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Table of Contents

The Augumented Solow Model and Cross-Country Income Differences in Sub-Saharan Africa

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Abstract

In this paper I compare and contrast Mankiw, Romer and Weils (1992) results with new results obtained using a different dataset. Fundamentally, I sought to explore MRW models' predictions consistency in terms of size and direction with different dataset for 48 sub-Saharan African countries. Regression estimates with and without human capital using new dataset show consistency of direction of the effect of physical capital investment rate, population growth and human capital accumulation in explaining per capital income differences in the region. However, estimates show differences in coefficient estimates (sizes) of physical and human capital investment rate as well as population growth. While physical and human capital show an increase in sizes, population growth coefficient estimate show decreased sizes with new dataset. Regression estimates also suggest that the fit of the model is less good than that of MRW. Very low adjusted R-square suggest a small fraction of per capita income differences in sub-Saharan Africa being accounted for by both physical and human capital dynamics with an immediate implication that total factor productivity differences in the region may have a crucial role in explaining persistent differences in per capita income and therefore standard of living among countries.

1. Introduction

The relationship that exists between economic growth and inequality has been the centre of most of contemporary macroeconomic policy debates. Aghion and Howitt (2009), Acemoglu (2009), Foley and Michl (1999), Casseli, *et all*, (1996) and Solow (1956) are among the many literatures that take to task in addressing this underpinning empirical issue in macroeconomic policy debates today. Specifically, Acemoglu (2009: 3) argues that, 'there are very large differences in income per capita and output per worker across countries such that countries at the top of the world income distribution are more than 30 times as rich as those at the bottom'. This huge cross-country income per capita gap is clearly associated with prevailing substantial differences in the quality of life, standard of living and health of the people in developed, developing and least developed countries.

Why some countries are so rich than others has been a formidable question that has rendered macroeconomists to restlessly investigate the causes of the differences in an effort to explain the income per capita gap across countries. Mankiw, Romer and Weil, MRW, (1992) examine whether the Solow growth model is consistent with international variation in standard of living, are among those economists and from which this paper borrow their model for data estimation and analysis. To draw a clear connection between the model I used for analysis and sub-Saharan African countries, I review the trend of empirical data on key variables in the model. These variables include per capita GDP, secondary and tertiary enrollment (to be used as proxies for human capital) as well as capital formation (a proxy for savings rate). I also review the

trend of per-worker GDP to show the extent of income variations in the region even though the variable is not a regressor in the model.

Figure 1: GDP (PPP adjusted) distribution of sub-Saharan African Countries in 1985, 1990, 1995, 2000, 2005 and 2010

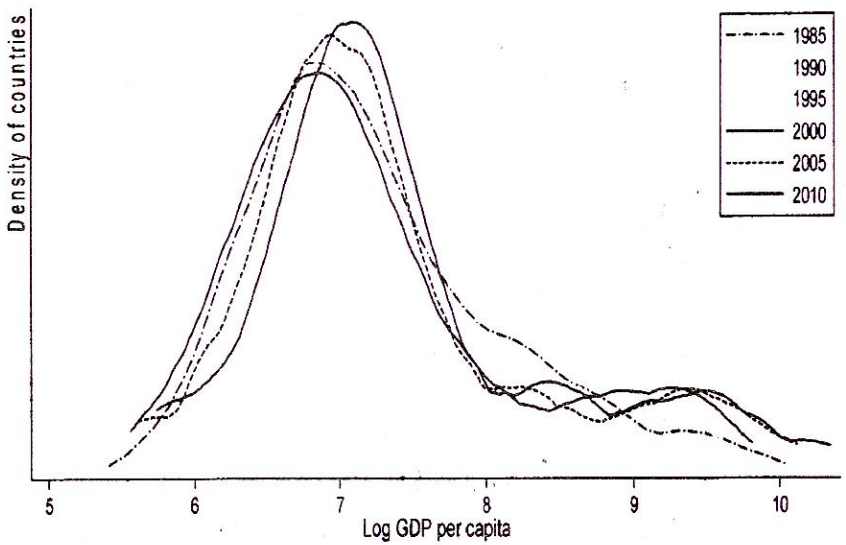


Figure 1 reveals a moderate increase in per-capita income gap among sub-Saharan African countries in 2010 compared to 1985. While figure 1 is important from GDP distribution and welfare analysis, it does not give insights on the productive capacities of sub-Saharan African countries which are important for growth implications.

Figure 2: PPP adjusted GDP per worker growth rates in sub-Saharan Africa

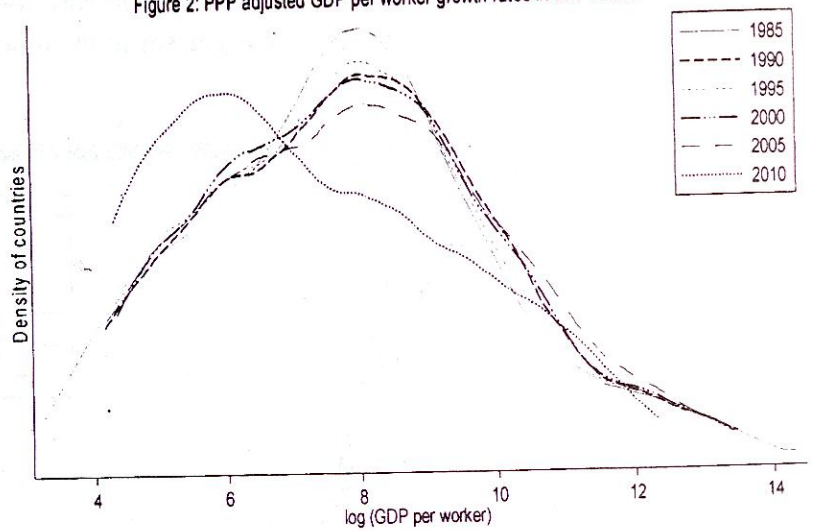


Figure 2 shows GDP per worker (i.e. labor force) in sub-Saharan Africa. Worthy of note is the fact that it shows a decrease in growth rate of GDP per worker in 2010 compared to 1985 with a larger concentration of countries experiencing low growth rates. By and large, figure 1 and 2 depict one major growth phenomenon in sub-Saharan Africa: there is moderate inequality in both output per-capita and per-worker terms.

While there are moderate differences in per-capita and per-worker output, I also give a brief synopsis of human capital accumulation and capital formation share of GDP (i.e. a proxy for savings rate) experiences across countries in the region.

Figure 3: Secondary education enrollment growth rates in sub-Saharan Africa

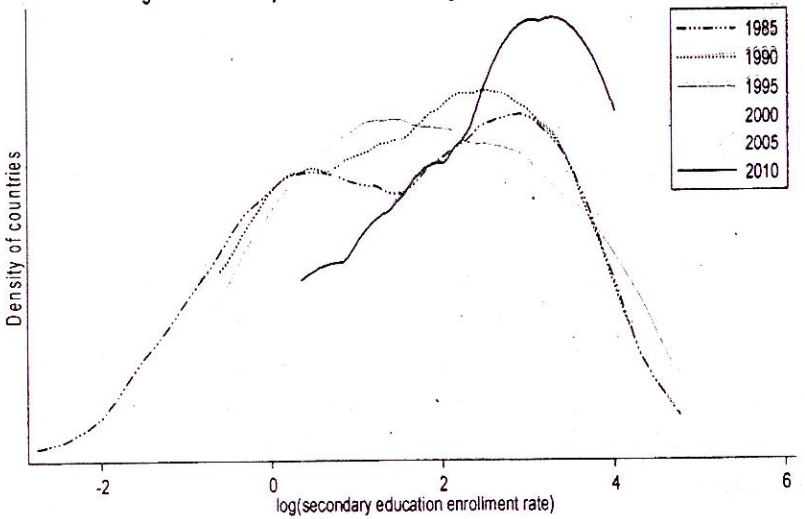
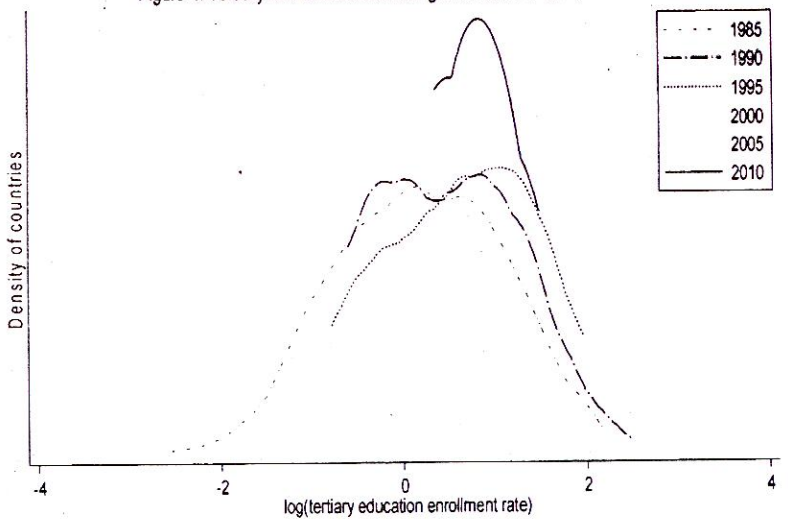


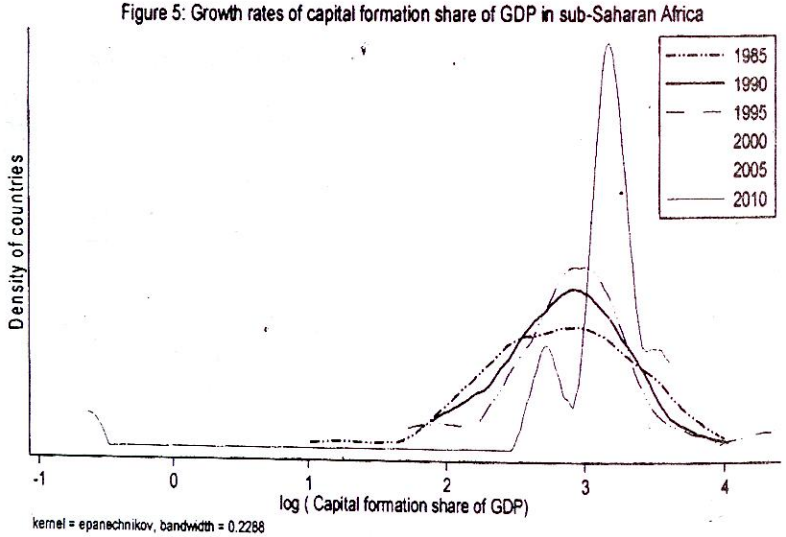
Figure 4: Tertiary education enrollment growth rates in sub-Saharan Africa



On one hand, figure 3 and 4 indicate an increase in both secondary and tertiary education enrollment rates across countries in the region in 2010 compared to 1985. This reflects an increase in human capital accumulation in sub-Saharan Africa over the period of 1985-2010 potential to explain differences in per-capita income.

On the other hand, figure 5 indicate a substantial increase in capital formation in the region in 2010 compared to 1985. This increase can also be associated with variations in per-capital GDP as empirically tested by Mankiw, Romer and Weils (1992) whom I replicate[1] their augmented Solow reversion model to explore if their results hold good as far as sub-Saharan African countries are concerned.

Figure 5: Growth rates of capital formation share of GDP in sub-Saharan Africa



[1] Using a different data set

The paper is organized as follows. In section 2, I highlight the theoretical framework of the paper. In section 3, I describe the model that I use for estimation. I give the description of the data and the estimation technique in section 4. In section 5 I present and discuss regression results in the context of the original Solow model and its reversion using 2011 World Bank Development indicators. Finally, I conclude and draw policy inferences in section 6.

2. Theoretical Framework

The theoretical exposition of this paper emanates from the augmented Solow growth model by MRW which focused not only on physical capital in explaining the influences exerted by savings and population growth on steady-state per capita income differences across countries, but also incorporated human capital in carrying out the same analysis.

3. The Model[2]

The model I use hinges on MRW reversion equations as specified as specified below;

$$(1)\ \log(y_j^*) = \alpha + \frac{\alpha}{1-\alpha}\log(s_k) - \frac{\alpha}{1-\alpha}\log(n_j + g + \delta) + \epsilon_j$$

for $0 < \alpha < 1$

[2] Mankiw, Romer and Weils (1992:409-410, 416-418) give a succinct derivation of (1) and (2) above. I skip them in this paper because my interest is how (1) and (2) fit to data.

$$(2)\ \log(y^*_j) = \text{constant} = \frac{\alpha+\beta}{1-\alpha-\beta}\log(n_j + g + \delta) + \frac{\alpha}{1-\alpha-\beta}\log(S_{k,j}) + \frac{\beta}{1-\alpha-\beta}\log(S_{h,j}) + \epsilon_j \text{ for } 0<\alpha<1,\ 0<\beta<1 \text{ and } \alpha+\beta<1$$

Equation (1) incorporates physical capital only; where, y^*_j is steady-state output per capita; α is capital's share of income; constant is a term that not only reflects country specific technology but also resource endowment, climate, institutions etc which may differ across countries; n is population growth rate; g technology growth rate; δ is a depreciation rate and ϵ_j is country specific error term.

Equation (2) incorporates both physical and human capital, where the $S_{k,j}$ is a fraction of income invested in physical capital; $S_{h,j}$ is a fraction of income invested in human capital; α is physical capital's share of income; and β is human capital's share of income.

4. Data and Estimation Technique

Despite adopting the Mankiw, Romer and Weils augmented Solow reversion model verbatim, I use a different dataset[3] to estimate the models' results. In this regard, I use averages[4] of per capita GDP, averages of ratio of capital formation to GDP as a proxy for savings rate, proxies for human capital accumulation and population growth for 1986-2009[5] dataset for each of the 48 sub-Saharan African countries. Unlike Mankiw, Romer and Weils (ibid) who computed[6] secondary school enrollment as a proxy for human capital enrollment, I use both secondary school enrollment rate-which captures all secondary enrollment regardless of the age group- and tertiary[7] enrollment rate as new proxies for human capital accumulation.

For the same reasons given by Mankiw, Romer and Weils, (ibid: 411), I also use OLS technique to estimate the size and direction of the coefficients of the models above as well as the degree of variation in steady-state per capita income across countries caused by the changes in exogenous variables.

5. Results

(i) The basic Solow Model Results

With new dataset, Table 1 shows regression estimates of the basic Solow model for sub-Saharan Africa. Estimates confirm

[3] The main source of data is the World Bank Development Indicators, WDI (2011).

[4] Since, Solow model draws policy implications from steady state assumption which MRW also adopt (i.e. 1985 as steady state period), in contrast, I consider steady state as an average of all data for the period 1986-2009 in sub-Saharan Africa. For a few 3 past decades the region has been engulfed with political and economic imbalances which render steady state assumption unreasonable.

[5] This time frame was chosen to compare and contrast MRW results of 1960-1985

[6] Their computation focused only on secondary school enrollment at the age of 15-19 which might have had some bias on results especially for sub-Saharan African countries where adult literacy program include secondary school enrolment as well.

[7] I do not consider primary school enrollment on account that most pupils of primary school age are below the productive workforce age.

Solow's predictions in terms of direction of the effect of exogenous savings rate (i.e. the higher the investments in physical capital the higher is the per capita GDP) and population growth rate (i.e. the higher the population grows the lower is the per capita GDP) in explaining cross-country income differences in sub-Saharan Africa. The same holds true with respect to the regression estimates of capital share of income (α) without human capital, where both MRW (0.59) and this paper's estimates (0.56)[8] appear to overestimate α almost same way.

However, results show different magnitudes of the effect of exogenous variables in explaining per capita GDP differences across countries. Compared to Mankiw, Romer and Weils whose coefficients of physical capital stock investment rate and population growth are (1.42) and (-1.97), my estimates show a reduced effect in the magnitude savings rate to (1.27) and an increased effect of (-3.19) for population growth. Thus in this model population growth suffocates the economies in sub-Saharan Africa. The fit of the model is less good as indicated by adjusted R-squared (0.2311) suggesting only 23.11 percent (compared to 59 percent) of the variations in per capita income across countries is accounted for by both savings rate and population growth.

[8] Acemoglu (2009:92) associates higher values of α with the correlation between $s_{i,j}$ and ϵ_j

Table 1: The Basic Solow Model Estimates

Source	SS	df	MS		Number of obs	42
					F(2, 39)	7.16
Model	11.8431957	2	5.92159783		Prob > F	0.0022
Residual	32.2436889	39	.826761254		R-squared	0.2686
					Adj R-squared	0.2311
Total	44.0868846	41	1.07528987		Root MSE	0.90926
log (GDPpercapita)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
log (Sk)	1.2697960	.4135255	3.07	0.004	0.433362	2.106231
log (n+g+δ)	-3.1856380	1.914929	-1.66	0.104	-7.058947	0.6876712
Constant	9.6681340	4.245753	2.28	0.028	1.080287	18.25598
Implied α	0.5594318					

(ii) Augmented Solow model Estimates

Table 2 shows regression estimates of the augmented Solow model. Despite introducing new proxy for human capital accumulation, estimates confirm both Solow's and Mankiw, Romer and Weils' predictions for direction of the effect of exogenous savings rate (i.e. the higher the investment in physical capital the higher is the per capita income), population growth rate (i.e. the higher the population grows the lower is the per capita income) and human capital (the higher the level of investment in human capital, the higher is the per capita income) in explaining cross-country income differences in sub-Saharan Africa. In contrast, my regression estimate of capital share of income (α) with human capital is far less than 0.33 potentially explaining the capital share of income in sub-Saharan Africa.

Interestingly, results show different magnitudes of effect of exogenous variables in explaining per capita GDP differences

across countries. Compared to Mankiw, Romer and Weils whose coefficients of physical capital stock investment rate and population growth rate are (0.69) and (-1.73) respectively, my results show an increased effect in size of (0.72) for investment rate, a reduced effect in size of -0.12 for population growth and a positive effect of 1.03 in human capital accumulation. In a nutshell, these results suggest the pivotal roles that both physical and human capital accumulations have in explaining disparities in GDP per capita among countries in the region.

In addition, compared to Mankiw, Romer and Weils -the fit of the model estimation was successful i.e. 78 percent- the fit of the model in this paper is less good as indicated by adjusted R-squared (0.4911). This suggests almost half of the variations in per capita income across countries are accounted for by the behavior of investment in physical capital, population growth and human capital investment across sub-Saharan Africa.

Table 2: Augmented Solow Model Estimates

Source	SS	df	MS			Number of obs	42
						F(3, 38)	14.19
Model	23.2906903	3	7.76356345			Prob > F	0
Residual	20.7961942	38	.547268269			R-squared	0.5283
						Adj R-squared	0.4911
Total	44.0868846	41	1.07528987			Root MSE	0.73978
log(GDPpercapita)	Coef.	Std. Err.	t	P>t		[95% Conf.	Interval]
log(Sk)	0.7296445	.3565707	2.05	0.048		0.0078048	1.451484
log(n+g+δ)	-0.1203901	1.696022	-0.07	0.944		-3.553807	3.313027
log(Secondary+Tertiary)	1.0280270	.2247758	4.57	0		0.5729925	1.483062
Constant	1.6641310	3.872357	0.43	0.67		-6.175046	9.503308
Implied α	0.1722430						
Implied β	0.2426804						

6. Conclusions

In this paper I compared and contrasted Solow's reversion model results by Mankiw, Romer and Weils, with new results obtained using a different dataset. Fundamentally, I sought to investigate if Mankiw, Romer and Weil's reversion of the Solow model's predictions in terms of size and direction of both models hold good as far as sub-Saharan African countries are concerned.

Comparisons of the regression estimates indicate a similar direction of the effect of physical capital investment rate and population growth in explaining per capital income differences in sub-Saharan Africa. However, results show differences in the size of effects with reduced/increase magnitude effects of my estimates. Estimates also suggest a different value for α in both regression estimates. Worth noting is a result that population growth does not seem to have influence on per-capita income differences in sub-Saharan Africa when human capital if factored in the model.

Estimates also indicate the same pattern of direction of the effect of physical capital investment rate, population growth and human capital accumulation in explaining per capital income differences in the region. Conversely, results suggest differences in coefficient estimates with an increase in the effect of physical and human capital investment rate to 0.71 each from 0.69 and 0.66 respectively; and a decrease in the effect of population growth to -0.04 from -1.73.

Moderately, low estimates of adjusted R-square suggest only a small fraction of per capita income differences in sub-Saharan Africa is explained by both physical and human capital dynamics.

The immediate implications are:

(i) Total factor productivity differences of countries in the region may have a crucial role in explaining persistent differences in per capita income and therefore standard of living

(ii) Randomness of the region in terms of political instability and other growth-constrained experiences (poverty, lack of infrastructure, hunger and diseases etc) may also explain per-capita income disparities among countries

(iii) The plausible possibility that a richer theoretical model may be needed to account and give in depth explanation of growth differences and their sources across countries in sub-Saharan Africa. Potentially, endogenous growth models

Finally, moderately low coefficient of variation when linked to GDP per worker (figure 2 and 5) conjectures that; however significant human capital accumulation is in sub-Saharan Africa, it seems not be productive/skilled enough to support the increase in capital formation in the region. This has serious implications for the quality of engines with which human capital is accumulated.

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The role of family labour in the profitability of Women Owned Microcredit Supported Enterprises: An ordered Probit Analysis

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Abstract

This paper explores the impact of family labour on profitability of women owned microcredit supported enterprises. Findings show that indeed the use of family labour is significantly predicting profitability of women businesses. Results also show that enterprises that are owned by owners who possess business skills, have access to markets and those who do not separate business assets and money from households are more likely to experience profits increase in their enterprises than otherwise. Conversely, results have demonstrated that access to loans does not necessarily translate to enterprise profits increase. Form these results it is established that as a poverty alleviation strategy, microcredit access and micro enterprising are not panacea, but will require other supporting policies and services for the helping women to find their way out of poverty. It is also important that employment patterns of microcredit supported enterprises are studies and valued accordingly.

Introduction

Entrepreneurship and small business ownership are widely recognized as very important factors in the development of many countries in the world both the developed and developing. In many economies entrepreneurship and business ownership have become a major source of economic growth, innovations, market competition, employment creation, source of new products and services (Bosma and Harding, 2006); and source of social and political stability (Verheul, Risseeuw and Bartelse, 2002). Due to their ability to create employment opportunities, development of

entrepreneurship and small business ownership isof special importance especially in countries with high levels of unemployment and poverty. The development of entrepreneurship and small business ownership in developing countries is therefore seen as the overall best vehicle to help these countries grow their economies and participate in the global economy (Mena, 2003).

Evidence from a number of countries worldwide also shows that there is a progressive participation of women in entrepreneurship and business ownership especially in micro and small enterprises (Coleman, 2007). Precisely, there is more female entrepreneurship and small business ownership in low-income countries than in high-income countries, suggesting that in these countries, entrepreneurship and small business ownership are a strategic approach to unemployment among women, the way out of poverty but also a source of supplementary income for their households (Minitti, et al., 2004).

In Tanzania, the number of women-owned businesses both in the formal and informal sector could range between 730,000 and 1.2 million (Stevenson & St-Onge, 2005), making up 43 per cent of the total numbers of operators in micro and small enterprises sector in the country. The majority of them are however, over represented in informal and micro activities, activities which exhibit low-growth patterns, face stiff competition, generate subsistence level incomes, but also reflect their traditional roles (Stevenson and St-Onge 2005).

Notwithstanding the internationally recognised importance of entrepreneurship and small businesses ownership among the women, entrepreneurship and small business sector in many economies is still facing a number of challenges. The challenges faced by the women in the sector are related to institutional and cultural constraints but more so to the availability of adequate levels of financial resources (OECD, 2004). The observed expansion of microfinance industry during the last three

decades in the developing world is among measures that are aimed at alleviating limited access to financial resources for micro and small business operators, particularly women and the poor.

The impact of microcredit

Microcredit is viewed by its proponents as an important ally and a more sustainable way of achieving women empowerment; reducing unemployment as well as opening up avenues for increased female labour force participation and expanding their avenues for escaping poverty (BaliSwain, 2004). Through micro enterprising, microcredit is assumed to contribute to promotion of households' sustainable livelihoods by way of increasing household incomes, enhancing households' ability to accumulate assets and job creation and an easy way out of poverty.

Despite the assumed benefits that accrue to borrowers, conflicting views and findings are now emerging from the field suggesting that the impacts of microcredit on women economic empowerment, poverty alleviation and improvement in the overall welfare are mixed and somewhat anecdotal (BaliSwain, 2004; Ditcher, 2006). Ditcher (2006) argues that there is an increasing gap between the reality and achievement of microcredit goals; and the veracity of micro credit is less eye-catching than the promise. According to Scully (2004), the impact of micro credit on borrowers and their households is rather over-exaggerated. Scully is also of the opinion that microcredit related assistances and services ignore the key structural issues facing the poor but also the long-standing problems of poverty and poor people, especially women.

Scholars consider the conflicting views on the impact of microcredit on women economic empowerment and poverty alleviation as partly a result of both the use of different methodologies and the general methodological difficulties experienced in microcredit impact assessment studies. One of the main difficulties in impact assessment of microfinance programmes pertains to linking of specific programme impacts to credit access.

Arguably, there are other mediating factors likely to influence participation in microcredit programmes, but also the impact of the microcredit on participating clients (Sharma, 2000). Because of these factors, the difficulty of attributing certain changes to credit increases. There are also other difficulties related to finding a representative control group that can be used to determine the effects of access to microcredit services. Evaluating the impact of a microcredit requires measuring the impact on clients versus non-clients (Hulme, 2000). Hulme suggests that this is more difficult because the control group must have similar characteristics with clients. However, getting them from non-clients population with which the MFIs do not have prior relationship may introduce bias in the results.

It is also argued that individuals are motivated by different factors to join micro credit programmes. Therefore, motivational factors may influence the magnitude of impacts on programme clients that cannot be easily detected in the studies (Sharma, 2000). In addition, many microfinance programmes include credit with other non-financial services, such as training and provision of health services. Inclusion of non-financial services makes it difficult to isolate the impacts of such services from credit on borrowers and their enterprises. There is also a difficulty of obtaining unbiased estimate of the effects of credit access.

Another problem relates to the fungibility of loans. Fungibility of loans results from failure to separate the uses of loan and income from other sources between the household and enterprise. It also implies the use of loan fund for a purpose other than the one for which the loan was sanctioned or use of loan fund by someone else than the borrower (BaliSwain, 2004). Failure to control for fungibility may overestimate or underestimate the impacts of microcredit interventions. Moreover, impact results may be overestimated when households or borrowers have access to other sources of credit or income (Khalily, 2004).

We are also of the opinion that the impact of family labour on performance of enterprises supported by microcredit is grossly ignored or understated. While research reports on the impact of access to microcredit on increased workload among business owners and members of their families (see for example, Cheston Kuhn, 2002), there is limited research and scholarly studies about the impact of family labour on performance ofmicrocredit supported businesses. Again, this is despite the fact that studies have consistently established that family labour plays an important role in business ventures in developing countries, and that micro and small businesses especially women owned are unable to hire paid workers or are more likely to use unpaid family workers including children (Nelson, 2004; Bharadwaj, 2008). Research also reports that the majority of children are employed by their parents on the family farms or enterprises rather than working for wages outside the home (Lehmann & Hirata, 2010). This suggests that failure to account and control for the use of family labour in microcredit supported enterprises may overestimate or underestimate the impacts of microcredit interventions. deMel, McKenzie &Woodru (2008) contend that the use of unpaid family labour constitutes the explanation for high returns to micro and small enterprises that are supported by microloans. Exploring the impact of family labour, and paid labour from the outside the family on performance of micro and small businesses is therefore very important for better understanding employment abilities and patterns of these enterprises which is also the focus of this study. The Centre for Global Development (2007) is of the view that *"while there are many stories of the transformative effect of microfinance on individual borrowers but until recently there has been surprisingly little rigorous research that attempts to isolate the impact of microfinance from other factors, or to identify how different approaches to microfinance change outcomes."*

This paper therefore explores the impact of family labour (children and other members) on the profitability of women owned microcredit supported businesses using an ordered probit method. The assumption is

that profitability displayed by women businesses may give a false picture of performance of supported businesses particularly when the use unpaid family labour is not correctly assessed and valued in the analysis.

Prior Research

As we have noted, the essence of microcredit is to enable budding entrepreneurs or the poor to access financial services that enable them to support their entrepreneurial activities with view to increasing their household's income, cope with their day-to-day activities and emergencies and increase their chances of escaping poverty. Particularly, microcredit access is assumed to have a lasting and sustainable impact if it enables creation of jobs for owners and their families. Moreover, microcredit access is likely to have a wider socio-economic impact if through micro enterprising business owners are able to create jobs for other members outside the family. Job creation is considered a core of poverty reduction strategies because for the poor, labour is often the only asset they can use to improve their well-being (Ditcher, 2006). This implies that poverty reduction and economic empowerment for women and the poor can only be achieved if countries adopt poverty reduction strategies that facilitate the creation of productive employment opportunities. However, studies have demonstrated that women owned micro and small businesses hardly create paid jobs (Tundui&Mgonja, 2010). This is particularly the case for women owned microcredit supported businesses. Arguably, more often women business owners tend to use family labour, mostly unpaid and children. A study of Hazarika and Sarangi (2008) found that in Malawi children were more likely to work as child labour in households that had access to microcredit than otherwise. Studies have also established that girls are more likely to be affected negatively than boys, and less likely to attend school as their parents take out microcredit (Islam &Choe, 2009). Evidence from Bangladesh shows that almost 13 percept of children are engaged in child labour partly because of expansion of micro enterprising that is supported by microcredit (ILO, 2006). This implies that in absence of prudent measures and policies access to microcredit is possible to have a long term negative effect in terms of contributing to increasing child labour. Child labour hinders the children to attend, receive education and complete their education cycle. This in turn may thwart and compromise the

development of human capital that is requisite for future economic growth. This again suggests that accurate assessment of the various types of labour use in; and performance of women owned micro credit supported businesses is critical for studying the impact of micro credit on women economic empowerment and poverty alleviation.

The use of family labour

Decision to use family labour among micro and small women business owners is influenced by the overall enterprise demand for labour, availability of the alternatives to labour from the household and the nature of the businesses. Demand for labour is also influenced by enterprise size. Specifically, studies in entrepreneurship research have established that throughout the world, women businesses are micro or small and over represented in the service sector, mostly in food production, nutrition, health and child care; and retailing (Coleman, 2007). Nevertheless, thesebusinesses require only a few employees. Therefore, given the size of their enterprises, women business owners are more likely to use family members than employees from outside the household. Business owners may also use family labour if their enterprises cannot generate sufficient levels of surplus (profits) to cover both operational and expansion needs of the enterprise including wage bills. Owners of microcredit supported businesses are also more likely to use family labour to avoid unnecessary loan repayment pressures (Tundui&Mgonja, 2010). Moreover, business owners may perhaps use family labour in case alternative employment for family members is lacking. Hence, unemployed household members may take part in the business as a way of escaping unemployment.

In certain instances, owners may be reluctant to hire labour from outside the family if they perceive that by doing so would be risky to the operations of the business. This is especially the case if owners do not have enough information about the skills and moral integrity of the potential employees. This can happen when labour market imperfections are prevalent, making business owners prefer family labour to paid labour

from outside the household (Bharadwaj, 2008).Evidence also attests to the relatively lower opportunity cost of family labour as compared to using labour from outside the household. Therefore, to minimize business operation and other transaction costs women business owners may prefer to use family labour to labour from outside the family. For example, a study by Mohamed (2011) observed that about 18 per cent of the labour force among female-owned businesses was comprised of family members. The study also noted that the proportion of paid workers in the total labour force was very small (3 per cent) and about 75 per cent of the businesses were run by the owners without any additional employees.

Determinants and measure of micro and small business performance

Studies on micro and small business performance show that business performance is determined by myriads of factors. Therefore, there is not a single theory that can satisfactorily explain business performance and growth (Gibb and Davies, 1990). Similarly, the terms performance, growth and success are often used interchangeably in the research of entrepreneurship.

Demographic characteristics of the business owner

Although enterprise performance is a multifaceted concept, evidence from studies report that the main distinguishing factor is the business owner. Arguably, owners are the ones who identify entrepreneurial opportunities, make all the strategic and operational decisions and implement the decisions (Lerner &Almor, 2002). Lerner &Almor also contend that business owners' skills are the most important asset of the firm, suggesting that when the skills set is stronger, the performance of the business will be higher. Owners are also the ones who dictate the goals of the enterprise but also influence the way the goals are pursued (Verheul, Risseeuw and Bartelse, 2002). Similarly, Chandler and Hanks (1994) are of the opinion that although resources may be readily available to the business, but its performance will very much depend on the owner's ability to mobilize and coordinate the available resources. Hence,

Chandler and Hanks conclude that business performance is a function of both the ease of access to economic resources and owners' managerial distinctive competence. Cliff (1998) also echoes same observations. He contends that business performance or growth does not occur naturally, but is determined by the owner. Arguably, owners may initiate, fosternurture, or prune growth in accordance with their own propensity for growth and their abilities to manage it" (p: 525).

Among the socio-demographic factors that influence business performance include age, marital status and human capital attributes of the business owner, such as education level and business skills (Cooper, 1994). Owner's age is used as a proxy for accumulated amounts of capitals including financial, physical and social that enable owners operate and take a business through business cycles. For married entrepreneurs, spouses may be sources of business experience, financial and social capitals but also can serve as a source of emotional support (Capito and Dorisky, 1998). On the other hand, human capital (education and business skills) equips the entrepreneur to stand the challenges of business ownership, enable them to better manage their businesses and resources; and make informed decisions(Coleman, 2007).We therefore expect owner's age, marital status and human capitalto have a positive effect on enterprise profits.

Household characteristics

Households are important sources and determinants of micro and small business support and growth. This is because households provide the means for the business to initiate; grow and transition (Aldrich and Cliff (2003). Aldrich and Cliff further suggest that households are the saucepans for the emergence and recognition of entrepreneurial opportunities, but also are centres of venture creation decisions and resource mobilization processes. The attributes of a household that affect enterprise performance include the number of household members who

depend on the business owner or enterprise for their livelihood. In particular, the level of family and parental responsibilities mighthave a direct impact on business performance if they encumber business owners' ability to marshal resources to be invested in the business. Big families are also likely to have more problems to resolve (for example, attending a sick child and the elderly) and more mouths to feed, which leave women business owners with insufficient capital to reinvest in their businesses.Parental responsibilities may also restrict owners' efforts and commitment to the business. The other attribute is decision making roles regarding business operations and resources allocation. Studies have established that loans accessed by women are likely to have greater impact on their enterprises and households, if borrowers have control over them including and business operations and resources allocation (Hunt & Kasynathan, 2001). However, studies report that oftentimes women lose control of their loans and business operations. Goetz and Gupta (1996) found that on average 39% women of members of four microfinance programmes in Bangladesh had little or no control over their loans, because their loans were hijacked by their husbands or other males in the household. They also found that there were more business start-ups among men than women borrowers to suggest that the money borrowed by women is used by men to start their own businesses. Moreover, households are sources of cheap or unpaid labour. For microcredit supported micro and small businesses, borrowers are often using family labour to provide the needed labour supply requirements with view to minimizing operational costs.

Business characteristics and access to markets

Research has also established that business performance is influenced by its own characteristics including whether the business is small or big, informal or formal (Bigsten&Söderbom, 2003). Business characteristics that influence enterprise performance reported in the literature include among others business age and size. Just like owners' age, business age

can serve as a proxy for business survival and growth experiences (Papadaki&Chami (2002). Studies have also established that the lack of access to market or demand is a serious problem to women entrepreneurs.This is because of their inability to create markets and quickly adapting to the ever-changing needs of their consumers (Richardson, Howarth & Finnegan, 2004). Most women also lack access to profitable markets because their businesses are situated mainly in service sector where the market is overcrowded and competition is stiff due to absence of entry barriers (Stevenson & St-Onge, 2005). The lack of market demand that women face is also a result of the lack of selling and negotiation skills, and limited access to international markets (Richardson, et al., 2004). Therefore, we expect business age, size and improved access to markets to have a positive impact on enterprise performance.

Financial capital and size

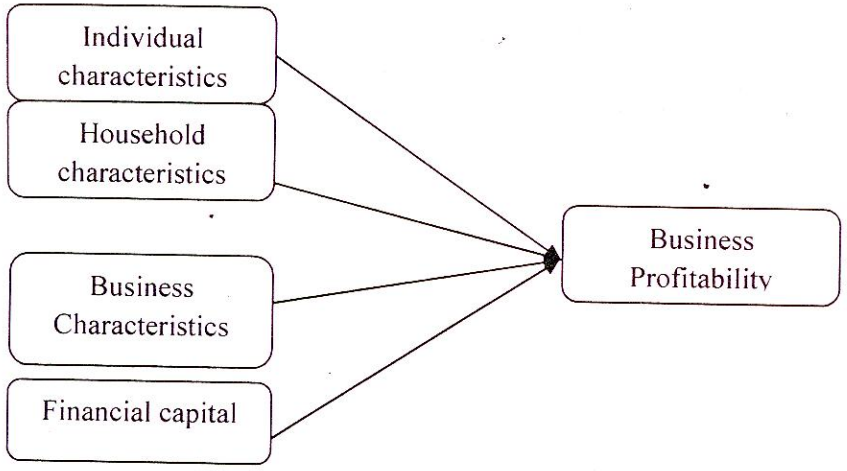
Capital is the lifeblood of any business and a key that facilitates businesses to innovate, grow and create jobs (Coleman, 2000). Therefore, business performance will also depend on the size of capitalization at business start-up and the amount available for operational phases. Specifically, businesses that start with higher amounts of financial capital and current assets tend to have higher levels of assets, profits and employment (Fairlie& Robb, 2008). Continued access to sufficient levels of funding also enables owners expand their businesses and easily acclimate to changing market conditions and needs. Studies on microcredit impact assessment also report that the impact of credit on women-owned businesses varies with loan size (Littlefield et al., 2003). This is because with larger loan sizes borrowers are able to expand faster and take advantage of any emerging entrepreneurial opportunities than borrowers with small loan sizes. It is therefore expected that loan size will have a positive effect on enterprise profitability. Given that the sampled respondents are microcredit clients, the financial variables included in the study are loan size and duration of membership in the programme.

Measures of micro and small business performance

There is no consensus on what constitutes appropriate micro and small firm performance measurement variables. Nonetheless, most scholars have tended to focus on variables of interest to their studies and easy of data collection. Usually, there are two commonly used measures of business performance in the literature; objective and subjective measures. Objective measures include financial indicators such as the net profitability levels: absolute profitability, profitability per employee, profitability as a percentage of turnover and return on sales among others (Harber&Reichel 2005). On the other hand, subjective measures include the ability of the business to meet business and domestic needs (Rosa, Carter &Hamilton, 1996), achieving personal goals and employees' satisfaction (Brush, 1992).

Building on the literature our study variables are summarised in the following conceptual framework. That is, performance of women owned microcredit supported businesses is determined by demographic characteristics of the business owner, household characteristics, business's own characteristics and financial capital including loan conditions.

Figure: Conceptual Framework of Factors Determining Enterprise Performance



Sample and Methodology

Our study surveyed a random sample of 429 women entrepreneurs who have accessed micro loans from PRIDE – Tanzania microfinance program at Morogoro and Iringa town branches. PRIDE Tanzania is the largest micro lender in Tanzania. To ensure that the reliability of study results is maintained, the main study was preceded by a pilot study. The pilot study was also carried out to help testing clarity and relevance of research instruments and methodology of the study in general, but also to test if the variables and measures were appropriate.

The main study commenced after the pilot study. Preparations for the main study included refinement of the questionnaire. In refining the questionnaire, the original questionnaire was shortened and questions that were found to be ambiguous were dropped.

Table 1: Demographic and business characteristics

Characteristics	Frequency	Percentage
Owners' Age		
18-25	20	9.0
26-35	85	38.5
36-45	72	32.6
46-55	35	15.8
56-65	6	2.7
Over 65	3	1.4
Education level		
No schooling	13	5.9
Primary	153	69.2
Secondary	54	24.4
First degree	1	.5
Marital Status		
Married/living together	114	51.6
Widowed	21	9.5
Separated/divorced	32	14.5
Single/never married	54	24.4
Business start up reasons		
Economic necessity	142	64.3
Achievement	46	20.8
Availability of entrepreneurial opportunities	33	14.9
Business age		
Less than one year	74	33.5
1-5 years	101	45.7
6-10 years	38	17.2
Over 10 years	8	3.6
Business experience and management practices		
Training and specialised skills	59	26.7
Intermingling of household and business resources	102	46.2

Refinement of the questionnaire also assessed the time taken to complete the questionnaire, and rephrasing and sequencing of questions to ensure that all respondents have a common understanding of the questions.

Moreover, to control for methodological difficulties experienced in microcredit impact assessment studies clients were first clustered based on their loan sizes and were then randomly selected from programme's list of clients.

This is because the impact of microcredit on business performance is assumed to vary with loans size. Secondly, to handle the problem of fungibility we disaggregated our respondents in terms of clients with access to micro-credit only; and clients with microcredit and other sources of credit (Khalily, 2004). We also disaggregated respondents by length of membership in the programme as proxy for non-participant control group. This study involved the use of a cross-sectional design. All those who were involved in the survey were owners of the enterprises. The survey was undertaken in September – October 2008. A profile of the sampled respondents is presented in Table 1.

Study Variables

Dependent variable

For the purpose of this study, we use profitability to measure enterprise performance. This is because, even businesses that aim at maximizing non-financial goals, will have to achieve at least minimum profit levels in their operations, which warranty the continuity of business operations and ability to meet those goals (Komppula, 2004). Enterprise profitability is usually measured by an increase or a change in businesses net income overtime (i.e., sales revenue less cost of sales or total costs less total revenue). Sales revenue is given as the price of the product multiplied by the number of units sold, whereas enterprise costs include among other things cost of raw materials, utilities, rent and wage bill for paid employees.

To estimate enterprise profits, owners were asked to tell production cycles for their enterprises (time from purchasing inputs to selling most products). They were also asked to estimate the costs for their last production cycle in terms of inputs, transportation, hired labour if any, taxes; rent, water, light, etc.(cost per week, cost per two weeks and cost per month). Moreover they were asked to estimate the amount of total sales (cash and credit) per week, per two weeks and per month. Having estimated both costs and sales, owners were asked to estimate their enterprise profits per production cycle; that is after covering enterprise costs, but before spending the earnings on their families or businesses. Finally, respondents were asked to give a qualitative status of their businesses' profitability. We used this approach because more often owners of micro and small businesses particularly in the developing countries do not keep records of their businesses financial transactions. Owners are also more likely not to separate business assets and incomes from household assets and incomes (Daniels, 2001; Wolff &Pett, 2006). Daniels suggests that since micro and small businesses do not keep record of their financial transactions, information on profits must be derived from memory, and the simplest method to estimate profits is to ask the business owners about sales last month.

Moreover, to capture information on job creation patterns and size, business owners were asked a number of questions. Firstly, they were asked to tell whether or not during the last loan cycle their daily/weekly workloads in terms of business activities have increased and the way they managed to cope with the increased workload. In case of increased workload, they were asked to tell whether or not they used family members including children (girls and boys) for under 17 years of age and their number to assist with enterprise activities. In case of using adult workers, they were asked to tell their number, but also the number of paid employees from outside the family. Secondly, they were asked if they pay themselves a wage for working in their enterprises. The use family labour is expected to have a positive effect on enterprise profitability.

Independent Variables

As we have indicated above, our independent variables include the variables determining the impact oflabour on enterprise profitability. These include the use family labour including the business owner, adult members in the household, children (boys and girls) and paid employees from outside the household. Other variables include demographic characteristics of the business owners (age, marital status, education, possession of business skills and experience); business characteristics (business age) and financial capital (loan). Descriptions of the variables and their measurement are given in table 2.

Table 2: Variables Description and Measurement

	Variable Description	Variable measurement/Coding
1	Enterprise profitability	0=If enterprise profits decreased, 1= Stayed the same, 3= increased
2	Amount of last loan	Ln
3	Own age in years	Ln
4	Own age square in years	Ln
5	Own education	1= if highest level of education completed is secondary, 0= otherwise
7	Marital status	1= if married or living with a partner, 0= otherwise
8	Business age(in months)	Ln
9	Number of household members	Ln
10	Access to product markets	1= owner has improved access to markets, 0= otherwise
11	Possession of businesses skills and experience	1 =If owners possess business experience, 0= otherwise

12	Use of own labour to support business operations	1 = if owners use own labour,0 = otherwise
13	Payment for owners' work in the enterprise	1= If owners are paying themselves a wage for working in the enterprise, 0 = otherwise
14	Use of sons labour to support business operations	1=if owners use child labour (boys), 0=otherwise use
15	Use of daughter to support business operation	1=if owners use child labour (girls), 0=otherwise use
16	Use of other adults to support business operations	1= if owners use other adults, 0 = otherwise.
17	Income and credit sources	1= Only microcredit, O= Microcredit and other sources
18	Separation of business assets and money from household assets and money	1= Separation, 0= None separation
19	Decision making on business operations	1= If business owner, 0= otherwise

Descriptive Results

Use of family labour for business operations

The results show that following access to microcredit, 25.6% of business owners reported a remarkable increase in their business activities and 51.3% observed average increase in business activities. The remaining other could not notice any increase in their business activities. For those who experienced remarkable increase and increase in their business activities when asked whether or not and about how they managed to alleviate their increased business workload, 36.9% indicated to use their daughters as opposed to 22.2% respondents who used their sons to help with the work. Moreover, 35.0% indicated to use other household members to help with the increased business workload. Only 5.9% of business owners were able to hire paid employees from outside the

household to help with the increased workload. Results have also shown that 51.0% of business owners were not paying themselves for working in the enterprises supported by microcredit from the programme. From these results we further deduce that 94.1% of workers in women businesses were mainly family members. Of these, only 33.7% (of 94.1%) were paid family members. This suggests that despite the assumed benefits of micro-credit access that accrue to women entrepreneurs, credit access by women entrepreneurs has a negative effect in terms of increased workload on household members particularly daughters of household members than on their sons. These results also agree fairly well with those of Wasihun & Paul (2010) who observed that 74.2 % of labour force in women micro and small women owned enterprises in Ethiopia was family members. The study also found that only 25.8% of the employees in those businesses were hired labour from outside the family.

Multivariate Analysis

Model Specification

For the purpose of this article, enterprise profitability was measured using three scales: business profits decreased, stayed the same or increased. We used ordered probit to evaluate the effect of different explanatory variables on the enterprise profitability status but also to determine the impact of each explanatory variable on probability of each level of enterprise profitability status. This is because our dependent variable is ordinal or polychotomous in nature (Duncan et al., 1998). Modelling polytchotomous dependent variables may use ordered logit or ordered probit methods. In principal the two approaches arrive at the same results and conclusions. While there are theoretical reasons for choosing one method over the other, the majority of analysts tend to use ordered probit, possibly because of its assumption of normal distribution of error term. In an ordered logit model the error term is assumed to be logistically distributed, whereas in the ordered probit model the error term is normally distributed. The two approaches also differ in terms of interpretation of their coefficients. The other advantage of an ordered probit analysis over

ordered logit is that the ordered probit allows for random taste variation, correlated error terms and unequal error variances, but also can capture any substitution pattern (Borooah, 2002).

Empirical Results

In examining the impact of family labour on enterprise performance, we also studied other factors likely to have impact on the performance of women owned businesses. In Table 2 we present results from ordered probit model where our dependent variable is an ordered categorical variable with three responses with a value of 1 indicating a decrease in enterprise profits, while a value of 3 representing an increase in enterprise profits. Moreover, to measure the effects of explanatory variables on our dependent variable, we calculated the marginal effects. Marginal effects indicate the change in the enterprise profitability when the independent variable changes by one unit. The marginal effects in our estimations are presented for the highest value only, which is "enterprise profits increased". Marginal effects results are shown in table 3. We estimated two models: one with the basic variables, including family labour and hired labour from outside the household as explanatory variables and the second one without family labour and hired labour from outside the household as explanatory variables. Ordered probit results are shown in the following tables.

Table 3: Ordered Probit Results for Enterprise Profits as Dependent Variable

Variables	With labour Variables		Without Labour Variables	
	Z	P>z	Z	P>z
Loan size	-0.31	0.757	-0.92	0.355
Education level	-0.93	0.352	-1.4	0.16
Own age	1.27	0.205	1.04	0.299
Own age2	-1.26	0.209	-1.18	0.236
Number of household member	-1.19	0.232	-1.89	0.059
Decision maker	1.98	0.047	2.31	0.021
Business age	-1.25	0.211	-1.32	0.185
Intermingle	-2.97	0.003	-3.08	0.002
Business skills	4.91	0.000	6.42	0.000
Marital status	2.36	0.018	2.52	0.012
Market access	4.20	0.000	7.37	0.000
Income sources	2.64	0.008	1.61	0.108
Own labour	2.45	0.014		
Wage pay	-6.51	0.000		
Child labour (daughters)	3.55	0.000		
Child labour (sons)	3.06	0.002		
Adult labour	2.00	0.045		
Hired labour	2.34	0.019		
Cut 1	-7.59	9.335	-7.665	7.739
Cut 2	7.057	9.868	7.244	8.160
Number of observations	429		429	
LR chi2(18)	245.37		172.89 (12)	
Prob > chi2	0.000		0.000	
Log likelihood	-180.65		-216.885	
Pseudo R^2	0.4045		0.2885	

Table 4: Marginal Effects

Variable	With Labour Variables			Without Labour Variables		
	Marginal Effects	Z	P>z	Marginal Effects	Z	P>z
Loan size	-0.007	-0.31	0.757	-0.022	-0.92	0.356
Education level	-0.035	-0.85	0.394	-0.065	-1.57	0.117
Own age	0.439	1.25	0.210	0.396	1.04	0.299
Own age squared	-0.061	-1.24	0.216	-0.064	-1.19	0.234
Number of household members	-0.049	-1.17	0.242	-0.086	-1.94	0.052
Decision maker	-0.066	-1.93	0.053	-0.082	-2.32	0.020
Business age	-0.019	-1.22	0.221	-0.023	-1.35	0.178
Business skills	0.171	4.73	0.000	0.232	6.45	0.000
Intermingle	-0.084	-2.72	0.007	-0.101	-3.28	0.001
Marital status	0.053	2.24	0.025	0.064	2.63	0.009

Market access	0.172	5.18	0.000	0.234	5.29	0.000
Income or credit sources	-0.094	-2.3	0.021	-0.061	-1.74	0.082
Own Labour	0.094	1.88	0.061			
Wage pay	-0.230	5.17	0.000			
Child labour (girls)	0.243	2.68	0.007			
Child labour (sons)	0.304	2.24	0.025			
Adult Labour	0.145	1.57	0.117			
Hired labour	0.294	1.69	0.092			

Model Fit

To test for the model fit and adequacy, the pseudo R^2, also known as McFadden's likelihood ratiowas used. It should however, be noted that the pseudo R^2 cannot be interpreted in the same way a conventional R^2 is interpreted which describes proportion of variation explained; second, the value of pseudo R^2 increases when the model increases in size. The value of the pseudo R^2, varies between 0 and 1.0. However, studies have established that it is quite common to have a low R^2 in ordered probit analysis. For example, Gerlach (2004) reports some values of pseudo R^2 as low as 0.26 in his estimation. Accordingly, our R^2 is 0.404 for unconstrained model and 0.288 for the constrained model. When two

models on the same data, McFadden's would be higher for the model with the greater likelihood.

An alternative measure of model fit involves the use of the log likelihood ratio of the intercept model. The ratio shows the level of improvement over the intercept model offered by the full model. A likelihood falls between 0 and 1. If a model has a very low likelihood, then the log of the likelihood will have a larger magnitude than the log of a more likely model. Therefore, a small ratio of log likelihood indicates that the full model is a far better fit than the intercept model. Our results are reported in terms of Z-scores and p values.

The impact of family labour on enterprise profitability

Taken together, our results have established that indeed businesses that use family labour are more likely to experience profits increase, than otherwise. In particular, owners who use own labour to support their business operations ($p<.01$) are 19 per cent points more likely to report profits increase than otherwise ($p<.01$). On the other hand, when business owners pay themselves for working in the enterprise, owners are 23.0 per cent points less likely to report profits increase(($p<.01$). We also find that businesses owners who use their daughters to support business operations are more likely to report profits increase than otherwise. Precisely, business owners who use their daughters are 24.3 present more likely to report profits increase in their enterprises. The same observations are reported for the use of sons. Business owners who use their sons to support business operations are more likely to experience profits increase ($p<.05$) in their enterprises by 30.4 per cent points. This is also is realised at 5 per cent level of significance. On the other hand, we find that while the use of adult labour in the enterprise has a significant impact on the probability of reporting profits increase, its marginal effect is insignificant ($p=0.117$). Moreover, the use of hired labour has significant impact on enterprise profits increase. Nonetheless, those who use hired labour are

29.4 per cent points less likely to report profits increase at 10 per cent significance level(p= 0.092). An interesting observation is that loan size, while positively related to enterprise profitability, loan size did not seem to suggest it is predicting enterprise profitability. This is both the case with (p= 0.757) and without (p=0.356) the use of family labour.

Findings have also shown that business owners who are sole decision makers regarding their business operations are more likely to experience profits increase in their enterprises (p<.01). However, owners are only 6.6 per cent points more likely to notice any increase in enterprise profits (p<.01). Owners who possess some business skills related to their business operations are also more likely to report profits increase in their enterprises (p<.001) by 17.1 per cent points (p<.001). We however, find that education level does not seem to have a significant impact on enterprise profitability (p=0.352). The impact of improved access to markets on enterprise profitability is also significant (p<.001). Just like the impact of business skills, business owners who are able to access markets for their enterprises' produce are 17.2 per cent points more likely to achieve profits increase in their enterprises (p<.001).

On the other hand, business owners do not have access to other sources credit and incomes, and those who separate their business assets and money from households are less likely to experience increase in their enterprise profits (p<.001). We find that business owners who do not have access to other sources of credit and incomes are 9.4 per cent points less likely to experience increase in enterprise profits. Likewise, owners who separate business assets and money from the household are 8.4 per cent points less likely to notice any increase in enterprise profits.

We also find that among the studied respondents, being married has a positive impact on probability of reporting profits increase (p<.05). On the other hand, our results have also established that although age of the business owner is positively related to enterprise profitability to suggest

that as the age of the business owner increases, enterprise profitability also increases; its impact on enterprise profitability is insignificant (p=0.205). Furthermore, to determine the effect of age on enterprise profitability, we estimated the equation using age-squared. Results have shown that enterprise profit increases at a decreasing rate; however, the variable age squared is not a significant predictor of enterprise profitability (p=0.209). We also find that the number of members in a household has a negative effect on enterprise profitability. This implies that as the number of household members increase, business owners are less likely to report enterprise profits increase. However, its impact on enterprise profitability is insignificant (p=0.232). We also find that younger business are much more likely than the older and established businesses to report profits increase, nonetheless, the impact of business age on enterprise profitability is insignificant.

Marginal effects also show that in the absence of possibilities to use family labour, enterprise are more likely to report big increases in profits when owners have improved access to markets (from 17.2 to 23.4 per cent points) and when their possess business skills and experience(from 17.1 to 23.0 per cent points) related to their business operations.

Discussion

As we have indicated above, the objective of this study was to explore the impact of the use family labour (children and other members) on profitability of women owned microcredit supported businesses. Overall, our results suggest that indeed the profitability of women owned businesses is influenced and determined by the various categories of family labour used in the business. We also find that of all the studied variables, a unit change in labour use has the greatest effect on enterprise profitability than any other independent variables operationalized in the model. In other words, profitability of women owned business is more sensitive to the type and changes in labour use, than any other variables. Specifically, the impact of family labour ranges from 19 per cent points -

30.4 per cent pointsdepending on the labour type. Moreover, our results have clearly indicated that child labour plays a very significant role in the profitability, possibly growth and survival of women owned microcredit supported businesses. An interesting observation is that while more girls than boys were used to support business operations, the impact boys labour (30.4 per cent points) on enterprise profitability is greater than that of girls (24.3 per cent points). This could be explained by the fact that girls just like other women in our societies shoulder multiple roles and responsibilities. Girls are more likely to participate in household chores than boys which limit their effectives in the activities they are undertaking (Marcucci, 2001). From these results we also support the notion that children are more likely to be affected by access to microcredit but also more girls than boys are affected negatively(ILO, 2006; Islam &Choe, 2009). This presupposes that prudent measures are needed to make microcredit access a tool of poverty alleviation rather than a tool of child exploitation.

Furthermore, our results have shown that women businesses are more likely to report profits increase when they possess skills that are relevant to their business operations.In other words, although micro credit access did not seem to predict enterprise profitability, but business owners who approach business ownership with sufficient stocks of business skills and experience are likely to experience increases in profits in their enterprises. This implies that microfinance programmes could have significant impact on economic empowerment and poverty alleviation among women borrowers if they target business owners who possess some business skills that are requisite for successful business creation and operation. Alternatively, microfinance programmes could underscore or introduce training modules in business skills to enable their clientele to create and operate profitable businesses. On the other hand, education level of the owner is not a significant predictor of enterprise profitability, possibly because the majority of studied respondents (75%) have attained only primary level education. This also means that, this level of education does

not hinder the business owners to operate profitable businesses. In other words, the education level of the business owner does not matter in determining profitability of women enterprises. This could also mean that women business owner require more specialised business skills rather than just a formal education. Likewise, owners' age did not seem to translate into increase in business profits. In other words, the experience that aged business owners have does not translate into business profits increase.

Findings have also established that business owners who have access to markets are more likely to report profits increase in their enterprises than otherwise. From these findings we gather that for microfinance programmes to have greatest impact on their clientele and households, clients should be facilitated to access a broader market for their products. This could be realised if microfinance programmes help their clients enter markets with profit potentials or establish businesses that target the emerging markets but also if they offer tailor-made trainings that help prepare their clients to properly manage their businesses with view to enhancing growth and profitability potentials of their businesses.

Moreover, findings have shown that business owners who control business decisions and resource allocations are also likely to experience increases in their enterprise profits. This suggests that for microcredit to be more productive there is also a need for policies that challenge gender division of labour and resources control in the households. Hunt and Kasynathan(2001) propose that for microfinance programmes especially those that target womento have the greatest impact among other things should be able to provide answers to the following questions:Who controls decision making regarding the use of credit? Who manages enterprises supported by credit, and whose paid or unpaid labour is used? Who controls the purchasing of inputs for these enterprises and the marketing of products? and Who keeps, decides on and uses any income generated (p:2001:43).

Implications of the study

The findings of this study suggest that while microfinance is able to support entrepreneurial activities among women, it is imperative that donors and microfinance programmes explore the impact of microfinance access on labour demands for the supported businesses. This is particularly important for the children of participating households.Our overall results suggest that while women's access to microcredit is likely to have important implications for enterprises' performance, it is important to emphasize that the use of family mostly unpaid family labour, plays a very significant role in enterprise profitability.In particular, results show that women's access to microcredit is not only likely to have positive effects on enterprises performance, but it is likely to have unintended negative effects on children if measures that address issues of micro enterprising and child labour are not properly designed and put in place. Therefore, measuring the impact of microcredit on enterprise profitability will obviously provide an incomplete assessment and significantly underestimate the true impact of microcredit on enterprise performance if issues of family labour including children are not corrected valued and accounted for.Likewise, access to microcredit cannot result into poverty alleviation and economic empowerment if other supportive measures and services are not availed to the entrepreneurs. Pollin (2007:2) argues that "*microenterprises run by poor people cannot be broadly successful simply because they have increased opportunities to borrow money*". Similar views are shared by microcredit pioneer and Nobel Laureate Professor Mohammed Yunus (2003) who contends that "*microcredit is not a miracle cure that can eliminate poverty in one fell swoop. But it can end poverty for many and reduce its severity for others. Combined with other innovative programmes that unleash people's potential, microcredit is an essential tool in our search for a poverty-free world*".This implies that for microcredit to attain the intended results, women business owners need improved access to markets, business skills, information networks and business infrastructural and institutional support

and services including favourable tax regimes and licensing procedures among other things.

Summary and Conclusions

The objective of this study is to explore the impact of family labour on profitability of women owned microcredit supported enterprises. Our findings show that indeed the use of family labour has significant impact on the profitability of women businesses. Results have also shown that enterprises that are owned by owners who possess business skills, have access to markets, those who do not separate business assets and money from household assets and money are more likely to experience profits increase in their enterprises than otherwise. Moreover, results have demonstrated that access to loans does not necessarily translate to enterprise profits increase. From these results it is established that as a poverty alleviation strategy, microcredit access and micro enterprising are not panacea, but will require other supporting policies and services for the helping women and the poor to find their way out of poverty. It is also important that employment patterns of microcredit supported enterprises are studies and valued accordingly for effective welfare analysis.

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Social Capital, Institutional Context and Managerial Pay

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Abstract

This paper integrates social capital and institutional perspectives to examine managerial compensation. While the link between social capital and managerial pay has been examined in earlier research, our knowledge on what sources of social capital are important and how the relationships differ in different institutional context remains limited. The article contends that social capital inherent in the number of contacts and tie strength is critical for organization success. In effect, managers who bring success driven by social capital are likely to be more valuable to the firms. Hence, they are expected to receive higher pay. However, the extent to which social capital influence compensation hinges upon the institutional context surrounding the firms and managers. Understandably, social capital tends to be more important in areas where formal market institutions are underdeveloped. In this vein, the effect of social capital on managerial pay would vary by the level of institutional development. It is envisaged that the relationship would be stronger in areas characterized by weak market institutions. Based on these arguments, three sets of testable propositions have been advanced that can be tested empirically. Finally, the paper concludes with the discussions of possible empirical design.

Key words: *managerial pay, Social capital, institutional context, corporate governance, firm performance.*

Introduction

Managerial pay has attracted a great deal of attention from both academics and practitioners. The growing interest is partly attributable to a rapid rise in executives' pay witnessed in the 1990s (Combs & Skill, 2003). Whereas different perspectives have been used to understand the phenomenon, our understanding of the most influential factors is far from clear (Fiss, 2006). Traditionally, the agency theory has been a dominant perspective for explaining variations in managerial pay and performance of organizations. This perspective is based on the assumption that the separation of ownership and control of organizations creates agency problems due to information asymmetries (Jensen & Meckling, 1976). In this, one part to the contract is assumed to possess information while the other does not. Managers would almost invariably pursue self-interests at the expense of owners. Managerial compensation is regarded as important mechanisms to create incentives that can motivate managers to focus on doing the right things and doing things right (Young & Tsai, 2008). Thus, managerial performance of the firms is associated with payments they receive. However, the findings on the link between performance and managerial compensation have generally been weak and equivocal. As a result, agency theory is regarded as a weak perspective as it presents an overly simplistic view of human behavior (Grabke-Rundell & Gomez-Mejia, 2002). Alternative views such as human capital, managerial discretion, stakeholder theory, and social capital have all been developed to substitute and/or complement agency theory reasoning.

Human capital theory suggests that pay rise reflects managerial abilities as well as trust that shareholders have on managers to perform. Managerial experience, skills and talent have typically been used measures of managerial abilities (Angel & Fumas, 1997; Combs & Skills, 2003).

Accordingly, those possessing qualities perform better and eventually receive higher pay. Managerial discretion is another prominent theory applied in managerial pay research. According to this theory managers have considerable latitude over the strategic decisions of the firms (Magnan, ST-Onge & Thorne, 1995; Finkelstein & Boyd, 1998), and hence can use such powers to influence the compensation process. Although human capital and managerial discretion have received wide empirical support, they both tend to focus on internal resources and capabilities embedded in managers. Additionally, organizational practices are viewed in isolation of other organizations. It is well understood that firms operate in an open system where interactions among actors create the means for survival and growth (Pfeffer & Salancik, 1978). That is to say, an external environment has an impact on a way a firm makes decisions. In response, scholars have applied social capital theory to provide additional insights into the determinants of managerial pay decisions (Belliveau, O'Reilly & Wade, 1996; Young & Tsai, 2008; Mizruchi, Stearns & Fleischer, 2011).

Previous research on social capital and top management pay has focused on a number of issues. Some studies (such as Geletkanycz, Boyd and Finkelstein 2001; Young and Tsai 2008) have examined the interlocking directorship. Both of these studies suggest that social capital influence managerial compensation. Belliveau, O'Reilly and Wade (1996) investigated the influence of social similarity and social status on managerial compensation. The findings suggest that CEOs' social capital relative to that of the compensation committee's chair does influence CEO pay. Similarly, Mizruch, Stearns and Fleischer (2011) indicate that social capital indeed predicts managerial compensation. In particular, tie strength and density were key determinants. While previous studies have been insightful and useful in the understanding of managerial pay, a number of issues remain unresolved. Generally, the focus of many studies has been on formal networks, such as interlocking directories. Much as the firms derive benefits from formal ties, a number of benefits can also be

generated from an effective use of informal ties (personal ties) of various properties. For example, managers can exploit informal ties with fellow managers (suppliers, customers and competitors) as well as with officials affiliated with various business supporting institutions (Peng & Zhou, 2005). Similarly, most studies have not paid much attention to the effects of specific network properties. It is understood that different network properties provide access to different kinds of resources (Granovetter, 1973; Burt, 1992). Impliedly, different properties have different influence on managerial performance and compensation. Moreover, most studies ignore the influence of a country's institutional context, an important factor that shapes behavior and practices of individuals and organizations (Kostova, 1997). A country's institutional framework is too important to be ignored in the analysis of social capital for the following reasons. First, the extent to which firms rely on social capital varies by the level of institutional development (Pisano, et al., 2007; Kiss & Danis, 2008). Countries with lower institutional development tend to have weak regulatory framework and inefficient market support institutions. Social capital often emerges as an alternative to formal institutions. Second, as Burt (1997) suggests, most social capitals have contingent values. By implication, managers operating in environments with different institutional development are likely to benefit differently from exploiting different kinds of social capital. The article, thus, extends social capital perspective of managerial pay by examining the role of the number of contacts and tie strength in different institutional environments. Arguably, these are among the most important properties of networks (Kiss & Danis, 2008). The pursuit of the article is guided by the proposition that social capital is positively associated with CEO compensation, and that strength of the association hinges upon the level of institutional development in which a firm operates.

The rest of the paper is structured as follows: the section that follows reviews theoretical perspectives pertinent for this study. Based on this review, propositions and the conceptual model are developed in the

subsequent sections. The last section is a conclusion in which theoretical, and practical implications are discussed.

Theoretical Framework

Social Capital Perspective

Social capital is understood as the amount of resources embedded in social networks that are accessed and used by managers to pursue and achieve organizational goals (Lin, 2001). Social networks, defined as long lasting relationships between actors (Kilduff & Tsai, 2003), are the means through which resources can be accessed. These resources can be information, finance and technologies which are critical for organizational survival and growth (Aldrich & Zimmer, 1986). Social capital perspective has been applied to study a great variety of social and economic phenomenon. Social capital manifests at different levels such as a team, an organization, an industry, a community, and a nation (Coleman, 1988). As a result, the conceptualization and operationalization vary by the context. While conceptualizations vary, the benefits that social capital brings to the actors are apparently unquestionable. For example, one can achieve a certain ends through the resources that social capital provides (Nahapiet & Ghoshal, 1998). This paper does not intend to discuss social capital unfolding at different levels and units of analyses. Rather, it examines its role in a particular socio-economic entity, a firm. Subsequently, the paper conceptualizes social capital in a manner similar to Nahapiet and Ghoshal (1997) who define social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social units. Essentially, the definition comprises two important components: social networks and resources. Social networks are the means through which resources can be accessed. This implies that the level of social capital is a direct function of the number of ties and the volume of resources transferred through them (Burt, 1992).

Firms need resources such as information, capital, skills, knowledge, and social acceptance (legitimacy) for value creation. Some of these resources can be developed within a firm, but some are owned by other firms. That being the case, firms must develop relationship with other firms in order to share resources. Different streams of research each emphasizing on different attributes of social capital has emerged to explain network relationships and how they determine access to resources. Whereas one research stream focuses on the network structure (Burt, 1992), the other stream focuses on the relational attributes of the network ties (Grannovetter, 1973).

Network structure is associated with a position that one occupies in a social structure. A better positioned actor is more likely to enjoy the benefits of information that flows routinely and clearly through that position. Ahuja (2000) indicates that a firm that occupies a superior network position can benefit from resource sharing, knowledge spill-over, and economies of scale. In a similar vein, Burt (1992) underscores the importance of network structure in his notion of a structural hole - the contacts that connect otherwise unconnected ties. Accordingly, capturing a structural hole implies that a firm can access information from diverse actors who themselves are not connected. According to Jenssen and Greve (2002), less dense contacts and contacts with low redundancy are likely to capture some attributes of structural hole. Network density refers to how tightly connected actors in a network are to each other. Network redundancy refers to the extent to which contacts contain the same people and, hence, provide the same kind of information (Burt, 1992). Dense network are likely to lead to redundancy. However, dense networks are also important. For example, closely knit ties reduce opportunistic behavior because information about deviations from norms and lack of trust among network members spread at a fairly rapid rate (Coleman, 1988; Ahuja, 2000).

Apart from network structure, the importance of the quality of a dyadic relationship as measured by tie strength has been discussed as well. Granovetter (1973:1361) in his seminal paper on the strength of weak ties defines tie strength as a linear combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie. Based on this conceptualization, a distinction between strong and weak ties emerges clearly. Strong ties are based on high trust, emotional intensity, and frequent interaction. Weak ties, on the other hand, are formed by acquaintances, and characterized by infrequent interactions. As a result, novel information flows through weak ties (Granovetter, 1973). This is because weak ties tend to be diverse. Apparently, the notion of weak ties complements Burt (1992)'s structure hole theory. The theory suggests that bridging structure hole actors can access non-redundant resources from diverse contacts that otherwise would have not been connected. However, weak ties do not necessarily give more information, but rather they provide access to non-redundant information that is critical for value creation (Jenssen, 2001). In view of weak ties' attributes, researchers predict weak ties to be very critical for organizational success. On the other hand, strong ties facilitate access to specific kind of resources. For example, strong ties can help managers mobilize motivational, emotional, and material resources as well as give self-confidence and legitimacy in taking action (Jenssen, 2001). Therefore, managers are more likely to profit from optimizing weak and strong ties in different proportions.

The above review of the social capital perspective clearly suggests that part of the differences in firms' performance is attributable to networking behavior of managers. The bottom line is that social capital developed by managers provides firms with resources that can be used to build capabilities to survive and grow in a competitive market. By extending this line of argument, social capital can bring about a similar effect on managerial pay. That is to say, if social capital can explain variations in performance, in the sense that firms with superior social capital perform

better than their counterparts, it is logical to think that managers of firms with superior social capital receive higher pay. Social capital perspective suggests that the extent to which firms can perform in a market compared to competitors hinges upon the characteristics of the networks exploited. In a similar vein, the extent to which CEOs are compensated hinges upon their ability to develop ties of different qualities. In this regard, the paper examines the number of contacts and tie strength.

Institutional Perspective

Institutional based perspective provides an explanation on how behaviors of organizations and individuals are shaped by the existing institutional settings. Institutional pressure motivates firms to make choices that conform to the prevailing rules, norms and expectations in the organizational field (DiMaggio & Powell, 1983). Institutions are defined as the formal and informal *rules of the game* that shape the behavior of an economic agent in the process of maximizing utility/profit (North, 1990) and/or in the process of attaining legitimacy (DiMaggio & Powell, 1983). The role of institutions is to minimize transaction costs and to confer legitimacy for socially acceptable behaviors (Scott 2008). Firms operating in a certain institutional framework are expected to behave in way that is acceptable within that framework. Nonetheless, institutional environments across countries differ in quality and strength. For example, the quality and strength of institutions in industrialized economies are in sharp contrast with those in the emerging and developing economies (Wright, et al., 2005). In this vein, institutional differences may affect the way firms make choices. Thus, examining countries' institutional characteristics may facilitate our understanding of cross-country variations in organizational practices (Kostova, 1997).

Different perspectives have been used to understand institutions. Scott (2008) introduces three dimensions of institutions that existing research applies - regulative, normative and cognitive dimensions. The regulatory dimension consists of existing policies, laws, rules and enforcement mechanisms that favor certain business practices and restrict others (Kostova, 1997). For example, regulatory institutions may facilitate the functioning of the labor markets by providing sufficient guidelines for

designing pay mechanisms. A stable and conducive regulatory framework can help to ascertain that managers exert effort to maximize firm performance as required by shareholders. Similarly, the level of development of regulatory institutions determines whether or not alternative governance systems are valuable. In the environment where regulatory institutions are inefficient, informal mechanisms such as norms prevail in designing compensation practices. For example, Hussein (2011) shows that in the absence of formal institutions, firms are left to design their compensation packages as they see fit with social norms and values. This includes benchmarking managerial pay with practices of other firms.

The normative pillar consists of values and norms that benchmark standards, convention or practice to which the behavior should be compared and assessed (Jasson, Johanson & Ramstrom, 2007). Normative institutions may help to explain the extent to which a country's citizens value networks as a means of furthering organization success. It can be argued that the values and belief systems that assign importance to certain institutional norms such as social networks in comparison with others are likely to align practices (e.g. compensation practices) with the prevailing expectations and norms within a given institutional context. Finally, the cognitive element, on the other hand, is principally related to wider belief systems and cultural frames imposed on or adopted by individual actors and organizations through which meaning is associated (Scott, 2008). It concerns cognitive structures and shared knowledge that affects the way people notice, interpret and categorize stimuli and/or constraints within their environment. As Kostova (1997) asserts, the cognitive element provides schemas and inferential sets which people use when selecting and interpreting information.

According to the institutional perspective, firms pursue strategies that enhance and protect legitimacy. One way of acquiring legitimacy is through participation in a network of relationships (Barringer & Harrison, 2000). Through networks firms can access critical resources, enhance

reputation and increase visibility, which are important for survival and growth. The level of institutional development is likely to affect the extent to which firms rely on networks as a means of enhancing legitimacy. Countries with different institutional development differ in the way they value networks. Network use is more pervasive in some countries than in others. For instance, Kiss and Danis (2008) suggests that the use of networking in developing economies is a given phenomenon. In these economies, market institutions (formal institutions) tend to be inefficient. Hence, individuals resort to the use of personal contacts that provide access to the necessary resources and determine the mode of governance (Biggs & Shah, 2006). Since institutions are the rule of the game (North, 1990), and that no firm is immune from the institutions in which it is embedded (Peng, 2002), understanding the influence of institutional context is imperative.

Institutional perspective provides useful insights in explaining the influence of social capital on managerial pay. The prevailing institutional framework signals what kinds of compensation strategies are legitimate and what are not. Similarly, institutional framework determines the level and intensity of networking (Kiss & Danis, 2008). In this vein, institutional context is construed as a moderator of the relationship between social capital and managerial pay. This can happen in two ways. First, presence of strong regulatory framework will help to guide firm directors towards setting acceptable level of compensation. In the presence of weak regulatory institutions, managerial pay is likely to be determined informally by the prevailing social relations and norms between firms such as through mimicking compensation practices of other firms (Hussein, 2011). In similar vein, since social capital enhances reputation and legitimacy of firms in uncertain environment, managers who are good at networking are likely to be valuable. On the whole, the role of social capital in managerial pay will be minimal in environments with strong regulatory framework. Second, the value of different networks developed by managers is likely to differ in different institutional context

to the extent that some kinds of networks would be more effective than others. Therefore, managers who exploit networks that are supported by the prevailing institutional norms will be more valuable than others. In the next sections, the paper develops propositions to describe how social capital influence managerial compensation, and how institutions may moderate the relationship. The section that follows develops propositions that are testable against empirical data.

Propositions of the Study

Number of Contacts and Managerial Pay

Number of contacts indicates with how many individuals a manager exchanges idea and share resources. Number of contacts is a proxy of network size (Kristiansen, 2004), and it can be used to assess the extent to which an individual interact with others in the environment (Young & Tsai, 2008) as well as measure the amount of resources accessed (BarNir & Smith, 2002). Thus, enlarging the number of contacts increase the chance of getting crucial information and (other resources as well as of profiting from economies of scale (Burt, 1992).

Given the advantages of maintaining a certain number of contacts, it can be argued that managers who want to sustain performance of the firms would likely intensify networking activities by optimizing the contacts. A manager who is capable of exploiting and maintaining large and diverse contacts is likely to be more valuable to a firm (Mizruchi, Stearns & Fleischer, 2011). Additionally, the supply of network oriented managers would most likely be limited as not every manager is equally good at networking. In this vein, it is logical to expect an increase in compensation for network oriented managers in order to ward off competitors who may want to prize the manager out of the current firm. That is to say, to retain and motivate managers to improve firm performance the pay level must correspond to networking efforts (Young & Tsai, 2008). Based on the foregoing discussion, it can be concluded that

network oriented managers who bring success to a firm would be more likely to appropriate a portion of it in the forms of higher compensation package. Against this backdrop the following proposition is put forward:

Proposition1: The number of contacts that a manager exploits is positively associated with managerial pay.

Tie Strength and Managerial Pay

The strength of network ties is very crucial, particularly, the number of strong and weak ties. Whereas strong ties are direct contacts characterized by high intensity, the intimacy and reciprocity developed over time, weak ties are direct/indirect contacts that individuals develop through a third party with whom they both work independently (Granovetter, 1973; Pisano *et al.*, 2007). Strong and weak ties have distinct features that provide access to different kinds of resources at fairly different rates (Jenssen & Greve, 2002). Strong ties enhance trust, provide reliable resources, and offer social motivation and support (Pisano et al., 2007). Furthermore, strong ties tend to provide frequent flow of knowledge and resources. As a result, they are regarded as efficient in resource mobilization and transference (Wellman, 1981). However, like closed ties, strong ties tend to limit the possibility of accessing new ideas and material resources from new and distant actors (Fukugawa, 2006). Moreover, it is often costly to develop and maintain strong ties as they require substantial amount of time and strong commitment of individuals in the network. Therefore, firms may need weak ties to complement strong ties. Weak ties facilitate access to resources outside immediate contacts, hence important sources of new information and knowledge (Granovetter, 1973). While strong ties are efficient, weak ties are effective in terms of resource flow (Uzzi, 1997). Hence, complementing strong and weak ties can help firms achieve a sustained competitive advantage.

It is, therefore, expected that firms will rely heavily on managers who are able to develop and manage different combinations of weak and strong ties. Adept managers are rare (Oxelhelm & Trond, 2005), and more importantly, those capable of exploiting an optimal combination of strong and weak ties. To that end, firms with managers of this caliber are likely to enjoy a competitive edge. In the same vein, managers with the abilities to develop and manage social networks such as strong and weak ties will be more valuable (Mizruchi, Stearns & Fleischer, 2011), and in very high demand. Therefore, firm owners would be compelled to offer equitable compensation package for managers of this caliber to be able to sustain competitive advantage. This leads to the following proposition:

Proposition 2a: The number of strong ties in the manager's networks is positively associated with managerial pay.

Proposition 2b: The number of weak ties in the manager's networks is positively associated with compensation.

The Influence of a Country's Institutional Context

In this section, the role of the country's institutional context in determining the level of networking and in moderating the relationship between social capital and managerial compensation is examined. The inclusion of national institutional development is based on a notion that most social capital benefits are contingent upon the nature of the environment in which an individual is embedded (Burt, 1997). The environment may constrict or legitimize a particular network activity. As Kiss and Danis (2008) underscore, the country's institutional development may have direct effect on networking behaviors. To this effect, the paper considers the effect of country's level of institutions on the relationship between social capital and managerial compensation.

One of the properties of social capital is the number of contacts. The number of contacts measures the volume of resources that an actor in a network can access. Optimizing the number of contacts can be good for the firms' performance. However, network tendencies, defined as the propensity to maximize contacts, may differ depending on the level of institutional development. In areas characterized by low institutional development, markets for most kinds of resources are imperfect. Social capital in the form of personal contacts becomes the substitute of the ill-functioning markets (Biggs & Shah, 2006). In these areas, therefore, the propensity to maximize the number of contacts tends to be high because individuals will want to maximize the volume of resources that cannot be accessed in the market. On the other hand, due to reasonably well functioning markets in areas characterized by high institutional development, tendencies to maximize number of contacts will be low. This is because most critical resources can be provided by the markets. Hence, a tendency to enlarge the number of contacts will vary by the level of institutional development.

The fact that institutional context determines the value of networks suggest that social capital based compensation will vary by institutional context. Maintaining a large number of contacts will be more valuable in areas characterized by low institutional development than in areas characterized by high institutional development. Based on the same contention, managers with a large number of contacts in areas characterized by low institutional development are expected to receive higher compensation than CEOs with the same number of contacts but residing in areas characterized by high institutional development. Hence, the following proposition is put forward:

Proposition 3a: the relationship between the number of contacts and managerial pay will be stronger in environments characterized by low institutional development and weak in environments characterized by high institutional development.

Tie strength determines the relative benefits of accessing different kinds of ties (Granovetter, 1973). However, the extent to which firms rely on weak or strong ties depends on the objectives of the firms. Weak ties provide access to a broad range of information and resources whereas strong ties provide access to narrow range information and resources. Thus, weak ties can be good for innovation and growth. Relationships that are strong tend to be intimate, involve an extensive exchange of fine-grained, sensitive and confidential information (Stanko, Bonner & Calantone, 2007). Strong ties tend to promote trust and confidence since individuals in a network tend to be close. In this regard, strong ties can be used as an alternative governance mechanism to control opportunistic behavior and uncertainty in an exchange relationship.

However, while the combination of weak and strong ties is likely to benefit actors, the composition and relative benefit of ties is likely to depend on institutional conditions surrounding the actors (Kiss & Danis, 2008). Accordingly, in areas where markets institutions work imperfectly, strong ties tend to be preferred to weak ties. Market imperfections increase uncertainty of resource access as well as opportunism because one part of exchange relationship may lack information about the behavior of the other part. Similarly, areas with low institutional development are characterized by lack of trust because rules and regulations governing transactions tend to be inefficient and unstable (Kiss & Danis, 2008). Thus, individuals in insecure position are more likely to develop many strong ties relative to weak ties for protection and uncertainty reduction as well as to enhance reputation, trust and confidence.

Based on the foregoing discussion, the composition of ties is likely to affect firm performance and managerial compensation. While both weak and strong ties are important for firms' competitive advantage, institutional perspective suggest that strong ties are more likely to enhance competitive advantage of firms in areas characterized by low institutional development. Since strong ties are more valuable in environments

characterized by low institutional development (Peng & Zhou, 2005; Kiss & Danis, 2008), managers whose networks are composed of many strong ties are likely to perform better than their counterparts. Consequently, these managers will be compensated highly. Hence, the following proposition is put forward:

Proposition 3b: the relationship between strong ties and managerial pay will be stronger in environments characterized by low institutional development and weaker in environments characterized by high institutional development.

Proposition 3c: the effect of weak ties on managerial pay will be stronger in environment characterized by high institutional development and weaker in environments characterized by low institutional development.

Conceptual Model

The main argument in the previous section is that social capital is important for the firm's performance since networks that firms develop provide access to instrumental resources. The kinds of networks that bring superior performance depend on the one who establishes and manages them. In that case, managers who bring valuable networks would themselves be valuable. The value of the managers would be reflected in the compensation package received. We follow this line of thinking to development a conceptual framework to guides in our understanding of social capital and managerial pay. To further our understanding of the relationships, the paper examines whether or not some institutional characteristics affect the strength of relationships. Figure 1 is a proposed conceptual model that summarizes the above discussions and propositions and that can be tested against empirical data.

As illustrated in the figure, social capital directly affects managerial pay as indicated by the first and second sets of proposition. This is because complementary resources accessed from the firms' network of relationships helps managers to improve the performance of the firms. Hence, their networking efforts must be rewarded. Nonetheless, the level

of networking is construed to have an effect on the level of Institutional development. That is to say, institutions determine how individual in a particular setting value networks and what kinds of networks are socially acceptable. It has been argued that in areas with low institutional development market supporting institutions are lacking or tend to be inefficient. In response, individuals would rely on the network of relationships for resource access and coordination of business activities. Consequently, firms from different institutional context may pursue network strategies differently (Kiss & Danis, 2008). Institutional context moderates the relationships between social networks and managerial pay such that the same kind of ties will have different effect in different institutional context. This is indicated by the third set of proposition.

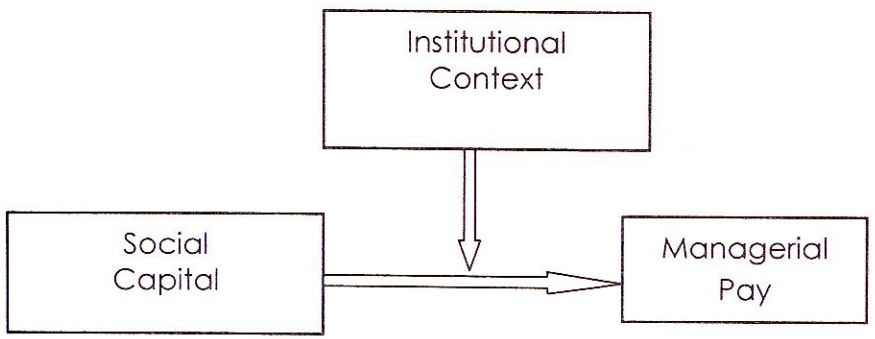

Figure 1: Conceptual Model

Conclusion and Implications

The paper examines social capital and institutional context in relation to managerial pay. Managerial compensation or pay has been an important area of research in corporate governance. Drawing on the converging insights from social capital and institutional perspectives, the paper highlights on the usefulness of understanding social capital and institutional context underlying managerial pay. Understandably, managers and firms are social entities, hence their behavior are greatly

influenced by social context in which they reside. More specifically, social networks that managers exploit bring resources that firms can use to enhance competitive advantage. In turn, managers who possess valuable ties should be motivated and rewarded for their networking efforts (Geletkanycz, Boyd & Finkelstein, 2001; Young & Tsai, 2008; Mizruch, Stearns & Fleischer, 2011). However, not every manager is equally good at building networks. As a result, the supply of network oriented managers would almost invariably be low. Similarly, since the same managers can be acquired by competitors at a premium (Webster, 2003), and since their replacement is apparently difficult, rational owners would probably be more willing to increase managers pay than lose competent managers to the competitors.

Yet, not all networks matter. Indeed, exploiting networks of specific attributes is critical for firm success as well as for managerial compensation. This is because networks of different attributes provide access to different kinds of resources (Granovetter, 1973; Burt, 1992). Among the most important properties of networks are number of contacts, and tie strength. In this, the paper posited that managers who are capable of building networks of these properties would guarantee firms with access to optimal amount of resources for value creation. In return, they themselves would receive higher pay.

The paper argues further that the value of social capital is contingent upon an institutional context as indicated by the level of institutional development. The level of institutional development determines the composition and benefits of ties (Kiss & Danis, 2008). Accordingly, network use is common in countries with low institutional development due to the lack of efficient market mechanisms. Thus, managers from each institutional divide will develop networks that fit their institutional context – those that confer legitimacy. For example, strong ties are expected too be more important in environments characterized by low level of institutional development. Consequently, the influence of strong ties on managerial compensation is likely to be stronger in these economies.

Therefore, a country's institutional development can be useful for exploring difference in social capital based compensation.

The paper extends knowledge in the corporate governance literature and in managerial compensation in particular, by integrating converging insights from social capital and institutional perspectives. Previous studies (e.g. Belliveau, O'Reilly & Wade, 1996; Geletkanycz, Boyd & Finkelstein, 2001; Young & Tsai, 2008; Mizruchi, Stearns & Fleischer, 2011) have provided useful insights as to why and how social capital influences managerial pay. However, most of these studies have examined the role of interlocking directorate networks. This study consider a broad range of networks, encompassing ties with suppliers, customers and competitors as well as ties with actors affiliated with business supporting organizations such as industry associations, public business support agencies, private organizations etc. More specifically, the role of number of contacts and tie strength, the properties that previous studies have rarely studied, has been examined. Further, this paper extends social capital based compensation literature by incorporating institutional conditions that determine the behavior of firms. By so doing, this study extends social capital perspective.

Three main propositions have been put forward that can be tested using a survey of firms located in countries characterized by different levels of institutional development, such as developing/emerging and developed countries. Constructs/variables can be operationalized/measured using the already established indicators/measurements of social networks and institutions. For instance, social network variables can be assessed by utilizing criteria developed by Grannovetter (1973), Burt (1992) and Krackhardt (1992). CEO compensation can be measured by computing the amount of salary and bonus in cash that a manager receives in a given year. Cash compensation has widely been used in research. Hence, the concept is less susceptible to measurement errors (Magnan, St-Onge & Thorne, 1995).

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Factors Contributing to High Drop-Out Rate of Members From the Community Health Fund (CHF) in Iringa District Council

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Abstract

The study to assess factors contributing to high drop-out rate of members from the Community Health Fund (CHF) was conducted in Iringa District in 2010. The objectives of the study were to examine major source(s) of information about the scheme in Iringa District; establish the perceived benefits that the community members had about it; determine factors that causes the enrolled members to cease contributing to the scheme; identify where the drop-out members prefer to go for health services in Iringa district, and examine the transparency involved in collecting funds from the community and how the collected funds are recorded. Data was collected from 118 respondents; fifty nine (59) respondents were picked from Ismani Ward and another 59 from Kalenga ward. Information was further collected from the Council Health Management Team (CHMT) members and from the Ward, Village and Health Facility leaders. Data were collected using interviews; questionnaire and focus group discussions. The study found that majority of the members had dropped-out of the scheme due to lack of transparency in the way the scheme was operating. Drugs were also always out of stock and it appeared to them that health personnel were in favour of those who were not in the scheme. The study concludes that members had initially perceived that the scheme would reduce their cost of health services. However, when the scheme started to operate, they discovered that it was not transparent as far as accounting for collection of funds was concerned. They further noted that drugs were always out of stock and it appeared to them that health personnel were in favour of those who were not in the scheme. It is further

concluded that the dropped out members continued to use public health facilities whenever they fall sick due to the fact that majority of their family members who fall sick were children under five and pregnant women. According to the policy of the Ministry of Health and Social Welfare, free treatment is supposed to be given to children under five, to pregnant women and to the elderly. Those with chronic diseases such as tuberculosis and diabetics are further given free treatment. The study recommends that improvement in the scheme management would enhance members' involvement in CHF activities for better performance and sustainability of the scheme. Addressing the problem of shortage of drugs and medical supplies and laboratory service in health facilities would further make the members value the scheme.

1. Introduction

The Community Health Fund (CHF) was introduced in Tanzania as part of the Ministry of Health's endeavour to make health care affordable and available to the rural population and to the informal sector in rural areas (Mtei and Mulligan, 2007). Since the idea about CHF was conceived in 1994/95, consultations that were held with communities and individuals revealed that the CHF was perceived positively. This was particularly so for most rural people since their income is seasonal while sickness is unpredictable. The CHF provides an opportunity for communities to pay premiums when they have money and access health services whenever they fall sick. The CHF prepayment and user fees are available and people have the choice of how to pay for health services. The scheme operates in partnership between communities and the Government. The CHF concept was originally started in the 1996 in Igunga District, Tabora Region as a pilot. After proving to be a viable and feasible scheme, it was rolled out to ten other districts among which Iringa District Council was one of them. By April 2004, twenty-three districts were operating the CHF in Tanzania (URT, 2005).

The Community Health Fund Act was enacted by the Parliament of the United Republic of Tanzania in 2001.This act paved the way for other districts to adopt the scheme and the number of districts adopting the scheme was on the increase since then. The main objectives of the scheme according to the Community Health Fund Act 2001 section 5 are: (a) To mobilize financial resources from the community for provision of health care services to its members; (b)To provide quality and affordable health care services through a sustainable financial mechanism, and (c) To improve health care services management in the communities through decentralization by empowering the communities in making decisions and by contributing on matters affecting their health. Membership to the CHF is voluntary and each household within a district contributes the same membership fee that has been agreed by members of the community and is given a health card (URT, 2001). The card entitles the households to a basic package of curative health services throughout the year. Normally, coverage is for the household head and other household members below the age of eighteen years. Households that do not participate in the CHF scheme are required to pay user fees on an individual basis at the health facilities at the point of use.

The CHF is seen by the Government as a possible, acceptable and affordable financing option for the Health Sector since the Government funding has over the years been quite inadequate. Insufficient funding for the Health Sector has had a greater negative impact on people living in the rural areas who are not only poor but also most vulnerable to diseases. The funds raised through the scheme were expected to be used to try and bridge the gap that exists between what the Government is able to provide and what is actually required for the provision of quality health care services. Table 1.1 summarises the health financing initiatives that were adopted by the government since 1960s. The Community Health Fund in Iringa district was initiated in 1999. Before establishing the CHF, the District authorities passed by-laws as a mechanism to enforce implementation of the Community Health Fund.

Table 1.1: Key events in health financing reform

Year	Health Financing Initiative
1967-1993	Free health care provision for all health facilities Arusha Declaration 1967 Decentralization 1972 Abolition of private-for-profit medical practice 1977
1993	Free Health Care Provision in primary facilities Introduction of User fees in Grade I and II facilities (Secondary and Tertiary facilities).
1994	Cost sharing in all facilities Introduction of user fees in Grade III facilities
1996	Revision of user fees scheme. Differentiation of user fees at Grades, I,II and III Introduction of Community Health Fund (CHF) in Igunga district as a pilot area.
1999	Formulation of the NHIF for all civil servants
2001	Official implementation of CHF aimed at informal rural sector

Source: Health Financing System in Tanzania (2007)

Iringa District Council has at least one health facility in each ward. The District has 1 Hospital, 5 Health Centres and 57 Dispensaries as shown in Table 1.2. Based on the availability of these health facilities, 80% of the population is living within five kilometres of the health facilities, while 20% are living more than five kilometres from the health facilities.

Table1.2: Distribution of Health Facilities in Iringa District

Facility	Government	Private	Voluntary Agency/DDH	Parastatal	Total
Hospitals	0	0	1	0	1
Health Centres	4	0	1	0	5
Dispensaries	41	1	14	1	57
Pharmacy	0	0	0	0	0
Total Health Facilities					63

Source: CCHP (2008)

Community involvement in the health sector is an essential pre-requisite for the implementation of Primary Health Care. In line with this, the council established the

CHF in June 1999. Household members were supposed to contribute TZS 5,000 annually on voluntary basis and any of the entitled household member who seek medical attention for that respective year was entitled to access medical care regardless of the number of episodes or cost of treatment. A household member include father, mother and children under 18 years or a member who has attained the age of eighteen years or more with or without children under the age of eighteen or institutions (URT, 2001). Households who pay a premium of TZS 5,000 become CHF members and are given a membership card which has a photograph of the head of household only. Most household in Iringa District pay their due premium during the harvest time, as the majority of the households depend on farming as their main source of income. Other institutions such as schools normally pay a premium at the beginning of their academic

period when the students pay for their medical care contributions. Non-members are supposed to pay a user fee of TZS 1,000 per episode or visit in district health facilities.

The district also implements an exemption policy to the special groups as directed by the government. Exempted groups receive free medical treatment at all district health facilities. This group includes elders (above 60 years), pregnant women, children under 5 years, disabled, poor people and those with chronic diseases. All civil servants are required by law to join the National Health Insurance Fund (NHIF). Members with NHIF cards are also accepted in Iringa District facilities. The NHIF is restricted to serve only six members in the family including the head of household, while the CHF may serve up to ten members in a family. The CHF was therefore preferred in the case of a large household. In May 2004, the council inaugurated its Council Health Service Board (CHSB), Ward Health Committees and Health Facility Committees after training all respective members on their roles and functions. The roles and responsibilities of Council Health Service Board (CHSB) are to (i) ensure that the population receives appropriate and affordable, promotive, preventive, curative and rehabilitative services; and to (ii) supervise and manage health services in the District including the CHF account amongst others. The main function of the Ward Health Committees is to mobilize the community health plans which are then incorporated into the Comprehensive Council Health Plan (CCHP).

2. Background to the Study

In 1996 the government formally introduced the CHF (in the country) focusing on rural communities. The CHF is a voluntary scheme, which enables a household to pay when they have funds rather than at the time of illness and members are entitled to access services at the primary health facilities. The CHF started in Igunga District in 1996 as a pilot scheme and later expanded to other Councils with the expectation of covering the whole country. (URT, 1999). The CHF scheme has confirmed its

usefulness in enhancing availability, accessibility and quality of health care services (Bura, 2005). Since its inception the CHF has been a strategy to bridge the budgetary gap for health service and a better way of involving communities in running their health facilities.

The CHF has made considerable achievements towards improving the quality of the delivery of health care services. Before establishing the CHF, the district authorities passed by-laws; this was followed by an advocacy and campaign of the CHF at the community level, including Ward Development Committees, village councils, households and health providers. Iringa District management through the Council Health Management Team made several efforts to sensitize the community concerning the importance of the scheme. These efforts beared some fruits in its early stage of implementation where reasonable number of households joined the scheme. The scheme attained some achievements which include the renovation of the health facilities' buildings, purchase of drugs and medical supplies, settlement of electricity and water bills and payment of allowances to cleaners and watchmen in some facilities. These achievements were expected to increase the number of members to the scheme to ensure its sustainability.

Unfortunately, a number of households who had earlier joined the scheme started to drop tremendously and there is a low recruitment rate (enrolment rate) to the scheme. Drop-out of members may threaten the sustainability of this community based health care financing scheme. In the original design of the scheme, it was envisaged that at least 65% of the households would enroll in each district that is covered by the scheme for the scheme to be successful (URT, 2005). This criterion has not been achieved in Iringa district. Furthermore, no intervention has been done to address this alarming situation of high drop-out rate so as to reverse the trend. Therefore, the study assessed the knowledge of community members on the importance of the CHF. The study further examined

factors that contribute in making enrolled members to cease their contribution to the scheme.

3. Methodology

The study was conducted at Iringa District Council, which is one among the six district councils in Iringa Region. Other District Councils are Kilolo, Mufindi, Ludewa, Makete and Njombe. Iringa District was chosen because it is one among the Districts which introduced the Community Health Fund system over ten years ago. Furthermore, the District is one among the six districts which performed well in the implementation of CHF program. Others were: Mbinga, Igunga, Singida, Iramba and Songea (Shaw, 2002). Community Health Fund in the Iringa District started in 1999, which is over ten years now. Moreover, each Ward in Iringa District has a health facility which is easily accessible and thus easy for collection of the required information. The study population consisted of heads of households in the two Wards of Ismani and Kalenga. The selection of these Wards was based on the fact that Ismani is located in low lands with relatively reliable rainfall and Kalenga is in midlands and much closer to the Iringa Municipal Council. The study assumed that since residents of Ismani Ward are famous in agricultural activities, they will not hesitate to contribute to the scheme. Similarly, the proximity of Kalenga Ward to the Iringa Municipal Council presupposes that there are more health facilities compared to wards in the interior. A household in this study was regarded to be comprised of a husband, one wife or a parent/guardian and children who are less than 18 years of age. In polygamous relationships the different wives are regarded as belonging to different households. The target population of the study included heads of households or a parent/guardian in the

household who ceased /stopped to contribute to the CHF scheme in the two mentioned wards.

Data was collected from 118 respondents; fifty nine (59) respondents were picked from Ismani Ward and another 59 from Kalenga ward. Information was further collected from the Council Health Management Team (CHMT) members and from the Ward, Village and Health Facility leaders. Data were collected using interviews, questionnaire and focus group discussions. Broadly, the objective of the study was to assess factors that cause high drop-out of members from the CHF scheme in Iringa Rural District. Specifically, the study aimed at examining major source(s) of information about the scheme in Iringa District, establishing perceived benefits that the community members had about it; determining factors that causes the enrolled members to cease contributing to the scheme; identifying where the drop-out members prefer to go for health services in Iringa district, and examining the transparency involved in collecting funds from the community and how the collected funds are recorded.

4. Results

4.1 Demographic profile and socio-economic background of the Respondents

The demographic profile of the respondents in terms of age and their marital status are summarised in Table 4.1. The majority of the respondents (64.4%) were between age 30 and 55. Most people in this age group are economically active and are also expected to have children who are dependant. It was thus expected that they will not drop from the health scheme that can support up to 10 members of the family. Those who are above 55 years were less than one-fifth (17.8%) as shown in Table 4.1. A small proportion of the respondents (5.9%) were below age 30. Those

who are young are not expected to have big families and thus may not feel the pinch of expenditure on health services.

The study was further interested to establish whether marital status had any influence over drop-out from the scheme. The majority of the respondents (89.8) were in union while few of them (10.2%) were either widowed or divorced as shown in Table 4.1.This may suggest that their decision to drop-out from the scheme was jointly reached between the couples. The study interviewed a male or female found at the household during data collection. Majority of the respondents (66.1%) were male while about one-third (33.9%) were female. Although head of household is the one who is given a card on behalf of his/her family members, seeking opinions of women was found to be very helpful since they are normally the ones who take young children to health facilities and they are mostly affected by lack of health services. Moreover, it was found that majority of the respondents (83.9%) had primary education, while 9.3% of the respondents had not gone to school. The remaining 6.8% had secondary education as shown in Table 4.1.

Iringa District is predominantly rural, with about 95% of its population residing in rural areas and their major economic activity being agriculture with some practicing mixed farming (IDC, 2008). The study thus wanted to establish the occupation of the respondents who were initially registered as CHF members and had membership cards, but their membership cards were not renewed. Occupation of an individual is associated with the income he/she receives on annual basis and this may also influence their decision to join the scheme. Occupation of an individual is also one of the determinants of infant and child mortality.

Table 4.1: Age, sex, marital status and education of respondents

Age	Respondents	Percentage
Below 30	7	5.9
30-34	13	11.0
35-39	14	11.9
40-44	25	21.2
45-49	22	18.6
50-54	16	13.6
55-59	8	6.8
60+	13	11.0
Total	118	100.0
Sex		
Male	78	66.1
Female	40	33.9
Total	118	100.0
Marital status		
Married	106	89.8
Widowed/widower/separated	12	10.2
Total	118	100.0

Education		
Not gone to school	11	9.3
Primary Education	99	83.9
Secondary Education	8	6.8
Total	118	100.0

Source: Study survey, 2010

In this study, the majority of respondents (85.6%) were small scale farmers, while 6.8% were small businessmen, 5.1% were artisans, and the rest (2.5%) were employees. Table 4.2 gives a summary of respondents' occupation. All those who were doing small businesses and artisan activities were male.

Table 4.2 Occupation of respondents

Occupation	Frequency	Percentage
Small Scale Farming	101	85.6
Small Business	8	6.8
Artisan	6	5.1
Employed	3	2.5
Total	**118**	**100**

Source: Study survey, 2010

The findings show that most of those who initially registered for the scheme were small farmers. These findings are in line with the general understanding that majority of rural population are engaged in subsistence farming. The small proportion of business people in rural areas suggests that their goods have no ready market mainly due to low purchasing power of the population in their areas. The employed respondents were working in private enterprises and were therefore not registered under National Health Insurance Fund as those working under Government Ministries or Departments. These findings are in line with the spirit of the scheme which was started mainly to assist rural communities dealing with peasantry farming whose harvests are seasonal. In this respect, each household was required to pay a pre-determined premium each year for medications with payment being made at the time of harvest.

4.2 Major source(s) of information about CHF scheme in Iringa District

The study wanted to establish how the community came to learn about the scheme in the district. A source of information was found to be important in probably making them continue or discontinue from the scheme. Views were sought from those who had stopped contributing to the scheme. The findings of the study showed that the majority of respondents (72%) initially joined the CHF scheme after receiving CHF information through village meetings organized by officials from the District Council. According to this scheme, it was a prerequisite that a community should be mobilized, sensitized and educated about the importance of the scheme before it was introduced. About 10.2% of respondents mentioned health facilities as their source of information. Some of them (8.5%) disclosed that village leaders were their source of information about CHF program. Few of them (5.9%) mentioned that their neighbours were their source of information about CHF as shown in Table 4.3. Moreover, the findings showed some of them got information about the scheme through friends (2.6%) and through radio stations (0.8%) as shown in Table 4.3.

Table 4.3: Source of Information about CHF program in the district

Source of Information	Number of Respondents	Percentage
Village meetings organised by officials from the District	85	72.0
Health facilities	12	10.2
Village leaders as directed by officials from the District	10	8.5
Neighbours	7	5.9
Friends	3	2.6
Radio stations	1	0.8
Total	**118**	**100.0**

Source: Study survey, 2010.

4.3 Knowledge and awareness about the importance of CHF

The study thought that it was important to establish whether the community members had perceived the benefits of being a CHF member and whether it was worth joining the scheme. This information was collected from those who had dropped out of the scheme. The findings revealed that majority of them (55.1%) were initially of the view that by being a CHF member, it will reduce health care costs to their families. They mentioned that they had expected the scheme would offer its members and their eligible family an access to medical care services at accredited health facilities, after paying a premium of TZS 5,000 for the period of one year. Close to one-third (31.4%) of the respondents

explained that they thought by joining the scheme, they would enjoy free access to health care services throughout the year whenever they fall sick. To them, this was the main benefit of joining the scheme. Some of them (11.0%) indicated that since CHF scheme was introduced, it initially improved their health services in the district as shown in Table 4.4. According to them, some of the missing drugs and medical supplies were initially purchased using CHF funds. Three respondents (2.5%) claimed that they knew there would be no difference for being a member or not. All in all, they decided to join the scheme since the premium of TZS 5,000 per annum was perceived not to be so much. However, after joining the scheme, they realized that drugs and other medical supplies in the specified facilities were only available for a short period of time, which is normally soon after the regular delivery of supplies. According to them, in the remaining period of the year, the number of patients treated or utilizing health services falls drastically. In that situation, only those who can afford to go to facilities which are out of CHF program can manage to get treatment elsewhere. Table 4.4 gives a summary of responses regarding perceived benefits of being a CHF member.

Table 4.4: Perceived benefits of being a CHF member

Expected Benefits	Frequency	Percentage
Reduced cost of health care services	65	55.1
Free access to health care services whenever a member falls sick	37	31.4
Improved health services	13	11.0
Nothing will change	3	2.5
Total	**118**	**100**

Source: Study survey, 2010

4.4 Reasons for stopping contributions to the scheme

The study sought reasons as to why community members were dropping out the scheme. This was found to be important since the scheme was established to assist them. The findings of the study indicated that less than half of them (40.7%) were not satisfied with the way the scheme was operating in their district, about one-fifth of the respondents (20.3%) mentioned lack of drugs in accredited facilities as their reason for stopping contribution. Some of them (12.7%) indicated that health workers prefer patients who pay user fees. This preferential treatment by health workers forced them to stop contributing to the scheme. About 11.0% of respondents mentioned lack of referral system package in the scheme as their main reason for dropping out. They also mentioned that the scheme does not have any provision for those who fall sick and attend nearby facilities, as when referred to district or regional hospitals. Other respondents (8.5%) further mentioned that they stopped from the scheme due to the fact that certain services such as laboratory and physical examination were not available in their neighbourhood facilities as indicated in Table 4.5. This situation forced them to travel long distances and in those other facilities they are forced to pay user charge.

The findings further indicated that few of them (3.4%) had stopped contributing to the scheme after realising that in the past years, none of their eligible family members had fallen sick. They were of the opinion that since they do not frequently fall sick, there was no need to make the prepayment. Three respondents (2.5%) mentioned that none of the officials of the health facilities reminded them to make their contributions, while one respondent (0.8%) mentioned financial constraints as the reason for failing to make the contribution as shown in Table 4.5. It can thus be concluded from these findings that the operation of the CHF scheme was not transparent enough in the district. Lack of drugs and medicines in accredited facilities further discouraged them from the scheme. Attitude of the health workers for mistreating patients under the scheme compared to

those who make payment on visit was yet another factor for dropping from the scheme. Ideally, the district authorities should have kept on sensitizing the community as well as ensuring transparency on the collected amount. Rural communities are generally poor and their income is quite seasonal. Failure to provide them with the required drugs and medicines or diagnostic services in accredited facilities highly affects their health status and increases their poverty.

Table 4.5: Reasons for stopping contributions

Reasons	Frequency	Percentage
Lack of transparency on collection/usage of CHF funds	48	40.7
Lack of drugs	24	20.3
Health workers prefer user fee	15	12.7
No referral system package in the scheme	13	11.0
Certain services(Laboratory, physical examination) not available in facilities	10	8.5
Eligible Registered Family members have never been sick since their registration	4	3.4
No follow-ups made by responsible personnel for collection.	3	2.5
Financial Constraints	1	0.8
Total	**118**	**100.0**

Source: Study survey, 2010

4.5 Source of health service after dropping out from the scheme

The study further wanted to establish where respondents prefer to receive health care after dropping out of the scheme. This information was sought in order to establish whether they continued with the same government facilities which previously was offering them free services after paying the premium of TZS 5,000 per annum. The study findings revealed that close to two-thirds (66.1%) of them preferred the use of public health facilities for their medical treatment when they fall sick. Community members who were out of the CHF system were supposed to pay user fees of TZS 1,000 per visit. About one-fifth of them (20.3%) mentioned mission health facilities as their new source of health services. The rest (13.6%) mentioned that they use privately owned facilities as their source of health service after dropping out from the scheme as shown in Table 4.6.

Table 4.6: Source of health service after dropping out from the scheme

Source of Health Service	Frequency	Percentage
Public (Government) facilities	78	66.1
Mission (Voluntary Agency) facilities	24	20.3
Privately owned facilities	16	13.6
Total	**118**	**100.0**

Source: Study survey, 2010

These findings indicate that if the dropped-out members together with others who have not joined the scheme are well sensitized and the reasons which made them to stop contributing to the scheme are addressed, they will start again to contribute. The amount of user fee of TZS 1,000

charged per visit per patient is quite high compared to the premium of TZS 5,000 or even TZS 10,000 which is paid in some other district per annum for all eligible family members.

4.6 Reasons for preference of government health facilities

The study further wanted to establish reasons from those who indicated that after drop-out from the scheme, they continued to use public health facilities (78 respondents as shown in Table 4.6). The Iringa District has an extensive network of public health facilities and few mission and privately owned health facilities. Only public health facilities were accredited to provide services to CHF members. The findings revealed that over half of them (56.4%) mentioned that they prefer public health facilities because of free treatment (exemptions to special groups) given to children under five, pregnant women, elders above 60 and patients with chronic diseases. More than one-fifth of them (28.2%) cited affordable cost for medical services as their main reason for preferring public health facilities. They further claimed that public health facilities are non profit organizations and due to that fact they are there to serve people and not for business. The rest of the respondents (9%) claimed that the government employed professional and competent staff to work in their facilities and this is the reason why they trust services offered by public owned health facilities, while 6.4% of them mentioned that they were still using government health facilities because they were satisfied with the services provided by public health facilities as shown in Table 4.7.

Table 4.7: Reasons for preference of government health facilities

Reasons	Frequency	Percentage
Free treatment given to children under five, pregnant women, elders above 60 and patients with chronic diseases.	44	56.4
Low cost for medical services because they are not doing business.	22	28.2
Government employ professional and competent staff	7	9.0
Good services	5	6.4
Total	**78**	**100.0**

Source: Study survey, 2010

4.7 Members involvement in Community Health Fund Activities

Most members (73.7%) who dropped-out from the scheme had mentioned lack of transparency in the way the scheme was operating in the district, lack of drugs in health facilities and the argument that health workers tend to prefer patients who pay user fees as their main reasons for stopping contribution to the scheme as shown in Table 4.5. The study sought additional information from them regarding operation of the fund in the district and how they are involved in CHF activities. This was found to be important because the scheme is considered to have the potential of ensuring greater security of access to health care, empowering households, health service management decisions and promoting participation in health care financing. The findings regarding involvement

of the members in the community health fund activities show that all of those (100%) who had stopped contributing to the scheme had not been called for any CHF members' meeting since they joined the scheme. They further disclosed that they had never heard about CHF members' meeting since they joined the scheme. The study also asked the respondents to disclose whether they know how their health facilities' committees are formed. The findings revealed that majority of respondents (80.5%) did not know how their health facilities' committees were formed. The remaining respondents (19.5%) indicated that they knew how these committees were formed as shown in Table 4.8. Low involvement of CHF members in scheme activities indicate that CHF in Iringa District does not fulfill the conditions of the original design of the scheme, which aimed at empowering community members in health services management decisions as partners in the running of health facilities. The study further asked those members who had dropped from the scheme whether in the period of their membership they were given any financial reports which disclosed financial activities of the scheme such as the fund collected and the amount spent in the implementation of CHF activities as planned in the budget.

Table 4.8: Lack of transparency in the operation of CHF in Iringa District in %

Responses on operation of CHF in the district	Yes	No	Total
Ever called to CHF members' meeting	0.0	100.0	100.0
Ever heard of CHF members' meeting	0.0	100.0	100.0
Aware about formation of Health Facilities' committees	19.5	80.5	100.0
Financial reports concerning scheme activities disclosed	15.3	84.7	100.0

Source: Study survey, 2010

The findings of the study revealed that the majority of the respondents (84.7%) were not aware about what was going on in the scheme. They did not know the income and expenditure of the scheme. The rest (15.3%) said that they were aware about the activities and the progress of the scheme in the district.

4.8 Drug flow situation in health facilities

This study sought information from the 118 members who are regarded as head of households regarding their experience in getting treatment in the health facilities during the past six months. In particular, the study was interested to establish whether during their visits were able to get the prescribed drugs by the doctor. The findings of the study show that majority of them (79.7%) who visited the public health facilities in the past six months did not get all the prescribed drugs and medicines, while 5.0% of them failed to get any prescribed drugs and medicines when they visited the public health facilities, a situation that forced them to go to

private health facilities to purchase the missing drugs and medicines. The rest of the respondents (15.3%) of them mentioned that they got all the prescribed drugs and medicines when they visited health facilities for medical treatment as shown in Table 4.9.

Table 4.9 Shortage of drugs in health facilities

Responses	**Frequency**	**Percentage**
Received some of the prescribed drugs	94	79.7
Received all prescribed drugs	18	15.3
Did not received any prescribed drugs	6	5.0
Total	**118**	**100.0**

Source: Study survey, 2010

4.9 Reasons as to why health staff prefer user fees

The study also wanted to establish the reasons as to why staff workers preferred patients using user fees compared to those with CHF membership cards as alleged by those who dropped out of the scheme. The study findings revealed that majority of the respondents (60.2%) were of the view that health workers prefer user fees (on the spot cash payment) because it enables them to pocket the collected fund. According to them, this may be possible because in some instances heath workers are not issuing receipts for the amount paid for a single treatment in the health facility. Less than one-third of the respondents (27.1%) were not aware about the reasons which make health workers to prefer the user fees. Table 4.10 further indicates that the rest of the respondents (12.7%) thought that user fees were used to meet expenditure of the health facilities, simply because it was paid on the spot.

Table 4.10 Reasons as to why health staff prefer user fees

Reasons	Frequency	Percentage
Staff of health facilities benefit from user fee collection	71	60.2
Not known	32	27.1
The collected money used to meet different requirements of the specific health centre.	15	12.7
Total	**118**	**100.0**

Source: Study survey, 2010

According to this study, majority of community members have a feeling that health personnel prefer patients who are making on the spot payment. Although this might not be the case, the way health workers treat members who are on CHF scheme can discourage them from the scheme. Since most of them depend on seasoned crops, this situation can make them suffer if corrective measures are not taken on time since as indicated in Table 4.6, even after dropping from the scheme, most of them (66.1%) continued to attend public health facilities when they fall sick where they are charged user fee.

4.10 Used procedures for issuing complaints and suggestions

When respondents were asked whether they had formal ways, other than members meetings, for giving complaints and suggestions about the scheme, majority of them (68.6%) mentioned that they did not know where to air their complaints and suggestions regarding the scheme. This suggests that proper procedures on operation of the scheme were not made clear to members. Others (11.9%) mentioned that they directed their complaints and suggestions to village leaders, while 9.3% of them indicated that they directed their complaints and suggestions to the DMO. Table 4.11 further shows that 6% of the respondents used public meetings to express their complaints and suggestions and the rest of the respondents (4.2%) mentioned that they gave their suggestions in written form and put them into suggestion boxes located at health facilities.

Table 4.11: Presence of formal ways for issuing complaints

Responses	Frequency	Percentage
I don't know	81	68.6
Village leaders	14	11.9
DMO	11	9.3
Public meetings	7	6.0
Suggestion box	5	4.2
Total	**118**	**100.0**

Source: Study survey, 2010

The responses given by the respondents clearly suggest that district authorities did not educate well the community about the scheme. Failure to sensitize and encourage the community has resulted in massive drop-out of members from the scheme.

5. Conclusion and Recommendations

The study concludes that community members were informed about CHF scheme by officials from the district before its implementation. Members had perceived that the scheme would reduce the cost of health services and through that they would get free access to health care thus improving health care in the district. However, when the scheme started to operate, they discovered that it was not transparent as far as accounting for collection of funds was concerned. They further noted that drugs were always out of stock and it appeared to them that health personnel were in favour of those who were not in the scheme, which are those who pay user fees when they visit health facilities. According to them, health staff prefers patients paying user fees since the collected money is used for some other expenditure in those facilities. Likelihood of the health personnel to pocket part of it is also there since receipts are sometimes not given. It is further concluded that the dropped out members continued to use public health facilities whenever they fall sick. Some of them get health services from mission facilities. Moreover, it is concluded that members continued to use public facilities due to the fact that majority of their family members who fall sick were children under five and pregnant women. According to the policy of the Ministry of Health and Social Welfare, free treatment is supposed to be given to children under five, to pregnant women and to the elderly. Those with chronic diseases such as tuberculosis and diabetics are further given free treatment. They also had a feeling that the government employs professional and competent staff. It is further concluded that lack of transparency in the operations of CHF scheme in Iringa district further contributed to drop-out of members. According to them, majority of members had never heard or ever called to a meeting organized by the scheme, neither were they aware about

formation of health facilities committees. Financial reports concerning the scheme were not disclosed to them. Based on the findings of the study, it is recommended that improvement in the scheme management would enhance members' involvement in CHF activities for better performance and sustainability of the scheme. Addressing the problem of shortage of drugs and medical supplies and laboratory service in health facilities would further make the members value the scheme.

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Consumers' attitude towards Fairtrade coffee in the UK

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Abstract

Rapidly worldwide expansion of Fairtrade coffee sales with other factors was highly reported to be accelerated by the involvement of large retailers (LRs). The purpose of the research in which this paper is based was to understand factors influencing consumers Fair Trade coffee purchase intention in the UK. Factor analysis was conducted with a sample of 219 coffee consumers. . The general findings of the study indicate that credence processing attributes defined as 'ethical', 'production techniques' and 'fair trade products' are the major factors that influence consumers' intentions in purchasing of coffee in the UK. However, credence process content attributes such as 'quality' and 'decaffeinated coffee' also emerged as the most significant factors in influencing consumers' attitudes towards coffee.

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Introduction

The first Fairtrade label was introduced in 1988, by the Dutch Development agency, Solidaridad on the Mexican coffee. According to Tallontire (2007) the movement at the beginning was based on political will of solidarity and not commercial movement (pp.36). The label knows as 'Max Havelaar' a Netherland non-governmental organisation (NGO) spearheaded the idea of labelling products under Fair Trade (Hiscox, 2007) by introducing a certified label made it easy for consumers to indentify the products under the scheme.

The difference between the Fair Trade model of doing business with other forms of international ethical label is that, the former rather than focused on punishing bad behaviour, Fair Trade labelling offers a way to make good behaviour more profitable (Hiscox, 2007). The Fairtrade Labelling International Organisation (FLO) recently reported that, global sales of Fair Trade (FT) products estimated to reach €1.3 billion in 2009. Certified FT coffee is the leading commodity and estimated to be 0.01 of the international coffee, with the North remain the major market. The United Kingdom is among of the major market of the Fair Trade (FT) products with annual growth sales of 33 percent and sales estimated to reach more than £700 million in 2009, while coffee sales stand at £ 157 million and Mintel (2010), estimated to be 20% of the country coffee business.

The increase in demand for ethical foods in Western countries made the issue of credence factors to be more strong factors other than price. For instance, the fair trade coffee consumers volunteer to purchase at higher price due to the credence process attributes attached to it. These factors varies such as payment of fair price, no use of child labour, use of organic production techniques, CO_2 emission through the value chain, commitment of store to fair trade principles, country of origin and social responsibility activities of the retailers. Also issues of credence content attributes such as brand, quality and taste.

The Fairtrade market is currently growing 33% per year and the total number of certified producers reached 463 by 2008. Olive oil, pulses, soya and vegetables were added to the FT list in 2008. According to the Fairtrade Foundation (2008), 64 % of consumers in UK understand that the Fairtrade label stands for a better deal for producers in the developing countries.

The UK is the second most important Fair Trade market, by size, after the US. The estimated sales of Fairtrade mark products in the UK market was estimated to be £ 2 billion in 2012 (Fairtrade Foundation, 2008). In 2009 the actual sales were more than £ 700 million. The UK market grew at 72% from 2008 - 2009 and was estimated to grow for 33% per year thereafter.Recently Fair Trade products sales have grown rapidly, especially for commodities such as coffee, cocoa, tea and fresh fruits like banana. Much of the growth in the Fair Trade products over the last decade is a result of supermarket retailing of independent Fairtrade brands and supermarket 'own brand' goods (Smith, 2008). For example, a survey of Fairtrade sales in 25 Europe countries found that 56,700 of the 78,900 'point of sale' were in supermarkets. In the UK, the large retailers such as Sainsbury, Tesco, ASDA and Starbucks now stock and sell Fairtrade mark product. However the competition is strong and only those who are creative can survive and reap the profits from the opportunity. To survive in this market needs a full understanding of consumer needs.

Fairtrade coffee in the UK

Thirty one (31) billion cups of coffee are drunk in the UK every year (Jones, 2006). According to International Coffee Report (2009) coffee capita consumption in the UK has increased to 3.1kg from 2.78kg in 2008. The country ranked eighth position among the global major importing countries according to the Intentional Coffee Organisation with an average of 4 % importation of green coffee per year from 2000 - 2009.

The selling of Fairtrade mark coffee in the UK started with alternative trading organisations (ATOs) after the price crisis of the mid of 1980s. Table 1 indicates five major organisations (NGOs) importing Fairtrade products to the UK; and the Cafédirect, is the leading ATO claimed to own 34% of the Fairtrade coffee market share (Mintel, 2010) with sales of £3 million in 2009.

Mintel (2010), suggested that the increase in consumptions of coffee in the country was due to the health scientific facts that drinking of coffee

will help in the fight of Type 1 and Type 2 diabetes. Coffee is the biggest selling product in the UK Fairtrade schemes. Figure 1 shows the 1998 – 2009 trend of Fairtrade coffee. During the ten year period sales grew from £13.5million in 1998 to reaching £ 157 million in 2009, which was estimated to be 20% of the market share. The success of coffee reveals the development of fair trade scheme itself. Due to this other products such as bananas, tea, honey, vegetables, olive oils, wine, flowers, rice, and dried fruit are being introduced. Today there are more than 3000 certified products in the UK market alone.

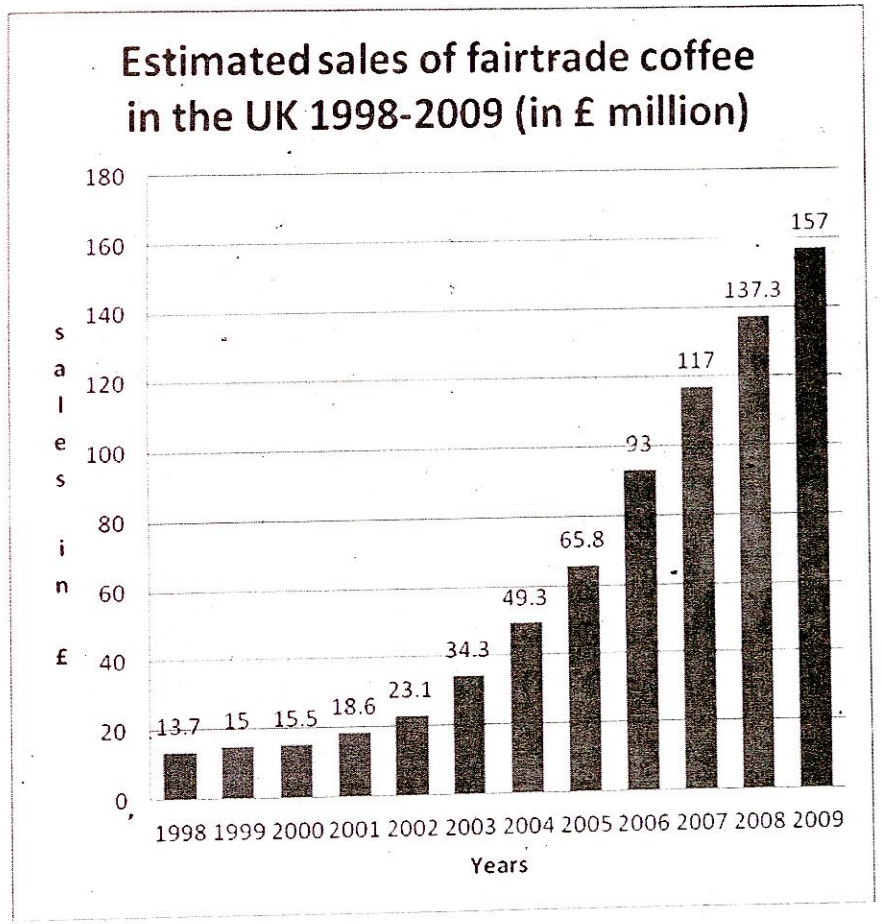
The Fairtrade market is currently growing by 33% per year and the total number of certified producers reached 463 by 2008. According to the Fairtrade Foundation (2008) 64% of consumers in UK understand that the Fairtrade label stands for a better deal for producers in the developing countries.

Table 1. Major Fairtrade Organisation in UK

Organisation	Type of Products	£ million sales
Cafedirect	Hot beverage	17.3
Traidcraft	Craft products, Clothing, food and wine	13.8
Oxfam Trading	Second hand clothing and books, crafts and food	9.2
Chocolate Company	Chocolate, drinking chocolate	5.5
Twin Trading	Coffee, Cocoa, nuts, fresh fruits	5.7

Modified from Jones (2006)

Figure 1. The estimated sales of Fairtrade coffee in the UK,



Source: www.fairtrade.org.uk

Attitude towards fair trade coffee

There are various factors that influence consumer attitudes towards an object; however brand and price are referred to be the strongest ones in marketing. In the study of consumers' behaviour various factors can be used to test consumers' attitudes towards products. Consumers when buy

a product rely on both extrinsic and intrinsic cues. Cue is the informational stimuli available to consumer before consumption.

Extrinsic cues are those attributes that can be seen physically such as price, brand and packaging, while intrinsic cues are those features which cannot identified physically until the product has been used such as taste, quality and organic production techniques. In general intrinsic cues depend much on the trust consumer has on the retailers. The demand for coffee rests upon a complex set of attributes, some of which are related to physical properties such as quality, strength and price some of which are latent ones. Also coffee associated with social meaning; while people can drink coffee, serves as means of sociability, hospitality, friendliness and equality (Reynolds and Well, 1977).

The emergence of ethical foods in western countries made the issue of extrinsic factors other than price to be stronger. For the case of fair trade coffee consumers volunteer to purchase at higher price due to the extrinsic attributes attached to it. These factors varies such as payment of fair price, no use of child labour, use of organic production techniques, CO_2 emission through the value chain, commitment of store to fair trade principles and social responsibility activities of the retailers. Also issues of intrinsic such as brand, quality, country of origin and taste, Renard (2005) although at the beginning quality was not taken as the most important in fair trade until beginning of mainstreaming.

The fact that FT is growing rapidly in the UK is associated with consumer attitude towards ethical consumptions (Jones, 2006). de Ferran and Grunert (2007) on their study on purchasing fair trade coffee in France, found that a consumers attach importance on attributes 'fair trade', 'organic', 'taste', 'respect for the environment' and 'equality between humans'. The country of origin also emerged as the important attribute in the buying of foods among consumers. In the empirical study of Ahmed et al. (2004) done in Singapore by using the case of Colombian

coffee found that country of origin (COO) when used in the foods in international marketing can help developing country to overcome negative image of the consumers in the North. According to Hoffman, 2000 and Percher and Tregrear, 2000, recommended that COO can be used also by consumers as the symbol of quality of food.

However, the influences of COO on attitudes of consumer behaviour depends on whether the product regarded by consumers as low-involvement or high involvement. Involvement refers to the amount of time and efforts a buyer invest in the search, evaluation and decisions process in consumer behaviour (Hair et al., 1992). Various factors determine the low involvement whether to be high or low, such as social class of customer, economic level, brand image and product categories. Perhaps the issue of ethical foods and food labelling made foods which once regarded as low involvement to be considered as the high involvement.

In the research conducted in Singapore by Ahmed et al. (2004) found that consumers were not attached most importance on COO as the attributes for purchase of coffee, this suggested that coffee in regarded as the low-involvement products. The empirical research conducted by Sundqvist and Tarkiainen (2009) in Finland found that coffee is regarded as high-involvement products. Further more study indentified that consumers influenced to buy organic coffee and have positive attitudes derived from environment and health related values. This finding support the study conducted in Belgium by Verbeke and Vermier (2006) who found that consumers with high involvement will have positive attitude and are more willing to purchase ethical foods.

Romberger and Wolf (2010) in their study found that flavour, taste, quality, price and value for money are the major factors that influencing consumer to purchase Fairtrade coffee. Further in their analysis found that consumers perceive fair trade coffee to be inferior when compared with other ethical label. This is contrary to the studies of De Pelsmacker et al.

(2005) in Belgium, found that fair trade is most preferred label among the ethical food label and Lotade and Loureiro (2005) in the US, found that consumers are willing to pay more; US$ cents 21.64 for the fair trade labelled coffee, cents 20.02 for shade grown and cents 16.25 for organics. Again study done in Italy by Maieta (2003) found that consumers are willing to pay 25% more than normal coffee price. Nevertheless in practice organic coffee is higher more in the market compared with FT label products.

In the study conducted in Canada by using conjoint analysis, Cranfield et al. (2010) identified that consumers preference for buying fair trade coffee; most important attribute were price, nature of fair trade claim, country of origin, roast of the coffee beans and finally form of coffee. This was contrary to the study of Sundqvist and Tarkienan (2005) identified that consumers in Finland did not perceive price of the ethical foods affect their intention to buy food. In the UK, Galarraga and Markandya (2004) suggested consumers are willing to more than commercial market for ethical coffee for 11%. Perhaps this finding suggests that consumer are more willing to pay for premium price for the ethical products and probably consumers in Finland and the UK are more aware compared to those in Canada.

Quality perhaps is among the most important attributes in the food marketing. Although quality in most cases is result of after purchase, but customer perceives quality of products through various extrinsic features such as brand, packaging and price and the retail store. Taste which is the sensory quality is most important element of quality (Grunnert, 2006). To the issue of fair trade coffee in particular customer perception of quality based on various features such as the brand and the trust customer has on the NGOs to deliver organic products and dish out the premium price to the producer in the South.

Fair trade is based on credence attributes that cannot easily be identified physically by a consumer. The concept includes of the promise or guarantee of a fair price to the primary producer and protection of environment during production. The business model success depends much on the experience and knowledge consumers developed to the ATOs. This study investigates consumer's reaction to the involvement of large retailers in the selling of Fair Trade products in the UK.

Methodology

Sampling and survey instruments

The research employed convenience sample of individuals who drink coffee and have knowledge about fair trade products aged from 16 years to 71 and above. Respondents were recruited in the high street of Northumberland, Haymarket, Grey and Justice Tower where largest mall of Eldon Square is located in the city of Newcastle upon Tyne using face to face interview. Screening questions were used to identify individuals who drink coffee and have knowledge of fair trade. These questions identified respondents who were willingand in position to answer and participate well in the study. The survey yielded a total of 219 filled questionnaires.

Questionnaire development and pre-testing

The theme of attitudes towards fair trade coffee drawn from the empirical study done in Italy on fair trade coffee by Cicia et al. 2010, and relied a lot on literature from the study done on fair trade by De Pelsmacker et al., 2003; Hilcox, 2007, Comfort et al, 2005, Smith, 2007, for development of the questionnaire. Five itemised Likert scale, on the scale of 1 - 5, where by 1=not at all important to, and 5=extremely important, were used for part 1 of questionnaire, for measuring consumers attitude toward coffee.

The items where modified to suit the language and understanding of consumers in Newcastle in the UK. Three attributes were dropped from the original study of Cicia et al. 2010, these were creaminess, and blend

and packaging in order to allow respondents to concentrate with only idea of recyclable packaging. The idea of caffeinate percentage was expanded to mean decaffeinated and caffeinated. The idea of reducing CO_2 emission was reshaped in order to use simple language to respondents; the issue of distance (food miles) was introduced.

Scale response categories were altered as respondents felt more comfortable with five scales than original seven-point employed by Cicia et al. (2010). The final version of the questionnaire was evaluated in terms of instructions, ease of use, reading level, clarity, item wording and response format and was judged to possess face and context validity (De Vellis, 2003). Also final version reflects the time and hardness of recruiting people in the high street in order not to take much of their time. Data were subsequently downloaded to an SPSS data file.

Reliability analysis

Scale reliability for attitudes of consumers when buying coffee was evaluated by using Cronbach's alpha (α) coefficient, which is a measure of how well a set of manifest indicators measure of the scale (De Vellis, 2003). There is no universal convention with respect to the minimum acceptable threshold value. Bush et al. (2006) suggested Cronbach's alpha valued less than 0.6 is unsatisfactory (2006). Nunnally (1978) suggests a threshold level of equal to or greater than 0.50 for exploratory research work. This research used Cronbach's alpha threshold of 0.6. The overall reliability of the scale is α 0.743. This is above the suggested level and is respected in social science.

The factor analysis was conducted for 18 variables to identify consumers' attitudes towards coffee. Data was analysed by using SPSS 17.0. To identify number of factors Eigen value used to reach on the conclusion on the number required.

Results

Characteristics of the sample

The study recruited 219 respondents through face to face survey interview conducted in the high streets of Northumberland, Haymarket, Grey and Justice Tower where largest mall of Eldon Square is located and the supermarkets like Tesco, Mark and Spencer, Fenwick and Debenhams are found, also famous fast food like Starbuck, Burger King, Pret-A-Mager, Greggs and Milligans sellers of ready to drink (RTD) coffee are located in the city of Newcastle upon Tyne.

The City estimated population was 1,093,500 (ONS, 2008), female 51% and male 49%. A higher proportional of the respondents study were male (58%) compared to female (42%). Female were not well presented according of the actual data of the region in the study. The targeted sample comprised of ranges of ages from 17 to 71 years.. The younger ages from 17 - 30 comprised a higher proportional of the 59.8% which is more than general representation in the city population which is 41% (www.tyne-wear.co.uk) for 16-44 age range.

Respondents level of formal education, first degree which is 55% of the respondents were the leading followed with those attended at the college. The area has approximated to have 10% of the population to have first degree (www.sunderland.gov.uk). Nevertheless the city attracts many students from oversees or other regions Britain due a concentration of many universities and colleges.

Communality

The communality (h^2) is the sum of the squares of the loadings. If communality is too low, means the test is unreliable for the particular variable. The minimum communality was set at 0.5 (Anderson et al, 2006). Result shows acceptable communality except for three variables that load below 0.5, price (0.425), recyclable packaging (0.480) and retailers own label (0.395), but when rounded only recyclable packaging

reached 0.5. However, recyclable packaging was retained because it loaded significantly on at least one factor. Further factor analysis was conducted based on 16 variables loaded more than five range of communality.

Factor correlation

Subsequent analysis was conducted on 16 measures. The confirmation test variables were intercorrelated as indicated by a KMO index of 0.773, categorised by Kaiser (1974) as 'meritorious' when rounded off , while Bartlett' Test of Sphericity resulted in the rejection of null hypothesis *that* variables are not correlated at 5% significance level ($X^{2\,(120)}$)=1058.419, P<0.05. Table 4.2 shows that sixty four percent of the total variance was explained by five factors.

In this study factors with Eigen values greater than 1 was used and those below that were dropped. Because this criterion is generally accepted as the basis for excluding or including factors (Kaiser, 1960 and Anderson et al., 1998)

Attitudes to fair trade coffee

Anderson et al. (1998) suggested of factor loading to be based on sample size (pp 111), and for 200 sample size suggest at 0.4 cut off level (ibid pp 112) (Anderson et al. 1998 for detail). This study adopted a more conservative approach. In this research the decision rule that has been applied to select variables requires loadings to be at least ± 0.5, and that is respected in the social science. Table 2 indicates the loading of the variables after variables have been rotated. Factor 1 the following variables were significant according to the threshold decided, no use of child labour (chillab, 0.769), social responsibility activities of the retailer (scratv, 0.760); recyclable packaging (recypack, 0.530), store or shop commitment to fair trade principles (ftpri, 0.768) and retailers pay Fairtrade price to coffee growers (payftpr, 0.846). Factor 2 significant variables are aroma (aroma, 0.826) and strength (strength, 0.791). Two

attributes were identified to be significant for factor 3, use of organic production technique (orgaprod, 0.749) and the distance (distance, 0.799). The country of origin (coo, 0.638), decaffeinated coffee (decaf, 0.741) caffeinated coffee (caff, 0.693) and variety of beans used (varbean, 0.501) loaded for factor 4. Factor 5, the following attributes loaded significantly; taste (taste, 0.762), generic brand (genbrand, 0.719) and fair trade products (ftprod 0.812). The five factors are defined, respectively as, factor 1 'ethical', factor 2 'quality', factor 3'production techniques', factor 4 'decaffeinated coffee' and factor 5 'fair trade products'.

Table 2. Rotated component matrix: consumer attitude to coffee shopping

Attitude to coffee	Factor number					h^2
	1	2	3	4	5	
Coo	0.171	0.326	0.263	**0.648**	0.139	0.664
Varbean	0.153	0.486	0.244	**0.501**	0.169	0.600
Decaf	0.020	0.012	-0.015	**0.741**	-0.170	0.578
Ftprod	0.593	0.202	0.182	0.228	**-0.812**	0.511
Taste	0.190	0.251	-0.081	-0.135	**0.762**	0.705
Genbra	-0.283	-0.169	0.211	0.088	**0.719**	0.678
Caffcoff	-0.121	0.397	0.196	**-0.693**	-0.010	0.691
Aroma	0.123	**0.826**	-0.061	0.011	0.080	0.707
Strength	0.092	**0.791**	0.101	-0.006	-0.048	0.646
Recypac	**0.530**	0.061	0.438	0.118	-0.041	0.492
Orgaprod	0.235	0.036	**0.749**	-0.011	0.138	0.637
Nochillab	**0.769**	0.056	-0.043	-0.016	0.178	0.628
Distance	0.117	0.056	**0.799**	0.027	-0.023	0.657
Ftprinc	**0.768**	0.139	0.286	0.088	-0.087	0.705
Sractv	**0.760**	0.075	0.286	0.076	-0.105	0.682
Payftpr	**0.846**	0.011	-0.005	0.048	0.060	0.722
Eigenvalues	4.395	1.765	1.606	1.369	1.147	
Variance	27.47	11.03	10.04	8.56	7.17	
Cumulative variance	27.47	38.50	48.54	57.10	64.27	

Discussions and Conclusions

In general research shows consumers are more influenced by the 'process credence attributes' in buying coffee. The result of factor analysis reveals five dimensions related to the consumers attitude to coffee. The dimensions have been labelled 'ethical','quality', 'production techniques', 'decaffeinated' and 'fair trade product'. The findings reveal that the issue of 'ethical food' is more powerful in the UK and consumers are ready to question how products were produced and the benefit farmers obtained. However, the findings show that purchaser of coffee is not only determined by fair trade features, but also the quality and the attribute like taste and strength, in order to give the consumer satisfaction during consumption. Furthermore result shows consumers did not give more importance on price as the extrinsic cue. Due to change in lifestyle and awareness of the importance of the Fairtrade as the business model to the producers in the South, theprices charged for the products were perceived as less relevant factors (Cicia, 2010). The rejection of price as the most influencing features during this time of economic downturn is very interesting phenomenon. Grunert (2006) identified three factors behind the phenomenal, first consumer are aware of the general price, second consumers concluded price are reasonable and third is the trust on the retailer's price setting (pp. 170). Perhaps this situation happened on the fair trade coffee, and the findings suggested that consumers are aware of the price and general purpose of the fair trade movement.

Factor 1 defined as 'ethical' with five attributes loaded more significant; retailers pay premium price; no use of child labour, recyclable packaging, retailers commitment of fair trade principles, and social responsibility activities of the retailers towards coffee purchase intention. It is clear from this analysis that 'ethical activities' by the actors in fair trade business model has a very significance effects on attitudes towards coffee purchasing intention. Factor 1 is more regarded as the 'process credence attribute' which referred as the attribute that do not affect final product content but refers to the characteristics of the production for instance fair

trade products and no use of child labour. This attribute cannot be identified physically by the consumer during the purchase of coffee, but through knowledge consumer has develop positive attitude towards products to be associated with the features. This findings support the argument of Grunnert (2007) that attention in the agri-food has been shifted from traditional intrinsic cues to the extrinsic and credence attributes of the products.

Factor 2 labelled 'quality'; clearly analysis shows that aroma and strength are very significance attribute for purchasing of coffee. Today the UK is the destination point of many food types from different geographical position of the world. Since the occurrence of food threat in the EU, the issue of food security and safety became very critical from the perspective of customer and government and pressure groups (Renard, 2003, Renard, 2005). Although the LRs are facing with much pressure from domestic consumers and pressure groups on the need of supporting local farmers, coffee is not among of the effected commodity. However, the market prospect of coffee in the EU market has not to be taken as the sacrifice of the taste which associated with quality of the coffee produced.

Dimension of quality can be categorised into three: Search, experience and credence (Darby and Karni, 1973 as cited in Bech et al., 2001). Search dimension is where quality identified during the purchase, experience dimension occurred after the purchase and credence is where one has to rely on the judgment of others. Food products are mainly characterised as the experience and credence (Bech et al., 2001). Major two attributes of quality identified by this research are aroma and strength. These two variables are intrinsic attributes; that motivate customers' purchase of FT coffee. Although these values are revealed after purchase, success of any manufacturers and prosperity of the products depends on the repurchase. Generally consumers make decision on quality based on experience (ibid).

Factor 3 defined as the production techniques and the variables loading most significantly are distance and the use of organic production techniques. The method of coffee production has high significance on the customers' attitude on the purchasing. Also customers keep most important on the 'distance' of the value chain. Although coffee is not produced in the UK; but the great challenge is on reduction of CO_2 emission within the supply chain. This indicates the need of producers; roasters and retailers to evaluate their supply chain and its impact to environment. Some coffee roasters in the UK started to use this as part of their achievement in their corporate announcement on how they reduced CO_2 emission. The issue of 'organic production techniques' emerged to be most significant. This indicates that customers are more concern with environmental issues and protection of their health; due to the use of hazardous pesticides in growing of coffee.

Factor 4; labelled 'decaffeinated coffee' indicates the importance of the feature towards customers' attitude. Factors loaded more significantly are 'country of origin'; 'decaffeinated coffee' and 'caffeinated coffee'. Based on the EU legislation, decaffeinated coffee is a coffee with caffeine content 0.1% of caffeine of dry weight. Decaffeinated coffee is available because customers wants to enjoy the 'taste' and 'aroma' of coffee without experiencing the mild stimulant effects provided by caffeine (ICO, undated). Also the increase in demand for decaffeinated coffee was due to awareness of the heath problem associated with caffeine.

Decaffeinated coffee recommended by the EU is 0.2; for the company to claim has decaffeinated coffee. However, there are no.law that enforce roasters or retailers to remove amount of caffeine that claimed to cause harm to human being once amount taken are large. This finding shows that, coffee can be differentiated as the caffeinated or decaffeinated coffee.

Research identified that customers use country of origin (COO) criteria in selection of coffee. Many roasters, retailers and fast food are using the techniques to differentiate from the competitors. For example, Cafédirect has coffee named as 'Kilimanjaro' coffee brand, Sidamo brand used by Starbuck. The interesting thing is customers used to relate COO with amount of caffeine and the quality of coffee. Roaster used COO as the hallo effects of their coffee products. For example Café direct the leading fair trade coffee ATO in the UK with annual sales of £ 3 million, used region branding as the technique and signature of the producers associations members to influence consumers knowledge and belief on the fair trade coffee and products in general.

Factor 5 named 'fairtrade products' and the variables loaded most high are fair trade products, taste and generic brand. The issue of 'fair trade products' emerged as the most important significance in influencing attitude toward coffee. Taste; although it is intrinsic feature but once bad taste, it is hard to influence customers repurchases the products. At the beginning of fair trade business model consumers were encouraged to purchase FT coffee based on the solidarity and supporting well being of the producers in the South.

According to Murray et al (2006) since the mainstreaming of fair trade coffee the issue of quality was introduced by the SMs and creates dilemmas to many famers in the South. This creates challenges because LRs was just licensee and was not supporting famers to meet the standards as the FT business model principles regard.

The result of the study shows that taste is very important for decision on the choice of coffee. The finding support the empirical study of (Shepherd, 2001), identified taste to be very important motivating factor in consumer food purchasing decisions for different food although by no means the only influences. These findings suggest producers of the coffee

have to take into consideration the importance of taste for the market prosperity of coffee.

The findings support that consumers are more ethical and are delightful to protect environment. The growing of 'green consumers' pave the way of the 'fair trade organic coffee'. The niche market currently fetch higher price than normal fair trade coffee. It is an 'active' consumption from the view point of its consequences on the environment.

Future studies might also focus on the influence of 'producer appeal' branding on purchasing of FT coffee in the UK. According to Deliza and MacFie (2001) the use of pictures on branding of food has no impact on consumer decision making. This is contrary to the practice governing the marketing and packaging by ATOs of fair trade products. The interesting issue is to see the reality of the theory and empirical evidence, study can be based on understating of the two concepts especially for FT products.

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Table of Contents

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