI_t = & \alpha_0 + \sum_{i=1}^p \alpha_{1i} \Delta \ln HDI_{t-i} + \\ & \sum_{i=1}^{q1} \alpha_{2i} \Delta \ln CGI_{t-i} + \sum_{i=1}^{q2} \alpha_{3i} \ln GDP_{t-i} + \sum_{i=1}^{q3} \alpha_{4i} \Delta \ln EMP_{t-i} + \theta ECT_{t-1} + \varepsilon_t \end{aligned} \quad (2)$$

Where θ represents the model's speed of adjustment parameter and the ECT denotes the error correction term whose coefficient has to be negative and statistically significant to confirm a cointegration relationship. In addition, the ARDL model uses a generalized likelihood estimation technique, such that the lag length is determined by information like the Schwarz Bayesian information criterion and the Akaike information criterion.

3.3. Data and Sources

The study employed 31 observations ranging from 1990 to 2020. The starting period was chosen because that marked the first publication of the human development index in Malawi. The ending period reflects the latest data available at the time of the study. CGI was chosen because it is the prime independent variable of interest. At the same time, GDP and EMP were selected based on their importance to human development. STATA-14 is used in estimating the regression model. The table below shows the variables that were used in the study.

Table 1: Variable names, codes, and data sources

| Variable Name | Code | Parameter | Source |
|-----------------|------|--|---------------------------------------|
| Good Governance | CGI | Composite Governance Index ¹ | Worldwide Governance Indicators (WGI) |
| Human Welfare | HDI | Human Development Index | Human Development Reports (by UNDP) |
| Economic Status | GDP | Real GDP/capita growth rate at constant prices | World Bank |
| Employment | EMP | Employment rate | Fred Economic Data |

4.0. Empirical Results

This section provides descriptive statistics to condense the study data into single or limited numerical quantities. Then the coefficients of the correlation analysis as provided by Karl Pearson testing technique, followed by bounds cointegration results, and finally, the ARDL regression model as developed by Pesaran et al. (1999, 2000).

4.1.Descriptive Analysis

Table 2: Summary statistics

| Description | HDI | CGI | GDP | EMP |
|--------------------|-------|----------|--------|--------|
| Mean | 0.408 | 3.87e-08 | 7.226 | 72.89 |
| Variance | 0.002 | 1.000005 | 735.2 | 0.256 |
| Standard Deviation | 0.047 | 1.000002 | 27.11 | 0.506 |
| Minimum | 0.33 | -1.438 | -43.13 | 70.73 |
| Maximum | 0.48 | 1.385 | 98.79 | 73.43 |
| Skewness | 0.232 | -0.219 | 1.277 | -2.829 |
| Kurtosis | 1.734 | 1.457 | 6.179 | 12.41 |
| Observations | 31 | 31 | 31 | 31 |

Source: Researchers' computation from the described study data

Summary statistics indicate that human welfare averaged 0.40774 between 1990 and 2020, with the highest being 0.48. For this reason, Malawi is classified as a low

¹ Authors computation from the six Worldwide Governance Indicators - Appendix A1

human-developed country. The spread around the mean was low, as indicated by its standard deviation. The distribution for welfare and governance resembles that of a normal distribution due to the smallest skewness close to zero, except that they are slightly platykurtic (flatter) since the computed kurtoses are less than 3. Unlike welfare and governance, the distribution for growth is leptokurtic - very thin and taller than a normal distribution. The employment rate in Malawi is fair as it has never been below 70.73 and not above 73.43 for the entire period of this study (See Appendix A3).

4.2. Pearson Correlation Analysis

Integrating the ideas of Evans (2002) and Hejase & Hejase (2013), the study unveiled the association between variables by drawing the correlation matrix. Karl's correlation matrix shows the strength of association between any pair of variables. This is shown in table 3 below;

Table 3: Correlation matrix

| Variable | $\Delta \ln \text{WEL}$ | $\Delta \ln \text{GDP}$ | $\Delta \ln \text{CGI}$ | $\Delta \ln \text{EMP}$ |
|---|---|---|---|---|
| $\Delta \ln \text{WEL}$ | 1.0000 | | | |
| $\ln \text{GDP}$ | -0.0636 | 1.0000 | | |
| $\Delta \ln \text{CGI}$ | 0.2979 | -0.0250 | 1.0000 | |
| $\Delta \ln \text{EMP}$ | 0.1758 | -0.1291 | 0.0689 | 1.0000 |

Correlation range between 0 – 0.19 is very weak; 0.2 – 0.39 is weak; 0.4 – 0.59 is moderate; 0.6 – 0.79 is strong; and 0.8 – 1.0 is very strong. The guide is suggested by Evans (2002) and Hejase & Hejase (2013).

Correlation results in table 3 above were performed on the natural log GDP, which is stationary in level, and on the first difference of the natural logs of CGI, HDI, and EMP. The outcome shows that the natural logs of GDP and EMP indicate a 'very weak' negative and positive relationship with the dependent variable (HDI), respectively. CGI shows a 'weak' positive relationship with HDI. On the other hand, CGI, EMP, and GDP reveal a 'very weak' relationship with each other.

4.3. Unit roots test

One of the most important properties of time series analysis is that data must be stationary. This property circumvents problems associated with the non-stationarity

of time series, such as spurious regression and persistence of shocks. The study used the Augmented Dickey-Fuller (ADF) test for series stationarity.

Table 4: Augmented Dickey-Fuller Test (ADF)

| Level | | | | First difference | | | |
|----------|-------------|--------|--------|------------------|-------------|--------|--------|
| Variable | t-statistic | 5% CV | Prob | Variable | t-statistic | 5% CV | Prob |
| lnWEL | -0.892 | -1.706 | 0.1904 | ΔlnWEL | -2.111 | -1.708 | 0.0225 |
| lnCGI | -1.045 | -1.706 | 0.1527 | ΔlnCGI | -2.294 | -1.708 | 0.0152 |
| lnGDP | -4.502 | -1.706 | 0.0001 | -- | -- | -- | -- |
| lnEMP | 0.083 | -1.950 | 0.939 | ΔlnEMP | 2.477 | -1.950 | 0.023 |

Source: Author’s analysis of study data using STATA

Unit roots test results lead us to fail to reject the null hypothesis that welfare, governance, and employment are not stationary in level. However, we can reject this at 5% after the first difference. On the other hand, the GDP Per capita growth rate is significant in level. Consequently, it is more appropriate to use the ARDL model as some variables (GDP) give an integration of order zero I(0), and others (HDI, CGI, and EMP) are integrated of order one I(1). According to Pesaran et al. (1999, 2002), the ARDL model can only be applied to data with series integrated of order one or order zero or both and not otherwise.

4.4. Cointegration Tests

The Akaike Information Criteria was employed as a guiding principle, and it yielded a maximum lag order of 1 for the conditional ARDL VECM regression. Table 5 reports the computed F-statistic of all variables because each variable in an ARDL model is treated as a dependent variable (McNown et al., 2016). For all variables, including the human development index, the dependent variable of interest, the F-statistic is higher than the upper bound at a 5% significance level except for employment.

Table 5: Bounds Tests cointegration results

| Dependent Variable | Lag | F-statistics | Lower Bound (5%) | Upper Bound (5%) | Outcome |
|---------------------------|------------|---------------------|-------------------------|-------------------------|------------------|
| $\Delta \ln \text{WEL}$ | 1 | 17.063 | 3.23 | 4.35 | Cointegration |
| $\Delta \ln \text{CGI}$ | 1 | 15.833 | 3.23 | 4.35 | Cointegration |
| $\ln \text{GDP}$ | 1 | 11.732 | 3.23 | 4.35 | Cointegration |
| $\Delta \ln \text{EMP}$ | 1 | 0.429 | 3.23 | 4.35 | No Cointegration |

NOTE: the asymptotic bounds are obtained from case III unrestricted intercept of Table C2, with no trend for $k=3$ (Pesaran et al., 2001). Lower bound $I(0) = 2.74$ and upper bound $I(1) = 4.85$ at 5% significance level.

Normalising the regression on Human Welfare (HDI), the calculated F-statistic of 17.063 is higher than the upper critical value at the 5% level. Therefore, we reject the null hypothesis of no cointegration and proceed to launch the long-run relationship among the variables in the regression. Likewise, the calculated F-statistics for governance (CGI) and real GDP per capita growth rate (GDP) are higher than the upper critical value. Thus, implying the long-run relationships among the series. The null hypotheses could be rejected if the computed F-stat was lower than the lower bound critical values. However, the computed F-stat. for EMP fell below the lower critical bounds, implying no cointegration. Befitting this study's objective, we run the vector error correction model to establish the long-run relationship among the variables when human welfare is normalised as the dependent variable.

4.5. ARDL model results

Table 6a below presents the results of the ARDL (1, 1, 1) (HDI vs CGI & GDP) model obtained by normalising welfare as the dependent variable of interest. Table 7a represents the results of the ARDL (1, 1, 1, 0) (HDI, CGI, GDP & EMP) with variable Employment rate included as an additional term. The new term is added to check if the marginal effects of governance on welfare do not change with changes in the size of R-square.

The estimated coefficient of the long-run model shows that good governance has a very significant and positive impact on welfare in Malawi. The coefficient is statistically significant at a 1% significance level, such that we reject the null

hypothesis that good governance does not influence human welfare in Malawi. The results indicate that a one-unit improvement in governance will lead to a 0.06-point increase in well-being. The reason is not far-fetched; as per the a priori hypothesis, good governance is likely to translate to the absence or minor corruption, which helps disseminate resources to those in need. Good governance also means that no one is above the law. All people will get equal access to property rights and civil and criminal protection. Voice and accountability mean that people will freely participate in electing their leaders and decision-making on welfare issues and overall national importance in a process called devolution. Since a more significant percentage of the majority of voters in Malawi are poor and from rural areas, political administrations will have no choice other than to prioritise pro-poor policies, eventually improving well-being.

On the other hand, political stability or the absence of violence or terrorism means a peaceful coexistence in a society. People will be free to carry out their economic activities. Government effectiveness means that the government is result-oriented, and its regulatory institutions are efficient in smoothening market activities. The execution of fiscal policy measures how effectively the government manages macroeconomic stability. Regulatory quality implies that the government will ensure that the products sold by firms are not harmful and that firms are responsible for defective products. They ensure that the property traded belongs to the one selling while also ensuring a proper procedure in changing ownership of traded items.

However, the estimated coefficient of the short-run relationship indicates that good governance is highly statistically significant but negatively related to welfare. It shows that a one-unit improvement in governance results in a fall in human welfare status by 0.0411 points.

Furthermore, the estimated coefficient shows that the economic growth rate is statistically insignificant in the long run. This result is also the case when the employment rate is included as an additional term. Economic growth and employment levels do not influence the welfare of the majority of the residents in Malawi. This finding concurs with Sen's argument that using goods or output to measure welfare or a country's economic status is too crude. It does not reflect the actual fair and equal distribution of wealth in a society. Malawi is a capitalist society where the 'haves' accumulate wealth at the expense of the 'have nots.' For example, Malawi maintained its Gini coefficient for 2017 and 2018 at 37.30%, showing high income or consumption deviation from a perfectly equal distribution.

Mussa and Masanjala (2011) observed an increasing polarisation in consumption expenditure between the rich and the poor. The study revealed a three times gap increase between the wealthiest 10% of Malawians and the poorest 40% in just seven years between 2004 and 2011. This increase in inequality came in the wake of an

average increase in economic growth of 7% between 2000 and 2010. Therefore, high economic growth rates do not always guarantee pro-poor, inclusive, or egalitarian benefits. Indeed, real GDP per capita is just an average measure and does not sufficiently explain the welfare of the majority in a society.

Table 6a: ARDL Estimated Coefficients (3-variable linear regression analysis)

| Dependent Variable: $\Delta \ln \text{HDI}$ | | | | |
|---|-------------|----------------|-------------|-------|
| Long-run results | | | | |
| Regressor | Coefficient | Standard Error | t-statistic | Prob |
| Constant | 0.068 | 0.034 | 2.01 | 0.056 |
| $\Delta \ln \text{CGI}$ | 0.060 | 0.016 | 3.71 | 0.001 |
| $\Delta \ln \text{GDP}$ | -0.010 | 0.007 | -1.48 | 0.152 |
| Short-run results | | | | |
| $\Delta \ln \text{CGI}$ | -0.041 | 0.014 | -2.87 | 0.009 |
| $\Delta \ln \text{GDP}$ | 0.010 | 0.005 | 1.174 | 0.095 |
| ECT_{t-1} | -1.252 | 0.177 | -7.06 | 0.000 |

Note: -- denotes inestimable values; D-W for Durbin Watson test; S.K. for Skewness-Kurtosis test; B-P for Breusch-Pagan test.

Table 6b: Diagnostic tests for the first model (Without employment variable)

| Diagnostic Tests (P-Values) | | | |
|-------------------------------|-------|---------------------------|--------|
| R-squared: | 0.694 | AIC: | -1.845 |
| Adj R-squared | 0.628 | Normality (S.K.): | 0.105 |
| Serial Corr. Test (D-W): | 2.404 | Heteroskedasticity (D-W): | 0.085 |
| Specification (Ramsey RESET): | 0.284 | | |

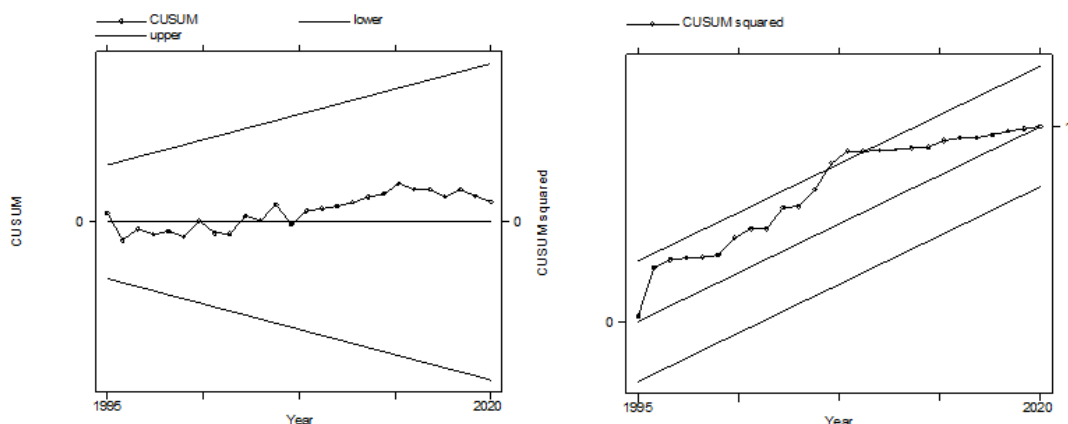


Figure 1: The Cusum Square Model Stability test (5% significance level)

The p-values for each Diagnostic test for the first model are greater than 0.05. We fail to reject the null hypotheses that there is no heteroscedasticity, model misspecification, no autocorrelation, and residuals are not multivariate normal at a 5% significance level. The Cusum square model stability test indicates that the model is stable as the trend falls within the 5% bound for the entire study period. The ECT yields a significant speed of adjustment with the correct sign, which shows convergence to the long-run equilibrium after some socio-economic and political shocks. The same applies to the re-estimated model with the employment rate as an additional variable.

Indeed, Table 7b below shows that despite adding another variable to the regression, the sign of all estimated coefficients has remained the same, especially governance,

the independent variable of interest (HDI, CGI, GDP, EMP). Good governance remains highly significant while depicting the same negative relationship in the short run and a positive relationship in the long run. The a priori expectation of the additional term is that an increase in the employment rate will increase human development because employed people tend to afford necessities such as education, healthcare, and food. However, employment is insignificant in the long run and inestimable in the short run, so it does not directly influence human welfare in Malawi.

Table 7: ARDL Model Re-estimation with an additional variable (The employment rate)

| Dependent Variable: $\Delta \ln \text{HDI}$ | | | | |
|---|-------------|----------------|-------------|-------|
| Long-run results | | | | |
| Regressor | Coefficient | Standard Error | t-statistic | Prob |
| Constant | 0.067 | 0.034 | 1.95 | 0.064 |
| $\Delta \ln \text{CGI}$ | 0.058 | 0.016 | 3.65 | 0,001 |
| $\Delta \ln \text{GDP}$ | -0.009 | 0.007 | -1.37 | 0.185 |
| $\Delta \ln \text{EMP}$ | 0.862 | 1.001 | 0.86 | 0.398 |
| Short-run results | | | | |
| $\Delta \ln \text{CGI}$ | -0.041 | 0.014 | -2.84 | 0.010 |
| $\Delta \ln \text{GDP}$ | 0.010 | 0.005 | 1.69 | 0.105 |
| $\Delta \ln \text{EMP}$ | -- | -- | -- | -- |
| ECT_{t-1} | -1.270 | 0.179 | -7.07 | 0.000 |

Note: -- denotes inestimable values; *D-W* for Durbin Watson test; *S.K.* for Skewness-Kurtosis test; *B-P* for Breusch-Pagan test.

Table 7b: Diagnostic tests for the first model (With employment variable)

| Diagnostic Tests (P-Values) | | | |
|-------------------------------|-------|---------------------------|---------|
| R-squared: | 0.704 | AIC: | -10.275 |
| Adj R-squared | 0.623 | Normality (S.K.): | 0.159 |
| Serial Corr. Test (D-W): | 2.492 | Heteroskedasticity (D-W): | 0.232 |
| Specification (Ramsey RESET): | 0.455 | | |

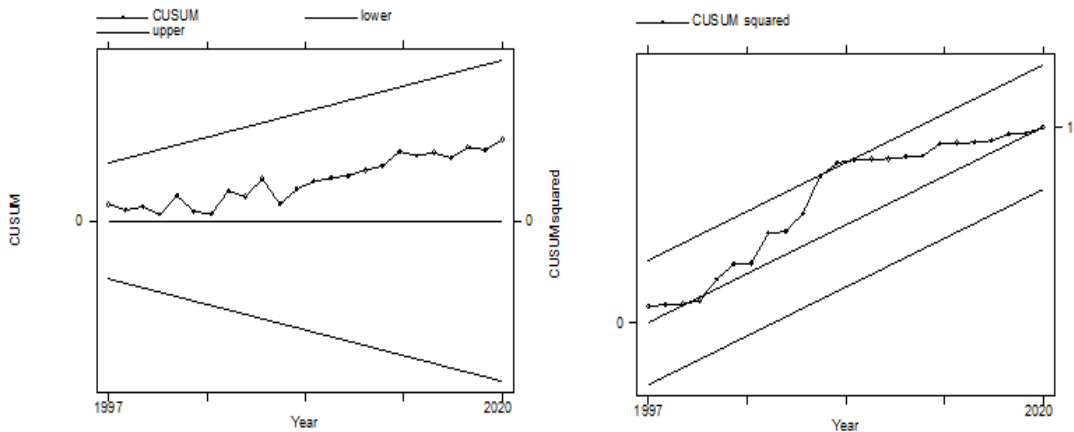


Figure 2: The *Cusum* Square Model Stability test (5% significance level)

4.6. Granger Causality Estimation

It is an inevitable fact that cointegration between two variables does not explicitly show the direction of forecast influence between any pair of time series. According to Fisher (1993), the economic theory points to a causal relationship in at least one direction in any co-integrated series. Granger causality tests (the Block Exogeneity Wald test and Pairwise) are conducted to detect whether one-time series helps forecast one another. In line with E. Gul and Ekinici (2006), the causal relationship (both short and long-run causality) between variables can be established using probability and F-statistics under the null hypothesis of no causality. Table 8 below presents the estimate of F-statistics and the probability values.

Table 8: Block Exogeneity Wald Test

| Dependent variable: $\Delta \ln \text{HDI}$ | | | |
|---|-------------------------|---------------|-------------|
| Null Hypothesis | Excluded | F-stat | Prob |
| CGI does not granger cause HDI | $\Delta \ln \text{CGI}$ | 3.117 | 0.091 |
| GDP does not granger cause HDI | $\ln \text{GDP}$ | 3.567 | 0.072 |
| EMP does not granger cause HDI | $\Delta \ln \text{EMP}$ | 0.795 | 0.382 |
| All indep. Var. do not granger cause HDI | ALL | 3.692 | 0.026 |

| Dependent variable: $\Delta \ln \text{CGI}$ | | | |
|---|-------------------------|---------------|-------------|
| Null Hypothesis | Excluded | F-stat | Prob |
| HDI does not granger cause CGI | $\Delta \ln \text{HDI}$ | 0.112 | 0.303 |
| GDP does not granger cause CGI | $\ln \text{GDP}$ | 0.003 | 0.960 |
| EMP does not granger cause CGI | $\Delta \ln \text{EMP}$ | 1.978 | 0.170 |
| All indep. Var. do not granger cause CGI | ALL | 1.346 | 0.284 |

| Dependent variable: $\ln \text{GDP}$ | | | |
|--|-------------------------|---------------|-------------|
| Null Hypothesis | Excluded | F-stat | Prob |
| CGI does not granger cause GDP | $\Delta \ln \text{CGI}$ | 0.335 | 0.568 |
| HDI does not granger cause GDP | $\Delta \ln \text{HDI}$ | 0.047 | 0.831 |
| EMP does not granger cause GDP | $\Delta \ln \text{EMP}$ | 0.701 | 0.411 |
| All indep. Var. do not granger cause GDP | ALL | 0.307 | 0.820 |

| Dependent variable: $\Delta \ln \text{EMP}$ | | | |
|---|-------------------------|---------------|-------------|
| Null Hypothesis | Excluded | F-stat | Prob |
| CGI does not granger cause EMP | $\Delta \ln \text{CGI}$ | 0.774 | 0.388 |
| HDI does not granger cause EMP | $\Delta \ln \text{HDI}$ | 0.008 | 0.932 |
| GDP does not granger cause EMP | $\ln \text{GDP}$ | 0.442 | 0.513 |
| All indep. Var. do not granger cause EMP | ALL | 0.397 | 0.756 |

The F-statistic of 3.1167 for governance when welfare is a dependent variable implies that we fail to reject the null hypothesis that governance does not granger cause human welfare at the 5% confidence interval. Similarly, GDP has a small F-statistic of 3.5669. Thus, welfare is not granger-caused by real GDP per capita growth rate at a 5% confidence interval. Nevertheless, the probability of the null block exogeneity test is significant at a 5% significance level. Therefore, we reject the null hypothesis and conclude that when taken together, all independent variables (governance, growth rate, and employment) enviably granger causes human development in Malawi.

Notably, the results indicate no Granger causality of any kind when governance, growth rate, and employment rate are treated as dependent variables. Therefore, we conclude a sole existence of the unidirectional Granger-causality of all the independent variables towards human development.

5.0. Discussion

This paper has examined the impact of governance on human welfare development and used two model specifications. The employment rate was added to the initial model to verify the impact of an increase in the size of the R-square on the marginal effects of governance on human welfare. It is observed that the probability and the sign of the coefficient remained the same. Based on the second model, the results lead us to reject the null hypothesis that good governance has no long-run impact on welfare development in Malawi. For example, a one-unit enhancement in governance is projected to improve human welfare development by 0.058 per cent point. The results align with Fayisa and Nsiah's (2013) findings, who observed a positive impact of governance on economic growth in Sub-Saharan Africa. Similarly, Noha and I-Ming (2016) noted that governance and economic growth positively impact economic growth in nine Middle East and North African (MENA) countries. Most importantly, these two studies reveal that the impact of governance is more pronounced in low-income countries like Malawi and those countries whose growth has experienced deterioration accompanied by deterioration.

On the contrary, the estimated short-run coefficients of the second model reveal that good governance have a significant but negative impact on human welfare development in Malawi. For example, a one-unit enhancement in governance initiatives will decrease human welfare development by 0.041 per cent points. Similarly, Noha and Jhonsa (2014) observed that 22 MENA countries had poor performance in all the governance indicators. However, their economic growth was higher than other countries in a study sample of 197 countries.

This finding brings the concept of neopatrimonialism – a standard traditional political system associated with rent-seeking behaviour, corruption, and clientelism (Bratton and van de Walle, 1997; Ndulu and O'Connell, 1999). According to Cammack and

Kelsal (2011), neopatrimonialism is not always detrimental to the development of African countries as enormously denounced by the donor orthodox. Indeed, it is contended among some scholars that high cases of corruption, restricted voice and accountability, and a weak rule of law performance have their benefits—tenets of neopatrimonialism help motivate political leaders to optimise the use of public funds. In return, they reap the benefits of high returns from public investments through corruption or exorbitantly raising their contractual earnings. Therefore, we argue that the benefits of neopatrimonialism yielded by public and private officials and politicians through dubious means will trickle down to their cronies and then to the rest of the residents in a country. The sign of the coefficient shows that increased efforts to advance good governance over the deep routed neopatrimonialism will worsen the living standards of people in the short run.

6.0. Conclusions and Policy Implications

This paper brings to light two main contributions. Firstly, the paper successfully executed the “Composite Governance Index’ (CGI) which condenses into a single index all the six indicators of the worldwide governance indicators (WGI), using a Principal Component Analysis (PCA). The governance indicator used as an independent variable of interest in this study is a composite quantity of all six variables of Malawi's Worldwide Governance Indicators (WGI). This index can be used as a valid indicator of the government's managerial ability, efficiency and effectiveness. The second contribution is that we could quantify the marginal contribution of the enhancement in governance on human welfare development using human development index data for Malawi.

The paper finds that governance is statistically significant both in the short and long run. In the long run, the positive relationship implies that governance positively influences the welfare status of residents in Malawi. This outcome means governance-related institutions should be decisive in their operations to ensure effective and efficient performance in their roles and results. In particular, government institutions and agencies with regulatory capacity will effectively ensure that the tenets of governance are felt in private sector institutions thereby improving the labour, product and capital market environments where people yield well-being through the exchange.

In particular, it has been demonstrated that rule of law performance is critical to international, continental, regional, and country human development (IDLO 2020). Upon strengthening the rule of law system and its implementation in Malawi: corruption will be checked; government effectiveness and agencies’ quality will be scrutinised through monitoring of government agencies and parastatals as well as empowering regulatory bodies such as the Malawi Revenue Authority (MRA), Reserve Bank's Pension and Insurance Supervision (PISU) Department, Malawi Electoral Commission (MEC), the Malawi Communication Regulatory Authority

(MACRA), Malawi Energy Regulatory Authority (MERA), Malawi Bureau of Standards (MBS) among others. On the other hand, empowered police and army will significantly reduce criminal cases; protect private property rights, and ensure that all people equally enjoy peace. It will also enhance trade and market activities due to canons and spurs of trust and assurance in the exchange amongst all economic agents.

On the contrary, the estimated models' short-run results reveal that good governance negatively influences human welfare development. The results imply that corruption, rent-seeking and clientelism are deep-rooted among political leaders and private and public officials. As such, International, regional and national initiatives toward good governance would lead to a deterioration in human welfare in the short run. Increased efforts to strengthen good governance will abruptly collide with neopatrimonialism as it is well-established and trusted by its practitioners and the afflicted residents. In other words, neopatrimonialism has become normal and is highly supported by most residents through bigmanism or cronyism. Therefore, solutions must be implemented to avoid bruising people in the short run before good governance overcomes neopatrimonialism. Evidence shows that governance only yields positive marks in the long run.

This paper suggests that national efforts to promote good governance may yield a considerable opportunity cost to human welfare in the short run. More public funds and unconditional donations will be channelled to governance initiatives. More funds will be spent on corruption awareness campaigns, expanding the police and army, government scholarships for civil servants to strengthen government effectiveness and regulatory quality, and training law practitioners to strengthen the rule of law. Therefore, the government should draft possible solutions to potential macroeconomic instabilities through fiscal instruments. For example, simultaneous training of many government officials abroad may worsen the balance of payment and exchange rate. At the same time, decentralisation of regulatory bodies and other governance bodies will increase the fiscal budget, which may threaten capital inflows if the government opts for higher tax charges as a means of sourcing budgetary revenue.

The null block exogeneity causality indicates that GDP per capita growth granger causes welfare. The short-run estimate is positive and significant at 10%. Therefore, the estimated Granger causality relationship and the 90% statistical power enable us to conclude that the growth in national output influences human well-being. Without a shadow of a doubt, we urge the government of Malawi to continue striving hard to increase economic growth and make Malawi an inclusively wealthy, self-reliant, industrialized, value-added exporting country to increase export earnings. In return, the country will become an upper-class middle-income country by 2063. The government should launch various incentives for domestic investments. The incentives could be by lowering interest rates and profit taxes, especially for Small and Medium Enterprises (SMSs) and, at the same time, guarding against long-term

inflation through massive supply-side policies such as research and development, infrastructural improvement, and technological advancement (reducing tariffs on production equipment, tools and machinery).

To this end, the study suggests that crucial reforms be made to empower governance institutions such as the Judiciary, Anti-Corruption Bureau, regulatory bodies and security departments. To circumvent inflationary pressures arising from expansionary fiscal measures to promote governance, the government need to engage in massive supply-side policies to contain potential inflationary pressures.

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APPENDIX A1

I. Principal Component Analysis (PCA)

This section presents the use of the principal component analysis (PCA) method in the formulation of the primary explanatory variable of this study – composite governance index (CGI) based on Noha & I-Ming (2016). Economists have sparingly used this method but has been a prevalent data reduction method among statisticians and data scientists since Pearson's 1901 paper.

If there are n observations for p variables, then the data matrix can be presented as

$$X = \begin{bmatrix} X_{1,1} & \cdot & \cdot & X_{1,p} \\ X_{2,1} & \cdot & \cdot & X_{2,p} \\ \vdots & \vdots & \vdots & \vdots \\ X_{n,1} & \cdot & \cdot & X_{n,p} \end{bmatrix}; \text{ where } i = 1 \dots n, j = 1 \tag{1}$$

The main objective underlying the statistical PCA is to geometrically estimate data matrix X from an extensive dimension l to a significantly small dimension m so that $l < m$ without compromising the information of the original data. That is, the reduced numbers (X_1, \dots, X_p) produced from PCA helps to circumvents the problem of autocorrelation in the original large data matrix (Principal Components; PC_1, \dots, PC_k)

Mathematically, the initial principal component is a linear combination of X_1 to X_p observed variables that account for an enormous variance among them:

$$PC_1 = \delta_1 X_1 + \delta_2 X_2 + \dots + \delta_l X_l \tag{2}$$

The coefficient values represent the loading vector and are specifically designed to deal with PC_t Variance inflation. Similarly, all post principal components ($PC_2, PC_2 \dots PC_l$) present linear combinations of the variable in data matrix X with an intolerable magnified variance. Even though given the limit, these post P.C.s ought to be diagonals of each's preceding P.C. It is possible to track all likely P.C.s (l in total) as presented in the original matrix. However, our target is to excavate a small value of P.C.s that will contain all the information depicted in the data matrix X . Deriving the principal component requires the algorithm presented below:

II. Derivation of Principal Components (P.C.s)

According to Jolliffe and Cadima (2002), the singular value decomposition (S.V. is critical to the algorithm to deriving P.C.s is based on the singular value decomposition (SVD) method is critical to the algorithm for deriving P.C.s. The Kaiser-Harris's stopping rule, Cattell's Scree test, Parallel analysis, and Percent cumulative variance are the four main criteria used to decide the number of P.C.s.

First, the capital letter W is used to represent the variance-covariance matrix. Where W is related to data matrix X in the form of; $W = \frac{X^T X}{n-1}$, an $l \times P$ matrix and the superscript "T" is the transpose operator. W is a symmetric matrix such that it can be diagonalized as;

$$W = V\Omega V^T \quad (3)$$

Where V is a matrix of eigenvectors and Ω is a diagonal matrix with the eigenvalues. The matrix V is termed Principal Axes and is crucial in deriving P.C.s. By applying the SVD method to X , we obtain the following:

$$X = U\Sigma V^T \quad (4)$$

As indicated earlier, X is the data matrix with dimensional n by l . U and V are both orthogonal squared matrix with dimension n and l , respectively. Σ is diagonal with diagonal entries that represent singular values.

Equation 3 and 4 depicts the following relationship:

$$W = \frac{X^T X}{n-1} = \frac{(U\Sigma V^T)^T (U\Sigma V^T)}{n-1} = \frac{V\Sigma^2 V^T}{n-1} \quad (5)$$

By comparing equations 3 to 5, it is observed that the square of singular value (from Σ) is the eigenvalues derived from the diagonalization of W (or $X^T X$).

Where $\lambda_t (t = 1 \dots l)$ denotes the eigenvalues such that the size of each λ to the sum of all λ s accounts for the proportion of variances in the original data matrix that can be captured by the corresponding principal component.

The rearrangement of λ_l from the highest to the smallest from λ_1 to λ_l , λ_1 and the corresponding eigenvector (or first principal components PC_1) accounts for the largest percentage of variances in X . The correlation of matrix X is applied prior to the derivation of P.C.s to prevent scaling problems. Consequently, the principal components are derived by post-multiplying data matrix X with the principal axes V . Alternatively, the following equation can be used in the derivation of P.C.s:

$$XV = U\Sigma V^T V = U\Sigma \quad (6)$$

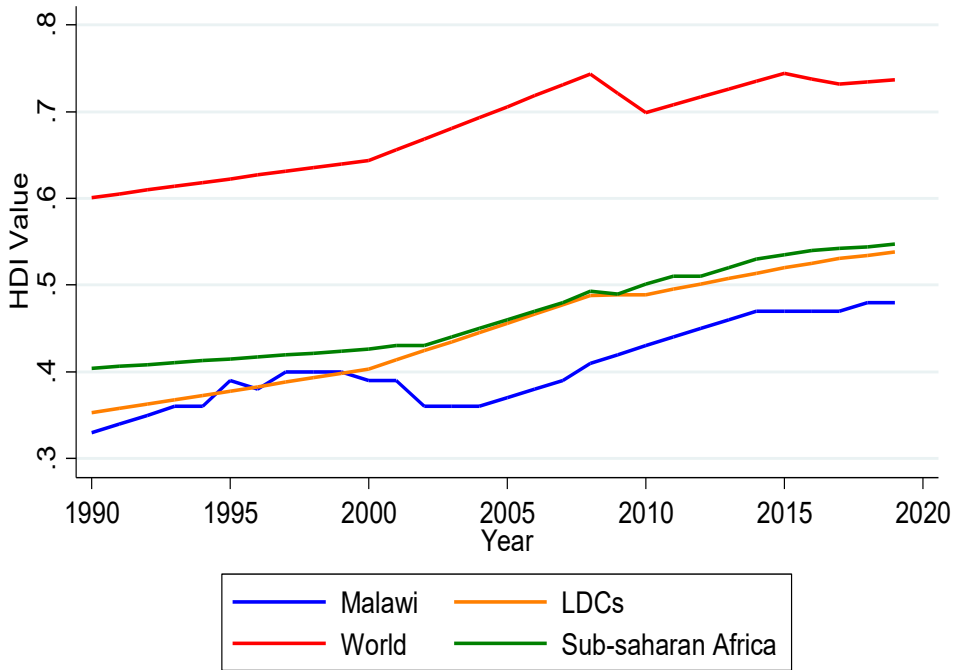
Such that according to equation (6), either of the following notations can be used to attain all P.C.s:

$$PCs \Rightarrow XV \equiv U\Sigma \quad (7)$$

APPENDIX A2 (Source: Author's Analysis)

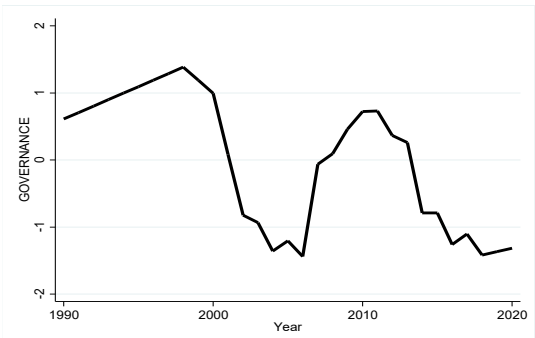
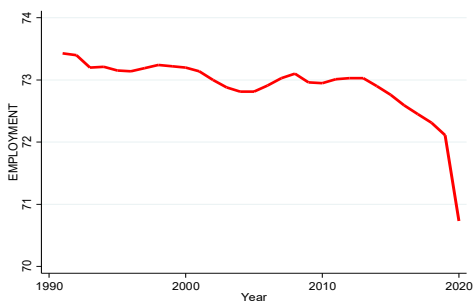
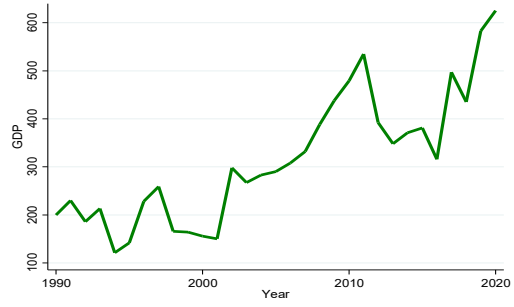
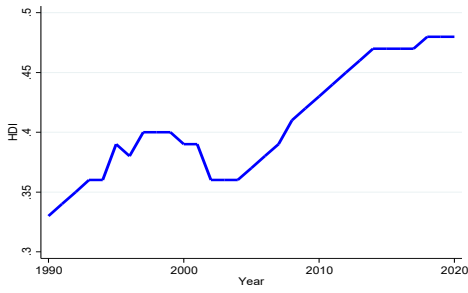
I. Comparative Trend Analysis of Malawi's HDI

HDI Trend Analysis, 1990 - 2019



APPENDIX A3 (Source: Author's Analysis)

I. Time Plots



II. Distribution Plots

