

THESIS / THÈSE

SPECIALISED MASTER IN INTERNATIONAL AND DEVELOPMENT ECONOMICS

Gender Roles, Time Constraints and Women's Labour Market Outcomes Review of Evidences from Sub-Saharan Africa

Zewdie, Tilahun

Award date:
2019

Awarding institution:
University of Namur

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



Gender Roles, Time Constraints and Women's Labour Market Outcome:

Evidences from Sub-Saharan Africa

Thesis presented by

Tilahun Zewdie

Supervisor(s)

Professor Catherine Guirkingier (UNamur)

Tutor(s)

Marie Seleck (UNamur)

Academic year 2018-19

**Project presented as part of the requirements for the award of the
Specialized Master in International and Development Economics**

Contents	i
Abstract	i
Acronyms	ii
1. Introduction	1
2. Conceptual Framework	4
2.1. Gender and Intra Household Allocations	4
2.2 Determinants of Women’s Bargaining Power	5
2.3. Gender Discrimination	7
3. Literature Review: Synthesis and Analysis	9
3.1. The Economics of Gender Roles	9
3.2. Constraints of Time and Time Poverty	11
3.3. Gender and Labour Market Outcomes	14
3.3.1. Labour Force Participation	14
3.3.2. Paid and Unpaid work Mix: Evidence from Time use Surveys	19
3.4. Household Infrastructure and Women’s time Use	22
4. Conclusion and Insights for New Research	24
5. Limitations of the study	25
Acknowledgment	26
Reference	27

Abstract

The main objective of this study has been to present a more comprehensive review of the existing gender roles, time constraints and their implication for women's labour market outcomes in Sub Saharan Africa. This involved collecting and organizing findings from different published and unpublished studies and reports from international organizations that are directly or indirectly related to the underlying objective of the study. Additionally, data from World Bank's development indicator database and ILO are used to support results compiled from literature reviews. As learned from the different studies considered, gender roles in SSA are mostly shaped by societal norms, attitudes, history and related societal factors. The region experiences one of the highest participation of women in the labour market, with huge geographical heterogeneities whereby countries like Sudan and Somalia experienced one of the lowest participation of women in the world. Inequality between men and women in the labour market is more persistent than the global average. Women are found to be extremely time poor compared to men in the region resulted from their high engagement both in paid and unpaid domestic activities unlike their men counter parts. Some studies showed that investments in household technologies like accessible water and electrification improves women work load and their participation in the labour market.

Key Words: Gender Roles, Time Poverty, Labour Force Participation, Sub-Sharan Africa

Acronyms

GDP.....Gross domestic Product

ILO..... International Labour Organization

OECD.....Organization for Economic Cooperation and Development

SNA.....System of National Accounts

SSASub Saharan Africa

UNDP.....United Nations Development Program

WEF.....World Economic Forum

WHO.....World Health Organization

1. Introduction

In Sub-Saharan Africa (SSA), women accounted for 50.1 percent of the total continental population (World Bank, 2019). Compared to other developing regions, SSA is characterized by relatively high levels of female employment to population ratios (ILO, 2016). However, globally men disproportionately outnumbered women in every formal occupation, whereby only 49 percent of women over the age of 15 are employed compared to 75 percent of men (World Bank, 2019). In another report by ILO (2018), in Sub-Saharan Africa, the labour force participation of men and women is 74% and 64.7 percent respectively, implying a 9.3 percent gender gap in labour market participation.

There is huge heterogeneity in labour force participation gaps between men and women across countries in SSA. For instance, according to a study by Comblon, Robilliard and Roubaud (2017), the percentage gap in labour market participation between men and women stood at 30 percent in Mali and 10 percent in Cameroon. The unemployment rate is not also evenly distributed between men and women. The SSA average unemployment rate stood at 6.4% for men and 8.2% for women, showing further imbalances in the labour market where women are more likely to be unemployed than men (ILO, 2018).

Gender gaps in labour market outcomes of men and women in SSA include: occupational segregation, informality of jobs, time of work, and gender wage gaps (Comblon, et al (2017). For example, a study by Brixiová and Kangoye (2016) in Swaziland identified the existence of high pay differences between men and women. Occupational segregation of women from high paying professions and public sector employment opportunities were considered among the leading factors for the existing gender pay gap. The authors argued that such evidences are eminent in other SSA countries too. Additionally, a study by Gaddis, et al (2018) demonstrated that across Africa there are profound differences between men and women in ownership, use and control over assets and wealth which contributed for the overall economic gap between men and women in the region.

According to the Global gender gap report by the World Economic Forum (WEF), as of 2017 the global gender gap index¹ stood at 68% and there is no country in the world that fully closed the gender gap. With 67.6% gender gap, SSA stood with almost similar position with the global average. According to the World Bank (2012), gender disparities persist due to the

¹ It is a composite index of four thematic dimensions: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment.

deeply entrenched gender roles and social norms. Gender based social inequalities between men and women have economic consequences in which girls are less likely to be sent to school; they are also less likely to work outside home; generally women earn less than men. These unequal social and economic structures tend to be readily reproduced for generations which lead to a persistent gender inequality trap. This prevented generations of women from getting the right education, less participation in the labour market, and reduce their ability to make free, informed choices and to realize their potential as individuals (World Bank, 2006).

In studying gender role dynamics between men and women; and boys and girls, the study of households is usually the best place to start with. Since the works of Gary Becker in the 1970s, economic analysis of the family has received widespread scholarly attention. Family organizations and the various economic roles played by members have varied over time, space, and stage of market development. Generally, families and households provide the context in which important non-market transactions between men and women take place. Almost in all societies, specialized contribution of men and women determine the material wellbeing of the family and their respective contribution in the joint family enterprise which is the main source of distinct economic gender roles (Lundberg, 2008).

Individual members of households engage themselves in paid work and/or other unpaid household responsibilities. It is known that both paid and unpaid² work contribute to the realization of human potential. However, in these two domains of work, the roles played by men and women are generally different. Dual responsibilities of paid and unpaid work is evident among women which reduce their leisure time after accounting for time spent on paid work, household activities, care giving, and other responsibilities (Zilanawala, 2013). This is a direct reflection of societal contexts, norms and values, as well as perceptions, attitudes and historical gender roles. According to UNDP (2015), these situations fundamentally lead to different economic opportunities and outcomes for human development. Variations in gender roles and differences in economic opportunities have income ownership implications, whereby those engaged in high productive paid works outweigh the income earned by those who spend much of their time on unpaid works. This in turn, has implications for gender issues.

² Unpaid work is work which didn't receive direct remuneration

Analysis of time use surveys from 69 percent of the world's adult population, studied by Blackden and Wodon (2006) concluded that overall women account for 52 percent of total hours worked and the remaining 48 percent is accounted for men. Similarly, women in SSA add up domestic and care to their market or non-market productive work which makes them time poorer than men. A study in Ethiopia by Arora, & Rada (2013) and in Mozambique by Arora (2014) uncovered that women are disproportionately more time poor compared to their men counter parts. In another study by Bardasi and Wodon (2009) and again with another study with same authors in 2009, women in Guinea are found to be relatively time poor than men. They also uncovered that rural women are more time poor than women in urban areas. The reverse is true for urban men and rural men, which might be linked with the seasonality of work in rural areas. The pattern for selected countries in SSA is similar as it is observed from time use reports across the world by Chames (2015).

According to Gross and Swirski (2002), closing the gender gap and fostering equal opportunity for men and women in the work place will not be achieved until men begin to take on more of the domestic responsibilities of the household, particularly those involving children. Therefore, to close the gender gap, the development of gender inclusive institutions and policies are demanding. Investment in household infrastructures like kitchen appliances, energy and water utilities do have the incentive to do so. A study by Greenwood, et.al (2005) pronounced innovative household technologies as 'Engines of Liberalization'. Their study claimed that the emergence of household labour saving consumer durables such as washing machines and vacuum cleaners liberalized women from the burden of domestic work. These technologies revolutionize the household economy by create an incentive for women to have more time to engage in the job market. For SSA countries where water pipes and household electricity are luxury and most of the household unpaid work by women spending more time to fetch water, collect fire woods, and related activities, public investments on such utilities will have a savvy role to play.

A comprehensive summary of gender roles, time use patterns of men and women and the resultant labour market outcome in SSA is not available. Therefore, the main aim of this review is to fill the aforementioned literature gaps by reviewing related literatures combined by data and reports from World Bank, ILO and other international organizations. The remaining part of the study is organized in to three main parts, including conceptual framework, review and synthesis of evidences in gender time use and labour market outcomes in SSA, and finally conclusion and insights for studies in the future.

2. Conceptual Framework

2.1. Gender and Intra Household Allocations

This part presents the theoretical framework to explain the construction of traditional gender roles, their underlying time constraints and implication for women's labour market outcome. In dealing with related research themes, economists usually start their unit of analysis at the household economy. Since the study of Gary Becker (1965) on the theory of household allocation of time, economists tried to study the issue through different theoretical models and perspectives. The literature on the study of households and their decision making process is mainly dominated by two competing models, i.e. unitary and collective household models.

The book by Eswaran (2014) explained that the standard unitary household models are no more important to study the widely recognized heterogeneities in intra household decision making processes. These models wrongly assumed the household as an individual entity whereby all members of the household share homogeneous preferences which indirectly means the household is gender neutral. Additionally, the household head is also assumed to be a benevolent dictator who maximizes common household utility. These models oversimplified the complex decision making process within the household economy. The empirical validity of the model and its unrealistic assumptions are refuted in the literature (Thomas, 1990; Udry, 1996).

On the other hand, collective household models with bargaining in intra household decision making process are more realistic. According to Eswaran (2014), under such models preferences within the household are heterogeneous by gender. Therefore, economic outcomes for men and women within the same household should be studied separately. These gendered variations are mainly explained by the different constraints that men and women face across societies. Therefore, gender identity of a member is important in the analysis of decision making within the household. A study by Sen (1987) strongly argued that women are systematically placed at inferior positions inside and outside the household which validates the necessity of treating gender as a force of its own in development analysis by correcting the over aggregative misleading household models. All these evidences question the empirical validity of unitary household models and paved the way for collective household models by taking into account individual preferences of members in household decision making.

Under collective household models intra household decisions are bargained outcomes of members that have heterogeneous preferences (Chiappori, 1988; Chiappori, 1992). Final cooperative outcomes from collective decision making process are assumed to be Pareto efficient. In the process of the bargaining framework the threat utility, which is defined as the minimum utility an agent will realize, if cooperative outcomes are not maintained, plays a significant role (Eswaran, 2014; Agrawal, 1997). In theory, cooperative outcomes are always better off for both agents. Therefore, it is in the best interest of members to cooperate as long as cooperative economic decisions bring better outcomes than their non-cooperative moves.

Depending on the different factors that explain the respective bargaining power of members, different competing cooperative outcomes are possible. Therefore, intra household bargaining approaches provide an insightful framework to explain gender based asymmetries in economic outcomes (Agarwal, 1997). As discussed by Eswaran (2014), the relative gain in the cooperative bargaining process is mainly determined by the initial amount of threat utility that members endowed with.

Labour supply decisions for domestic work and market work are outcomes in the intra household decision making process. However, traditional gender divisions of labour have also their own contributions in the distribution responsibilities for paid and unpaid works between men and women. Though there are improving trends in the developed world, in developing countries domestic work is traditionally attributed to women. But in these societies women are also expected to engage in the labour force to fulfil their subsistence way of life (Eswaran, 2014). This may explain the high participation of women in the labour for in many developing regions, including in most countries of SSA. Thus, different time use patterns of men and women in the household economy is eminent which in turn is determined by the household division of labour and bargaining power of members. Bargaining power in the intra household decision making process is explained by different factors that are discussed in the following section.

2.2 Determinants of Women's Bargaining Power

Under the cooperative bargaining model, the size of the threat utility determines the magnitude of the bargained cooperative outcome in the final intra household decision making process (Eswaran, 2014). In the standard framework of these bargaining models, the final outcome is determined by the relative bargaining power of men and women.

Women's human capital from both education and experiences are the main determinants of initial stock of threat utility. Human capital is inalienable, that can't be easily taken away from the woman in case of trouble or break up. Better human capitals are linked with better labour market opportunities with sizable expected earnings. Therefore, women with better human capital have relatively higher bargaining power in the intra household decision making process. A study in Mexico by Majlesi (2016) concluded that increases in labour market opportunities which are linked with better human capital improved women's decision-making power among Mexican households. However, in highly patriarchal societies, women may not get the full right to control their labour income from their human capital (Eswaran, 2014; Pollak, 2005).

In the literature, women's bargaining power is also determined by non-labour income received from property ownership, land and financial assets. An increase in women's non labour income increases women's threat option which improves their power in the household's cooperating bargaining (Eswaran, 2014, Pollak, 2005; Thomas, 1990).

Biologically, only women give birth and this may put them to accumulate less human capital than men. According to Ichino and Moretti (2009), considerable share of the gender gap in earnings are attributed by biological differences between men and women. Traditionally, women are also responsible for taking care of their children which have a direct trade off with their labour market engagement. This will be translated in to lower working experiences of women which affects their bargaining power in the intra household decision making (Eswaran, 2014).

Another, widely discussed factor is the law and the position of women in their society (Eswaran, 2014). Women's political representation, inheritance laws, and divorce laws affect women's bargaining power in the household economy. Improvements on the legal rights of women in their society are associated with better threat utility that improved their power in the household. A study by Aelst (2014) in Tanzania and another study by Agarwal (1997) argued that traditional social norms put women at a disadvantaged position by weakening their earnings in the labour market due to the socially constructed gender roles that portrait men as bread winners and women as their dependents. These norms also discourage married women from leaving their marriage due to worsening economic prospects mainly explained by the problem of social acceptability of divorce and remarriage which worsen the bargaining power of women in the intra household bargaining process.

According to Eswaran (2014) social networks that women can rely in cases of trouble are also important in improving women's bargaining power. Women with lower social ties have lower threat utility implying lower power in household decision making process. The study by Agarwal (1997) explained that social networks are important in rural areas whereby access to communal resources such as village commons and forests, access to traditional community-based support systems, and support from NGO's and support from the state helps to increase women's bargaining power within the household.

Social perceptions also affect women's bargaining power in decision making. The book by Eswaran (2014) presented the accusation raised by feminist economists against mainstream economics which they believe is undervaluing the economic contribution of women in the economy. For instance, figures like GDP didn't count the value of domestic work in the National Accounts calculation which is produced by women. According to Agrawal (1997), such under valuations of women's economic contribution underestimate women's perception in society which affects their bargaining power in the intra household decision making. The incorrect perceptions about gender differences of ability in the market place could also be easily institutionalized and translates in to lower wage rates and lower subsistence allocations to women which significantly affect her bargaining power in the family.

Generally, in cooperative bargaining models consumption and labour supply decisions of men and women in the household economy are determined by their relative power. Gender divisions of labour in the household and the time to be spent on domestic work and labour market are all determined through the intra household bargaining process.

2.3. Gender Discrimination

The broader issue of gender discrimination in any society has many forms. In this section attention is given only to gender discrimination in the labour market. Almost in all countries in the world women's labour market participation rates and their average earnings are lower than their men counter parts. Evidences of discriminations in the labour market have been studied through different competing theories. The earliest study of labour market discrimination was theorized by Gary Becker (1957). Under his "taste-based theory" of discrimination, employers discriminate women applicants in their hiring process simply because they are against hiring women. The second theory is based on 'statistical discrimination', a model developed separately by Arrow (1972) and Phelps (1972). According to Eswaran (2014), this model deals with a situation where decision is made using

information from the statistical characteristics of the group if individual information about the issue is not available. Another additional theory is the pollution theory of discrimination developed by Claudia Goldin (2002). This stated that discrimination of women is partly explained by men's belief that hiring women will reduce their professional prestige, therefore they discriminate women from joining them. All these theories concluded the existence of gender discrimination in the labour market, however their different approaches.

Differences in human capital accumulation; gender-based discrimination; occupational segregation; allocation of household work; and presence of different preferences of men and women towards competition are the main sources of different labour market outcomes for men and women (Eswaran, 2014; Bertrand, 2011; Niederle and Vesterlund, 2007). According to Eswaran (2014), discrimination may start at young age before girls even enter the labour market. In most patriarchal societies, girls may receive less education and less access to healthcare. This will end women with lower human capital than men which have negative labour market implications for women which is another form of discrimination.

Additionally, women and men also experience different labour market outcomes due to the existence of social norms about what is appropriate to do for men and women (Bertrand, 2011; ILO, 2019). Due to deep rooted social and cultural norms, the allocation of time between men and women for paid and unpaid labour is different, whereby women spent significant portion of their time on unpaid domestic activities (Asian Development Bank, 2015). According to Fortin (2005), discriminatory attitudes against women are part of the sources of gender differences in labour market outcomes of OECD countries. These attitudes are found to be strongly and negatively associated with female employment rates and gender pay gaps across countries. The opinion "*when jobs are scarce, men should have more right to a job than women*" received significant acceptance which signals labour market discrimination of women. The authors argued that such discriminatory attitudes are constraining policies that are working for gender equality in the labour market. Traditional perceptions of women as homemakers are also found to be strongly and negatively associated with women's labour market outcomes. Interestingly, the evolutions of such attitudes are showing decreasing trends across younger cohorts which support the growing labour force participation of women across countries.

The latest World Development report on the 'Changing Nature of Work' by World Bank (2019), reported that in some societies women are categorically excluded from work. They

also encounter sector specific legal restrictions from obtaining jobs in many countries. For instance, sixty-five economies in the world restrict women from mining jobs; another 47 countries impose restrictions in manufacturing; and additional 37 countries restrict women from participating in construction jobs. Furthermore, according to the same report in 29 of the 189 countries in the world women cannot work equal hours like their men counter parts.

All the above evidences show that gender discrimination in the labour market is a reality. However, it doesn't mean that all variations in labour market outcomes of men and women are resulted from gender discriminations.

3. Literature Review: Synthesis and Analysis

3.1. The Economics of Gender Roles

The World Health Organizations (WHO), defined gender as

“... the socially constructed characteristics of women and men – such as norms, roles and relationships of and between groups of women and men. It varies from society to society and can be changed.”

According to the 2012 World development report by the World Bank group, traditional norms are drivers of gender inequality and are comprised of unwritten rules and beliefs that influence and dictate expectations and behaviours of both male and female economic agents in a given community. In practice, for women these unwritten societal rules define women's responsibility in their society in line with the attributes of 'accepted' behaviours designed by the society. Accordingly, some of these 'accepted' behaviours include norms around the role of women as caregivers, housewives and mothers, legal restriction on their mobility for protective reasons, lower age of marriage which in the long run may affect women's bargaining power within the household and acceptance of differential wage rates (World Bank, 2012).

In typical average African households, activities like collecting water and firewood, kitchen routines, cleaning and laundry, care of children and elderly, and shopping and marketing household production surpluses are responsibilities mostly covered by girls and women. Most women who spend all their time performing these responsibilities are often labelled as “not working” (Abdourahman, 2010). Time use studies reflect how gender roles attributed to women and men, girls and boys, shape the division of labour within a household. Social norms define certain activities as more feminine or more masculine than others (Ferrant,

2014). According to Guiso, et al (2003), highly religious communities have unfavourable attitudes towards working women and have less favourable societal institutions for working women.

Another study by Alesina, et al (2011) provided evidence showing that current differences about gender roles, attitudes and female's economic behaviours are all explained by a long history of differences in systems of agricultural production across different countries and societies. They argued that individuals whose ancestors were using the plough for agricultural production, which demands greater physical strength, had developed attitudes that could explain gender inequalities today with less participation of women in paid employment, politics and entrepreneurship. Gender division between work inside and work outside the house may not be unfair, if both demand comparable amount and intensity of labour. A problem appears when the demand for women's labour overlap across activities, like the engagement of women in both paid and unpaid activities which is less probable for men (Arora and Rada, 2013).

A study on gender and development in post-colonial Africa by Akyeampong, and Fofack (2013) revealed that social and cultural norms are very 'sticky domain' of gender and development in the region. Though numerous governments in the continent adopt more gender inclusion programs, there are still traditional norms that persistently continue by adversely constraining women's access to economic opportunities, and the overall contribution of women growth and economic development at the national level. Their study also uncovered a paradox of continuous gender discrimination even with rising enrolment of females in to education.

Differences between men and women in their economic roles created variations in economic opportunities. These disparities in gender roles and inequalities of opportunities in economic activities become an important policy debate in the developing world in general and African countries, in particular. This is mainly due to the fact that the exclusion of women, which are the half divide of the entire population, will negatively affect the sustainable development and poverty reduction policy agendas in most of the countries in the developing world (Anyanwu and Augustine, 2012). According to the gender gap report by the World Economic Forum (2017), Sub-Saharan Africa is a region with the second highest gender inequality index, only ahead of the Middle East and North Africa, with 32.4% gender gap index. The only

country in SSA with one of the highest gender gap indexes is Rwanda. Countries in economically advanced regions in the west enjoy a very narrow gender inequality index.

Public service leadership positions continue to be disproportionately occupied by men. Similarly, in all regions of the world women are less likely than men to initiate their own enterprises. Women do not enjoy the same legal rights as men. Women are more likely to be in vulnerable employment (UNDP, 2015). Ownership of land and housing property, which are important assets for the poor and the primary means to store wealth in rural communities, are less of a norm in Africa (Gaddis, et. al, 2018).

National governments, international organizations, civil society organizations and donor agencies continue to work on closing the gender gap and curtail the high cost of gender inequality. Costs from gender gaps in economic participation are associated with a large GDP loss across countries of all income levels as stated by Hakura, et.al (2016). Studies by Baah-Boateng (2009) in Ghana and the World Bank (2012) investigated these costs of gender inequality for growth and economic development in developing countries through the lens of gender-based inequality due to the persistence of traditional norms and cultural values which are the sticky domains of gender-based discrimination. Annual economic losses due to gender gaps in effective labour (labour force participation rate and years of schooling) have been estimated at \$60 billion in Sub-Saharan Africa (Bandara, 2015). Gross and Swirski (2002) rightly argued that closing the gender gap and fostering equal opportunity for men and women in the work place will not be achieved until men begin to take on more of the domestic responsibilities of the household, particularly those involving children.

3.2. Constraints of Time and Time Poverty

The treatment of poverty entirely as an economic phenomenon is no longer valid in the academic literature. Rather, the multidimensionality of poverty is mainstreamed, treating poverty as a composition of income/consumption, and other dimensions like human development outcomes in health and education, outcomes, insecurity, vulnerability, powerlessness, and exclusion (Kes and Swaminathan, 2006).

Time-use surveys across most countries in the world uncovered that women spend incomparably more time on domestic activities compared to men, which mostly include works that are unpaid and not accounted for under the System of National Accounts (SNA). This is in addition to the time women spend working in family enterprises outside home which increases their time burden. This is a current reality in most developing countries,

including those in SSA, which implies that women are time poorer than men and have limited time for opportunities in education and leisure activities (Apps, 2003). The review made by Kes and Swaminathan (2006) brought additional evidence suggesting that there are marked differences on how men and women allocate their working time between market and non-market activities. This has an implication on how men and women behave in the labour market. They argued that social and cultural norms underpin a socially constructed rigid gendered division of labour, whereby the society categorizes activities as strictly labelled “men’s work” and the rest of activities as “women’s work”.

According to Bardasi and Wodon (2006), the concept of time poverty is used to measure the percentage share of the working population that works relatively longer hours, in which case they are considered as time poor. There is no consensus on the standard measure of time poverty line in terms of average working hours spent per day or week by a typical individual. Two standards were noted by the aforementioned authors to define time poverty line. The first was an arbitrary full employment work of 50 hours per week; and another idea of relative work load threshold calculated as 1.5 times the median of the total individual hour distribution which turns out to be 70.5 hours in Guinea. For the typical case of Guinea, the authors used 70 hours per week as the time poverty line.

In the second case, Bardasi and Wodon (2006) used the relative state of time poverty line may differ from country to country in line with the number of average hours spent by working men and women in respective countries. Rural women are found to be time-poorer than urban women in Guinea. The authors validated that the likelihood of being time-poor for rural women is more likely than urban women. This seems obvious, as rural women lacked adequate access to energy, water and other utilities which are relatively accessible in urban dwellings. This makes rural women spend more time in fire wood collection, fetching water, and other responsibilities unlike their urban counterparts. Conversely, urban men are relatively likely to be time poor than rural men. This may be linked to the seasonality of work in rural areas, unlike the non-seasonality of works in urban areas.

A study by Arora (2014) in Mozambique used a time poverty line of 12 hours per day. A gendered time use study for Mozambique documented that women’s labour allocation in economic activities is comparable to that of men. However, household day to day domestic works and care work are women's main responsibility, which they perform with minimal assistance from men. The heavy burden of responsibilities leaves women time-poorer:

compared to 50% of women, only 8% of men face time constraints. Women's time poverty worsens when the burden of simultaneous care work is considered. Not only women work longer hours, they are also sometimes occupied with multi-tasking with two or more responsibilities at the same time which is more taxing.

In Ethiopia, Arora and Rada (2013) discovered that, like in other countries in Sub-Saharan Africa, women are more time constrained than men. An average work day for a woman requires more than 10 hours of work compared to 8.5 hours a day for the man. In another study in Guinea by the same authors, i.e. Bardasi and Wodon (2009), documented that the likelihood of being time poor increases with age, but the result later reversed for very older peoples. The result also reported that women are 3 times more likely to be time poor than men. Marital status is also associated with variations in the probability of being time poor as marriage usually brings more responsibilities.

The same study in Guinea uncovered that Christian women are more likely to be time poor than women with a Muslim faith which may be linked to the norms associated to these religions. Interestingly, increasing education is associated with lower probabilities of being time poor. This may be explained by the fact that education liberates men and women from the socially constructed gendered division of labour. Therefore, like investments in household infrastructure, education may help liberate African women from the vicious cycle of time poverty.

Generally, in most cases of gendered division of labour in Sub-Saharan Africa, men can focus on a single productive role and play their multiple roles sequentially. In contrast to men, women play their more than one role simultaneously and must balance simultaneous competing claims on limited time for each of them. Therefore, women's labour time and flexibility are much more constrained than men's (Blackden and Wodon, 2006). Similarly, Abdourahman (2011) strongly claimed that, in a patriarchal society like those in Africa, "Women's time does not belong to them." The social fabrics of gender roles allowed men to control how women spend their time and labour. The author underlined that in most African societies, women and girls are tied with time consuming responsibilities in reproduction, production, household, and community spheres which obviously overburdened them compared to their men counter parts.

All the aforementioned studies concluded that, however there are some degree of heterogeneities across countries, women in Sub-Saharan Africa are more time constrained

and time poor which adversely affects their decisions in the labour market and also their time for leisure activities. Some evidences from selected countries in SSA on the extent of time allocation differences of men and women on paid and unpaid activities and also on the relative time poverty between them is discussed in the next section. Bardasi and Wodon (2006) argued that the lack of access to basic infrastructure services such as water and electricity, and the rising demands from the care economy contributed more for the widespread constraints of time use and time poverty in the region.

3.3. Gender and Labour Market Outcomes

3.3.1. Labour Force Participation

According to the recent World Employment and social outlook report (2019) by the ILO, the global average labour force participation rate stood at around 61 percent. This figure includes both employed and unemployed, but actively looking for a job, of global working age population with still 39 percent of them are out of the labour market (ILO, 2019). The report added that aggregate labour force participation rates vary across country income groups, ranging from 56 percent in lower-middle-income countries to 71 percent in low-income countries in 2018. However, these aggregate figures didn't behave similarly for men and women segments of the working age population. For 2018, the men-women labour force participation gap estimated at around 27 percentage points, accounting for 75 percent participation rate for men and only 45 percent for women.

Overall the gender gap in labour force participation by women and men has decreased slightly (ILO, 2016). However, according to the same report, women's unemployment rate is continuing to be incomparably higher than men in the world with a huge geographic variation in different regions of the world. The unemployment gap between men and women is one of the worst in Sub-Saharan Africa with a gap more than the global average and only better than North Africa, where women experience more than double the rate by men.

The participation and labour market outcome of men and women determines their relative position in society. The gender dummy in labour market outcomes usually depict a situation where women earn less than men, work in different occupations, and mainly engage in less market oriented fields. In the life cycle, being married is associated with lesser wages for women, but higher relative wages for men. The comings of children in the family exacerbate the male-female earning gap. This leads women to commute less interest to work, work fewer

hours, and overall tend to be more intermittent in the labour force than men (Polachek and Siebert, 1996).

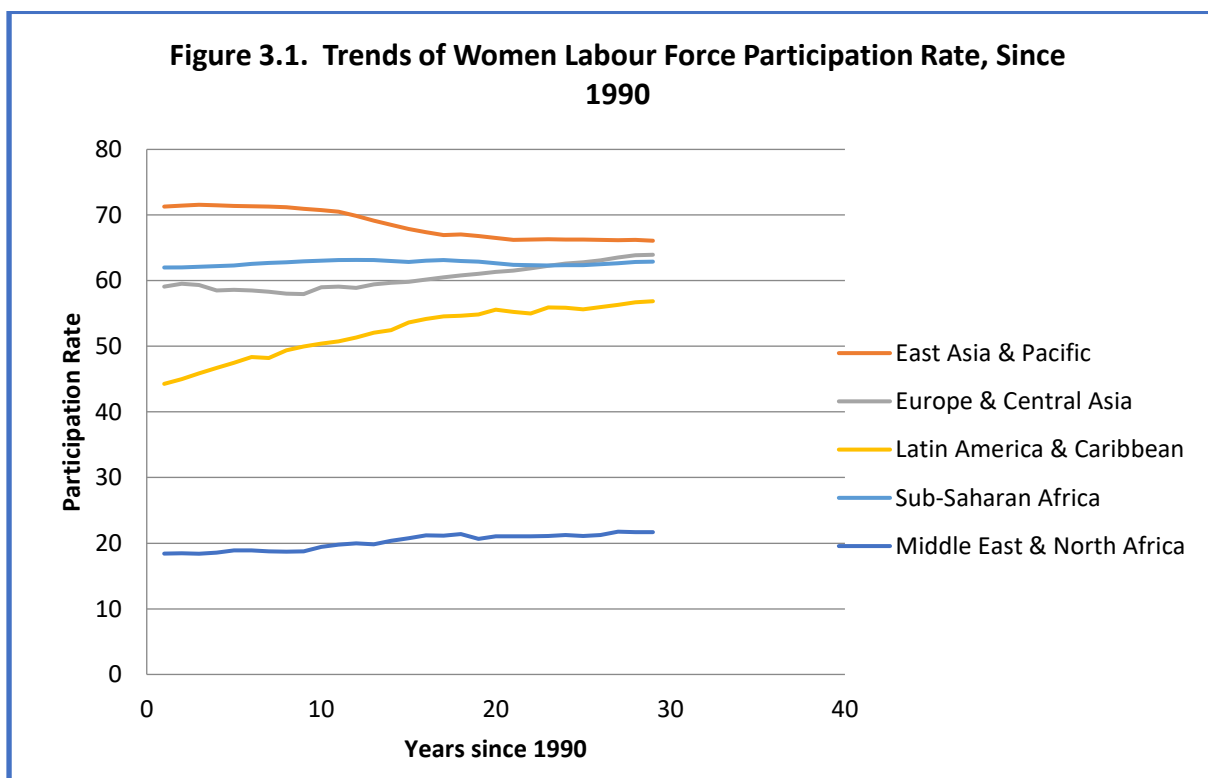
A study in Cameroon and Mali by Comblon, et.al (2017) found a huge gap in monthly wage earnings of men and women. The gap is relatively higher in Cameroon. Even with the same level of education, men tend to earn much more than women. Another new report by the World Bank (2019) discovered a huge gap in the return for additional working experiences between men and women. For instance, they have found that, in Mali, men on average expect a 3.1 percent pay rise for an average of one-year additional working experience, but only 1.6 percent for women. A woman in Mali would have to accumulate almost two years more experience for every year her male co-worker accumulates to earn the same wage increase. These evidences from Mali and Cameroon on average reflect the labour market behaviour of most countries in Sub-Saharan Africa, where socially constructed cultural norms and traditions strictly constrain women from exploiting economic opportunities (Akyeampong, and Fofack, 2013).

Labour market participation and wage rates of men and women are not equivalent even for developed countries, whereby both rates are higher for men. These gaps persist even after accounting for level of education and experiences (Mammen and Paxson, 2010). The authors tried to learn the relationship between women labour force participation rates and GDP across different countries with varied income levels using data from 90 countries from the 1970s and 1980s. They concluded that women labour market participation rate has an approximately “U-shape” relationship with the level of GDP per capita. Both low income and high income countries have higher participation of women in the labour market compared to those countries at the middle income group.

The underlying argument of (Mammen and Paxson, 2010) which is also shared by Verick (2014) is that, in poor countries, work in subsistence agriculture and home based production to win their subsistence way of life which may support the relatively higher participation of women in SSA. Then, in the transition of an agrarian society towards an industrial one, men benefited more than women as education level rises, fertility rate declines, and women engaging in a relatively low paying service jobs which widen the men and women inequality in payments. They further argued that this transitional situation resulted in negative income effect on the supply of women labour. This leads women’s labour force participation in middle income countries to decline. However, as the economy becomes more developed

women’s labour market return starts to rise and their participation finally increased, which weakly supported their estimated “U-shaped” relationship with GDP per capita.

The gender gap in labour market participation is not uniform across countries and regions. Using data from the World Development Indicator, the trend of women labour force participation in Sub-Saharan Africa (SSA) in comparison with other regions is portrayed in the following figure 3.1. The rate in SSA is one of the top, only exceeded by East Asia and the Pacific region and more recently by Europe and Central Asia. The more geographically proximate region to SSA, i.e. Middle East and Northern Africa region, registered the incomparably lowest rate of labour force participation in the world. These low rates may prevail due to deep routed cultural and religious attitudes and social norms about women in their society and the workplace in which a study by Chamlou, Muzi and Ahmed (2011) found similar argument.



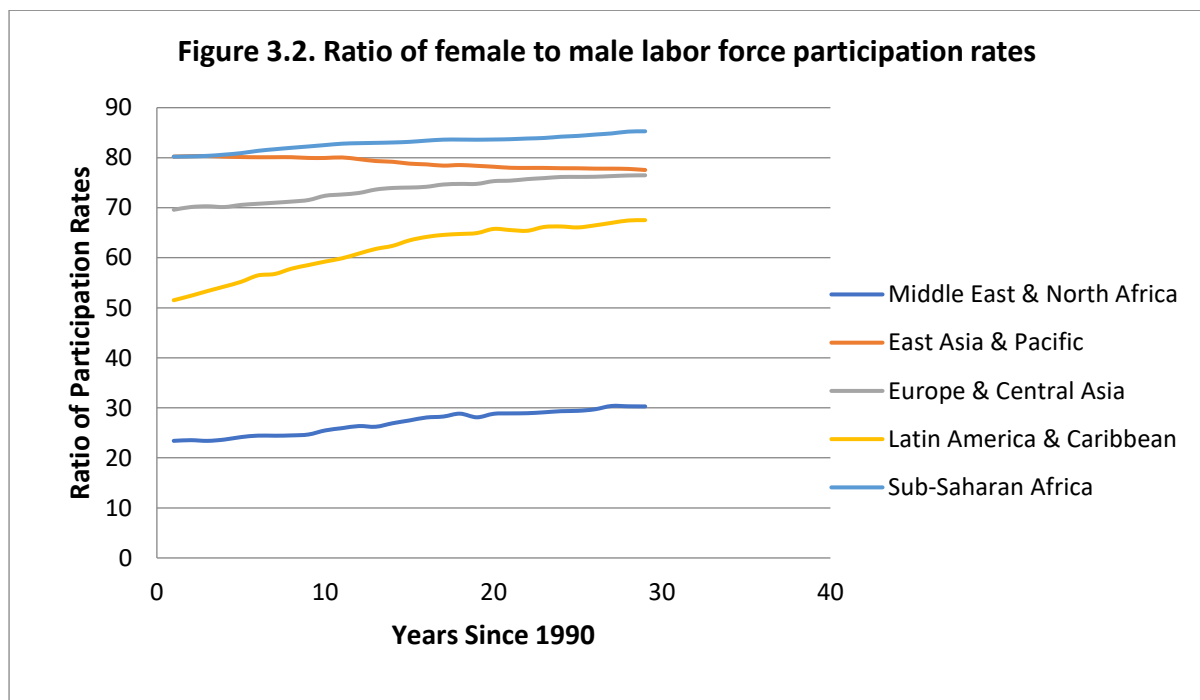
Source: World Development Indicators 2018

However, there is huge heterogeneity in women’s participation within Sub Saharan Africa itself. Data from the World Bank’s development indicator³ reported Rwanda is the country with the highest women labour force participation rate with 86.01 percent, followed by Madagascar with 83.81 percent. Countries like Kenya (62.37 percent), Guinea (63.04

³ https://www.theglobaleconomy.com/rankings/Female_labor_force_participation/

percent), and South Africa (47.9 percent) experienced lower than average participation of women in the labour market. More unequally, countries like Somalia (18.66 percent) and Sudan (23.51 percent) registered much lower women engagement in the labour market. These countries have relatively similar religious attitudes and societal norms with those countries in northern Africa and Middle East which may explain their incomparably lower rates than their peer countries in SSA.

Nearly in every country, women are working at a lower rate than their men counter parts, despite representing just over half of the adult population worldwide. These gender gaps in the labour market which usually arise from social norms, gender roles and socio-economic constraints are deeply rooted mainly in traditional societies. Recent trends in high income countries show increasing trends in women labour force participation rates increasing by 3.5 percent in 2018 from its base rate in 1993. However, men’s labour market outcome declined by almost equal rate of 3.5 percent in similar period. This narrowed trends in the gap in the participation of men and women in the labour market (ILO, 2019). These trends looked well behaved in developing regions, including those in Sub Saharan Africa too as it has been observed on the below mentioned figure 3.2.



Source: World Development Indicators, 2018

The gap in labour force participation is not uniform across countries and regions alike. The trend for female’s and male’s rate labour force participation ratios across selected regions is

depicted above on figure 3.2, using data similarly from World Development indicators. The upward sloping curve indicates progresses in closing the gap in labour market participation between men and women. It is evident from the figure that on average, countries in Sub Saharan Africa have the lowest gap in men and women labour market participation rates compared to other developing region.

From the figure 3.2 above, it is also openly evident that countries in the Middle East and North Africa experienced the highest labour market gap against women. Despite the presence of low labour force participation of females in the region, unemployment rate among females is much higher than their male working population (Mirzaie, 2015). A study by Chamlou, et al (2011) concluded that traditions and social norms in the region significantly and negatively explained participation of women in the labour market in Middle East and North African countries.

Selected studies on the determinants of female labour force participation in SSA indicated that factors like level of education, fertility, income, marital status, religion and related variables are important. Particularly, a South African study by Ntuli, M (2007) founded that women participation positively responded to level of education arguing that higher level of education is associated with more opportunities for women with better returns. This is also true for the case of Ghana from a study by Ackah, et al (2009) which concluded that women with higher education are more economically active than their less educated counter parts. However, in Nigeria a study by Nagac and Nuhu (2016) founded that the effect of education on women's labour market participation is non linear and with an approximately "U-shaped" pattern with the level of education concluding that women with less education and higher education are associated with higher rates of labour market participation.

In line with the mainstream literature on the impact of fertility on women's labour market outcome, the above studies in South Africa and Ghana and another by Che and Sundjo (2018) in Cameroon similarly found that having a higher rate of fertility is a cost for women's labour market outcomes which makes the mother responsible for childcare and related responsibilities at the expense of paid labour. Interestingly, the study in Cameroon founded that being Muslim is associated with negative rates of participation by women in the labour market which is similar with the trends discussed above in Middle East and North Africa. This also may also explain the prevalence of lower rates of women participation in Sudan and Somalia which are predominantly Muslim states.

3.3.2. Paid and Unpaid work Mix: Evidence from Time use Surveys

Women engage in multiple unpaid activities, including domestic work and unpaid work for the family farm or business. Measuring this type of work can be a challenge, even in time use surveys specifically designed for this purpose. Different types of unpaid work can be performed simultaneously, for example, and often overlap with leisure activities or even market-based work such as entrepreneurial activities (Apps, 2003).

However, standard employment and national accounts data don't capture nonmarket activities, where women are predominately engaged, and therefore SNAs fail to demonstrate the full contribution of women to the household economy and the extent of the female work burden. Women in SSA are mostly time poor because of their dual roles in the household economy and the labour market alike (Ellis, et.al, 2007). Therefore, the previously discussed female labour participation rates doesn't capture the actual participation of women in work, as the figure underestimates the role mostly women played in domestic works and other activities (UNDP, 2015).

The relative quality and security of employment by men and women also matters. Working women in developing countries are more likely to be engaged in informal employment in non-agricultural activities as compared to men. Informal arrangements often persist and inhibit mobility as well as transition to formal or more secure work, whether self-employed or for another enterprise. Women in SSA are mostly involved in informal sector works, which include unpaid work in a family enterprise, paid or unpaid work in other informal sector enterprises, casual wage labour, domestic work, and related activities which accounts for a major share of work among the poor. Women are more likely to work shorter hours for pay or profit and they also have a higher probability of being underemployed (ILO, 2013).

However, as argued by Arora and Rada (2013) these gender divisions between work inside and work outside the house may not be unfair, if both demand a comparable amount and intensity of labour without extra burden. A problem arises when it demands that women's labour cuts across activities between both paid and unpaid works. As previously stated unpaid work consists of time devoted to activities taking place outside the sphere of remunerated activities, which include unpaid family work, subsistence production, collection of water, fuel wood and other free goods, sanitation and household maintenance work, food processing and meal preparation, and volunteer and unpaid care work.

The time use literature almost uniformly confirmed that women both in developed and developing world devote relatively more time in unpaid works compared to men (Chames, 2015). The following Table 3.1 presents time use patterns between paid and unpaid activities in selected Sub-Saharan African countries.

Table 3.1. Average Minutes spend daily on Paid and Unpaid works in SSA

Selected Countries	Minutes spend for Paid work per day		Minute spend for unpaid work per day		All minutes of work per day		
	Women	Men	Women	Men	Women	Men	Time use Gap
Ethiopia (2013)	200	301	291	125	491	426	65
Mali (2008)	217	308	241	21	458	329	129
Mauritius (2003)	116	296	277	73	393	369	24
Tanzania (2006)	205	276	212	73	417	349	68
Tanzania (2014)	195	341	238	64	433	405	28
South Africa (2000)	116	190	216	83	332	273	59
South Africa (2010)	129	214	229	98	358	312	46
Madagascar (2001)	224	350	222	50	446	400	46
Ghana (2009)	230	288	220	68	450	356	94
Benin (1998)	284	268	206	65	490	333	157

Source: Extracted from Chames (2015)

The works of Blackden and Wodon (2006) presented the times spent by SNA and non-SNA for the same time use surveys for Benin (1998), South Africa (2000), Madagascar (2001), and Mauritius (2003) in their review of time poverty in 2006. Interestingly, the table above incorporated data from these respective times use surveys in terms of paid and unpaid works. But, this one is more demanding for incorporating recent time use studies which may help us to see if there is changing patterns in time-uses across activities and variations between the way men and women spend their time between paid and unpaid works. In all sample countries, except in Benin, men performed more paid work compared to women. Only in Benin that women did relatively more paid work than men which imply that the participation of women in paid economic activities is comparatively high in Benin.

The high share of time spent on paid activities by men in most countries doesn't imply that men contributed more both in income and time spent on work generally. If we see the hours of work devoted for unpaid working activities in and outside of the household, women took the lions share. The sum of hours spent by both men and women in both paid and unpaid activities reflects that, in all countries presented above, women did more work than men in terms of hours spent. Women in Ethiopia and Benin are incomparably loaded with more hours of paid and unpaid work compared to both men and women in other countries. Men in Mali spend the lowest hours of work in unpaid activities which may be linked to particular gendered division of labour traditions in Mali. A study in Uganda by Evers and Walters (2001) reported a similar result where they found that women supply 80% of the household labour time for food production, 60% for production of cash crops and most of labour for household and care work.

The last column on the overall gender time use gap indicated the country level heterogeneities from the selected countries in SSA. The highest time-use gap between men and women registered in Benin and Mali. In the two countries relative time poverty of women compared to other countries is high. However, this doesn't reflect the state of absolute time poverty of women in the two countries, being women in Ethiopia are the most loaded from the selected countries. However, compared to other countries men in Ethiopia also work more time than other men in other countries from the list on the table which is why the gender time use gap is smaller.

Even though women carry more than half the burden of global work, they are disadvantaged in the world of working both paid and unpaid work. Women are less engaged in waged work, earn less than men, remain underrepresented in senior decision-making positions, encounter uneven barriers to entrepreneurship and, in many countries, are more likely to be in vulnerable employment (UNDP, 2015).

Chames (2015) reported that the time for social life, entertainment and other free time by women ranges from 6 percent in rural Ethiopia and 7 percent in Tanzania to 19 percent of total time spent in Mauritius, South Africa and urban Mali. For men, time for such activities range from 10 percent in rural Ethiopia, rural Madagascar and the United Republic of Tanzania to 22 percent in Mali and Mauritius. This implies a wider inequality of leisure time between men and women in Sub-Saharan Africa, where men enjoyed more time for leisure than women which is a direct manifestation of the higher total hours of work spent by

women than men in all countries considered. In conclusion, women in Sub-Saharan Africa are more work burdened and time poorer than their men counterparts.

According to UNDP (2015), the incomparably more time spent by women on both paid and unpaid work impedes both their current state of welfare and future human capital. Girls spending more time in domestic work than boys make them relatively time poorer and trades off with their schooling. To close such gaps, the report further recommended that social norms need to evolve to reflect the equal potentials of women and men across all societies.

3.4. Household Infrastructure and Women's time use

According to Blackden and Wodon (2006), in Sub-Saharan Africa, women work longer hours resulting in disproportionate time poverty due to lack of access to basic infrastructure services such as water and electricity, and increasing demands from the caring economy. The study by Arora (2014) in Mozambique also found that poor household infrastructure is one of the reasons why women in the country are time poorer than men.

Using the 2006 time use survey data in Tanzania, Fontana and Natali (2008) present their findings for a gender analysis which showed that women, and particularly those from low income groups and living in areas with limited facilities, spend long hours on water and fuel collection, food preparation, and other domestic and care activities to compensate for poor infrastructure. Girls are more involved than boys in firewood collection, fetching water and other unpaid domestic works. Another study by Kes and Swaminathan (2006) concluded that women's tasks are often made more difficult because of inadequate infrastructure for water, energy, and transport, as well as women's lack of access to productivity-enhancing technology that is responsive to their specific needs and work burdens.

According to Graham, et al (2016), a study of 24 countries in sub-Saharan Africa (SSA) founded that an estimated two-thirds of the population must leave their home to collect water spending a significant portion of their time. There is considerable variability across countries, but gender differences in labour related to water collection is evident whereby women and girls incomparably spend more time and shoulder higher responsibility in water collection. This has direct implications on the amount of time women could spend on education, labour market, and leisure.

Households in sub-Saharan Africa also have very rare access to modern fuels for cooking. More chronically, 11 countries in the region have less than 1% of households with modern

fuels for cooking which lead women and girls to spend long hours each day collecting firewood for subsistence cooking which is far more laborious compared to improved technologies (African Development Bank, 2015).

Using a US census data of 1940 and 1950, Emanuela (2008) argued that modern appliances such as washing machines and refrigerators had a profound impact on 20th Century society. She argued that the labour market participation of married women increased from 5.6 % in 1900 to 51% in 1980 mainly due to modern appliances such as stoves, electric irons, vacuum cleaners, refrigerators and washing machines. Cavalcanti and Tavares (2004) studied the role of technological improvements in home appliance technology on the rate of labour market participation of women in OECD countries. According to them, a decrease in the relative price of appliances leads to a substantial and statistically significant increase in female labour force participation. This can be explained by the fact that improved household infrastructures which reduces time women spend in domestic work and leave them with extra hours to participate in the labour market. A study by Greenwood, et.al (2005) called such innovative household technologies and appliances as 'Engines of Liberalization' for women. Optimistically, this study concluded that the revolution of sophisticated home technologies will make women of the future domestic engineer rather than domestic labourer.

A South African study by Dinkelman (2011) concluded that, in rural areas of South Africa, mass rollout of electricity raised female informal sector employment by 9.5 per cent in electrified communities. Dasso and Fernandez (2015) in Peru also make a similar conclusion that rural household electrification has increased women employment. Studies by Fontana and Natali (2008) and Kes and Swaminathan (2006) argued that, to address the wider gender differences in African labour markets, investments in infrastructure in the water sector, sanitation services, electrification, roads, and better transportation, especially in rural areas will have an important role to liberate women and girls from the unjustly high domestic workload and produce additional time to spend on the job market. However, the current literature on the estimated impact of investments on home appliances and household infrastructures on women's labour outcome is limited which could be a great potential for researchers in the field.

4. Conclusion and Insights for New Research

The main objective of this review have been to comprehend evidences on gendered division of labour in the household, time use patterns and implications for women's labour market outcome. Household division of labour for paid and unpaid works are considered as an outcome of bargaining in intra household decision making process. Insights from studies in intra-household resource allocations showed unequal distribution of work load, leisure time and ownership of productive assets between men and women both in developed and developing regions. However, the problem is more paramount in the developing world including those in Sub-Saharan Africa. Mostly traditional gender roles that reflect gendered division of labour in a given society by labelling works categorically for men and women created institutions that illicitly rule on how men and women behave in their household and also in the labour market.

Women in Sub Saharan Africa engage both in domestic work and also hold other responsibilities outside home for both paid and unpaid activities more than men in their society. Women spend incomparably higher cumulative working hours on both paid and unpaid works more than men. Men spend relatively more time on paid works and earn more income than women, however women spend more time overall. This left women to be more time poor than men and also earn less than men in income terms. Most domestic activities by women are unpaid. This ends women to be both income and time poor than their men counterparts which is evident in SSA. These gaps are showing improving trends, but still the gap in SSA is one of the highest in the world only better than Middle east and North Africa which experiences the worst gender inequalities in the world.

Despite geographic heterogeneities, labour market participation rates of women in SSA are very high. The rate is on average lower than men. Employment rates of women are less than men, and unemployment rates of women are more than men. This shows that labour market outcomes for men and women are not equivalent. Some studies reflect that these results are a direct reflection of traditional gender roles instilled in the African society. Studies on the role of investments on household infrastructure in the west has shown that such infrastructures reduce women's domestic work load and reduces their time poverty which may lead to more leisure or decision to participate in the labour market for paid activities. Similarly, a few studies in SSA has proved that improved accessibility of water and modern rural electrification relax women's time poverty and decision to engage more in the labour market

and invest in their human capital, especially for girls who usually spend more time to fetch water and collect firewood at the expense of their schooling.

More comprehensive studies that use rich time use surveys to learn more about the detailed economics of intra household decision making, gender roles and their labour market outcome is still demanding given the wider geographic and socioeconomic heterogeneity of SSA. Studies on the effect of home appliances like refrigerators, modern laundry machines, improved cooking stoves and other household infrastructures are not available to estimate the labour market outcomes and state of time poverty of women.

5. Limitations of the study

Sub-Saharan Africa is one of the most diversified regions of the world. Studies about time use patterns of working men and women are available only for few countries in SSA. Therefore, aggregate conclusions that have been inferred from these limited studies may not reflect the overall heterogeneity of the region. Thus, some of the conclusions about the region should be cautiously considered.

Acknowledgment

First of all I would like to thank my supervisor professor Catherine Guirkinger and my tutor Ms Marie Seleck for their constructive comments, sharing supportive documents and understanding when I miss deadlines. Thank you a lot.

I would also like to appreciate Académie De Recherche Et D'Enseignement Supérieur (ARES) for financing my study and University of Namur for hosting me. University of Namur gave me the opportunity to learn more from my professors, and my classmates from different backgrounds. My sincere appreciation also goes to Ms Peirrette Noel for her welcoming administrative supports during the whole year. Thank you.

Finally, I would like to thank my friends and classmates for making my stay in Belgium meaningful.

Reference

- Abdourahman, O. (2011). **Time Poverty: A Contributor to Women's Poverty?**, African Journal of Statistics, No 11, 2010
- Ackah, C.; Ahiadeke, C.; Fenny, A. (2009). **Determinants of Female Labour Force Participation in Ghana**, Global Development Network, Working Paper No. 14
- Aelst, K. (2014), **Household decision making and gender relations in Tanzania: Literature and theory review**, IOB Working Paper / 2014.02
- African Development Bank (2015). **Africa Gender Equality Index 2015**, African Development Bank, Abidjan, Côte d'Ivoire
- Agarwal, B. (1997). **Bargaining and Gender Relations: Within and beyond the Household**, Feminist Economics Vol. 3(1), pp 1-51
- Akyeampong, E. and Fofack, H.(2013). **The Contribution of African Women to Economic Growth and Development in Post-Colonial Africa: Historical Perspectives and Policy Implications**, Policy Research Working Paper 6537, The World Bank
- Alesina, A.; Giuliano, P. and Nunn, N. (2011). **On the Origins of Gender Roles: Women and the Plough**, NBER Working Paper 17098
- Anyanwu, J. and Augustine, D. (2012). **Towards inclusive African labour market: empirical analysis of gender equality in employment and its implications for policy**, AEC, 2012
- Apps, P. (2003), **Gender, Time-Use and Models of the Household**, Discussion Paper No 464, Australian National University
- Arora, D. and Rada, C. (2013), **Gender differences in time and resource allocation in rural households in Ethiopia**, December 19, 2013
- Arora, D. (2014). **Gender Differences in Time Poverty in Rural Mozambique**, Working Paper Series, Department of Economics, University of Utah 2014_05
- Asian Development Bank (2015). **Desk review of women's time poverty and infrastructure in Asia and the Pacific**, Asian Development Bank, 2015.
- Bandara, A. (2015). The Economic Costs of Gender Gaps in Effective Labour: Africa's Missing Growth Reserve**, Feminist Economist 21(2): 162–86.
- Bardasi, E. and Wodon, Q. (2009). **Working long hours and having no choice: time poverty in Guinea**, Policy Research working paper, No. WPS 4961
- Bardasi, E., and Wodon, Q. (2009). **Working Long Hours and Having No Choice: Time Poverty in Guinea**, Policy Research Working Paper 4961, World Bank
- Bardasi, E., and Wodon, Q. (2005). **Measuring Time Poverty and Analyzing its Determinants: Concepts and Application to Guinea**, In Gender, Time Use, and Poverty in Sub-Saharan Africa, ed. C. Mark Blackden and Quentin Wodon. Washington, DC: World Bank.
- Becker, G. (1965). **A Theory of the Allocation of Time**, *The Economic Journal*, Vol. 75, No. 299, PP. 493-517
- Bertrand, M. (2011). **New Perspectives on Gender**, in O Ashenfelter and D Card (eds.) *Handbook of Labour Economics*, vol. 4B: 1545-1592. Amsterdam: Elsevier.
- Blackden, C. and Wodon, Q (2006), **Gender, Time Use, and Poverty: Introduction**, In Gender, Time Use, and Poverty in Sub-Saharan Africa, ed. C. Mark Blackden and Quentin Wodon. Washington, DC: World Bank.
- Blackden, C. and Wodon, Q. (2006). **Gender Time Use and Poverty in Sub-Saharan Africa**, World Bank Working Paper No. 73
- Brixiová, Z. and Kangoye, T. (2016). **Gender Disparities in Employment and Earnings in Sub-Saharan Africa: Evidence from Swaziland**, IZA Discussion Papers, No. 10455

- Cavalcanti, T. and Tavares, J. (2004). **Assessing the “Engines of Liberation”:** Home Appliances and Female Labour Force Participation,
- Chames, J. (2006). **A Review of Empirical Evidence on Time Use in Africa from UN-Sponsored Surveys.** In *Gender, Time Use, and Poverty in Sub-Saharan Africa*, ed. C. Mark Blackden and Quentin Wodon. Washington, DC: World Bank.
- Chames, J. (2015). **Time Use Across the World: Findings of a World Compilation of Time Use Surveys,** UNDP Human Development Report Office, **Background Paper**
- Chamlou, N., Muzi, S., Ahmed, H. (2011). **Understanding the Determinants of Female Labour Force Participation in the Middle East and North Africa Region: The Role of Education and Social Norms in Amman,** Almalaurea Working Papers No. 31
- Che, G. and Sundjo, F. (2018). **Determinants of Female Labour Force Participation in Cameroon,** *International Journal of Applied Economics, Finance and Accounting* , Vol. 3, No. 2, pp. 88-103
- Chiappori, P. (1988). **Rational Household Labour Supply.** *Econometrica* , Vol 56, PP 63-90.
- Chiappori, P. (1992). **Collective Labour Supply and Welfare,** *Journal of Political Economy*, Vol. 100, No. 3 , pp 437-67
- Comblon, V., Robilliard, A., and Roubaud, F. (2017). **Gender Analysis of Labor Markets Outcomes in Sub-Saharan Africa: Recent Evidence from Malie and Cameroon,** UN Women Discussion paper, No 16
- Dasso, R. and Fernandez, F. (2015). **The effects of electrification on employment in rural Peru,** *IZA Journal of Labour & Development* (2015) 4:6: DOI 10.1186/s40175-015-0028-4
- Dinkelman, T. (2011). **The effects of rural electrification on employment: evidence from South Africa.** *American Economic Review*, 101:3078–3108
- Ellis, A., Cutura, J., Dione, N., Gillson, I., Manuel, C., and Thongori, j. (2007). **Gender and Economic Growth in Kenya: Unleashing the Power of Women,** World Bank, Washington DC
- Emanuela, C. (2008). Household Technology: Was it the Engine of Liberation?}," 2008 Meeting Papers 826, Society for Economic Dynamics.*
- Eswaran, M. (2014), **Why Gender Matters in Economics,** Princeton University Press
- Evers, B. and Walters, B. (2001). **The Model of a Gender-Segregated Low-Income Economy Reconsidered: Evidence from Uganda.** *Review of Development Economics*
- Ferrant, G. (2014). **Time use as a transformative indicator for gender equality in the post-2015 agenda,** OECD Development Centre, March 2014
- Fontana and Natali (2008). **Gendered Patterns of Time Use in Tanzania: Public Investment in Infrastructure Can Help.**
- Fortin, N. (2005), *Gender role attitudes and women’s labour market outcomes across OECD countries.* *Oxford Review of Economic Policy* 21 (3), 416–438.
- Gaddis, I.; Lahoti, R.; and Li, W. (2018). **Gender Gaps in Property Ownership in Sub-Saharan Africa,** Policy Research Working Paper 8573, World Bank Group
- Goldin, C. (2002). **A Pollution Theory of Discrimination: Male and Female Differences in Occupations and Earnings,** NBER Working Papers 8985
- Graham, J., HiraI, M., Kim, S. (2016). **An Analysis of Water Collection Labour among Women and Children in 24 Sub-Saharan African Countries,** PLoS One 11(6)
- Greenwood, J, Seshadri, A, and Yorukoglu, M. (2005). **Engines of Liberation,** *Review of Economic Studies*, 72, 109–133

- Gross, J., and Swirski, B. (2002). **Time Use Surveys and Gender Equality**, Information for Equality and Social Justice in Israel, 2002
- Guiso, L., Sapienza, P, and Zingales, L., (2003). **People's opium? Religion and economic attitudes**, Journal of Monetary Economics, Elsevier, vol. 50(1), pages 225-282,
- Hakura, D., Hussain, M., Newiak, M., Thakoor, V., and Yang, F. (2016). **Inequality, Gender Gaps and Economic Growth: Comparative Evidence for Sub-Saharan Africa**, IMF Working Paper, **WP/16/11**
- Ichino, A., and Moretti, E. (2009). **Biological gender differences, absenteeism, and the earnings gap**, American Economic Journal: Applied Economics 2009, 1:1, 183–218
- International Labour Organization (2013). **Measuring Informality: A Statistical Manual on the Informal Sector and Informal Employment (Rep.)**. Geneva: ILO.
- International Labour Organization (2016), **Women at Work: Trends 2016**, International Labour Office – Geneva: ILO, 2016
- International Labour Organization (2018). **World Employment and Social Outlook: Trends for Women 2018 – Global snapshot**, Geneva
- Kes, A. and Swaminathan, H. (2006). **Gender and Time Poverty in Sub-Saharan Africa**, In Gender, Time Use, and Poverty in Sub-Saharan Africa, ed. C. Mark Blackden and Quentin Wodon. Washington, DC: World Bank.
- Lundberg, S. (2008), **Gender and household decision-making**, in 'Frontiers in the Economics of Gender', Routledge
- Majlesi, K. (2016). **Labour Market Opportunities and Women's Decision Making Power within Households**. Journal of Development Economics, 119, 34-47.
- Mammen, K. and Paxson, C. (2010). **Women's Work and Economic Development**, **Journal of Economic Perspectives**, Vol 14, NO 4, Pages 141–164
- Mirzaie, I.A. (2015). **Females' labour force participation and job opportunities in the Middle East**, Allied Social Science Association annual meeting papers, Boston, MA, January 3-5.
- Nagac, K. and Nuhu, H. (2016). **The Role of Education in Female Labour Force Participation in Nigeria**, IOSR Journal of Economics and Finance, Vol. 7, PP 56-62
- Niederle, M. and Vesterlund, L. (2007). **Do Women Shy Away From Competition? Do Men Compete too Much?**, *The Quarterly Journal of Economics*, August 2007
- Ntuli, M. (2007). **Determinants of South African Women's Labour Force Participation, 1995–2004**, IZA Discussion Paper No. 3119
- Polachek, S. and Siebert, W. (1996). **Family Labour Market Incentives: Men and Women Working for Pay**, in Paul L. Menchik (1996 edit) Household and family economics. Recent economic thought series, Springer Science+Business Media New York
- Pollak, R. (2005). **Bargaining Power in Marriage: Earnings, Wage Rates and Household Production**, NBER Working Paper 11239
- Sen, A. (1987). **Gender and Cooperative Conflict**, WIDER Working Paper, 18
- Seymour, G, Malapit, H, and Quisumbing, A. (2017). **Measuring Time Use in Development Settings**, Policy Research Working Paper 8147, World Bank Group
- Thomas, D. (1990). **Intra-Household Resource Allocation: An Inferential Approach**, The Journal of Human Resources, Vol. 25, No. 4, pp. 635-664
- Udry, C. (1996). **Gender, Agricultural Production, and the theory of the household**, Journal of Political Economy 104, pp. 1010-1046
- United Nation Development Program (2015). **Work for Human Development**, Human Development Report, UNDP, 2015
- Verick, S.(2014). **Female Labour force Participation in Developing countries**. IZA World of Labor 2014: 87

- William, B. (2009), **Gender Perspectives of Labour Market Discrimination in Ghana. Ph.D. Economics**, University of Ghana.
- World Bank (2012), **Gender Equality and Development**, World Development Report, the World Bank Group
- World Bank (2019), **World Development Report 2019: The Changing Nature of Work**. Washington, DC: World Bank
- Zilanawala, A. (2013), **Women's Time Poverty: Differences by Family Structure, Employment, and Gender Ideology**, PhD Dissertation, Columbia University, 2013