Does women's employment impact on their agency in the rural Ethiopian context? Empirical evidence from Sebeta Hawas District, Central Oromia, Ethiopia

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Abstract

Women's empowerment has become a key aspect of global development agenda. Increasing women's access to resources including employment opportunities in particular has become central to this agenda. There is both an instrumental and intrinsic rationale for this, at least at a conception level. Nevertheless, the intrinsic aspect of women's employment often falls out of the frame in conventional development practices and research endeavours in the area. Hence, the paper aims to examine the impact of women's employment on their agency in rural Ethiopian context taking the case of Sebeta Hawas district in Central Oromia. Mixed research methods were employed. Both quantitative and qualitative data were generated using a combination of survey, interviews and focus group discussions. The quantitative data was analysed using the Propensity Matching Method (PSM) and the corresponding results were substantiated using qualitative data which were analysed using thematic analysis. The study draws on Kabeer's (1999) empowerment model that explicates the nuanced process involved in the translation of women's access to resources to empowerment outcomes. The findings of the study revealed that women's wage employment significantly enhanced their self-worth by 6 percentage points,

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whereas self-employment was found to have minimal impact. This suggests the importance of the type of work that provides women with better financial reward enabling them to meaningfully contribute to their households needs and creates a space allowing them access to new source information beyond their traditional domain in positively impacting women's self-worth. It also signifies how significant the cultural meanings associated with the work is in shaping the women's employment outcomes.

Keywords: Rural women; Women employment; Agency; Self-worth; Central Oromia; Ethiopia

1. Introduction

Women's empowerment has become a key aspect of global development agenda. It has been commonly featured among different global policy objectives including the 2030 Sustainable Development Goals (United Nations 2015). Amidst the wider usage of the notion of empowerment within development research and practices, its discourse has historically evolved over time. The initial efforts to conceptualize empowerment focus on the issue of confronting and transforming unjust and unequal power relations with grass root struggles playing a critical role in the process (Batliwala 2007; Rowlands 1998). In these writings, empowerment was casted as an unfolding process of changes in consciousness and collective power. The recent empowerment approaches, often advanced by major development agencies, are focusing particularly on expansion of opportunities which primarily refer to enhancing women's access to assets and resources (Alsop et al. 2005; Wong 2003).

Despite some scholars' criticisms against the conception of empowerment as opportunity-expansion for not having connotations referring to power relations (Batliwala 2007; Cornwall, 2016), it is a

widely adopted approach among the development practitioners and researchers. This is primarily attributed to the instrumentality of the approach in overcoming the challenges commonly faced in relation to the field of intervention and measurement aspect of the empowerment concept in development practices. In the case of opportunity-expansion approach of empowerment, enhancing women's access to education, productive resources including land, credit, and employment are quite often identified as major focus areas in interventions targeted to ensure women's empowerment. The basic assumption behind this approach is that women's increased access to the resources and assets helps them challenge power dynamics personally, in the household, and at the community level, hence ensuring their overall empowerment (Sen 1997). This may of course happen (Kabeer 2011). Yet, as Cornwall (2016) states, it remains a contingent rather than a necessary outcome.

Ethiopian women have less access to and control over assets and resources than men (Solomon & Memar 2014; World Bank 2019). Recognizing the disadvantaged position of women in the country, the government of Ethiopia has made efforts in terms of policy formulation and issuing relevant legal instruments that help ensuring gender equality and women's empowerment. To this end, Article 35 of the Ethiopian Constitution (Federal Democratic Republic of Ethiopia 1995) clearly stipulates that women/girls have the right to enjoy full equality in every aspect of their lives, including in marriage, property rights, inheritance, and bodily integrity. Similarly, Article 42 (1.d) of the constitution states the right of women workers to equal pay for equal work. Additionally, the country has declared its commitment to gender equality and empowerment by issuing the National Women's Policy in 1993. It is equally noteworthy that among the strategic pillars of the current Ethiopia's Ten-Year Development Plan are also gender and social inclusion (Plan and Development Commission 2020). Among others, the issue of job creation for the citizens in general and women in particular has remained a key policy direction for the government in its effort to alleviate poverty.

Commensurate with the favourable policy initiatives in the country, women's labour force participation is one of the important areas where some positive changes were noted in the country. Women have increasingly engaged in productive activities. According to the official data, the female Employment to Population Ratio has increased from 58.5 percent to 69.8 percent between 1999 and 2013 and a more noticeable change in women's economic activity was taking place in rural than urban areas (Central Statistical Agency 2014: 66). A more recent figure shows that Ethiopia has closed the gender gap in labour force participation by 85.4 percent in 2022 (WEF 2022: 164), which is up from 79 percent in 2006 (WEF 2006: 62).

The development of microcredit programmes and the adoption various policy measures since the early 1990s including the implementation of the Micro and Small Enterprise Development Policy and Strategy and the Export Development Strategy are among the key development initiatives that have enhanced women's income earning job opportunities (Befikadu & Degefa 2019; Tizita 2014). Ethiopia has been experiencing an unprecedented expansion of Non-Traditional Export Industries (NTEIs), which mainly include garment and floriculture industries since the mid-1990s. An important feature of the NTEIs is that they rely primarily on lower-waged female labour to compete in a highly competitive global market. Rural or peri-urban women in central part of the country (where the industries are mainly located) responded to these new opportunities in large numbers and engaged in wage work in the industries (Tizita 2014). The recent socio-economic phenomenon noted in Sebeta Hawas district in central Oromia in particular (i.e., expansion various labour-intensive investments creating increased job opportunities for rural women) is no exception. Thus, this research is interested in whether the employment opportunities created in the area have done more than simply increase rural women's participation in the labour market, namely whether they fostered the women's agency as one of the main components of empowerment.

2. Statement of the problem

There is an increasing focus on achieving gender parity in the economic sphere. The issue of addressing gender disparities on economic opportunities and participation have become among the key development agenda for developing economies, and for Africa in particular (Arbache et al. 2010). In the dominant development policy narrative, beyond its positive contributions to economies across the world, widening female employment opportunities is commonly believed to be instrumental in fostering their agency by helping women to acquire more decision-making abilities to achieve their purposes and gain control over their life, thereby enhancing their empowerment (Kabeer 2011). In similar notion, the recent initiatives in the Ethiopia aimed at enhancing women's access to resources, including income earning employment, are often understood as key strategies in addressing asymmetric gender relations in the society, hence ensuring their empowerment. This is especially articulated not only in terms of the role that resources may play in increasing women's bargaining power and hence decision-making power, but also in building critical consciousness which refers to individual agency. In case of the latter point, women's access to resources may enable them to shift the way they see and experience their worlds that can raise awareness about inequalities, stimulate indignation about injustice, and generate the impetus to act together to change society.

Evidence from several studies, however, showed that the extent of fostering agency by employment depends on various overlapping factors such as the individual circumstances, type of work, and legal and social context that regulates the distribution of resources and benefits in the society (Al-Munaiey 2019; Malhotra & Mather 1997; Boudet et al. 2013). Regarding social context in particular, various researchers have emphasized the difficulty of asserting the ability of employment (as a resource) to expand women's agency and their empowerment, especially within a patriarchal society (Haghighat 2013;

Malhotra & Mather 1997). This implies that an attempt aimed at fully capturing the complexity of the relationship between resource and agency requires recognizing the significance of context and structure of opportunities and constraints surrounding the woman in question. This primarily forms the basis for the research problem in this study.

In Ethiopian context, despite the increasing women's participation in income earning jobs, little is known about what "income generation" really means in the lives of poor women. There has been some work done emphasizing the instrumentality of women's access to resources, in effectively enhancing socio-economic welfare of the society. This notion was especially articulated in terms of the positive impacts of the higher degree of equality of the intra-household distribution of resources on productive efficiency and hence on total production, household poverty reduction, and change in household consumption behaviour promoting family health (Seebens & Sauer 2007; Quisumbing & Maluccio 2000; Nardos & Mulugeta 2019; Girma 2021; Alemayehu et al. 2023). But the question of what women's increasing access to resources did to them, including what benefits the women were getting, not subsumed into the household, but in terms of enabling them to develop critical thoughts that question the dominant biases stereotypes in the society, has not been extensively explored.

This paper, thus, attempts to examine how women's participation in the income earning activities, both wage employment and self-employment, impacts on their individual agency based on a case study conducted in Sebeta Hawas district in Central Oromia where rural women are increasingly entering into the labour market. It focuses on examining the extent to which women's access to income earning employment help them overturning the limiting normative beliefs and expectations (at individual level) that keep them locked into situations of subordination and dependency in their households and the society at large. The paper also examines and explains the variations (if any) in impacts between different employment categories.

3. Review of relevant literature

3.1 Conceptualization of resources and agency within the Empowerment process

The paper draws on Kabeer's (1999) conceptualization of empowerment as an ongoing and iterative process in which the ability to make choices is acquired by those who have been denied such an ability in a given situation. Empowerment encompasses three inter-connected components, namely resources, agency, and achievement shown in Figure 1. Resources are preconditions that set the contexts through which agency is exercised. These primarily refer to enabling resources that can be material, relational, legal, and/or knowledge, and are linked to institutional norms and a person's position in society. The enabling resources include both systemic, which refers to the formal rules as laid down in the constitutions, laws, and policies, and individual level which include access to services (e.g., education and health), ownership of asset (e.g., cattle and land), and earning income.

Agency, the second component of empowerment, is the processes by which strategic choices are made and put into effect. While agency is often operationalized in terms of decision-making power or 'power to' in the literature, feminists suggest that it is far greater than an observable action. As Kabeer (1999: 438) notes, agency also encompasses "the meaning, motivation and purpose which individuals bring to their activity: …'the power within' "and can take the form of a more intangible, cognitive processes of reflection and analysis. The third component of empowerment, achievements, refers to the outcomes of agency (Kabeer 1999). These often include women's financial autonomy, wellbeing outcomes (e.g., maternal health and child health) and change in gender asymmetric social norms and practices such as violence and early marriage.

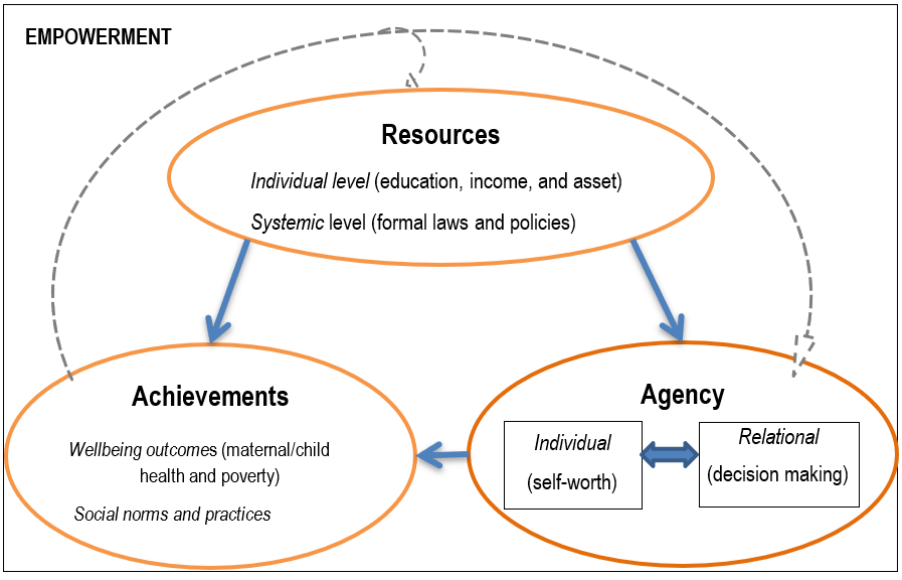


Figure 1: Conceptual model of empowerment process

Women are often socialized to adhere to the social norms and accept their own subordinate positions without resisting men's dominance in the society. This notion of women's role in maintaining the status quo based on the patriarchal ideology could well be explained by Bourdieu's (cited in Krais & William 2000: 56) concept of habitus which is much linked to the "ways of thinking, perspectives on the world, patterns of perception, and the principle of judgement and values at work in the society".

Although it seems there are overlaps between the concept of agency and some psychological constructs such as attitude, self-efficacy, or confidence, an important feature of agency is that it is primarily conceptualized within the context of power in general and internalised oppression in particular. From a gender perspective, power can be exercised not only by external control that systematically denies women access to formal and informal decision-making processes, but also by affecting the way that women perceive themselves and their ability to act and influence the world around them. Several feminist writers have

described the ways in which subservience is subtly built into the minds of the oppressed groups which primarily include acceptance by individuals within an oppressed group of the prejudices against them within the dominant society (Meyers 2002; Pheterson 1986; Rowlands 1995). Agency, thus, refers to the processes of undoing the effects of internalized oppression that leads the oppressed social group to perceive themselves as able and entitled to occupy decision making space.

Based on the above conceptualization of empowerment process and noting the general notion that women's income earning employment is among the key resources that ensure their agency, the paper illustrates how women's employment in the study area impacts their individual agency, a critical component of empowerment. The women's individual agency is analysed using the self-worth indicator which was measured using their belief towards a wife beating practice which is widely practiced in the rural Ethiopian context. A woman's rejection of violent practice on wives is viewed in this study as an indication of deeply personal agency related to individual views of her bodily integrity and gendered rights.

3.2 Review of empirical literature

Achieving gender equality in economic participation and increasing women's empowerment through access to resources has continued to be central targets of various development polices including the UN General Assembly's development agendas, namely the Sustainable Development Goals 2016-2030 (Esquivel 2016; United Nations 2015). However, a wealth of micro-level empirical works on the relationship between women's access to resources such as income, capital, and asset and their empowerment as measured by various indicators revealed that the relationship is a far more contested one.

While some suggest the positive role of access to resources (Bhattacharyya et al. 2011; Hashemi et al. 1996; Todd 2021), others argue that its impact on empowerment appears to be marginal,

ambivalent, and may in some cases be disempowering (Elson 1999; Elson & Pearson 1981; Goetz & Gupta 1996; Rahman 1999; Shah 2014; Sholkamy 2010; Ganle et al. 2015). The latter group of empirical evidence questions the transformative power of opportunity expansion approach in addressing the root causes of the deep structural basis of gender inequality calling for more than facilitating women's access to resources. It is argued that the assumption that access to employment will enable women's agency and empower them is a complex one and depends on various contextual factors such as individual level characteristics, employment type, social norms, and legal structures (Al-Munaiey 2019). It was noted that the empowering effect of employment is often minimal specifically in patriarchal social context and situations where the women belong to lower social class, and they work to secure their 'survival needs' than doing so to build their career and seek independence (Malhorta & Mather 1997).

Similarly, empirical studies conducted in Ethiopian context also revealed contrasting results. Some have reported notable positive effects of women's access to resources such as education, credit, income generation jobs on women's empowerment in general (Mishra 2019; Worku 2023). On the contrary, others documented the minimal impacts of resources in altering gender hierarchies and practices in the society (Tarik 2012; Tilahun 2022). For example, Tarik's (2012) qualitative study on women who were engaged in home-based work, specifically basket production in the Central Zone of Tigray region documented the significance of the women's earning in enabling them proving that they can change the dominant discourse as they are able to do what men were expected to do in the traditional society. Yet, it was indicated that the women could not bring significant change in the existing unequal power relation in the society due to the continued paradoxical influence of institutions like marriage, family, the state and the market have in the process of empowerment.

4. Description of the study area

The study area, Sabata Hawas district, is one of the districts found in the central part of Oromia Regional State in Ethiopia. Sebeta town is the administrative seat of the district. The district is divided into 42 rural kebeles (kebele refers to the lowest administrative structure in the country) and two town administrations, namely Tefki and Awash Melka Kunture. The district is located in the central part of the country bordering the capital city, Addis Ababa, in the south west. According to the 2007 national census data, Sebeta Hawas district is the highest populous woreda in the zone (Population Census Commission n.d.: 11). It has a total population of 132,294, of which 68,133 (51.5%) are male and 64,161 (48.5%) are female with a total of 28,207 households.

The official data also show that 94.4% (124,935) of its population are rural dwellers (Bureau of Finance and Economic Development 2011: 3) and agricultural activity is the dominant means of livelihood for majority of the population in the district. The district is, in general, among the major areas in the region where expansion of small to large scale private investments has been increasingly taking place. A floriculture industry, in particular, has shown an increasing expansion in the area since the last two decades, with most of the flower farms found in rural kebeles surrounding Sebeta and Tefki towns. Although the flower farms are also found in other districts of the zone, Sebeta Hawas district is unique, in a sense, that it is where privately owned flower farms started operating in the country and relatively older flower farms are concentrated. This, inevitably, has created job opportunities for the unskilled or semi-skilled rural women residing in the surrounding areas for a relatively longer period of time.

Rural women in Ethiopia in general face a myriad of challenges both at household and community levels. Domestic violence is common in the country (Allen & Raghallaigh 2013; WHO 2021). The rigid, deeply ingrained social norms frequently minimizes the value of women's roles

in public spheres and restrict their access to productive resources, limit their participation in public life, and assign them household duties in addition to their economic pursuits (Food and Agricultural Organization). In terms of household level decision-making power, though it varies with the type of decision, women tend to have limited say in various household decisions as compared to men (Central Statistical Agency & ICF International 2017). Despite increasing attention given to gender equality issue in the policy front, there are still gaps and negations in the protection of certain fundamental rights for women (Dejene 2020). The persistence of gender biased practices in the country is often attributed to the mutual reinforcement of gender-asymmetric cultural norms and women's daily practices as dictated by the social norms (Biseswar 2008). In view of these illustrative gendered norms widely practiced in rural Ethiopian context, the situation in the study area is no exception; cultural norms and practices are primarily characterised by their gender asymmetric nature.

5. Methods

5.1 Research design and data collection

The study employed mixed research methods. The fieldwork was designed to have two major phases that were conducted sequentially: the household survey phase and the qualitative phase. A multi-stage sampling was followed to randomly select 765 ever-married women from five rural kebeles in the study area, namely, Sebeta 05, Dima Manyo, Haro Jila Fulaso, Bonde, and Nanno Tefki. A survey was designed and implemented to generate a range of quantitative data that captures both household level and individual women's characteristics using questionnaires. For qualitative data, 34 in-depth interviews and six Focus Group Discussion (FGD) sessions were organized to capture women's experiences. Furthermore, key informant interviews were held with selected informants: senior residents (two women and four men), and three flower farm management members.

5.2 Data analysis

The qualitative data were analysed using thematic analysis and pseudonyms were used in the study to protect the anonymity of the research participants. The survey data was entered using Census and Survey Processing Software (CSPro) version 4.1 and processed using SPSS version 20.0 and STATA version 12.0 statistical software packages. The study employed the percentage distributions, measure of central tendency, and ANOVA test for the descriptive analysis, while the Propensity Score Matching (PSM) technique (Dehejia & Wahba 1999; Jalan & Ravallion 2003) was used to estimate the net impact of the women's wage employment and self-employment on their agency.

In applying the PSM, a quasi-experimental evaluation method, two separate datasets, namely WAGE_EMPLOYMENT_IMPACT dataset and SELF_EMPLOYMENT_IMPACT dataset, that consist of the appropriate treatment groups and comparison groups were created to examine the effect of wage employment and self-employment, respectively. While the WAGE_EMPLOYMENT_IMPACT dataset contained a total of 479 observations (296 non-income earning women and 183 women who are wage workers), the SELF_EMPLOYMENT_IMPACT dataset contained a total of 582 observations (296 non-income earning and 286 self-employed women). In both cases, women who are non-income earning (i.e., either unpaid family workers or economically inactive) were considered as a comparison group against which the two treatment groups (the wage employed women and self-employed women) were compared and agency effects of the two employment categories were estimated.

The self-employment jobs mainly refer to small home-based business activities which enable women to earn income. They, mostly, involve women with low skills and little opportunity to find decent salaried employment. The self-employment jobs in the study area primarily consists of selling of local foods and drinks such as tella (home brewed beer) and araqe (homemade liquor), marketing grains and vegetables,

running small businesses (e.g., kiosks set up for selling basic items in the villages), oxen fattening for market purpose, and craft works (e.g., pottery). These businesses are small and, in many instances, owned by a single individual woman who is both the investor and the manager. It is important to note that the self-employed women differ from the non-income earning women in that they earn income in the form of profit from their self-employed works. In contrast, the non-income earning women do not receive any monetary income despite the fact that they may have productive engagement through their participation in unpaid family work. They get neither salary nor profit.

The identification of the non-income earning women as a comparison group should be understood in the context of the study. The aim of the study is to assess the net impact of women's wage employment and self-employment on their agency. In doing so, it intends to tease out the net impact of income earning, hence making the non-income earning group (women who receive neither wage nor profit) an appropriate comparison group. The study also has the objective of checking whether there is agency differential between the two income earning employment types. This called for separately analysing the net impacts of the two income earning groups against the non-income earning group. Moreover, using a common counterfactual group (the non-income earning women who do not earn money either in the form of salary or profit) facilitates comparison of the agency outcomes of the two employment types on the same scale and draw appropriate conclusion.

To avoid the missing data problem in the counterfactual (Heinrich et al. 2010), the PSM searched for each employed woman, one or more non-income earning women with the closest values of conditional probability of participation, which is the propensity score, P(x). Logit models were used in the estimation of the propensity score values. This means, matching estimators of employment effect imputed the missing potential outcomes using only the outcomes of the matched women from the comparison group. With the intention to ensure the reliability

of the estimated treatment impact, two matching methods, namely the Nearest Neighbour Matching (NNM) and Radius Matching (RM) were used (Imbens 2004; Winship & Morgan 2007). A t-test was used to check if balancing property is attained between the treatment and comparison groups on the covariates (matching quality) and the significance of the treatment effect. For impact analyses, psmatch2 and the associated commands (such as pstest and psgraph) STATA command were utilized. In applying the PSM method for estimation of the impact of wage employment and self-employment on self-worth, three sets of variables, namely treatment variables, outcome variables, and the matching covariates described below were identified as data inputs in the analysis.

a) Treatment variables

A treatment variable in PSM in general refers to the intervention variable which is the characteristic on which two groups to be compared in the estimation of effect size primarily differ. For the analysis of the impact of women's wage employment on their self-worth, the treatment variable is a dichotomous variable, "wage_employment_treatment", with two possible states: Yes (coded 1) if a woman is currently wage employed or No (coded 0), otherwise (i.e., if a woman is currently non-income earning). Similarly, the treatment variable in the analysis of the impact of women's self-employment on their self-worth is a dichotomous variable, "self_employment_treatment", with two possible values: Yes (coded 1) if a woman is currently self-employed or No (coded 0), otherwise (if a woman is currently non-income earning). The wage_employment_treatment and self_employment_treatment variables were defined in the WAGE_EMPLOYMENT_IMPACT dataset and SELF_EMPLOYMENT_IMPACT dataset, respectively.

b) Outcome variables

The outcome variable in PSM in general refers to the variable for which

we intend to measure the impact of an intervention, i.e., individual agency. As mentioned elsewhere, women's self-worth is used as an indicator in measuring women's agency at individual level. The basic aim here is to see the extent to which the employed women have shown a shift in their attitude towards gender asymmetric social norms in the society compared to the non-income earning women. As adopted from Mahmud et al. (2012), women's level of rejection of wife beating practice is used as a proxy indicator of their self-worth. Hence, data were collected as to whether each respondent thinks it is justified to beat a wife under five scenarios (i.e., if she burns the food; if she argues with her husband; if she neglects her children; if she refuses to have sex; and if she goes out without telling her husband). In order to align the discussion in the context of agency, the data were restructured in such a way that it shows rejection of wife beating. A standardised index, namely self-worth index was constructed using the principal component analysis (Cronbach $\alpha = 0.77$) and used in the impact analysis. It measures the degree to which a woman does not subscribe to the wife beating practice. A higher value in the self-worth index shows the woman's higher self-worth.

c) Matching covariates

In using PSM, various matching covariates were identified to resolve the systematic difference existing between the treatment and comparison groups and ensure that the impact estimates are exclusively based on outcome differences between comparable individuals. While some of the matching covariates capture differences among women in the treatment and comparison groups in relation to their individual level attributes, such as education, birth cohort, and migration, others are family-related characteristics, such as number of living children and spousal age difference and household characteristics, such as household size, and household wealth index. Other variables including kebele and membership in women's/youth associations were also included among the matching covariates.

6. Results

6.1 Description of the sample women

Table 1 presents descriptive statistics for the 765 sample women covered in the survey. With regard to women's employment category, relatively larger proportion of women (39%) were engaged in non-income earning activities, while about a quarter of the women (24%) and slightly over a third of the women (37%) were engaged in wage employment and self-employed, respectively. The median age of the women is 32 years. Large majority of the women are not educated or have minimal education. About 86 percent of the total women have no or only first cycle education. Additionally, most of the women were found to be non-migrant (73%) or not having membership in any women or youth association (73%). About three quarter of the women (73%) are currently married, while the remaining are previously married, i.e., the widowed and divorced women.

The women have, on average, three living children and only 5 percent of them have no living children. About 55 percent of the women lived in relatively large households (at least five persons), and only 11 percent of the women lived in a household consisting only of herself or one additional family member. With regard to the ethnic group and religion of the women, the women were predominantly Oromo (88%) and Orthodox Christians (89%).

The average monthly income of the women engaged in income earning activity was found to be low. Despite the fact that both the wage employed women and self-employed women were low earners, there was a difference in the monthly income between the two groups with the former group on the average earning significantly more than the latter group. The median monthly income of the wage employed women and self-employed women were found to be 525 Birr and 200 Birr, respectively which is found to be significantly different (t test, $p<.000$).

Table 1: Socio-demographic characteristics of the sample women (N= 765)

Variables	N	Percent
Employment Category		
Non-income Earning	296	38.7
Self-Employment	286	37.4
Wage Employment	183	23.9
Education		
No education	574	75.0
First cycle primary	81	10.6
Second cycle primary	70	9.2
Secondary and higher	40	5.2
Age (Median ± SD)	32 ± 10.33	
Birth Cohort		
1995-99	26	3.4
1985-94	258	33.7
1975-84	241	31.5
1965-74	130	17.0
1955-64	110	14.4
Migration status		
Non migrant	561	73.3
Migrant	160	20.9
Return migrant	44	5.8
Marital Status		
Currently married/consensual union	555	72.5
Previously married	210	27.5
Living children (Median ± SD)	**3± 2.35**	
No child	40	5.2
1-2 children	256	33.5
3-5 children	309	40.4
At least 6 children	160	20.9
Household size		
1-2 persons	85	11.1
3-4 persons	263	34.4
At least 5 persons	417	54.5
Membership in women/youth association		
Yes	210	27.5
No	555	72.5
Kebele		
Bonde	103	13.5
Dima Manyo	80	10.5
Haro Jila Dulaga	123	16.1
Nanno Jeldu	94	12.3
Sabata 05	365	47.7
Ethnic group		
Oromo	670	87.6
Others	95	12.4
Religion		
Orthodox	679	88.8
Others	86	11.2
Monthly earning - in Birr at exchange rate of 1USD= 23.96 Birr **(Median ± SD)**		
Wage employed women	525± 356	
Self-employed women	200 ± 366	
Total	**765**	100.0

As indicated in Figure 2, almost all the non-income earning women (96%) were engaged in unpaid agricultural farm work. The consideration of women who were engage in unpaid agricultural family farm work as non-income earners in the paper should be understood within the patriarchal social setting of the study community. Despite women are deeply involved as unpaid family worker in household agricultural production system, they are often excluded from the benefits. Consistent with the privilege that Connell (2009) labels the 'patriarchal dividend', only men are often recognized as farmers, hence giving them more privilege to control proceeds from agriculture. Hence, women who are engaged in unpaid family farm work seldom draw an independent income from their agricultural work.

The self-employed women were generally engaged in small scale homebased income earning activities with the large majority of them engaged in selling local drinks and food (76%). Among the wage employed women, quite a large majority of the women (86%) were engaged in the NTEIs, while only 6% engaged in professional work that mainly constituted teachers and development agents. Of the women working in the NTEIs, women working in the flower farms were the dominant group constituting about 94 percent (not shown here). The remaining 6 percent of women who work in the NTEIs were engaged in the two other export industries operating in the area, i.e., garment and cable factories.

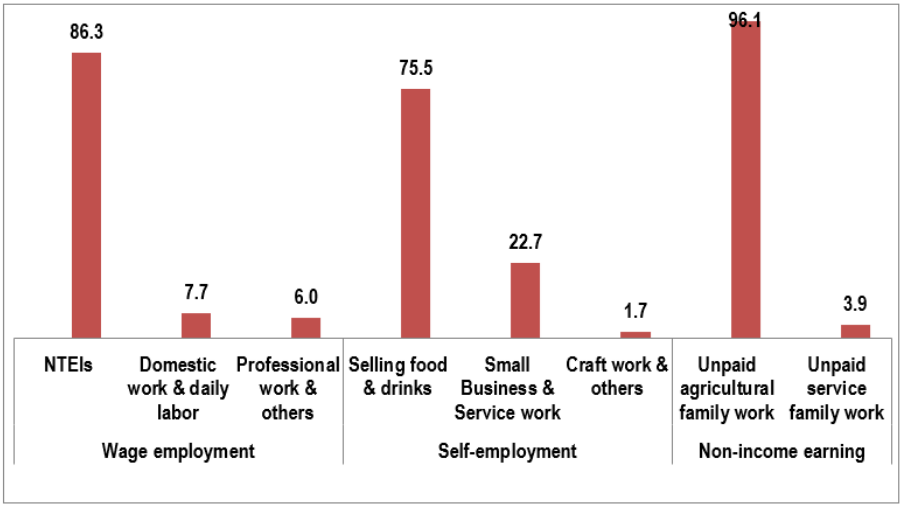


Figure 2: The percentage distribution of women respondents by their work type in each employment category

With regard to wage employed women's terms of employment, about 55 percent were permanent workers, while the remaining 45 percent found to be either temporary workers or daily labourers. Most of the temporary workers in the NTEIs were noted to work for a longer time than one might expect without being granted a permanent position.

6.2 Descriptive analysis

Before looking at the descriptive statistics of the self-worth index used to measure agency level, let us look at the distribution of the women's responses to the set of items which were used to construct the index. Data were collected as to whether each respondent thinks it is justified to beat a wife under five scenarios indicated in the methods section. Figure 3 shows the percentage distribution of women by the number of scenarios in which wife beating was rejected. While about a fifth of the women (21%) rejected wife beating in all the five scenarios, about 7 percent had rejected wife beating in none of the scenarios as they believe that wife beating is justified in the entire five scenarios. About 62 percent rejected wife beating in at least three of the five scenarios.

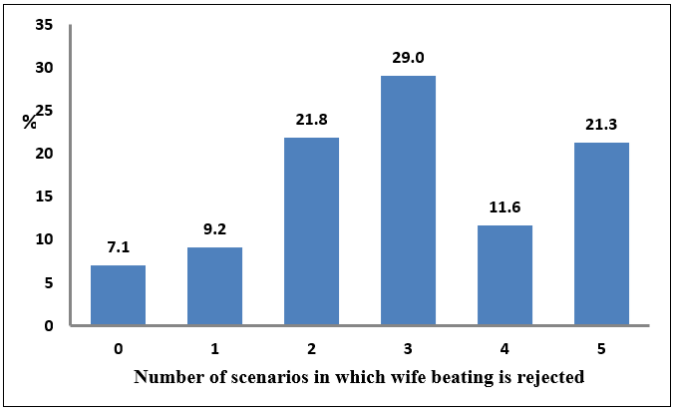


Figure 3: Percentage Distribution of the number of scenarios in which wife beating is rejected (N = 765)

As shown in Table 2, the mean value of self-worth index for the sample women was found to be 0.59. Further disaggregating the data by women's employment category, the highest mean Self-worth index was observed among wage employed women (0.63), followed by the non-income earning women and self-employed women, whose corresponding average values are 0.59 and 0.56, respectively.

Employment Category	Self-worth index (Mean ± SD)
Non-income earning	0.59 ± 0.31
Self-employment	0.56 ± 0.28
Wage employment	0.63 ± 0.29
Total	**0.59 ± 0.30**

Table 1: Descriptive Statistics of the self-worth index (N=765)

In addition to this pattern noted based on the absolute figures, it is important to ascertain the statistical soundness of the differences observed in the distribution of the different empowerment indexes by women's employment category. In this regard, result indicated in the One-way ANOVA table affirms only marginal difference was observed in mean values of the Self-worth index among women in the different

employment categories (F test, p<.1). The following section verifies these findings and estimates the effect size corresponding to the self-worth index controlling the potential systematic differences among wives in the treatment and comparison groups using the PSM techniques.

6.3 Impact size Estimation: The PSM result

The significant difference noted between the treatment groups (wage employment and self-employment) and their respective comparison group (non-income earning) along a range of covariates shows that there exists a systematic difference between the two groups (see appendix I). Hence, PSM technique was employed to estimate the impact size by matching women in the treatment and comparison groups having similar propensity score which was estimated using the logit model (see Appendix II). The results of the different tests carried out to ascertain the common support condition and the matching quality (Starks & Garrido 2004) suggests that the propensity score equation specification is very much successful in terms of attaining adequate common support region and balancing the distributions of covariates between the two groups of women for each treatment type (see Appendix III and Appendix IV).

In our analysis of the agency impact of women's wage employment and self-employment, as indicated earlier, two different matching estimators with replacement were used (Morgan & Winship, 2007). These are: the nearest neighbour matching (1 to 5) and radius matching with a caliper of 0.01, i.e., radius (.01). The matching algorithms were run with the Psmatch2 STATA command. In applying these matching methods, observations that fall outside the area of common support are discarded, and the effect size is estimated between the remaining matched women in the treated groups and control group. The average treatment effect on the treated (ATT) is used as an estimate for the impact size of wage employment or self-employment treatments on

self-worth among the employed women using the wage employed women and self-employed women on the one hand and non-income earning women on the other hand as treatment and comparison groups, respectively (Rosenbaum & Rubin 1985).

Table 3 reports the mean effect size, specifically the estimated ATT corresponding to the self-worth index constructed to measure women's agency for the self-employment and wage employment treatment types. The ATT corresponding to the wage employment for the self-worth index shows the mean effect size attained in the self-worth index among the wage employed women due to their engagement in wage works. Similarly, the ATT corresponding to the self-employment treatment type for the self-worth index shows the mean effect size attained in the self-worth index among the self-employed women due to their being self-employed.

	Self-employment			Wage employment		
Agency	Treated	Control	Mean effect size (S.E)	Treated	Control	Mean effect size (S.E)
Self-worth index						
NNM (1 to 5)	0.56	0.58	-0.02(0.03)	0.63	0.57	0.06(0.03)*
Radius (.01)	0.57	0.59	-0.02(0.03)	0.63	0.57	0.06(0.03)*

*p<.05

Table 2: Impact estimation of self-employment and wage employment on women's agency

Accordingly, the result reveals that women's self-employment has an insignificant impact on their self-worth. On the contrary, wage employment significantly enhances women's self-worth. This is particularly observed from a significant positive mean effect size attained in relation to the self-worth index using both the Nearest Neighbor Matching (NNM) and Radius (.01) matching. Speaking of the estimated effect size of wage employment on women's self-worth, the result shows that wage employment significantly increases women's self-worth by 6 percentage points. This implies that women wage employment and self-employment have differential impact on their agency, particularly their self-worth, with only the former having

meaningful positive impact. The following discussion attempts to elaborate these major findings in light of the qualitative data of the study and literature in the area.

7. Discussion

7.1 Why does women's wage employment improve their agency?

The quantitative findings showed that working women, particularly wage employed women, experienced an improved self-worth. The increased self-worth observed among wage employed women can be partly explained by the better feeling of financial reward that they get from wage employment. Though men continue to dominate major household decisions, many interviewees state that money earned through women's labour makes a difference in terms of their self-perception. The women feel important when financially rewarded for their work, which is very rare in a society where many, if not most, rural women engage in unpaid family work.

Despite men's financial control over women, the latter develop strategies to counteract this practice. The wage employed women sometimes misinform their husbands about exactly how much they earn as the nature of their work does not allow their husbands to get such information. They often keep some of their earning, which they spend on certain items without the husbands' consent and knowledge, in secret. These have allowed women to spend part of their earning on things they value most, though this is almost always related to their children and family, and maintaining social relationships. An interviewee, married, 41 years old flower farm worker from Bonde kebele, says, *"it is difficult to ask husbands for everything. I used to be ashamed to visit my family empty-handed. But now [after employment], I am working and earning some money. I often I buy small gifts for my parents whenever I visit them"*.

The focus group discussants similarly stressed the improved self-image among women when they have money in their hands. Women also mentioned that they feel a sense of importance as a result of their experiences in managing their earning, where they are able to do so. Managing a very limited budget under the conditions of high cost of living and increasing expenses is a very difficult task, yet such experience seems to give women some positive feelings of themselves in the family. Consistent with this, a 36 years aged woman who is a wage employee and spends her earning on domestic expenses says:

> *… Sometimes I appreciate myself on how able I am to manage the small money I earn to cover the family's basic needs. Had the money not come to my hands, we [the family] couldn't make ends meet. I realized that I am very well at handling money. I am feeling myself as a good 'financial manager' of the family.*

In addition, wage employed women's belief that they are contributing, through their money earning activities, to the wellbeing of their families in general and of their children's education in particular, may also make the wage employed women feel important. A woman from Haro Jila Fulaso who earns money working in the seedling project in the area while her husband is working as a sharecropper says:

> *A woman's financial contribution to her family is very important. I feel useless when I cannot contribute to my family. No matter how small my earning is, it makes me feel good. When I work and earn money, I can buy salt when we run out of it. I can buy edible oil when we run out of it. I can buy at least "salvaj" [used clothes] for my children when they don't have one. But if I do not have a job, then I cannot do all this. This makes me feel great about myself in the household.*

Despite the meagre money they earn, the wage employed women are proud of themselves for what they have been doing for their families. For example, another woman from Dima Manyo working in the nearby flower farm, whose husband is a cart driver in the area earning some

money on market days which he usually misspends on alcohol consumption, says:

> *We were living in a poor condition house. …. We used to get worried when the rainy season arrives. Last year, I borrowed some money from the local "taqamachi" [local credit and saving] and renovated our house. I am repaying the loan every month from my earning. If it was not for my earning, we would have never renovated the house.*

The wage employed women value their work for allowing them to send their children, whom they regard as their old-age security, to school and provide them with better future. Some wage employed women also regard their earning as a source of security for their household. This notion is especially common among wage employed women who have experienced some sort of family crisis. They tend to recognise the importance of their earning in coping with the family crisis they faced. For example, a flower farm worker from Sebeta 05 who supported her family on her own for many years, because her husband was in jail for five years, says, "*…my family could not have survived without me,,,working and earning income…I feel secure about the coming days when I work*". Data from the focus group discussion also indicate that when the money women earn buys some domestic items, agricultural inputs (e.g., fertilizers), and support children' education, the women feel that they are also providers for their households. By this, women were able to develop a critical thought that challenges the mainstream discourse of men as bread winner and women as house maker in the patriarchal society.

Data from the key informants who are elders in the locality reveal that wives' social boundary is usually defined by husbands in the context of the society in the study area. Married women tend to be dependent on their husbands' consent in their social interactions to avoid social suspicion and animosity. Married woman in the village usually live in the neighbourhood of her husband's family. If a woman wants to travel out of her village, she needs to get permission from her husband or at

least inform him depending on 'where' and 'whom' she wants to visit. This was also affirmed from the women's practices. For example, a 32 year old woman from Bonde, says, ''*I cannot visit my natal family before I get my husband's permission. Usually, he doesn't object. But he gets angry if I go without first telling him.*'' When the wife starts forming her own social relations out of a specified boundary (e.g., strangers), the husbands may feel threatened and may even get aggressive. The case of one woman who is a housewife in Haro Jila Fulaso is a good example. The woman mentioned that she faced her husband's strong objections when her husband found out that his wife was socializing with an unmarried woman making a living off selling local drinks in the nearby town. In her own words:

> *I don't have a blood relationship with the lady. I just met her in a marketplace. As our relationship develops, she was advising me … on how to improve my life. She was even telling me where to find contraceptives. She is a good woman and she knows many things [livelihood opportunities]. But my husband didn't like our relationship as he feared that she might 'spoil' me. He always says city women are not good. I intentionally started to loosen my relationship with her as he warned me to choose between my relationship with her and my marriage. Now, I don't even pay her a visit even on market days.*

In view of this social context, the higher self-worth noted specifically among wage employed women can partly be explained by wage employed women's better opportunity to establish new relationships beyond their neighbourhood, hence better exposure to new source information. Comparing her case with that of wage employed women, the same woman further commented that women working outside home have better opportunity of meeting this kind of "modern women". Despite repeated complaints of low wage and difficulty of maintaining their relationship in the village due to lack of time, many of the wage employed women recognise that wage work has given them the opportunity to meet new people and widen their networks, which would

not have been possible had they not been employed outside home. A flower farm worker from Dima Manyo, says:

> *I work with different women; in addition to women from my area, some are coming from the nearby towns, or even other regions in the county. It is good to meet new people; it helps you get new information. When a woman shares you her experience, which might be new to you, you draw something out if it. Working outside home is really good. It broadens your way of thinking.*

Though wage employed women have benefitted from the informal communications they have had with their fellow workers at the workplaces, access to formal events designed to raise their gender awareness was rare. The interview data from the farm managers show that, with the exception of one flower farm which gives a short training to its female workers focusing on access to contraceptive services, none of the flower farms has any institutionalized women's rights awareness raising program.

7.2 Why does women's self-employment have minimal effect on their agency?

In view of the increased self-worth among wage employed women discussed above, one may question why self-employment does not significantly affect women's self-worth. Though women's earning in the area is low in general, the self-employed women in particular earn significantly lower income compared to the wage employed women (see Table 1). Women's meagre income earned from self-employed jobs may limit self-employed women's contribution to the wellbeing of their families, which is a major source of self-worth as demonstrated in the case of wage employed women. This is consistent with Kabeer's (2000) argument that earnings from home-based work are often irregular and low due to low skill requirement, high competition and family interventions in decisions about the amount work done, hence limiting the potential of this form of work to transform gender relations

in the home.

The insignificant impact of self-employment on women's self-worth can also be partly explained by the limited spatial mobility and psychological obstacles noted among the self-employed women. Unlike the wage employed women, self-employed women have less access to the public space which is often associated with power and prestige (Bose 2007) as they are engaged in activities in and around household premises. Self-employed women also tend to undervalue their contribution to their family, hence limiting their self-worth. The low value attached to self-employment work in particular is related to its being primarily home-based work and the little cultural recognition given to the economic and social contributions of women's duties in domestic sphere. As commonly noted in patriarchal society (e.g., Erman et al., 2002), home-based work is not often considered as "work" among the study community. The women usually perceive their self-employed work as an extension of the domestic work. For instance, a 38 year old woman from Nanno Tefki sells local drinks in the village in addition to working on family farm along with her husband and she says, "*I am doing this work not because it will help the family as such, but my children can at least eat from the bread that I bake for preparing the Tella [home-made beer]*".

These findings were found to be consistent with the results of various studies from several developing countries (Bose 2007; Osmani 1998; Pant, 2000; Shah 2014). The transformative potential home-based work is often questioned primarily due the fact that it is one of the least visible forms of women's income earning works, as Kantor (2003) argues. Pant (2000), based on the case study from India, also indicated home-based women workers themselves may not consider their works a proper job, seeing it as a way to pass time rather than a valuable activity that contributes to the family.

Literature further indicated that home-based work limits women's ability to hold back some income for their own use (Kabeer 2000). This

is articulated in view of male family members often being involved in aspect of the work, particularly marketing, giving them a sense of entitlement over earnings. Even when men are not directly involved in the work, it was argued that they have more access to information about the amount women have worked and their earning levels when women work in the home (Kabeer 2000). Additionally, Shah (2014), an empirical work on self-employed women in Karachi, Pakistan, emphasized that women's participation in home-based income earning works have minimal effect on women's status in the society. Shah (2014: 45), in fact, presented women's home-based income earning work as an "instrument of exploitation and not of emancipation".

8. Conclusion

This paper dealt with empowerment at micro level and notes the importance of agency and resources which include access to employment opportunity among the key components of empowerment process. Agency can be conceptualized at two levels: individual (referring to *power within*) and the relational (referring to *power to*) aspects. This paper specifically analysed how women's employment impact on their individual aspect of agency in a rural Ethiopian context. Findings of the study revealed that self-employment jobs in the study area have insignificant impact on women's agency. On the contrary, wage employment was noted to have a significant positive impact. The varying impact of women's wage employment and self- employment on their agency shows that the nature of the work and the cultural meanings attached to the different types of work play a critical role in shaping women's employment outcome. This illustrates the complex nature of women's empowerment as a process that requires not only expanding opportunities for the women but also addressing structural barriers including cultural norms and market structures that re(produces) gender inequality in the society.

Funding
None.

Conflict of Interest
The authors declare they have no competing interests.

Authors' Contribution
Conceptualization: Aynalem Megersa
Methodology: Aynalem Megersa and Eshetu Gurmu
Analysis: Aynalem Megersa
Writing – original draft: Aynalem Megersa
Writing – review & editing: Aynalem Megersa and Eshetu Gurmu

References

Alemayehu Elda, Deirdre O'Connor, and Tekle Leza. 2023.Women's microbusiness participation decisions and their effect on poverty in the Wolaita zone, southern Ethiopia. *Journal of Entrepreneurship in Emerging Economies*. 16(5): 1235-1257.

Allen, M. and Muireann Ní Raghallaigh. 2013. Domestic Violence in a Developing Context: The Perspectives of Women in Northern Ethiopia. *Affilia*, *28*(3): 256–272.

Al-Munaiey, M. (2019). *Expanding employment opportunities and pathways of Saudi women's agency*. Ph.D. dissertation, University of Reading.

Alsop, R, Heinsohn N, and Somma A. 2005. Measuring empowerment: an analytic framework. In *Power, Rights and Poverty: Concepts and Connections*, pp. 120-125. Washington DC: World Bank

Arbache, J. S., Alexandre Kolev, and Ewa Filipiak (Eds.). 2010. *Gender disparities in Africa's labor market*. World Bank Publications.

Batliwala, S. 2007. Taking the power out of empowerment–an experiential account. *Development in practice*, 17 (4-5): 557-565.

Befikadu Esayas and Degefa Tolossa. 2019. Micro Finance and Women Empowerment in Urban Setting: Reflection from Southern Ethiopia. *Journal of Economics and Sustainable Development*,

10(3): 60–73.

Bose, M. 2007. Women's home-centred work in India: The gendered politics of space. *International Development Planning Review*, 29(3): 271-298.

Boudet, M, Ana María, Patti Petesch, Carolyn Turk, and Angélica Thumala. 2013. *On norms and agency: Conversations about gender equality with women and men in 20 countries*. The World Bank

Bhattacharyya, M., Bedi, A. S., & Chhachhi, A. 2011. Marital Violence and Women's Employment and Property Status: Evidence from North Indian Villages. *World Development*, *39*(9): 1676–1689.

Biseswar, I. 2008. Problems of Feminist Leadership among Educated Women in Ethiopia: Taking Stock in the Third Millennium. *Journal of Developing Societies*, *24*(2): 125–158.

Bureau of Finance and Economic Developmant. 2011. *Physical and socio-economic profile of Finfine Surrounding Special Zone*. National Regional Govermant of Oromia.

Central Statistical Agency. 2014. Analytical Report on the 2013 National Labour Force Survey. https://doi.org/10.1007/s00228-017-2219-1.

Central Statistical Agency & ICF. 2017. *Ethiopia Demographic and Health Survey 2016*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

Connell, R. W. 2009. *Gender: In World Perspective*. Cambridge: Polity Press

Cornwall, A. 2016. Women's empowerment: What works?. *Journal of International Development*, 28(3): 342-359.

Dehejia, R. H. & Wahba, S. 1999. Causal Effects in Nonexperimental Studies: Reevaluating the Evaluation of Training Programs. *Journal of the American Statistical Association*, *94*(448): 1053–1062.

Dejene Mamo. 2020. Policies of gender equality in Ethiopia: the transformative perspective. *International Journal of Public Administration*, 43(4): 312-325.

Elson, D. 1999. Labor Markets as Gendered Institutions: Equality, Efficiency and Empowerment Issues. *World Development*, *27*(3): 611–627

Elson, D. and Ruth Pearson. 1981. "Nimble Fingers Make Cheap Workers": An Analysis of Women's Employment in Third World Export Manufacturing. *Feminist Review*, *7*: 87–107.

Erman, T., Sibel Kalaycıoğlu, and Helga Rittersberger-Tılıç. 2002. Money-earning activities and empowerment experiences of rural migrant women in the city: The case of Turkey. *Women's Studies International Forum*, *25*(4): 395–410.

Esquivel, V. 2016. Power and the Sustainable Development Goals: a feminist analysis. *Gender & Development*, *24*(1): 9-23.

Food and Agricultural Organization. 2019. 'National gender profile of agriculture and rural livelihoods – Ethiopia. Country Gender Assessment Series'. Addis Ababa: Food and Agricultural Organization.

Federal Democratic Republic of Ethiopia. 1995. Constitution of the Federal Democratic Republic of Ethiopia. Proclamation No. 1/1995. *Federal Negarit Gazeta*, *1*(1), 21 August 1995.

Ganle, J. K., Kwadwo Afriyie, and Alexander Yao Segbefia. (2015). Microcredit: Empowerment and disempowerment of rural women in Ghana. World development, 66: 335-345.

Girma Mulugeta. 2021. The role and determinants of women labor force participation for household poverty reduction in Debre Birhan town, North Shewa zone, Ethiopia. *Cogent Economics & Finance*, 9(1): 1892927.

Goetz, A. M. and Rina Sen Gupta. 1996. Who takes the credit? Gender,

power, and control over loan use in rural credit programs in Bangladesh. *World Development*, *24*(1): 45–63.

Haghighat, E. 2013. Social status and change: the question of access to resources and women's empowerment in the Middle East and North Africa. *Journal of International Women's Studies*, 14(1): 273-299.

Hashemi, S. M., Sidney Ruth Schuler, and Ann P. Riley. 1996. Rural credit programs and women's empowerment in Bangladesh. *World Development*, *24*(4): 635–653.

Heinrich, C., Alessandro Maffioli, and Gonzalo Vazquez. 2010. *A Primer for Applying Propensity-Score Matching Carolyn*. https://publications.iadb.org/publications/english/document/A-Primer-for-Applying-Propensity-Score-Matching.pdf

Imbens, G. W. 2004. Nonparametric Estimation of Average Treatment Effects under Exogeneity: A Review. *The Review of Economics and Statistics*, *86*(1): 4–29.

Jalan, J. and Martin Ravallion. 2003. Estimating the Benefit Incidence of an Antipoverty Program by Propensity-Score Matching. *Journal of Business & Economic Statistics*, *21*(1): 19–30.

Kabeer, N. 1999. Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment. *Development and Change*, *30*(3): 435–464.

_____. 2000. *The power to choose: Bangladeshi women and labor market decisions in London and Dhaka*. New York: Verso.

____. 2011. *Contextualising the economic pathways of women's empowerment*. *Pathways Policy Paper, Brighton: Pathways of Women's Empowerment RPC.*

Kantor, P. 2003. Women's empowerment through home–based work: Evidence from India. Development and Change, 34(3): 425-445.

Krais, B. and Jennifer Marston William. 2000. The Gender

Relationship in Bourdieu's Sociology. *SubStance*, *29*(3): 53–67.

Mahmud, S., Nirali M. Shah, and Stan Becker. 2012. Measurement of Women's Empowerment in Rural Bangladesh. *World Development*, *40*(3): 610–619.

Malhotra, A. and Mark Mather. 1997. Do schooling and work empower women in developing countries? Gender and domestic decisions in Sri Lanka. In *Sociological forum*, vol. 12, pp. 599-630. Kluwer Academic Publishers-Plenum Publishers.

Meyers, D. T. 2002. Gender identity and women's agency: culture, norms, and internalized oppression revisited. In *Gender in the Mirror: Culture Imagery and Women's Agency* (pp. 3–30). Oxford University Press, Inc.

Mishra, M. K. 2019. Impact of credit access on economic empowerment of married women in Ethiopia. *In Advances in management research*, pp. 1-20. CRC Press.

Morgan, S. L. and Christopher Winship 2007. Counterfactuals and Causal Inference: Methods and Principles for Social Research. Cambridge University Press.

Nardos Legesse and Mulugeta F. Dinbabo. 2019. An empirical evaluation of the link between women participation in village savings and loans association (VSLA) and poverty reduction in Ethiopia. *Journal of Reviews on Global Economics*, 8: 566-580.

Osmani, L. N. K. 1998. The Grameen Bank Experiment: Empowerment of Women through Credit. In *Women and Empowerment: Illustrations from the Third World* (pp. 67–85). Palgrave Macmillan UK.

Pant, M. 2000. Intra-household allocation patterns: A study in female autonomy. Indian Journal of Gender Studies, 7(1): 93-100.

Pheterson, G. 1986. Alliances between women: Overcoming internalized oppression and internalized domination. *Signs: Journal of Women in Culture and Society*, *12*(1): 146–160.

Planning and Development Commission 2020. *Ten Years Development Plan: A Pathway to Prosperity 2021-2030*. Addis Ababa, Ethiopia.

Population Census Commission. n.d.. *The 2007 Population and Housing Census of Ethiopia: Statistical Report for Oromia Region*. Addis Ababa. http://www.csa.gov.et/census-report/census-tables/category/301-census-tables

Quisumbing, A. R. and John A. Maluccio. 2000. *Intrahousehold allocation and gender relations: New empirical evidence from four developing countries*. FCND Discussion Paper No. 84.

Rahman, A. 1999. Micro-credit initiatives for equitable and sustainable development: Who pays? *World Development*, *27*(1): 67–82.

Rosenbaum, P. R. and Donald B. Rubin. 1985. Constructing a Control Group Using Multivariate Matched Sampling Methods That Incorporate the Propensity Score. *The American Statistician*, *39*(1): 33–38.

Rowlands, J. 1995. Empowerment examined. *Development in Practice*, *5*(2): 101–107. DOI:10.1080/0961452951000157074

____. 1998. A Word of the Times, but What Does it Mean? Empowerment in the Discourse and Practice of Development. In In *Women and empowerment: Illustrations from the Third World*, pp. 11-34. London: Palgrave Macmillan UK, 1998.

Seebens, H. and Johannes Sauer. 2007. Bargaining power and efficiency- rural households in Ethiopia. *Journal of International Development*, *19*(7): 895–918.

Sen, G. 1997. *Empowerment as an approach to poverty*. Working Paper Series 97.07, Background paper for the UNDP Human Development Report, New York: UNDP.

Shah, N. A. 2014. Self-employment and women: An insider's testimonies. *Pakistan Journal of Women's Studies*, *21*(1): 45–56.

Sholkamy, H. 2010. Power, Politics and Development in the Arab Context: Or how can rearing chicks change patriarchy? *Development*, *53*(2): 254–258.

Solomon Gebreyohans and Memar Ayalew. 2014. The millennium development goals and the status of gender disparity in Ethiopia: achievements and challenges. *American Academic Scientific Research Journal for Engineering, Technology, and Sciences*, *8*(1): 56–78.

Starks, H. and Melissa M.Garrido. 2004. *Observational & quasi-experimental research methods*. 8th Annual Kathleen Foley Palliative Care Retreat Method Workshop.

Tarik Hadgu. 2012. 'Empowering women through home-based work and institutionalized threats in Ethiopia*'*. MA Thesis, Institute of Social Studies.

Tilahun Adamu. 2022. Exploring women's agency through adult education program in Ethiopia. *Cogent Social Sciences*, *8*(1): 2073672.

Tizita Abate. 2014. 'Socio-economic opportunities and implications of cut flower Industries in Ethiopia : the case of flower farms in the Rift Valley and Sebet*a'*. MA thesis, Norwegian University of Life Sciences.

Todd, H. 2021. Women at the center: Grameen Bank borrowers after one decade. New York: Routledge.

United Nations. 2015. *Transforming our world: the 2030 Agenda for Sustainable Development*. Resolution adopted by the General Assembly on 25 September 2015. New York, USA.

Wong, K.. 2003. Empowerment as a panacea for poverty-old wine in new bottles? Reflections on the World Bank's conception of power. *Progress in development studies*, 3(4): 307-322.

World Economic Forum (WEF) 2006. *Global Gender Gap Report 2006*. Geneva, Switzerland

World Economic Forum (WEF) 2022. *Global Gender Gap Report 2022*. Geneva, Switzerland

Worku Shumye. 2023. 'The Impacts of Village Saving and Loan Association on Women's Economic Empowerment in East Belessa Woreda'. Ph.D. dissertation, Bahir Dar University.

World Bank. 2019. *Ethiopia Gender Diagnostic Report: Priorities for Promoting Gender Equality*. International Bank for Reconstruction and Development / The World Bank.

World Health Organization (WHO). 2021. *Violence against women prevalence estimates, 2018: global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women*. World Health Organization, Geneva.

Appendix I Results of the tests for systematic difference between treatment and comparison groups

a) WAGE_EMPLOYMENT_IMPACT data set

i. The mean distribution of selected socio-economic characteristic

Variable	Wage Employment (treatment)	N	Mean ± SE	t (df)
HH wealth index	Non-income earning	296	6.95 ± 0.31	7.29 (477)***
	Wage Employment	183	3.69 ± 0.25	
Number of Living children	Non-income earning	296	3.90 ± 0.15	7.62 (477)***
	Wage Employment	183	2.27 ± 0.13	
Household Size	Non-income earning	296	5.40 ± 0.13	6.50 (477)***
	Wage Employment	183	4.08 ± 0.15	
Highest grade completed	Non-income earning	296	1.23 ± 0.16	-2.06 (477)*
	Wage Employment	183	1.83 ± 0.25	
Spousal age difference	Non-income earning	296	9.54 ± 0.39	3.69 (477)***
	Wage Employment	183	7.33 ± 0.43	
Number of pre-school children	Non-income earning	296	0.67 ± 0.05	0.73 (477)
	Wage Employment	183	0.61 ± 0.06	
Age	Non-income earning	296	35.53 ± 0.67	5.08 (477)***
	Wage Employment	183	30.49 ± 0.64	
Number of male children	Non-income earning	296	1.86 ± 0.09	6.21 (477)***
	Wage Employment	183	1.06 ± 0.08	
Total		**479**		

† p <.1, *p<.05 **p<0.005***p<0.001

ii) Selected socio-demographic characteristics

Variables		Wage Employment (treatment)		Pearson Chi-Square (df)
		Non-income earning	Wage Employment	
Kebele	Bonde	42	17	12.17 (4)*
	Dima Manyo	44	17	
	Haro Jila Fulaso	40	17	
	Nanno Tefki	30	31	
	Sebeta 05	140	101	
Migration status	Non migrant	219	129	3.55 (2)
	Migrant	66	40	
	Return migrant	11	14	
Birth cohort	1995-99	14	11	28.44 (4)***
	1985-94	95	80	
	1975-84	78	60	
	1965-74	46	24	
	1955-64	63	8	
Parents' highest educations	no education	236	138	1.24 (2)
	primary	53	40	
	secondary and above	7	5	
Membership in women's/youth association	No	228	141	0.00 (1)
	Yes	68	42	
Total		**296**	**183**	

† p <.1, *p<.05 **p<0.005***p<0.001

b) SELF_EMPLOYMENT_IMPACT data set data set

i) Selected socio-economic characteristics

Self-employment (treatment)		N	Mean ± SE	t (df)
HH wealth index	Non-income earning	296	6.95 ± 0.31	3.14 (580)**
	self employed	286	5.63 ± 0.28	
number of Living children	Non-income earning	296	3.90 ± 0.15	-0.80 (580)
	self employed	286	4.06 ± 0.13	
Household Size	Non-income earning	296	5.40 ± 0.13	-0.02 (580)
	self employed	286	5.41 ± 0.12	
Highest grade completed	Non-income earning	296	1.23 ± 0.16	-0.67 (580)
	self employed	286	1.39 ± 0.17	
Spousal age difference	Non-income earning	296	9.54 ± 0.39	1.71 (580)†
	self employed	286	8.61 ± 0.38	
Number of pre-school children	Non-income earning	296	0.67 ± 0.05	-1.96 (580)*
	self employed	286	0.80 ± 0.05	
Age	Non-income earning	296	35.53 ± 0.67	-0.14 (580)
	self employed	286	35.65 ± 0.55	
number of male children	Non-income earning	296	1.86 ± 0.09	-1.11 (580)
	self employed	286	2.00 ± 0.09	
Total		**582**		

*p<.05, **p<0.005

Appendix II Result of the logit model used for the propensity core estimation in the PSM technique

a) WAGE_EMPLOYMENT_IMPACT data set

Variables	Coef.	Std. Err.
Kebele (ref Sebeta 05)		
Bonde	0.41	0.41
Dima Manyo	0.29	0.40
Haro Jila Fulaso	0.03	0.42
Nanno Tefki	1.16	0.42**
Education (ref No education)		
First cycle primary	0.58	0.39
Second cycle primary	0.23	0.39
Secondary & higher	0.44	0.49
Birth cohort (ref 1975-1984)		
1995-99	-0.63	0.88
1985-94	-0.35	0.47
1965-74	0.10	0.62
1955-64	-0.93	1.40
Migration status (ref non-migrant)		
Migrant	0.37	0.30
Return migrant	0.84	0.58
HH wealth status index	-0.18	0.04***
Household size	-0.17	0.07*
Number of male children	-0.16	0.12
Childhood family structure (ref Parents living together)	-0.21	0.25
Previously married (ref = currently married)	1.59	0.32***
Presence of pre-school children (ref No)	-0.27	0.28
Spousal age difference of at least 10 years (ref No)	-0.53	0.25*
Asset brought marriage (ref No)	0.02	0.44
Marital happiness index	-0.35	0.17*
membership in women's/youth association (ref No)	0.38	0.30
AGE	0.12	0.16
Age^2	0.00	0.00
Constant	-1.08	2.83
Number of observations	479	
-2Log likelihood	465.12	
LR chi2(df)	172 (25)***	

†p<.1 * p<.05 **p<0.01 ***p<0.001

psmatch2: Treatment assignment	psmatch2: Common support		
	Off support	On support	**Total**
Untreated	0	296	**296**
Treated	12	171	**183**
Total	**12**	**467**	**479**

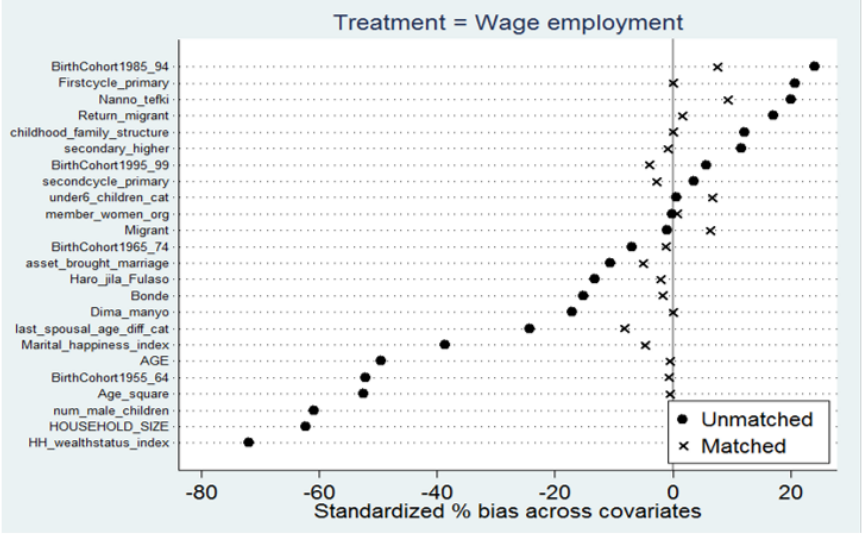
b) SELF_EMPLOYMENT_IMPACT data set

Self_emp_treat	Coef.	Std. Err.
Kebele (ref Sebeta 05)		
Bonde	0.52	0.29†
Dima Manyo	-0.34	0.35
Haro Jila Fulaso	0.87	0.26**
Nanno Tefki	0.81	0.34*
Education (ref No education)		
First cycle primary	0.76	0.32*
Second cycle primary	-0.02	0.33
Secondary & higher	0.36	0.44
Migration status (ref non-migrant)		
Migrant	-0.10	0.23
Return migrant	0.48	0.43
HH wealth status index	-0.09	0.02***
Household size	0.00	0.06
Marriage arrangement (ref Parents/relative)		
self	0.38	0.22†
abduction	0.19	0.26
Marital happiness index	-0.05	0.12
Membership in women's/youth association (ref No)	0.63	0.21**
Number of living children	0.04	0.06
AGE	0.30	0.07***
AGE^2	0.00	0.00***
Constant	-5.49	1.28***
Number of observations	582	
-2Log likelihood	723.99	
LR chi2(df)	82.66 (18)***	

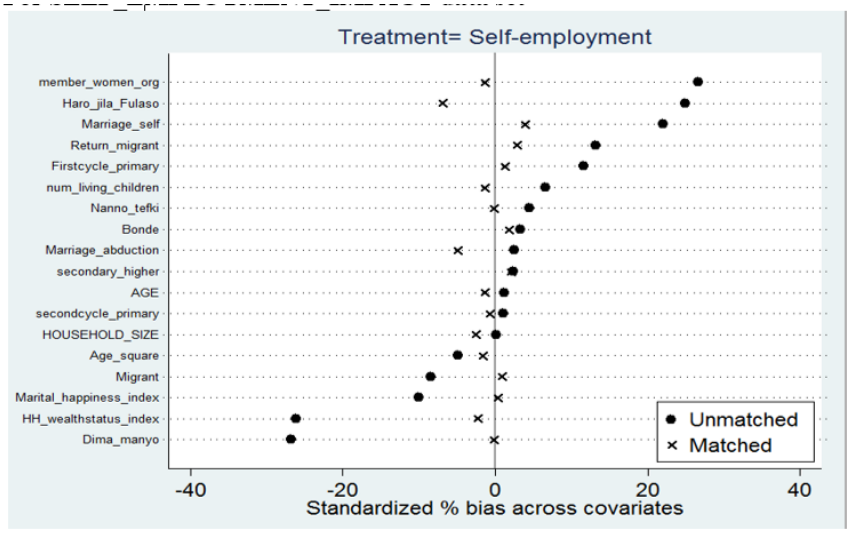
psmatch2: Treatment assignment	psmatch2: Common support		
	Off support	On support	**Total**
Untreated	0	296	296
Treated	1	285	286
Total	1	581	582

Appendix III Standardized percentage bias between the control and treated groups for all the matching covariates before and after matching

a) For WAGE_EMPLOYMENT_IMPACT data set



b) For SELF_EMPLOYMENT_IMPACT data set



Balancing test (covariates jointly)

Treatment Variable	Sample	Ps R^2	LR chi^2	p>chi^2	Mean Bias	Median Bias
Wage _employment_treatment (in WAGE_EMPLOYMENT data set)	Unmatched	0.23	145.86***	.000	24.6	17.1
	Matched	0.01	4.80	1.000	3.2	2.0
Self_employment_treatment (in SELF_EMPLOYMENT data set)	Unmatched	0.10	82.50****	.000	10.9	7.5
	Matched	0.00	1.28	1.000	2.0	1.5

*** p<0.001

Appendix IV Results of the test of balancing property between the treated group and control group

a) For the WAGE_EMPLOYMENT_IMPACT data set

Variable	Unmatched/ Matched	Mean		% bias	%reduct |bias|	t-test	V(T)/ V(C)
		Treated	Control				
Kebele (ref Sebeta 05)							
Bonde	U	0.09	0.14	-15.2		-1.59	0.69*
	M	0.10	0.11	-1.8	88.1	-0.18	0.95
Dima Manyo	U	0.09	0.15	-17.1		-1.78†	0.67*
	M	0.10	0.10	0.0	100	0.00	1.00
Haro Jila Fulaso	U	0.09	0.14	-13.3		-1.39	0.72*
	M	0.10	0.11	-2.2	83.4	-0.21	0.94
Nanno Tefki	U	0.17	0.10	19.9		2.18*	1.55*
	M	0.13	0.10	9.3	53.6	0.90	1.26
Education (ref No education)							
First cycle primary	U	0.14	0.08	20.6		2.27*	1.70*
	M	0.13	0.13	0.0	100	0.00	1.00
Second cycle primary	U	0.10	0.09	3.6		0.39	1.11
	M	0.11	0.11	-2.8	22.2	-0.24	0.94
Secondary and higher	U	0.07	0.04	11.6		1.27	1.57*
	M	0.08	0.08	-1.0	91.4	-0.08	0.97
Birth cohort (ref 1975-1984)							
1995-99	U	0.06	0.05	5.7		0.61	1.26
	M	0.06	0.07	-4.1	27	-0.34	0.88
1985-94	U	0.44	0.32	24.1		2.58*	1.13
	M	0.45	0.41	7.5	68.8	0.68	1.02
1965-74	U	0.13	0.16	-6.9		-0.73	0.87
	M	0.13	0.14	-1.3	80.7	-0.13	0.97
1955-64	U	0.04	0.21	-52.2		-5.19***	0.25*
	M	0.05	0.05	-0.7	98.6	-0.10	0.95
Migration status (ref non-migrant)							
Migrant	U	0.22	0.22	-1.1		-0.11	0.99
	M	0.23	0.20	6.2	-485.6	0.58	1.09
Return migrant	U	0.08	0.04	17.0		1.88†	1.98*
	M	0.05	0.05	1.5	91.1	0.15	1.07
HH wealth index	U	3.69	6.95	-71.9		-7.29***	0.40*
	M	3.81	3.74	1.5	97.9	0.19	1.19
Household Size	U	4.08	5.40	-62.2		-6.50***	0.74*
	M	4.16	4.10	2.9	95.4	0.29	1.14
Number of male children	U	1.06	1.86	-60.8		-6.21***	0.48*
	M	1.06	0.98	6.3	89.6	0.74	1.10
Childhood family structure (ref Parents living together)	U	0.41	0.35	12.0		1.29	1.06
	M	0.39	0.39	0.0	100	0.00	1.00
Presence of pre-school children (ref No)	U	0.49	0.48	0.6		0.07	1.00
	M	0.51	0.48	6.5	-913.7	0.60	1.00
Spousal age difference of at least 10 years (ref No)	U	0.31	0.42	-24.3		-2.56*	0.87
	M	0.32	0.36	-8.3	65.8	-0.78	0.94
Asset brought to marriage (ref No)	U	0.07	0.09	-10.7		-1.11	0.72*
	M	0.07	0.08	-5.2	51.6	-0.48	0.85
Marital Happiness index	U	1.34	1.64	-38.6		-4.15***	1.23
	M	1.39	1.42	-4.7	87.7	-0.43	0.98
	U	0.23	0.23	-0.1		-0.01	1.00

Membership in women's/youth	M	0.23	0.23	0.6	-955.9	0.05	1.01
Age	U	30.49	35.53	-49.4		-5.08***	0.55*
	M	30.38	30.44	-0.6	98.7	-0.07	0.99
Age square	U	1003.00	1396.50	-52.4		-5.34***	0.45*
	M	1000.10	1004.80	-0.6	98.8	-0.07	0.98

† p <.1, *p<.05, ** p<0.01, *** p<0.001

b) For the SELF_EMPLOYMENT_IMPACT data set

Variable	Unmatched / Matched	Mean		% bias	%reduct |bias|	t-test	V(T)/ V(C)
		Treated	Control				
Kebele (ref Sebeta 05)							
Bonde	U	0.15	0.14	3.4		0.41	1.07
	M	0.15	0.15	1.8	47.2	0.21	1.03
Dima Manyo	U	0.07	0.15	-26.7		-3.21**	0.49*
	M	0.07	0.07	-0.2	99.1	-0.03	0.99
Haro Jila Fulaso	U	0.23	0.14	24.9		3.01**	1.52*
	M	0.23	0.26	-6.9	72.1	-0.74	0.93
Nanno Tefki	U	0.12	0.10	4.5		0.54	1.12
	M	0.11	0.11	-0.2	95	-0.03	0.99
Education (ref No education)							
First cycle primary	U	0.11	0.08	11.7		1.41	1.39*
	M	0.11	0.11	1.2	89.7	0.14	1.03
Second cycle primary	U	0.09	0.09	1.1		0.13	1.03
	M	0.09	0.09	-0.7	31.5	-0.09	0.98
Secondary and higher	U	0.05	0.04	2.4		0.29	1.11
	M	0.05	0.04	2	16.3	0.24	1.09
Migration status (ref non-Migrant							
	U	0.19	0.22	-8.4		-1.02	0.88
	M	0.19	0.19	0.9	89.7	0.11	1.01
Return migrant	U	0.07	0.04	13.2		1.60	1.73*
	M	0.07	0.06	2.9	78.4	0.31	1.10
Marriage arrangement (ref Self							
	U	0.34	0.24	22		2.65**	1.23
	M	0.34	0.32	3.9	82.3	0.45	1.03
Abduction	U	0.18	0.17	2.5		0.30	1.04
	M	0.18	0.20	-5	-101.5	-0.58	0.93
HH wealth index	U	5.63	6.95	-26.1		-3.14**	0.75*
	M	5.65	5.76	-2.3	91.1	-0.30	1.05
Household Size	U	5.41	5.40	0.2		0.02	0.83
	M	5.41	5.47	-2.6	-1473.7	-0.33	1.06
Marital happiness index	U	1.56	1.64	-10		-1.21	1.20
	M	1.56	1.56	0.4	96.3	0.04	1.17
Membership in women's/youth association (ref No)	U	0.35	0.23	26.6		3.21**	1.29*
	M	0.35	0.35	-1.4	94.7	-0.16	0.99
number of Living children	U	4.06	3.90	6.6		0.80	0.72*
	M	4.06	4.09	-1.4	79.5	-0.17	0.79*
Age	U	35.65	35.53	1.1		0.14	0.65*
	M	35.61	35.76	-1.4	-21.7	-0.19	0.97
Age square	U	1357.60	1396.50	-4.9		-0.59	0.64*
	M	1354.60	1367.70	-1.6	66.5	-0.22	0.98

† p <.1, *p<.05