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## Article

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Cogent Economics & Finance

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*Suggested Citation:* Kuma, Berhanu; Godana, Abebech (2023) : Factors affecting rural women economic empowerment in Wolaita Ethiopia, Cogent Economics & Finance, ISSN 2332-2039, Taylor & Francis, Abingdon, Vol. 11, Iss. 2, pp. 1-18,  
<https://doi.org/10.1080/23322039.2023.2235823>

This Version is available at:

<https://hdl.handle.net/10419/304144>

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**To cite this article:** Berhanu Kuma & Abebech Godana (2023) Factors affecting rural women economic empowerment in Wolaita Ethiopia, Cogent Economics & Finance, 11:2, 2235823, DOI: [10.1080/23322039.2023.2235823](https://doi.org/10.1080/23322039.2023.2235823)

**To link to this article:** <https://doi.org/10.1080/23322039.2023.2235823>



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Received: 25 December 2022  
Accepted: 09 July 2023

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## DEVELOPMENT ECONOMICS | RESEARCH ARTICLE

# Factors affecting rural women economic empowerment in Wolaita Ethiopia

Berhanu Kuma<sup>1\*</sup> and Abebech Godana<sup>2</sup>

**Abstract:** Empowering rural women economically helps to ensure gender equality, the well-being of nation and the basic needs of a family. This study was conducted to figure out factors affecting rural women economic empowerment endeavors of development practitioners in Wolaita Ethiopia. Multi-stage sampling techniques were used to obtain a sample size of 100 rural households. Data were collected using cross-sectional semi-structured questionnaire, which were analyzed by descriptive and binary logit model. Rural women economic empowerment index was calculated to measure dependent variables. The index result showed that 69% of the households scored less than 0.5, and thus were considered economically not empowered. The binary logit model result revealed that age of women, marital status, educational level, perception toward economic empowerment, motivation, income, participation in decision-making and participation in leadership positively and significantly affected rural women economic empowerment. It is



Berhanu Kuma

### ABOUT THE AUTHOR

Berhanu Kuma Shano (PhD in Agricultural Economics) had served Ethiopia Institute of Agricultural Research for 12 years. He then joined Wolaita Sodo University, one of the 45 public universities, and has been offering courses to undergraduate, masters and PhD students in the department of agricultural economics, rural development, agribusiness and value chain management and Livestock production for the last 10 years. He advised more than 50 masters' students and enabled 4 PhD students to finish. Currently, he has more than 10 PhD students under his supervision. He has been teaching advanced research methodology, environmental and resources economics, livestock value chain analysis, statistical methods for social sciences, rural entrepreneurship, sustainable rural development and natural resource management, development perspectives, international trade and finance, microeconomics, and analyzing gender in development. He has been coordinating Building Resilience Through Education Project won from European Union Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie with grant agreement No 778196.

### PUBLIC INTEREST STATEMENT

This study was conducted to evaluate the commitments of the government in ensuring sustainable development goal 5-achieving gender equality and empowering all women and girls in their development endeavors. The study collected data from 150 rural women in part of Ethiopia and analyzed their economic empowerment status and factors affecting them. The index result showed that 69% of the households scored less than 0.5, and thus were considered economically not empowered. Moreover, age of women, marital status, educational level, perception toward economic empowerment, motivation, income, participation in decision-making and participation in leadership positively and significantly affected rural women economic empowerment. The findings reveal that the government of Ethiopia is lagging behind in ensuring economic empowerment of rural women. Thus, existing programs and strategies should be reviewed and new ones should be designed to effectively improve the situation of rural women economic empowerment.

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**Subjects:** Economics; Statistics for Social Sciences; Gender Studies - Soc Sci

**Keywords:** binary logit model; rural women; women economic empowerment

## 1. Introduction

Women comprise almost one half of the world population (World, 2019), and thus empowering women means empowering an incredible large number of the people. Women perform triple roles such as productive, reproductive and community participation in their day-to-day life (Fajarwatia et al., 2016). In doing so, women play an important role in development, food security and poverty reduction (Galièa et al., 2019). However, gender inequality is pervasive, although the nature and extent varies considerably across countries and regions (World, 2019). In most countries of south, there are significant gaps in terms of legal rights, access to and control over resources, economic opportunities, gender equality in education and research, power and political voice (Endalcachew, 2016). Women have less right on the use of common wealth they made along with their husbands and have limited role in decision-making on key resources (Anderson et al., 2021). Women invest earned money in their children and home expenses, therefore enabling women for economic empowerment benefits the whole society (Galièa et al., 2019).

Kabeer (1999) defined empowerment as a change that refers to expansion on people's ability to make strategic life choice in a context where this ability was previously denied to them. Empowerment for a woman means a combination of changes in her aspiration and achievement, i.e. being able to define her own life choices to pursue her goals. DFID (2012) defines economic empowerment as a process that increases people's access to and control over economic resources and opportunities. Women economic empowerment is a transformative process that creates an opportunity to make and act on decisions that would allow women to obtain valuable outcomes from economic activity and utilization of resources (Bill & Gates, 2009). It is a process of women gaining more access to a stable income and economic power or security (Sally, 2014). Rural women are key agents for achieving the transformational economic, environmental and social changes required for sustainable development. Empowering them is key not only to the well-being of individuals, families and rural communities, but also to overall economic productivity, given women's large presence in the agricultural workforce worldwide (Arjun, 2015).

Cognizant to this fact, Ethiopia has been taking policy, strategy and action measurement to economically empower rural women. The government of Ethiopia has taken measures for ending poverty and accelerating sustainable economic growth in its growth and transformation plans. The subsequent 5-year plans since 2010 have a clear objective focused on agro-industry, rural development, industrialization, social and human development, good governance and democratization (MoFED, 2010). The government is also convinced that sustainable development can be achieved if and only if both men and women equally participate in politics, societal transformation and development which benefit all citizens (Birhanu, 2015). Thus, government in recent development attempts has mainstreamed gender in all corridors of development (Wubante & Boateng, 2021).

A number of empirical studies were conducted on women empowerment – a need for women education (Agrawal & Salve, 2013), the role of women economic empowerment on agricultural development (Chipaso, 2011), fueling women's empowerment (Groota et al., 2017), sugarcane commercialization impacts on gender relations (Simon, 2022), challenges facing women economic empowerment (Halkias et al., 2011), economic empowerment of women (Hamdar et al., 2015), women empowerment, food security and nutrition (Galièa et al., 2019), women empowerment-concept and beyond (Rahman, 2013), empowerment of women through self-help groups (Sail &

Rajendra, 2013), women economic empowerment and collective action (Sally, 2014), woman empowerment and household income (Natukunda et al., 2021), relationship between poverty and gender inequality in time use (Emmanuel et al., 2022) and role and impact of microfinance on women empowerment (Addai, 2017; Alene, 2020; Akram et al., 2015; Dincer, 2014; Gangadhar and; Mulu & Mansingh, 2015; Khandre & Khandare, 2015; Loomba, 2017; Madhabendra et al., 2019; Michota, 2013; Nandy & Kumar, 2014; Partha et al., 2018; Shaheen et al., 2013). Empirical studies in Ethiopia include women's access to and control over land (Almaz, 2007), women economic empowerment and collective action (Tarkegn et al., 2012), practices and challenges of economic empowerment of rural women (Bedru, 2011), role of empowering women and achieving gender equality (Endalcachew, 2016), women's right to and control over rural land (Hussein, 2014), women's empowerment in Ethiopia (Jennifer, 2007), rural non-farm employment and income inequality (Kimhi, 2007), determinants of female headed household's livelihood diversification (Mulu & Mansingh, 2015), role and impact of microfinance on women empowerment (Belay, 2022; Belay & Singh, 2020; Dawit, 2014), determinants and challenges of economic achievement for women entrepreneurs in Ethiopia (Beshir, 2021) and determinants of rural household saving participation (Melsew et al., 2022).

This study adds value to existing empirical study by identifying factors affecting economic empowerment of rural women in Ethiopia. It used composite indicators developed by Ucbasaran (et al., 2009) to measure the dependent variable – rural women economic empowerment index. These indicators are: (1) educational availability and level attained by women; (2) ownership of household assets; (3) purchase, sale or transfer of assets; (4) access to and control over resources; (5) market participation; (6) household decision-making; (7) community-level decision-making; (8) leadership in Kebele management groups; (9) women having a role in the community; and (10) time management/workload. Zonal report of 2019 indicated that many factors which led women to economic dependency include gender-based violence; harmful traditional practices, illiteracy, cultural influence and lack of ample subsidy from the government. Consequently, explanatory variables were considered from women-related characteristics, institutional, socioeconomic and demographic characteristics.

This paper is framed under four sections. The second section describes the research methodology deployed in the study including advanced econometric model used. The third section discusses results of the study with past empirical findings and the last section concludes the key findings and provides policy implications for further intervention.

## 2. Methodology

### 2.1. Theoretical perspective

To overcome criticism of ignoring gender in development programs, a number of theoretical perspectives have been used to integrate women into development programs to eradicating poverty and low socioeconomic status. In this paper, the six main theoretical perspectives discussed are: (1) the welfare approach; (2) women in development (WID); (3) women and development (WAD); (4) gender and development (GAD); (5) the effectiveness approach (EA); and (6) mainstream gender equality (MGE).

The welfare or social assistance perspective originated back 1950s to the 1970s during the era of decolonization and political transition in most African and Asian countries. It was a response to most of the emerging independent countries outcomes of inequalities among the local elites and the common man in each nation (Dolly, 2008). However, most international development agencies applied a very western approach such as modernization theory toward helping these nations develop. These brought about a negative impact and outcome toward most developing nation's development and it also help to further impede on its progress (*ibid*).

Women in development (WID) perspective was emerged in 1970s when women fought for the equal right to vote and participate in politics, social and cultural inequalities i.e. sexual violence,

reproductive rights, sexual discrimination and glass ceilings and women's role in economic development (Gina, 2010). The empirical result of how increasingly specialized division of labor associated with development undermines or neglects the value of women's work and status in the developing world (Eva, 1990). It explains why women were being deprived an equal share among men in social benefits and economic gains (Gine, 1992). This had an influence on making women more visible in development approach and as a specific category when addressing women in development. The WID approach helped to ensure the integration of women into the workforce and increase their level of productivity in order to improve their lives (Debnarayan, 2006). Since it is a perception of the global south from global north perspective, it failed to acknowledge the collective and cultural concerns of women in the developing world.

The Women and Development (WAD) perspective originated to discuss women's issues from a neo-Marxist and dependency theory perspective (Gine, 1992). Its focus was to explain the relationship between women and the process of capitalist development in terms of material conditions that contribute to their exploitation (Eva, 1990). WAD is often misinterpreted as WID; however, what sets it apart is that WAD focuses specifically on the relation between patriarchy and capitalism. The WAD perspective states that women have always participated and contributed toward economic development, regardless of the public or private spheres (Debnarayan, 2006).

The Gender and Development (GAD) approach perspective served as a comprehensive overview of the social, economic and political realities of development (Debnarayan, 2006). The diversity of this approach was open to the experiences and need of women in the developing world. Its two main goals were to prove that the unequal relationship between the sexes hinders development and female participation. The second, it sorts to change the structure of power into a long-term goal whereby all decision-making and benefits of development are distributed on equal basis of gender neutrality (Eva, 1990). The GAD approach is not just focused on the biological inequalities among sexes – men and women, however, on how social roles, reproductive roles and economic roles are linked to gender inequalities of masculinity and femininity. Gender refers to one's sexuality based on masculinity and femininity and sex refers to the biological features of one physiology.

The Effectiveness Approach (EA) originated with the concept surrounding WID, which was the inequalities women faced and how societies fail to acknowledge the impact of women in economic development. However, EA sorts to not just include women into development projects but also reinforce their level of productivity and effectiveness in the labor market (Debnarayan, 2006). So this required the development of infrastructure and equipment that aided to increase women's earnings and productivity (especially women in the rural areas).

Mainstreaming Gender Equality (MGE) or gender mainstreaming is the most recent development approach aimed on women. It ensures that all gender issues are addressed and integrated into all levels of society, politics and programs. Sustainable Development Goal 5 encourages achieving gender equality and empowering all women and girls (<https://sdgs.un.org/goals/goal5>). It is on the basis of this, governmental organizations, donors, nongovernmental organizations and others have included men and women in their policies and strategies and allocated fund to address inequality among both sexes. Despite the effort to reinforce gender mainstreaming into society, there is still vast gender inequality in the developing world (Ravindran et al., 2022). Women still make up the 70% of individuals living in poverty in developing countries. This also includes the disproportionate ratio of women to men in the job market and at leadership position, low level of education among women, and low socio-economic status among women.

## 2.2. Description of the study area

The study was conducted in *Sodo zuria* district, which is one of the 16 rural districts of *Wolaita* zone, Ethiopia. The administrative center of the district is *Sodo* which is located at 330 km to south of Addis Ababa along the main road that passes through Hosanna to *Arbaminch*. Geographically, it



is located at 6°54'N latitude and 37°45'E longitude with an elevation between 1,600 and 2,100 m above sea level. The projected total population of the district as of Dincer (2014) is 183,229, out of which 49.2% are male and 50.8% are female. The farm land fragmentation is very prevalent because the area is known for its dense population of 342 persons per square km. Total area of the district is 404 km<sup>2</sup> and the agro ecology is composed of 84% midland and 16% highland which are suitable for diverse agricultural production.

### 2.3. Sampling Techniques

The study used multistage sampling techniques to generate the required primary data. First, Sodo zuria district was selected purposively, then four *kebeles* were selected by using simple random sampling technique. Second, 16, 27, 31 and 26 households from *Delbow Wogane*, *Waraza Lasho*, *Waja Kero* and *Ofa Sere* were selected by using systematic random sampling technique, respectively. Sample size was determined using Yamane (1967) and finally a probability proportion to size was employed to select representatives from each *kebele* (Table 1).

### 2.4. Methods of data collection

Both qualitative and quantitative data were collected from primary and secondary sources.

Data from primary sources such as households and district officials were collected through household survey, key informant interview, focus group discussions and observation. The survey included questionnaire on current economic status of women, socioeconomic, demographic, institutional and natural factors. Four focus group discussions, one at each *kebele* with 10 members composed of men and women, were conducted. Key informant interviews were done with district officials and each *kebele* administration. Secondary sources used were files, pamphlets, office manuals, circulars and policy papers and journal articles. In addition, variety of books, published and/or unpublished government documents, websites, reports and newsletters were reviewed.

### 2.5. Methods of data analysis

The data quantitatively collected were analyzed by descriptive and econometric models. Descriptive statistics like mean, percentage, minimum and maximum values were used. Moreover, inferential statistics like chi-square and *t*-test were used to find difference between the dependent and independent variables.

#### 2.5.1. Dependent variable

The dependent variable rural woman economic empowerment is more accurately represented when it considers multiple economic and social empowerment indicators. Thus, 10 items each weighted by 1/10 were formulated from 5 domains such as education, household assets, decision-making, leadership and time management. These indicators are: (1) educational availability and level attained by women; (2) ownership of household assets; (3) purchase, sale or transfer of assets; (4) access to and control over resources; (5) market participation; (6) household decision-making; (7) community-level decision-making; (8) leadership in *Kebele* management groups; (9) women having a role in the community; and (10) time management/workload (Ucbasaran et al., 2009). The score of these dimensions was calculated by the following composite index:

**Table 1. Sample household by *kebele***

Kebele Administration	Total households	Sampled households
Dalbo Wogane	1,813	16
Waja Kero	3,184	27
Ofa Sere	3,753	31
Waraza Lasho	3,157	26
<b>Total households</b>	<b>11,907</b>	<b>100</b>

$$\text{Empowerment Index}(E) = \sum_j^{10} \frac{R_j}{N} \quad (1)$$

where empowerment index ( $E_{ij}$ ) is calculated for each household  $i$  with  $j$  activities.  $R_i$  is a dummy variable that takes value 1 if the item is checked by the household and 0 otherwise.  $N$  means the total number of items used to measure the empowerment index. However, in order to come up with policy relevant information, we reformulated the dependent variable and grouped households who scored index value greater than or equal to 0.5 ( $\geq 0.5$ –1.0) as economically empowered, while others who scored index value less than 0.5 ( $0 < 0.5$ ) as economically not empowered. Thus, rural women economic empowerment is a dichotomous dependent variable in the model taking value 1 if rural women empowered economically and 0 otherwise. Following this reformulation, we found binary logit model as an appropriate econometric model to come with policy relevant information. Thus the functional form of binary logit model as of (Gujarati, 1988) is presented as follows:

$$P_i = E\left(\frac{Y_i}{X_i}\right) = \frac{1}{1 + e^{-Z_i}} \quad (2)$$

where  $P_i$  is a probability that women are empowered;  $Z_i$  is a functional form and an explanatory variable ( $x_i$ ).

If  $P_i$  is the probability of rural women economic empowerment affected by explanatory variables, then  $1-P_i$  is the probability of rural women economic empowerment does not change when independent variable changes, which can be given as:

$$P_i = E\left(\frac{Y_i}{X_i}\right) = 1 / (1 + e^{-(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n)}) \quad (3)$$

Now, Equation 3 is simply the odd ratio in favor of rural women economic empowerment to not empower.

The model was estimated using the iterative maximum likelihood estimation procedure. This estimation procedure yields unbiased, efficient and consistent parameter estimates.

### 2.5.2. Independent variables

Fourteen explanatory variables related to women, socioeconomic, demographic, institutional, market and cosmopolitans were included as independent variables in binary logit model based on empirical literature review.

**2.5.2.1. Age (AGE).** Age can build or weaken confidence. Women can become more or less risk-averse regarding investing as they age. However, aging has a negative impact on the direction of influence. According to certain statistics, young women are more likely than older women to engage in income-generating activities that help them better acquire human, financial, physical and social assets (Jejeebhoy, 2000). As a result, aging is speculated to affect rural women economic empowerment negatively.

**2.5.2.2. Marital status (MAGE).** This is the primary means of getting access to land under the customary tenure system in sub-Saharan Africa. Unmarried women have little access to land because they cannot inherit property in most matrilineal societies, while wives have better access to their husbands' land through marriage. Thus, the security of marriage becomes a primary requirement for the security of tenure (Bedru, 2011). Therefore, it is hypothesized to affect rural women economic empowerment positively.



**2.5.2.3. Household size (SIZE).** The size of the home influences the functioning of women's companies because of the reproductive role and other obligations in the home that women assume in their domestic lives. The rise in the number of children at home reduces women's economic empowerment activities. This revealed that having a large family size exacerbates the problem (Chipaso, 2011) because this requires more time, labor and patience to finish all household duties undertaken by women. As a result, household size is hypothesized to affect rural women economic empowerment negatively.

**2.5.2.4. Socio-cultural norms (NORM).** Gender defined duties, taboos, prohibitions and expectations such as whether or not it is suitable for women to be in public places, hold particular types of employment or manage money are all examples of norms (Teshome, 2010). Sociocultural norms are speculated to affect rural women economic empowerment negatively.

**2.5.2.5. Household income (INCOME).** Household income is one factor that influences women's economic empowerment in rural settings. Women with higher labor market qualifications are more likely to marry males with higher qualifications (Burtless, 1999). In many nations, including the United States, empirical data show that higher women's household income is connected with lower inequality (Khor & Pencavel, 2006). Nonfarm employment in rural areas has long been recognized as a way out of poverty. Many prior empirical researches discovered that nonfarm income reduces poverty and improves women's economic empowerment while discouraging income inequality among households (Kimhi, 2007). Nonfarm employment is investigated through the lens of another component of rural development, namely, income inequality. It is not apparent whether increasing nonfarm work options for women relative to men increases or decreases income disparity. However, household income and women's economic empowerment are favorably associated.

**2.5.2.6. Livestock ownership (LIVE).** Women's livelihoods and asset portfolios are heavily dependent on livestock. Past livestock interventions that did not appear to help women led to extensive research on gender and livestock systems in the 1980s and 1990s. As a result, later livestock development programs were more targeted, focusing on species (poultry, small ruminants and dairy cows) and employing methodologies (participatory, group-based) that make them more ideal for and accessible to women, at least in theory (ILRI, 2010). Furthermore, because livestock is necessary for livelihoods and has substantial potential for poverty reduction, it is hypothesized to affect rural women economic empowerment positively.

**2.5.2.7. Landholding (LAND).** Land is a matter of equality, poverty alleviation, food security, long-term development and even human rights. Nevertheless, women's rights are either ignored or encouraged in terms of access to and control over property in communities. Furthermore, in traditional communities, women's direct access to land is frequently restricted. Women have indirect access to land through kinship links and their status as spouses, mother, sisters or daughters (Almaz, 2007). However, when family systems are destroyed for a variety of reasons, these usage rights may not provide enough security for women. Breach in marriage is a serious issue for women's access to and control over land because it creates a vulnerable category of women, female-headed households, who are single parents, widows or divorcees. As a result, land holding is hypothesized to affect rural women economic empowerment positively.

**2.5.2.8. Access to credit (CREDIT).** Credit availability was one factor influencing women's economic empowerment. Access to financing, primarily to begin an economic empowerment activity, is one of the most significant challenges facing rural women (Belay, 2022; Belay & Singh, 2020; Partha et al., 2018). Women generally have less credit prospects than men for a variety of reasons, including a lack of collateral and an unwillingness to accept household assets as collateral (Mahbub, 2000). Thus, access to credit is hypothesized to affect rural women economic empowerment positively.

2.5.2.9. *Access to market (MKT)*. The ability to penetrate new markets requires skills, knowledge and relationships, which women lack (Plaku et al., 2019). Thus, access to the market is believed to affect rural women economic empowerment positively.

2.5.2.10. *Access to transportation (TRAN)*. Transportation is a critical concern for women, notably for women and their household needs. Women's economic empowerment serves a dual purpose in the community, therefore having access to transportation speeds up home activities while also enhancing their economic role (Halkias et al., 2011). Therefore, access to transportation is hypothesized to affect rural women economic empowerment positively.

2.5.2.11. *Perception of women toward economic activity (PERCN)*. Women's perceptions differ; some women see economic empowerment as a solution to the problem and aim to avoid any risks. Others think they are powerful, must make an effort to view it as a challenge. As a result, women who have a favorable perception of economic activity are more practical and motivated to complete their tasks, while others are not. Women who have a positive perception of businesses are dedicated to achieving their goals (Tarkegn et al., 2012). In this study, perception to engage in economic activities is believed to affect rural women economic empowerment positively.

2.5.2.12. *Motivation for achievement (MOT)*. This is described as the individual's need to fulfill several responsibilities with some degree of proficiency. With minor adjustments, this variable will be measured using the scale proposed by Pareek and Rao (2006). Motivation was expected to have a positive relationship with the dependent variable (Astuti et al., 2018).

2.5.2.13. *Mass media ownership (MEDIA)*. One aspect that supports women's economic empowerment in obtaining knowledge is the control of mass media. As a result, women who own the media are claimed to have greater access to financial information than those who do not. As a result, it is expected that the ownership of media devices would have a strong and favorable association with information access and use among rural women's economic empowerment (Sariyev et al., 2020).

2.5.2.14. *Cosmopolitans (COSMO)*. One of the factors that increase the possibility of having more access to information is the frequency with which a person leaves his social structure. This allows an individual to be exposed to a diverse range of information from a variety of environmental circumstances. According to Rogers (1995), cosmopolitan is defined as the degree of orientation outside of the social system to which she or he belongs. As a result, access to and consumption of economic promotion information is projected to be positively and significantly associated with cosmopolitans. However, due to their gender roles at home and sociocultural influences, women in rural areas have limited access to information.

### 3. Results and discussion

#### 3.1. Empowerment index and status

About 60%, 63.8% and 51.6% of the total sample, not economically empowered and economically empowered women, respectively, can't read and write. However, 25%, 23.2% and 25.5% of the total sample, not economically empowered and economically empowered women, respectively, completed grade 1–4 and 5%, 4.3% and 6.5% of the total sample, not economically empowered and economically empowered women, respectively, completed grade 5–8. Furthermore, 11%, 8.7% and 16.1% of total sample, not economically empowered and economically empowered women, respectively, completed grade 9–10. The weighted economic empowerment of rural women with regards to education was 0.038 out of one. About 69%, 82.6% and 35.5% of the total, not economically empowered and economically empowered women, respectively, did not participate in any leadership role in community. The weighted economic empowerment of rural women in relation to leadership in a community was 0.0117(0.009 + 0.0027) out of one. About 72%, 76.8% and 61.3% of the total, not economically empowered and economically empowered, respectively, had higher workload. The weighted economic empowerment of rural women with regards to

**Table 2. Rural women economic empowerment index**

Domain	Indicators	Total	Weighted	EERW*	Weighted EERW
Educational attainment	1. Education available to and attained by women	38	1/10	0.38	0.038
Household asset	2.1 Ownership of assets	93	1/10	0.93	0.093
	2.2 Purchase, sale or transfer of assets	15	1/10	0.15	0.015
	2.3 Access to and control over resource	41	1/10	0.41	0.041
	2.4 Market participation	57	1/10	0.57	0.057
Leadership	3.1 Kebele administration Group member	9	1/10	0.09	0.009
	3.2 Women have leadership roles in the community	27	1/10	0.27	0.0027
Decision-making	4.1 Kebele management Group member	21	1/10	0.21	0.021
	4.2 Household level	42	1/10	0.42	0.042
Time management	5. Workload	95	1/10	0.95	0.095
Total				4.38	0.438

workload was 0.095 out of one. Results revealed that 55%, 63.8% and 35.5% of the total, not economically empowered and economically empowered women, respectively, reported they had low decision-making role. The weighted economic empowerment of rural women with regards to decision-making was 0.063 (0.021 + 0.042) out of one. About 93%, 15% and 41% and 57% of the total sample said they did not own assets, either purchased, sold or transferred assets, have access to and control over resources and did not participate in markets, respectively. The weighted economic empowerment of rural women with regards to asset ownership was 0.206 (0.093 + 0.015 + 0.041 + 0.057) out of one (Table 2).

Rural women economic empowerment status was given in Table 3. The mean economic empowerment of rural women was 0.438 which is less than half indicating that there need more works to bring rural women to the required empowerment level. On the other hand, the mean economic empowerment index of economically empowered rural women was 0.648, whereas that of economically not empowered rural women was 0.343. In this regard, only

**Table 3. Economic empowerment status of rural women**

Empowered women			Not Empowered women			Total		
No	mean	std	No	mean	Std	No	mean	Std
31	0.648	0.821	69	0.343	0.09	100	0.438	0.159

31% of the sample households were economically empowered and the rest 69% were not empowered.

### 3.2. Description of continuous demographic and socioeconomic characteristics

The demographic and socioeconomic characteristics of continuous explanatory variables of households are given in Table 4. The mean age of economically empowered women was 31.9 years, whereas that of not empowered was 29.7 years. The t-value shows there were significant age variation between empowered and not empowered rural women at less than 10% significant level. The mean landholding of empowered women was 0.45 ha whereas that of not economically empowered was 0.38 ha. The mean livestock holding of empowered women was 4 TLU and that of not empowered women was 3.22 TLU. The mean annual income for economic empowered rural women was 9740.5 Birr and that of not economically empowered was 4269.38 Birr. The mean family size of economically empowered families was 5.39 and that of not empowered was 5.22 which are higher than the national average of 4.8 (EDHS, 2011).

### 3.3. Description of categorical variables for demographic characteristics

#### 3.3.1. Achievement motivation

As the motives to economic empowerment activity increases, the success of economic empowerment also increases. The result indicated that 29% of the households were under low achievement motivation, 48% were under medium achievement motivation and 23% were under high achievement motivation. About 33.3%, 49.3% and 17.4% of economically empowered rural women has low, medium and high achievement motivation whereas 19.4%, 45.2% and 35.5% of not economically empowered rural women had low, medium and high achievement motivation, respectively. The p-value shows insignificant difference between economically empowered and not empowered rural women with regards to achievement motivation (Table 5).

#### 3.3.2. Marital status

Under the customary tenure system in sub-Saharan Africa, marriage has been the major means of gaining access to land. Because unmarried women cannot inherit property in most matrilineal countries, but wives have better access to their husbands' land through marriage, marriage security becomes the primary prerequisite for tenure security (Bedru, 2011; Nizioki, 2002). Thus, 85.5% of married, 1.4% of divorced and 13% of widowed women are not economically empowered, while the remaining 67.7% of married women and 32.3% of widowed women are economically empowered. The  $\chi^2$ -test indicated that marital status of rural women is significant at less than 10% significant level. In terms of marital status, 80% are married, 1% is divorced and 19% are widowed (Table 5).

**Table 4. Description of continuous variables for demographic and socioeconomic variables**

Variable	Empowered		Not empowered		Overall sample		t-value	p-value
	Mean	SD	Mean	SD	Mean	SD		
Age	31.9	5.065	29.7	4.754	30.38	4.631	-2.249	0.027
Household size	5.39	1.626	5.22	1.662	5.27	1.644	-0.475	0.636
Land holding	0.45	0.176	0.38	0.213	0.41	0.203	-1.547	0.125
Livestock ownership	4.06	2.55	3.22	1.765	3.48	2.067	-1.921	0.058
Household Income	7773	6271	6346	2888.9	6789	3445	-1.942	0.055

**Table 5. Description of dummy and categorical demographic variables**

Variables	Categories	Empowered		Not Empowered		Overall sample		$\chi^2$ -test	P-value
		N	%	N	%	N	%		
Marital status	Married	21	67.7	59	85.5	80	80	5.45	0.066
	Divorced	0	0	1	1.4	1	1		
	Widowed	10	32.3	9	13.0	19	19		
Women perception	Low	6	19.24	19	27.5	25	25	0.252	0.882
	Medium	7	22.7	18	26.5	25	25		
	High	18	58.06	32	46	50	50		
Cosmopolitans	No	23	74.2	60	87	83	83	2.469	0.116
	Yes	8	25.8	9	13	17	17		
Social norms	Agree	21	67.3	54	78.3	75	75	1.262	0.261
	Neutral	0	0	0	0	5	5		
	Disagree	10	32.3	15	21.7	20	20		
Achievement motivation	Low	23	33.3	6	19.4	29	29	4.561	0.102
	Medium	34	49.3	14	45.2	48	48		
	High	12	17.4	11	35.5	23	23		

### 3.3.3. *Women perception*

About 16.1% of empowered women and 55.1% of not empowered women believe that economic empowerment enhances women's living situations. About 48.4% of economically empowered and 71% of not economically empowered rural women disagreed to the statement economic empowerment can close the income difference between men and women. For the statement, economic empowerment is an open opportunity to learn about the outside world (outside the house), 25.8%, 29.1% and 45.16% of agreed, indifferent and disagreed, respectively. Almost the same proportion disagreed (51.6%) and agreed (50.7%) were from empowered and non-empowering groups, respectively (Table 5).

### 3.3.4. *Cosmopolitans*

Cosmopolitans, 17% of the sample households have the opportunity to visit another environment, while 83% did not have the option to visit another location. 25.8% of empowered have encountered cosmopolitanism, while 13% of not empowered have, and 87% have no experience with cosmopolitans. The p-value shows there is no significant difference with regards to cosmopolitanism between empowered and not empowered rural women (Table 5).

### 3.3.5. *Social norms*

Twenty percent of sample households disagreeing, 5% neutral and 75% agreeing with the influence of societal norms on women's economic empowerment. About 75%, 67.3% and 78.3% of the total sample empowered and not empowered rural women agreed that social norms influenced women's economic empowerment (Table 5). As a result, it is feasible to conclude that women confront numerous obstacles as a result of societal and cultural pressures.

## 3.4. *Description of dummy and categorical institutional variables*

### 3.4.1. *Accesses to Training*

Out of the total sample 28% had access to training and 72% did not get training. About 77.4% and 10.1% took extension and training on income generating activities from economically empowered and not economically empowered rural women, respectively. The p-value indicates that training influenced economic empowerment of rural women significantly at less than 10% significance level (Table 6).

### 3.4.2. *Access to Market*

About 95%, 90.3% and 97.1% of the total sample, economically empowered and not empowered rural women had accesses to markets. The p-value indicates that market access did not have a significant influence over women economic empowerment (Table 6).

### 3.4.3. *Access to transportation*

97%, 100% and 95.7% of the total sample, economically empowered and not empowered rural women reported that they had access to transportation. The p-value reveals that transportation access has no bearing on the success of women's economic empowerment (Table 6).

### 3.4.4. *Access to credit*

52%, 45.2% and 47.8% of the total sample, economically empowered and not empowered rural women respectively received credit. The p-value indicates that loan availability has no bearing on women's economic empowerment (Table 6).

### 3.4.5. *Mass media ownership*

52%, 34.8% and 50.7% of the total sample, economically empowered and not empowered rural women respectively owned at least one media device. The p-value shows that there is no significance difference between economically empowered and not empowered rural women ownership to mass media (Table 6).



**Table 6. Descriptive statistics for dummy and categorical institutional variables**

Variables	Categories	Empowered		Not Empowered		Overall sample			$\chi^2$ -test	P-value
		N	%	N	%	N	%			
Accesses to training	Yes	10	77.4	7	10.1	72	72		2.747	0.097
	No	21	22.6	62	89.9	28	28			
Access to transportation	Yes	31	100	66	95.7	97	97		1.390	0.238
	No	0	0	3	4.3	3	3			
Access to credit	No	17	54.8	31	2.2	48	48		0.061	0.805
	Yes	14	45.2	38	47.8	52	52			
Mass media ownership	No	14	45.2	34	49.3	48	48		0.145	0.703
	Yes	17	34.8	35	50.7	52	52			
Access to market	No	3	9.7	2	2.95	5	5		2.069	0.150
	Yes	28	90.3	67	97.1	95	95			

**Table 7. Logit regression result**

Variable	Coefficient ( $\beta$ )	Std error	Wald statistics	p-Value	Odds ratio Exp( $\beta$ )
AGE	-0.238	0.093	6.498	0.011	1.101
MAGE	3.313	1.925	2.960	0.085	0.036
SIZE	0.033	0.276	0.015	0.904	0.967
LAND	3.068	1.825	2.481	0.204	0.311
CREDIT	3.361	0.147	8.616	0.003	0.034
PERCN	-1.135	0.610	3.485	0.062	0.320
MOT	0.902	0.542	2.768	0.096	2.464
MKT	-1.037	1.538	0.455	0.500	0.354
NORM	-1.512	0.979	2.382	0.123	0.221
INCOME	0.841	0.506	4.067	0.097	2.318
TRANSP	-1.160	0.908	1.631	0.202	0.314
MEDIA	-1.173	0.866	1.838	0.175	1.309
LIVEST	4.445	0.216	13.696	0.000	10.35
COSMO	1.111	0.977	1.293	0.256	3.037
CONSTANT	12.708	4.016	10.012	0.002	0.000
Log-likelihood	112.1	Model Chi-square	65.513		
Cox and Snell R <sup>2</sup>	0.481	Nagelkerke pseudo R <sup>2</sup>	0.677		

H-L model significant test result 8.12 correctly predicted by logit model overall sample 92.8%

### 3.5. Binary Logit Regression Result for determinants of rural women economic empowerment

Out of 14 hypothesized variables included in the binary logit model, 7 variables significantly affected rural women economic empowerment. They correctly predicted 92.8% of the women economic empowerment (Table 7).

#### 3.5.1. Age of women

The age of women negatively and significantly affected women economic empowerment at less than 1% probability level showing an inverse relationship with women economic empowerment. This means for every unit increase in women's age, the odd ratio indicates that women economic empowerment decreases by a factor of 1.101, keeping other variables constant. The finding was consonant with (Jennifer, 2007) who demonstrated that age of women has a negative relation with women economic empowerment. Focus group discussions revealed that most economic activities performed by women require transporting them either through women shoulder or through local transportation means demanding energy and time from women side. Thus, as age increased these activities are difficult to be performed by rural women making them uncompetitive and push out of the businesses. The policy implication is that young aged women have more likely to be innovative and are engaged in multidimensional livelihood strategies. In doing so, they relatively have better economic empowerment status than old aged women.

#### 3.5.2. Marriage

Marriage status of a woman positively and significantly affected women economic empowerment at less than 10% significant level. Rural women economic empowerment increased by odds ratio 0.036 for a married woman as compared to unmarried woman, *ceteris paribus*. This is because under customary tenure system in sub-Saharan Africa, marriage has been the major means of gaining access to land. Moreover, unmarried women cannot inherit property in most matrilineal countries, but wives have better access to their husbands' land through marriage, marriage

security becomes the primary prerequisite for tenure security (Bedru, 2011; Nizioki, 2002). Key informants said that even though there is a move by government to equally inherit productive resources with men which is also in the policy and strategy document of the government, we found difficulty in operationalizing it which requires further discussion with the local people. However, this contradicts with the findings of (Bedru, 2011) marriage toward economic activity affects the performance of women economic empowerment.

#### 3.5.3. Perception

Women perception toward economic empowerment negatively and significantly affected rural women economic empowerment at less than 10% significant level. *Ceteris paribus*, rural women economic empowerment decreases by the odds ratio 0.320 if women perception toward economic empowerment is low. This is in line with the findings of Deribe (2007) that pinpointed perception toward economic activity affects the performance of women economic empowerment. Discussion with groups depicted that the way someone perceives determines his/her commitment toward the activities and thus affects effectiveness and efficiency of the business. As there are many challenges women face in developing countries let alone to get involved in economic activities, they are not motivated unless conducive and attractive environment is created for them. This demands much work in changing their perception through awareness creation, training, subsidizing them with various alternatives to win their willingness.

#### 3.5.4. Motivation

Motivation of women to engage into economic activities positively and significantly affected rural women economic empowerment at less than 10% significant level. The odds ratio indicates when motivation increases in a unit, women economic empowerment increases in the value of 2.464, keeping other variables constant. This finding is in line with the finding of Deribe (2007) concluded that motivation of women influences the setup of their own businesses and running it in successful way.

#### 3.5.5. Income

Total annual income of a household positively and significantly affected rural women economic empowerment at less than 10% significance level. The odds ratio indicates that rural women economic empowerment increased by a factor of 1.945 as a women annual income increases by a unit, keeping other variables constant. This indicates that women with better income can purchase inputs which boost productivity and can participate in economic activity. Qualitative result of focus group discussion also confirmed as the variable enables women to purchase inputs and hire labor in order to increase productivity and those with better income women that are enjoying from economic empowerment. Thus, both qualitative and quantitative analysis proved the variable to be significant. This result is compatible with the findings of annual women income having positive and significant effect on economic empowerment of rural women (Teshome, 2010).

#### 3.5.6. Access to credit

Access to credit has a positive and significant relationship with rural women economic empowerment at less than 1% probability level. Holding other variables constant, the odds ratio in favor of women economic empowerment increased by a factor of 0.034 as women access to credit increases by one unit. The positive relationship implies that women economic empowerment with access to credit service have more chance to be economic empowerment than women without access to credit. This is due to the fact that credit gives women an opportunity to be involved in income generating activities so that derived revenue and purchasing power of the women increase and allow escaping from economic dependency. Moreover, it helps to ease consumption when household face with temporary food problem. The qualitative result is in line with the model result as focus groups express ground realities as women did not sufficiently have access to credit in the community due to unexpected losses. Previous studies also revealed that credit is one of factors that affect the probability of adoption of improved

varieties to enhance productivity in yield that leads to increase women economic empowerment level (Deribe, 2007).

### 3.5.7. Livestock

Livestock ownership of a household positively and significantly affected rural women economic empowerment at less than 1% significant level. The odds ratio indicates that a unit increase in livestock holding by one tropical livestock unit increases rural women economic empowerment by a factor of 10.35, *ceteris paribus*. Women owning livestock such as cow, small ruminants like sheep, goat and poultry chicken can substantiate their income through selling these products and minimize credit constraints to engage into other economic activities. Focus group discussion and interview with key informants revealed that through livestock holding rural farmers overcome risks associated with crop failure due to bad weather condition or diseases. Selling livestock products are the immediate sources of finance for rural people to purchase agricultural technologies, pay school fees for children and engage in other economic activities. Many past studies confirmed the importance of livestock ownership for smoothing credit constraints for rural society (Almaz, 2007; Deribe, 2007; ILRI, 2010).

## 4. Conclusion and policy implications

This study assessed status of rural women economic empowerment and identified factors affecting rural women economic empowerment in *Sodo zurea* district in Ethiopia. About 69% of total sample were not economically empowered even though a number of policies and strategies are being implemented by governments and nongovernmental organizations to empower rural women. The model result showed that age of a woman and perception toward economic activities negatively and marriage, access to credit, annual income, and motivation and livestock ownership positively affected rural women economic empowerment. The study findings revealed that the theoretical perspective of all gender issues need to be addressed and integrated in all levels of society, politics, and programs are not fully met. The practical implication is that despite Ethiopia governments' effort to reinforce gender mainstreaming into society there are still a vast number of gender inequality in leadership position, decision-making, awareness creation, access to education, access to credit and extension and asset ownership among women. The policy implications are governmental and non-governmental organizations engaged in empowering women should strengthen their attempts through motivating women via smoothing credit access, engaging them in livestock rearing activities, providing trainings and capacity building to increase their perception toward economic activities, and creating alternative income generating activities to women.

This study has quite a few limitations. The primary data were generated from 100 households from four *kebeles* which seems quite small, but the researchers triangulated the data with focus group discussions and key informant interviews. The researchers included sociocultural and economic variables to analyze their effect on the dependent variable yet only economic variables can also be used. The study used binary logit model to analyze the effect of independent variables on dependent variable, but it could also be possible to use order Tobit as dependent variable ranging from 1. (0.0–0.25] for low empowerment index 2. (0.25–0.5] for moderate empowerment index 3. (0.5–0.75] for average empowerment index and 4. (0.75–1.0] for high empowerment index.

### Acknowledgments

The authors would like to thank Wolaita zone administration and Sodo zuria district agricultural office for providing the required data and *kebele* development agents in participating in data collection. Above all, we acknowledge farmers who devoted their time and willingly gave their responses.

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### Disclosure statement

No potential conflict of interest was reported by the author(s).

### Data availability statement

The data are available from the corresponding authors upon request.

## Citation information

Cite this article as: Factors affecting rural women economic empowerment in Wolaita Ethiopia, Berhanu Kuma & Abebech Godana, *Cogent Economics & Finance* (2023), 11: 2235823.

## References

- Addai, B. (2017). Women empowerment through micro-finance: Empirical evidence from Ghana. *Journal of Finance and Accounting*, 5(1), 1–11. <https://doi.org/10.11648/j.jfa.20170501.11>
- Agrawal, S., & Salve, S. (2013). Women empowerment: Need of women education. *Indian Journal of Education Research, Experimentation and Innovation*, 3(4).
- Akram, S., Imrab, S., & Safina, M. (2015). Socio-economic empowerment of women through micro enterprises: A case study of Ajk. *European Scientific Journal*, 11 (22), 197–211. <https://core.ac.uk/download/pdf/328025055.pdf>
- Alene, E. T. (2020). Determinants that influence the performance of women entrepreneurs in micro and small enterprises in Ethiopia. *Journal of Innovation and Entrepreneurship*, 9(1), 1–20. <https://doi.org/10.1186/s13731-020-00132-6>
- Almaz, W. (2007). *Women's access to and control over land in the current land administration system in two rural kebeles in Ada'a woreda of Oromia region*. Addis Ababa university.
- Anderson, C., Leigh, T. W., Reynolds, P. B., Vedavati, P., & Carly, S. (2021). Economic benefits of empowering women in agriculture: Assumptions and evidence. *The Journal of Development Studies*, 57(2), 193–208. <https://doi.org/10.1080/00220388.2020.1769071>
- Arjun, Y. P. (2015). A research study on rural empowerment through women empowerment: Self-help groups: A new experiment in India. *International Journal of Law, Education, Social and Sports Studies*, 2 (1), 50–56. [www.ijless.kypublications.com](http://www.ijless.kypublications.com)
- Astuti, C. D., Sumantri, M. S., & Boeriswati, E. (2018). The relationship of achievement motivation and critical thinking to the ability to read comprehension. *American Journal of Educational Research*, 6(7), 1005–1008. <https://doi.org/10.12691/education-6-7-17>
- Bedru, H. (2011). *Practices and challenges on economic empowerment of rural women in Halaba special woreda S.N.N.P.R. Ethiopia*. Indira Gandhi National Open University.
- Belay, M. (2022). Impact of microfinance on women's economic empowerment. *Journal of Innovation and Enterprise*, 11(55), 1–12. <https://doi.org/10.1186/s13731-022-00250-3>
- Belay, M., & Singh, A. (2020). Ethiopian women economic empowerment through microfinance. *Indian Journal of Finance and Banking*, 4(2), 51–57. <https://doi.org/10.46281/ijfb.v4i2.708>
- Beshir, S. (2021). Determinants of economic achievement for women entrepreneurs in Ethiopia. *Journal of Innovation and Entrepreneurship*, 10(1), 1–14. <https://doi.org/10.1186/s13731-020-00141-5>
- Bill, & Gates, M. (2009). Women economic empowerment: A website to share the Bill and Melinda gates foundation's global framework for advancing women's economic empowerment.
- Birhanu, M. (2015). Global viewpoints on the state of science, technology and sustainable development: Ethiopian focus. *Journal Education Reserach Behaviroal Science*, 4(4), 135–141. <http://www.apexjournal.org>
- Burtless, G. (1999). *Effects of growing wage disparities and changing family composition on the U.S. income distribution*. European.
- Chipaso, C. N. (2011). *The role of women's empowerment on agricultural development in Malawi university of Reading*. Malawi, University of Reading.
- Dawit, T. (2014). *Women's economic empowerment through microcredit intervention: The case of Chinaksen woreda, Oromiya national regional state* [M.Sc. Thesis]. Haramaya University.
- Debnarayan, S. (2006). Development theory and gendered approach to development: A review in the third world perspective. *Sociological Bulletin*, 55(1), 45–66. January–April 2006. <https://doi.org/10.1177/0038022920060103>
- Deribe, K. (2007). *Agricultural information networks of farm women and role of agricultural extension: The case of Dale woreda, southern nations, nationalities and peoples' region*. Haramaya university.
- DFID. (2012). *DFID on the economic empowerment of women and girls: A policy response*. IDRC/DFID expert meeting on women's economic empowerment, labor markets, entrepreneurship and inclusive growth: Towards a research agenda. Lindi Hlanze, economic adviser.
- Dincer, C. (2014). *The role of microfinance in women's empowerment in Turkey*. Boston university center for finance law and policy.
- Dolly, P. (2008). Gender development approach and social protection: Understanding the case of Assam. *The Indian Journal of Political Science*, 69(4), 771–785. <https://www.jstor.org/stable/41856468>
- EDHS. (2011). Preliminary report. Central statistical agency. Addis Ababa,
- Emmanuel, O., Carike, C., & Derick, B. (2022). Poverty and inter-household gender inequality in time use in Ghana. *Feminist Economics*, 28(4), 221–253. <https://doi.org/10.1080/13545701.2022.2080854>
- Endalcachew, B. (2016). The role of empowering women and achieving gender equality to the sustainable development of Ethiopia. *Pacific Science Review B: Humanities and Social Sciences*, 2(1), 37–42. <https://doi.org/10.1016/j.psr.2016.09.013>
- Eva, R. (1990). WID, WAD, GAD: Trends in research and practice. *Journal of Developing Areas*, 24(4), 489–502. <https://www.jstor.org/stable/4191904>
- Fajarwatia, A., Estuning, T., Wulan, M., Surani, H., & Ifa, M. S. (2016). The productive and reproductive activities of women as form of adaptation and post-disaster livelihood strategies in Huntap Kuwang and Huntap Plosokerep. *Procedia-Social & Behavioral Sciences*, 227(14), 370–377. <https://doi.org/10.1016/j.sbspro.2016.06.084>
- Galièa, A., Nils, T., Amy, W. G., Isabelle, B., Paula, D. S., Mindy, J. P., Rebecca, J., Ben, L., Luke, K., Ilana, G. R., Kristie, S., & Kathryn, M. Y. (2019). Women's empowerment, food security and nutrition of pastoral communities in Tanzania. *Global Food Security*, 23, 125–134. <https://doi.org/10.1016/j.gfs.2019.04.005>
- Gina, K. (2010). Women in development: A critical analysis. *Third World Quarterly*, 19(3), 395–409. Sep., 1998. <https://doi.org/10.1080/01436599814316>
- Gine, Z. (1992). From women in development to gender and development, more than a change in terminology? *Agenda: Empowering Women for Gender Equity*, 8(14), 16–21. <https://doi.org/10.1080/10130950.1992.9675222>
- Groota, J. D., Nthabiseng, M., Abigail, K., & Hans, B. (2017). Fueling women's empowerment? An exploration of the linkages between gender, entrepreneurship and access to energy in the informal food sector. *Energy Research & Social Science*, 28, 86–97. <https://doi.org/10.1016/j.erss.2017.04.004>

- Gujarati, D. N. (1988). *Basic econometrics* (3rd ed.). McGraw-Hill.
- Halkias, D., Nwajiuba, C., Harkiolakis, N., Caracatsanis, S. M., & Okpara, J. O. (2011). Challenges facing women economic empowerment in Nigeria. *Management Research Review*, 34(2), 221–235. <https://doi.org/10.1108/01409171111102821>
- Hamdar, B., Hejase, F., Hakim, E., Jessica, A., & Rebecca, B. (2015). Economic empowerment of women in Lebanon. *World Journal of Social Science Research*, 2(2), 251–265. <https://doi.org/10.22158/wjssr.v2n2p251>
- Hussein, A. (2014). *A woman's right to and control over rural land in Ethiopia* American research institute for policy development. Wolaita zone.
- ILRI. (2010). *Women, livestock ownership and markets in Eastern and Southern Africa* The Canada's international development research centre. ILRI.
- Jejeebhoy, S. J. (2000). Women's autonomy in rural India: Its dimensions, determinants, and influence on context. In H. Presser & G. Sen (Eds.), *Women's empowerment and demographic processes: Moving beyond Cairo*. Oxford University Press.
- Jennifer, W. (2007). *Women's empowerment in Ethiopia: New solutions to ancient problems*. Pathfinder International.
- Kabeer, N. (1999). *Focuses on three dimensions that define the capacity to exercise strategic life choices: Access to resources, agency, and outcome*. Addis Ababa.
- Khandre, M., & Khandare, D. M. (2015). The role of microfinance for empowerment of poor women in Yemen. *International Journal of Social Work*, 2(1), 36–44. <https://doi.org/10.5296/ijsw.v2i1.7752>
- Khor, N., & Pencavel, J. (2006). Income mobility of individuals in China and the United States. *The Economics of Transition*, 14(3), 417–458. <https://doi.org/10.1111/j.1468-0351.2006.00257.x>
- Kimhi, A. (2007). *Rural non-farm employment and income inequality in Southern Ethiopia*. The gender dimension, Hebrew university.
- Loomba, S. (2017). *Role of microfinance in women empowerment in India*. Mudakappa Gundappa.
- Madhabendra, S., Sudhansu, S. M., Abhijit, D., & Partha, P. S. (2019). Microfinance and women empowerment: An empirical analysis. In Ramesh Chandra, D. (Ed.), *Handbook of research on microfinance impacts women empowerment, poverty and inequality* (pp. 52–64). <https://doi.org/10.1111/j.1468-0351.2006.00257.x>
- Mahbub, U. H. (2000). *The gender question*. Oxford University Press.
- Melsew, N., Girmachew, M., Birhanu, S., & Tesfaye, B. (2022). Determinants of rural household saving participation: A case study of Libokemkem district, north-west Ethiopia. *Cogent Economics & Finance*, 10(1), 1–12. <https://doi.org/10.1080/23322039.2022.2127219>
- Michota, A. (2013). Digital security concerns and threats facing women entrepreneurs. *Journal of Innovation and Entrepreneurship*, 2(1), 7–11. <https://doi.org/10.1186/2192-5372-2-7>
- MOFED. (2010). *Growth and transformation plan 2010/11–2014/15. the federal democratic republic of Ethiopia*, Addis Ababa. MOFED.
- Mulu, D., & Mansingh, P. (2015). Determinants of female-headed households' livelihood diversification strategies choice in Ambo district, Ethiopia. *Journal of Extension Education*, 27(2), 5423–5430.
- Nandy, S., & Kumar, S. (2014). Women entrepreneurship in 21st Century. *Global Journal of Finance and Management*, 6(9), 967–976.
- Natukunda, H., Peter, N., & Sawuya, N. (2021). Woman empowerment and household income in Kira municipality, Uganda. *Journal of Economic Science Research*, 4(4), 13–24. <https://doi.org/10.30564/jesr.v4i4.3774>
- Nizioki, A. (2002). *Towards women's equal rights to land in eastern Africa East African Sub regional support initiative for the advancement of women*. Open Library.
- Pareek, U., & Rao, T. V. (2006). *Designing and managing human resource system*. Oxford and IBH Publishing Co. Pvt. Ltd.
- Partha, M., Madhabendra, S., Anjan, R. C., & Partha, P. S. (2018). *Microfinance, micro-entrepreneurial activities through self-help groups, and socio-economic empowerment of women: A study of Burdwan district of west Bengal*. IGI Global.
- Plaku, A., Wittberger, D., & Kurshitashvili, N. (2019). Enhancing women's labor force participation in road construction, rehabilitation, and maintenance in Albania. *Gender assessment, recommendations, and action plan*.
- Rahman, A. (2013). Women's empowerment: Concept and beyond. *Global Journal of Human Social Science Sociology and Culture*, 13(6), 8–13. [https://globaljournals.org/GJHSS\\_Volume13/2-Women-Empowerment-Concept.dpf](https://globaljournals.org/GJHSS_Volume13/2-Women-Empowerment-Concept.dpf)
- Ravindran, T., Sundari, K., Angelo, R., & Ippolito, G. A. (2022). Institutional gender mainstreaming in health in UN agencies: Promising strategies and ongoing challenges. *Global Public Health*, 17(8), 1551–1563. <https://doi.org/10.1080/17441692.2021.1941183>
- Rogers, E. (1995). *Diffusion of innovations* (4th ed.). Free Press.
- Sail, N., & Rajendra, K. (2013). Empowerment of women through SHG's: An analysis. *International Journal of Science and Research*, 4(1), 2840–2844. <https://www.ijsr.net/archive/v4i1/SUB151187.pdf>
- Sally, B. (2014). *Women's economic empowerment and collective action in agriculture: New evidence and measurement challenges*, future agricultures consortium. Future Agricultures.
- Sariyev, O., Tim, K., Loos, M. Z., & Tuls, G. (2020). Women in household decision-making and implications for dietary quality in Bhutan. *Agricultural and Food Economics*, 8(13), 1–20. <https://doi.org/10.1186/s40100-020-00158-0>
- Shaheen, I., Sajid, M. A., & Batool, Q. (2013). Micro enterprises and economic empowerment of women. *International Journal of Management*, 3(9), 473.
- Simon, M. (2022). Sugarcane commercialization and gender experiences in Zambia sweetest zone. *Feminist Economics*, 28(4), 254–284. <https://doi.org/10.1080/13545701.2022.2079697>
- Tarkegn, G., Lenseil, A., & Fekadu, A. (2012). *Women collective action of women*. Oxfam Great Britain.
- Teshome, S. (2010). *Challenges and determinants of household food security: The case of south bench woreda in bench Maji zone, south western Ethiopia* [MSc. Thesis]. Submitted to the School of Graduate Studies of Haramaya University.
- Ucbasaran, D., Westhead, P., & Wright, M. (2009). The extent and nature of opportunity identification by experienced entrepreneurs and managers. *Journal of entrepreneurs' Empowerment*, 24(2), 99–115. <https://doi.org/10.1016/j.jbusvent.2008.01.008>
- World, B. (2019). *Doing business: How to reform?*. World Bank.
- Wubante, A., & Boateng, J. K. (2021). Women and Ethiopian politics: Political leaders' attitude and views on women's effectiveness. *Cogent Social Sciences*, 7(1), 1–15. <https://doi.org/10.1080/23311886.2021.1948653>
- Yamane, T. (1967). *Elementary sampling theory*. Prentice-Hall, Inc.