

African Women's Vulnerability and Financial Well-Being “A Theoretical Review”

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Abstract

Financial well-being is as important as life itself and should be enjoyed by both women and men but often it is far from being achievable by 80 percent of women in the African continent because of their precarious and vulnerable socio-economic and cultural conditions. An African woman suffers a disproportionate lack of socio-economic opportunities, poverty, inequality, lack of political participation, unequal education rights and are marginalized in employment opportunities, suffers gender discrimination and violation, and are over-burdened with family care responsibilities without pay and traditional norms that deny her the right of ownership of family heritage. The African continent has the highest population of women and about 70 percent are in abject poverty and the incidence of poverty has been feminized. All these have made them vulnerable to self-reliance and achieving financial well-being for a large group of women seems impossible. The objectives of this study are to extensively review previous literature, conceptual models of financial well-being and vulnerability and to find the link between vulnerability and financial well-being. Theoretically, we find that the issues of vulnerability and financial stress arise out of factor disconnect between fundamental determinants of financial well-being using conceptual models and similarity tables. This study argues that women in Africa may likely remain vulnerable and financially stressed as long as there is fundamental denial of their basic rights and are vulnerable in employment sector. Therefore, we suggest that socioeconomic policies must draw on the principle of inclusion and gender parity to ensure that women in vulnerable states are considered.

Keywords: *Financial well-being, Vulnerability, African women, Financial knowledge and behavior*

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Background to the Study

Financial wellness is as crucial as personal development and success in achieving and sustaining it is important in reducing poverty for all, especially women (Iramani & Lutfi, 2021); and improving overall wellness. Financial well-being is a state where individuals can fully meet daily financial responsibility (CFPB, 2017); and can feel protected in future financial issues and absorb financial shocks (Prendergast et al., 2018). Financial inclusion and prosperity are sure means of achieving poverty reduction and alleviation particularly for a large group of women globally and reducing their vulnerability incidence. And there are many benefits accruable to this state of mind which include the ability of the person to pursue personal dreams, low financial stress, ability to deal with financial exigencies and emergencies, ability to meet financial goals, and others but all these are achievable where individuals have access to finance and experience financial inclusion and are financially literate and have opportunities to livelihood.

Women comprises of 70 percent of the world's population but studies indicate that majority are poor and vulnerable especially in the developing countries where large number are engaged in the informal sector which offers them less opportunity to progress (FAO, 2022) and are mostly engaged in a lower form of employment like family subsistence farming, domestic workers, seasonal agricultural workers, street vendors, cleaners, petty traders and others (Nuralibah & Husniyah, 2017). Consequentially, women are often vulnerable to labor and social laws such as pension, health insurances or paid sick leave, lower wage, unsafe work conditions including the risks of molestation and sexual abuse, largely excluded from policy support programs and subjects to unpaid heavy responsibility, and they suffer severe poverty (Nisha et al., 2022). African women are highly endangered by poverty due to our perceived norms of male child supremacy over girl child as such increases the vulnerability of women in the continent (Alexander, 2013).

Vulnerability is of different dimensions across areas of life and poverty has resulted in human development indicators more unfavorable (Lewis and Lewis (2014). Women are vulnerable in many ways and can be seen in gendered agricultural biases, biases in women political participation, vulnerable to inequality in workplace, poor cultural practices that denies women their rights, inheritance for the girl child, vulnerable to lack of educational opportunities, vulnerable to poor governance that denies equal rights as par male gender, vulnerable to financial service exclusion (Burgard et al., 2012).

There are many strands of literature reviewed; one concentrated on the determinants of financial well-being (FWB) (Porter & German, 1993; Sabri et al., 2012; Iramani & Lutifi, 2021; Gerrans et al., 2014; Nuralibah & Husniyah, 2017; CFPB, 2017; Narges & Laily, 2011; Lusardi & Mitchell, 2007; Bailey et al., 1998; and Nisha et al., 2022; Lu & Henager, 2022); another on the models of financial well-being (Greninger et al., 1996; Kim et al., 2003; Nurul et al., 2020; Brüggen et al., 2017; Sabri et al., 2012; Bonke & Browning, 2009; Prawitz et al., 2006) and others focused on financial vulnerability (Piotri et al., 2021; Burgard et al., 2012; D'Alessio & Lezzi, 2013; Angel 2016; Bridges & Disney, 2010; Emami, 2010; Fitch et al., 2007; Bialowolski et al., 2019; Anderloni & Vandone, 2012). While (Depompa, 2022; Lucia,

Dunn & Ida, 2022; Payen, 2019; Oberholser, 2022; Luke, 2022; Coetzee, 2022; Greta, 2021; WEF, 202) emphasized on the economic impact of gender gap in financial inclusion. The concern of this study is, can “vulnerable African women” enjoy financial well-being knowing fully the meaning and the benefit. In answering this question, this paper developed two main objectives using theoretical review: (a) to extensively review the factors that affect financial well-being and factors that contributes to woman's vulnerability (b) to establish theoretically the linkage between vulnerability and financial well-being using existing models and literature. Therefore, this paper comprises different sections: introduction, the conceptual studies of financial well-being and vulnerability (African women vulnerability in selected sectors), the linkage between vulnerability and financial wellness, conclusion and policy recommendations.

The Concept of Financial Wellbeing

Meaning of Financial Wellbeing

Financial wellbeing is a state where people enjoy an achievable level of financial security be it in the future or currently; have enough disposable income and savings for unforeseen contingencies and can feel protected in ongoing and future financial responsibilities and are able to make choices on financial issues and can absorb shock. Customer Financial Protection Bureau (2021) explains financial wellness as the ability to effectively manage one's economic life in a way that enables achievement of financial balance on daily choices. It can also refer to a person's overall financial health, financial well-ness and the absence of financial stress. Strumpel (1977) stresses that financial well-being guarantees satisfaction with one's financial budget, on issues like income, savings, security and perception of opportunities available and fairness of the reward distributive system. Financial wellbeing involves managing personal financial resources and well-being of individuals and household.

Determinants of Financial Well-being

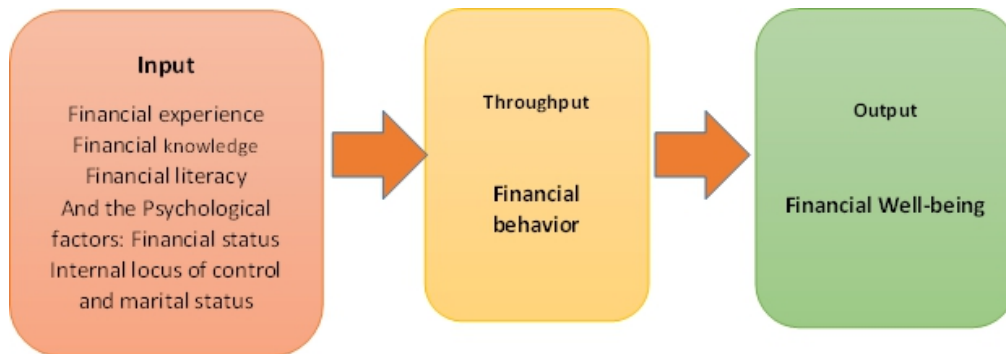
Financial experience is one the factors that determine financial well-being (Iramani & Lutfi, 2021). Hogarth and Hilgert (2002) opine that financial experience refers to the level to which a person has utilized financial products like savings, deposits, credit, capital market securities, insurance, mutual funds, etc. Financial well-being is the outcome of a better financial experience which enables individuals to manage their finances better (Brilianti & Lutfi, 2020; Lewis et al., 2008). Someone who has accumulated much financial experience manages his assets and income to improve his financial well-being better than another who has not. According Sabri et al. (2012), a person with experience in the management of money like savings, investment, and credit, has a better understanding of financial well-being.

Job opportunities in terms employment rate and quality of work is a crucial determinant of financial well-being (Voukelatou et al., 2021). Individuals with good jobs in countries with good labour laws are well remunerated. Educational level of the individual is a crucial determinant of employment and the level of remuneration especially in skilled jobs. Individuals with good education and skills that match available jobs are easily employed and paid well. This leads to financial well-being. Other determinants of financial well-being are included in sub-section 2.1.2.

Conceptual model of financial well-being

Following Deacon and Firebaugh (1988) (as cited in Kanchan et al., 2021) model, which depends on management system models, our framework is built to apply to individuals in analyzing the components of their financial wellness.

Figure 1: Model of financial well-being

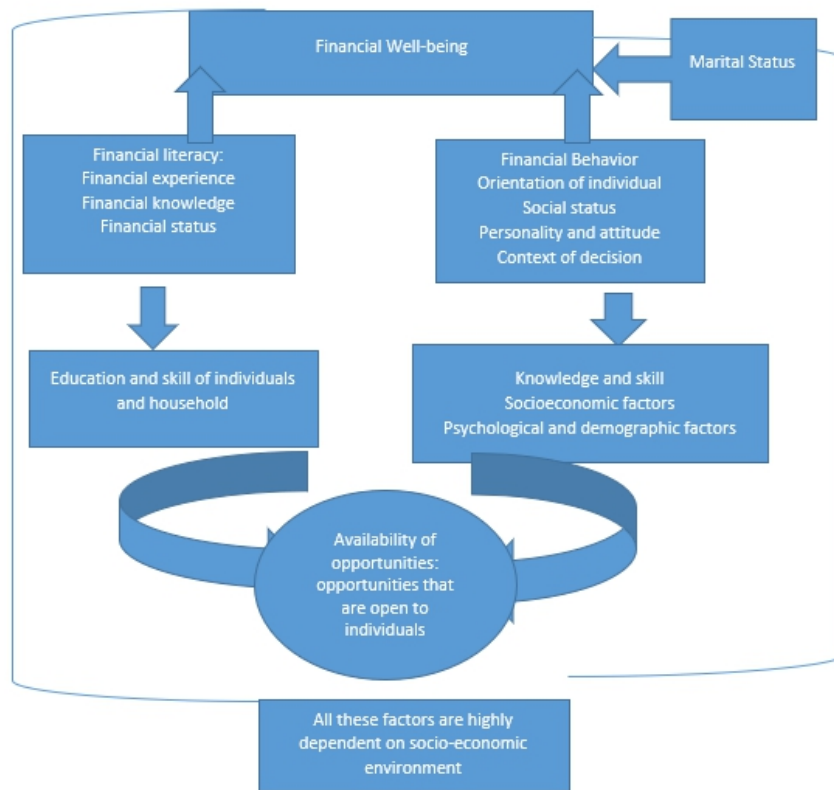


Source: Adapted from Deacon and Firebaugh (1998) (as cited in Kanchan et al., 2021)

The first three-components of financial well-being are financial experience, knowledge, and financial literacy which consists (consciousness, awareness, level of education and self-confidence), psychological factors (age, income, marital status, internal locus of control) are responsible for financial behavior (throughput) and positive financial behavior (which is measured ability to avert credit, handle financial obligations with ease through making right financial decisions and ability to save. All these combined generates financial well-being (output).

Previous studies have proved that there are other elements that can influence the financial well-being of individual and such are socioeconomic and demographic factors (income level, employment status, family heritage, parental status, age, gender among others) psychological factors (family and individual orientation, social status, self-control and locus of control) cultural factor (girl child assigned roles, and parental responsibility of female, cultural barriers on women) and all these act as an indirect influencer of financial well-being (Porter and Garman, 1993; Greninger et al., 1996; Kim et al., 2003, Kanchan et al., 2021). Here, we develop an inclusive conceptual model to highlight both direct and indirect factors that act as financial well-being influencer. Figure 2 is a combination of the model developed by Consumer Financial Protection Bureau (2015) and Kanchan et al (2021).

Figure 2: Conceptual model of Financial Well-being



Source: Authors' design (variables used for this model depend on the previous studies)

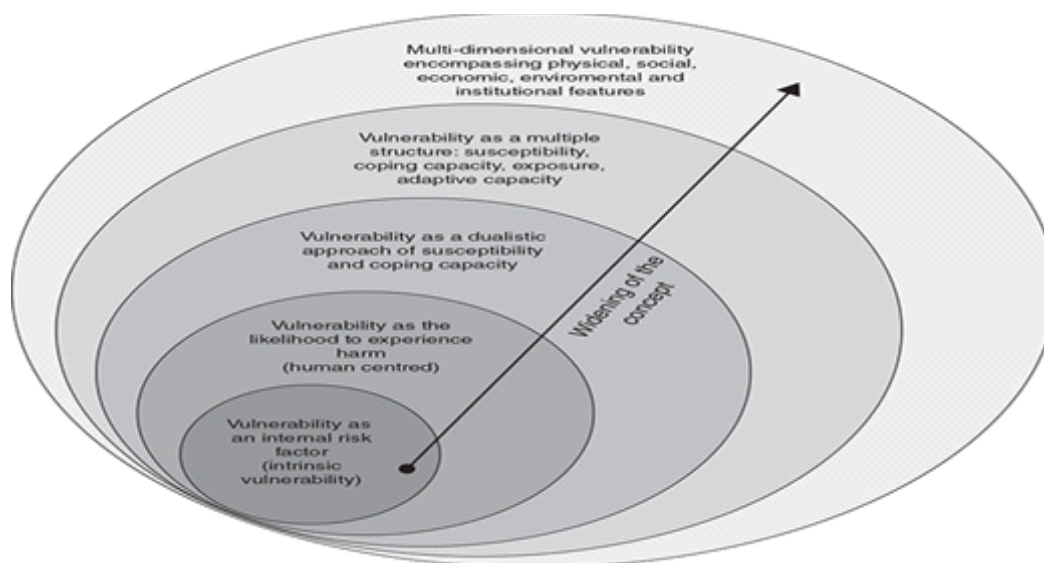
The Concept of Vulnerability

Vulnerability is a concept in development studies that have complex meaning and its definition is complex in different fields of study. Economics and other studies like political sciences may use the word metaphorically to explain how a system's stability is affected by external and internal shocks, unimagined changes in relation to human-being (Bieri, 2000; Coetzer & Dewald, 2012) Benhamin (2016) noted that the United Nation uses an economic vulnerability index as some criteria for classifying a country as least developed. Chamber (1993) suggested that vulnerability should include the effect of policy and planning on daily life and the constraints and fears they encounter on economic and political marginality. While Bolin and Stanford (1998) added in the conceptual definition, the factors in low-income countries include shortage of resources, employment, and conditions of work that generate poverty. But the incidence of poverty and its perceptions cannot be left out in the definition of vulnerability. Therefore, the World Development reports, enlarged the definition to include issue of poverty and human deprivation, the voiceless, and the powerless (World Bank 2001). Also, the U.K Contingencies Secretariat (2008) emphasizes on those who are less able to help themselves in circumstances of an emergency and the focused group which refers to children, elderly, pregnant women, and tourists as the vulnerable.

GNDR (2015) affirmed that each individual household, social group or community disposition are vulnerable over course of time, life cycle, and economic cycle. They are also vulnerable to societal level of crime and risk factors, violence and poverty level as well as natural disasters like flood, epidemic, pandemic and earthquake. Geopolitical, social and economic changes, innovation on legal, technological, cultural, and climatic changes may affect people's vulnerability. In the report of Bourque et al (2007), women, elders, people, and undocumented immigrants are considered vulnerable. In the same way, Anderson and Woodrow (1998) stated that vulnerability is positively related to time frame and as such affects the societal ability to respond to emergencies. Alexander (2013) denotes vulnerability using important factors such as: economic which involves level of poverty; technology which could be caused by innovation and technical risks; residual which could be caused by lack of modernization; delinquent resulting from inequality, corruption and negligence and total which makes life generally precarious.

Figure 3: Conceptual Model of Vulnerability

Previous conceptual studies developed different models of vulnerability, but this study will focus on the model developed by Birkmann (2013). Here he conceptualized the scale and complexity of vulnerability using the circular diagram below.



Source: Birkmann (2013, p.39)

This diagram consists of five circles of determinants of vulnerability in a widening range.

- a) Circle one; Birkmann conceptualized vulnerability as intrinsic, which is an outcome of internal risk.
- b) Circle two; human center, and humans are affected by environment harms.
- c) Circle three; vulnerability is explained on how susceptible an individual is to harms and the level of their coping ability.
- d) Vulnerability is a multiple structure that involve susceptibility, coping capacity,

- exposure, and adaptive capacity.
- e) Vulnerability can be multi-dimensional encircling many features like physical, socioeconomic, institutional and environmental.

In conclusion, vulnerability is evident in hazardous situations and shows when someone experiences a threat from a hazardous situation as such assets and activities are equally threatened.

IPCC (2007) opined that vulnerability is perceived as the level to which an individual or system is disposed to and resists adverse effects of change. It depends on individual feeling and adaptive capacity. Also, Cannon (2008) in his definitions breaks down vulnerability into five elements:

- a) The Livelihood of strength and resilience.
- b) Wellbeing and baseline status.
- c) Self-protection.
- d) Social protection; and
- e) Governance.

Figure 4: Conceptual framework of Cannon (2008)



Source: Cannon (2008, p.3)

African women's vulnerability in the agricultural informal sector

African agricultural productivity amounts to 60-80 percent and women contribute about 70 percent of rural agriculture in Africa (United Nations Economic Commission for Africa, 1972; ILO, 2012). Women dominate the informal sector in Africa and are mostly employed in small-scale food processing industries, large number of women on household levels are employed in subsistence farming, and petty food trading in the informal sector. According to International Labor Organization, in Sub-Saharan Africa, about 74 percent of women are

engaged in the informal sector and also employed in informal lower-paying jobs (Corner, 2008; Bafana, 2012). Meinzen-Dick (2019) study affirmed that 60 percent of all employed women in South Sub-Saharan Africa, work in the agriculture sector and this is supported by (FAO, 2010; Montepellier & Panel, 2019); and in agricultural production, women are found as grass-root farmers, their responsibilities enlarge into motherhood and management of household nutrition, they are also educators, innovators, and their roles are very sensitive across value chains.

Their table below indicate contribution of agriculture to GDP by countries, the population employed in the sector and the percentage contribution of women in agricultural sector:

Table 1.

Country	Contribution of Agriculture to GDP (%)	Population Employee %	Percentage Contribution of women in Agriculture
Benin	40	70	44% of women accounts for household subsistence farming
Burkinafaso	45	85	48% women constitute the laborers in agricultural sector
Congo	8	52	73% women accounts for the labour in agricultural sector
Maritania	22	-	45% of the agricultural need is provided by women in the rural area
Morocco	15-20	40	57% of female population participate in agricultural activities
Nambia	11	79	59% engage in skilled and subsistence agriculture
Sudan	40	80	Women constitute of 80% of the farmers
Tanzanian	50	85	98% of farming is carried out by women
Zimbabwe	11	71	61% of agriculture is accounted for by women

Source: FAO (2006)

Rural women's responsibilities are considered complex and multiple, and these roles are different across societies and regions. Women are involved in subsistence agricultural production, producing crops to feed the household, breeding domestic animals, taking up menial jobs on farms, petty trading, fetching water and firewood for the household, and caring for the household and still play their roles as wives and mothers and these are essential to the wellbeing of rural households and as such women are affected by the outcomes both physically and financially because a majority of these roles are not economically rewarded and are not included in the national income accounting.

Challenges African Women Face in Agricultural Informal Sector

There are numerous challenges facing African agricultural sector and collectively these factors exist because the sector is dominated by rural women, who work on family basis as farmers, laborers and entrepreneurs providing the majority of agricultural output and as such the sector is underperforming. These women face more severe constraints than men: their access and control over productive resources are greatly constrained due to inequalities and poverty rate that exist in gendered form. Montepellier (2012) argued that a large number of the indigent and most disadvantaged and marginalized in Sub-Saharan Africa are women, many other studies (UNDP, 1995; UNIFEM, 1995; & United Nations, 1996) affirmed that more than 70 percent of the world's indigent group are women. While other research reveals that female-headed households are poorer than others and that their frequency is growing in African countries, making poverty progressively a female phenomenon (ESA, 2012).

The escalating African poverty over the decades, enhances women vulnerability and subjects them to poor living and environmental conditions as such women are functioning largely in gendered roles, and still being challenged by discriminating land laws and poor access to the food supply chain, lack of technological know-how, many factors also prevent women from having access to formal financial services among such factors are: limited education, the transaction cost involved in financial services, social and cultural inhibiting factors, the nature of rural women occupation, and most time such services require collateral such as land titles which they may lack.

Adedotun (2022)

Women face far greater time constraints than men (because they are traditionally engaged as caregivers within the family). They are mostly engaged in farm work at a longer hour and at the same time face their motherly reproductive roles, they suffer due to cultural gender-based division of labor (caregiver, household unpaid work). Studies have found that women are less educated, and the incidence of high school dropout is high for girl children and among women generally as such illiteracy hinders their social and human rights and ability to understand information.

There are numerous challenges facing women in the agricultural sector which continue to undermine their efforts toward empowerment and achieving financial well-being and these factors are:

- a) Women lack access to credit facilities and agricultural extensions.
- b) Culturally induced gender-based violence weakens women's control over resources.
- c) The Land ownership system constrains women in Africa.
- d) Lack and low education attainment contribute to a lack of knowledge.
- e) Women produce spillage due to distant markets, lack of storage facilities, lack of dedicated markets, and transport challenges.

Women's Vulnerability and unpaid Household Responsibilities

According to Budlender (2007), Culture has endowed women with responsibilities and often those responsibilities are unpaid; unpaid family roles are described as cares rendered by

women to family members and household domestic works. Care work is mainly for personal well-being and for maintaining societies and upholding norms and traditions. In developing nations, the unpaid domestic work taken up by women serves as basic services that should be paid for either by the family or government. But globally the weight of traditional family roles both in the household and hospitals are the preserve for women. Women are accountable for 75 percent of the unpaid family domestic roles including house chores, which can take any form depending on the geographical location or region.

According to a Humanitarian report, women spend up to three hours or more a day doing household chores than men on family level which include caring for children and elders. Norms of the African society bestow women with extra care and family burden that are unpaid for, and such responsibilities include:

- a) Caregiving to children and other members of the family.
- b) Fetching of water and firewood.
- c) Rearing of livestock, family farming.
- d) Childbearing.
- e) Going to the market for purchasing of food items and kitchen utensils.
- f) Cooking and Cleaning.

United Nations (2010) report substantiated the fact that women carry out unpaid household roles than men and these constitutes 39percent of the continent's gross domestic product. Aya (2020) concurred that women spend an estimated 4.5hours per day on average while men spend two hours on unpaid family roles. Many studies find that women use a greater percentage of their time in home food preparation and household chores and this cuts across countries (Fontana & Natalia, 2008; Jain, 1996; Acharya & Bennett, 1982; & Wrangham, 2009).

Nature has endowed women and girls with the caring ability and in many parts of the world, culture mandates that as caregivers, and this has hindered their rights and forms a barrier to various human rights especially rights to education, hampers social involvement, association, and leisure (Sepulveda & Carmona, 2014). Excessive household workloads (caring for children and elderly household members) have negative impacts on the health and well-being of the girl child, limit their time available to study, constrain education and career development and limit their participation in paid jobs, and further increase their vulnerability incidence (Lanjouw & Lanjouw, 2001).

Care work has been considered by many studies as a hindering factor to women's development globally and often not factored into development policy (Chopra, 2013; Bibler & Zuckerman, 2013); and these present negative outcomes. There have been many movements against the above: for example, UN Women (1995) outlined the 1995 Beijing appeal actions for making domestic chores count and visible in labor market, also the International Conference on Labor Statisticians (2013) resolved that unpaid domestic care work is one of the formal types of work (ILO, 2013, cited in Samman et al., 2016).

African woman in the sphere of Human Development Education

Education has been identified as the most important key to poverty alleviation and an important source of wealth generation, the 20th and 21st century theorists have equally emphasized the role of human capital development. Education highly correlates with individual's ability to earn a living, provides opportunity for increased income and higher standard of living. Many studies have been used to substantiate the importance of education to financial market indices. And such studies are Shawn et al (2012) that examined the effect of education on financial behavior employing two-sample instrumental variable strategy. Agarwal and Mazumber (2010) studied the relationship between cognitive and financial decision making, the study revealed that higher cognitive ability leads to greater financial market participation.

Education has large effects on financial market participation; Shawn et al (2012) concentrated on the effect of education on financial behavior of investors while Bushan and Yajulu (2013) outlined the factors that affect financial literacy, which include (educational level, income and environmental exposure). Scheresberg (2013) and Tortorice (2012) focused on the impact of educational attainment on financial behavior. Apart from being financially literate, there are other factors that can influence investment decisions and these factors include level of earning, employment status, demographic factors like age, socioeconomic factors, environment, gender, and educational level (Bairagi & Chakraborty (2018), while Widayat (2010) added financial literacy, and individual economic conditions as core factors that can influence investment decisions. Employing primary data for Indonesia, Mohammad et al (2020) examined the correlation between educational level and understanding of financial literacy and its effect on investment decisions in capital markets.

Challenges of educational attainment of women in Africa

As important as education is to the economic and personal development, the inequality in education widens, and girls are most likely affected in accessing and completing school. About 52 million girls are out of school in Africa while 4million girls never attended school against 2million boys (UNESCO, 2019; Mizrahi, 2015; *Solidarity for African Women's Rights*, 2006). Dropping out of school is a global issue and much literature have argued on the factors that cause children to be out of school at an early stage, these factors include socioeconomic factors, environmental factors, and lack of infrastructure. Abdul et al (2004) evaluated these factors to include weak socioeconomic and educational policies while Yumiko (1996) added family education level, girl child pregnancy, social vices, economic status of the family, lack of interest and bullying, failure, insecurity and others (Russell, 2019; Nakpodia, 2010; Ajaja, 2012; Lockett et al., 2019). On the other hand, Theunisson et al (2015), De Rider et al (2013), Asuncion et al (2016) argued that there is a correlation between health conditions and school dropout rate. Also Lockett et al (2019) examined the factors that contribute to school dropout in secondary school using descriptive and causal comparative research design in the largest urban district of Mississippi, while Chirbong (2005) using a sample from five secondary schools in Plateau state of Nigeria included peer group influence, poor teacher-student relationship, lack of motivation, socioeconomic conditions, early marriage, illegal drug usage, absentee parents, home school distance among others as factors that contribute to dropping out of school.

Literature Review

Financial well-being is as important as the health of individuals and society at large but there is a dearth of empirical literature (Collins & Urban, 2020; Zyplur et al, 2015) and very few available studies concentrate on the finding the factors that define how financially well an individual is and how they handle daily stress. Kanchan and Gaurav (2021) using path analysis surveyed the response of 349 in a structural model to ascertain the specific features of financial literacy, behavior, and personality traits and how they affect financial well-being of an individual in India. Iramani and Lutfi (2021) explore the determinants of financial well-being using an integrated family financial welfare model for 1,158 households and the result indicates five important factors which are: Financial experience, financial knowledge, and financial status, financial behavior, marital status and internal locus of control. Hilgert et al (2003) argued that financial literacy impacts financial behavior, this study is supported by Lusardi and Michael (2007), Nisha and Subburaj (2022).

Nuralibah and Husniyah (2017) examined how financial stress, work environment, locus of control, and financial behavior affects public employees in Putrajaya Malaysia. While Consumer Financial Protection Bureau (2017) included fixed factors such as economic and social environment, and available opportunities (access to employment, sufficient benefits, income, and family resources) and suggests that financial behavior, knowledge and skill can be controlled. Narges and Laily (2011) posit that financial behavior, financial stress level, literacy, income, gender, marital status, homeownership, education, age, and ethnicity are all important.

Nisha et al (2022) concentrate on the demographic characteristic influencing financial well-being in a multi-group analysis While Ross and Huber (1998) included income, education, and age as the demographic factors. Zailion et al (2018) using online survey approach on the total of 213 employees in the government and private sector of Labuan reveal a significant relationship between financial literacy, financial stress on financial well-being. Lu and Henager (2021) provides a detailed analysis of direct and indirect determinants of financial well-being using the 2018 National Financial Capability Study and structural equation modelling method. The result included financial perception, knowledge, and financial satisfaction among others.

Other strands of literature concentrate on the measurement index for financial well-being. Among those are Porter and Garman (1993) using four-dimensional indicators to evaluate financial well-being and the dimensional tests on demographic factors, perceived attributes (income and wealth), evaluated (past financial experience and future financial expectations) and objective attributes (income and number of family dependents), he concludes that all the mentioned factors have an impact on financial well-being. Greninger et al (1996) developed an inclusive measurement that includes household savings, expenses, asset allocation, insolvency, credit, liquidity position, tax expenses, and inflation protection in relationship with FWB. The work of Kim et al (2003) updated the work of Greninger et al (1996) by including debt status, ability to meet monthly expenses, and financial satisfaction. Nurul et al (2020) explore the financial well-being (FWB) of Malaysian households to build a subjective FWB index with

present and future perspectives using data from 1,867 respondents across five major regions in Malaysia. The study found Malaysian's FWB average level of (46.8) percent; for the high-income household (58.7), middle income (46.1) percent, and low income (37.4) percent. Brüggen et al (2017) suggest three methods of measurements which involve subjective, objective, and a combination of the two. Carole et al (2020) explore the financial well-being measurement by using self-reported and bank records data for an Australian bank. Sabri et al. (2012) developed a model of financial well-being (FWB) with an emphasis on financial literacy's mediating role. The study found that saving habits and financial literacy affect financial well-being. Bonke and Browning (2009), Prawitz et al (2006) and Shim et al (2009) emphasized that other factors like; education, self-control, and financial literacy are associated with financial well-being.

On the other hand, the inability of an individual or family to achieve success in the area of finances results in financial stress, and from the previous studies financial stress is one of the major factors that impact negatively on FWB. Piotri et al (2021) Using a longitudinal short study on observed data emphasized on the role of financial control in influencing well-being outcomes. The result concludes that financial control plays a major role in achieving wellness. Financial stress can lead to financial hardship and a variety of negative outcomes like poverty, housing instability, drug addictions, psychological trauma, and stress, social exclusion, and decreased economic well-being (Burgard et al, 2012; D'Alessio & Lezzi, 2013; Angel 2016; Bridges & Disney, 2010). Other studies added mental disorders, depression, and suicidal thoughts (Emami, 2010; Fitch et al, 2007; Bialowolski et al, 2019). Also, Nisha and Suburaj (2022) attempt to find out the factors that influence the FWB of IT employees in India using confirmatory factor analysis (CFA) on a structural equation model. The data used covered 237 employees working in the Information Technology (IT) sector, financial literacy and financial behavior have a positive impact while financial stress has a negative impact. The demographic variables significantly moderate the relationship between factors leading to financial well-being. Furthermore, financial success depends majorly on the availability of resources (income, family heritage) and opportunities (employment levels, skills, and knowledge) and studies like Lee and Mohamad (2017) argued on the variables of financial well-being and concluded that high financial vulnerable households are characterized by low income or low liquid assets, inability to cope with financial stress and crisis. Lewis and Lewis (2014) stressed that financial vulnerability means individual exclusion and marginalization from participation in economic, social, and cultural activities. While Anderloni and Vandone (2012) added that excess indebtedness, inability to cope with daily life expenses, and difficulties in paying utility bills. Lewis and Lewis (2014), and Meali & Rosati (2010) refers to financial vulnerability as those low-income households with diverse physical, mental, social, and economic conditions and lack the capacity to cope with financial stress. Schofeild et al (2010) include slow wealth assets bases and those that cannot cope with financial stress. Lewis and Lewis (2010) discovered that households in poverty are less capable to cope with unexpected crises and possess insufficient resources.

Good number of literatures have concentrated on the overall impact of financial stress on women for example Suit (2022) using a survey data conclude that higher percentage of women

are financially stressed than men. The work of Depompa (2022) utilized bank rate survey and discovered that 46 percent of women are negatively impacted in mental health compared to 38 percent of men, while Payen (2019) argued that 48 percent of American women are in monetary stress than men. Dunn and Ida (2022) concentrated on National-level data to check gender differences in consumer debt stress and reported that women are approximately 30 percent greater in debt stress than men. On the other hand, Obstet (2020) used grounded theory to argue that women with young children suffer financial strain most and thereby compromise on parenting practices and are prone to self-blame which affects their mental health. In South Africa, the findings/result of many studies agreed that women are most financially stressed in household issues and these studies include (Oberholser, 2022; Luke, 2022; & Coetzee, 2022), but different studies like Greta (2021) and WEF (2021) believed that gender gap in financial inclusion put women in disadvantaged position economically.

Methodology

This study is based on documentary analysis; Google search engine and Google scholar were used to source for relevant information with important keywords like financial wellness, financial wellbeing, African women in vulnerability, vulnerability, education of African women, agriculture and African women, theories on vulnerability, theories on financial wellbeing, framework on vulnerability, and framework on financial wellness.

Linkage Between Financial Well-Being and African Woman Vulnerability

Financial well-being is an outcome of financial behavior which is totally dependent on the financial experience, knowledge, and financial literacy of an individual and demographic factors. Achievement of wellness in financial issues is as important as health itself but often a time it is impossible to determine how the most fragile and vulnerable group can achieve and sustain finances. Especially women who are often subjected to hardship by the culture and norms of our African society.

Globally Women's empowerment is primarily concerned with an increase in women's access to income and assets, social status, and internal locus of control and many factors influence the ability of women: among these factors are education, skills, and training, access to quality descent work, unpaid care and work burden, access to property assets and financial services, economic policies and social protection (CAF, 2020). Other underlying factors include labor market characteristics, gender norms, and discriminatory social norms legal framework (Gayle, 2016).

CFPB (2015) states that financial well-being is the outcome of the combination of opportunities available to individual and the behavior of what is possible to individual perception and socioeconomic environment can limit individual and denies them the opportunity available, especially in developing countries where women are considered the “poorest” and are marginalized in traditional norms, cultural practices, and policy dispositions. The linkage between financial well-being and women's vulnerability lies in the factor disconnect that arises from the inability to ensure that basic direct factors of financial well-being interplay to ensure financial freedom and this “factor disconnect” degenerates to financial stress and increases vulnerability.

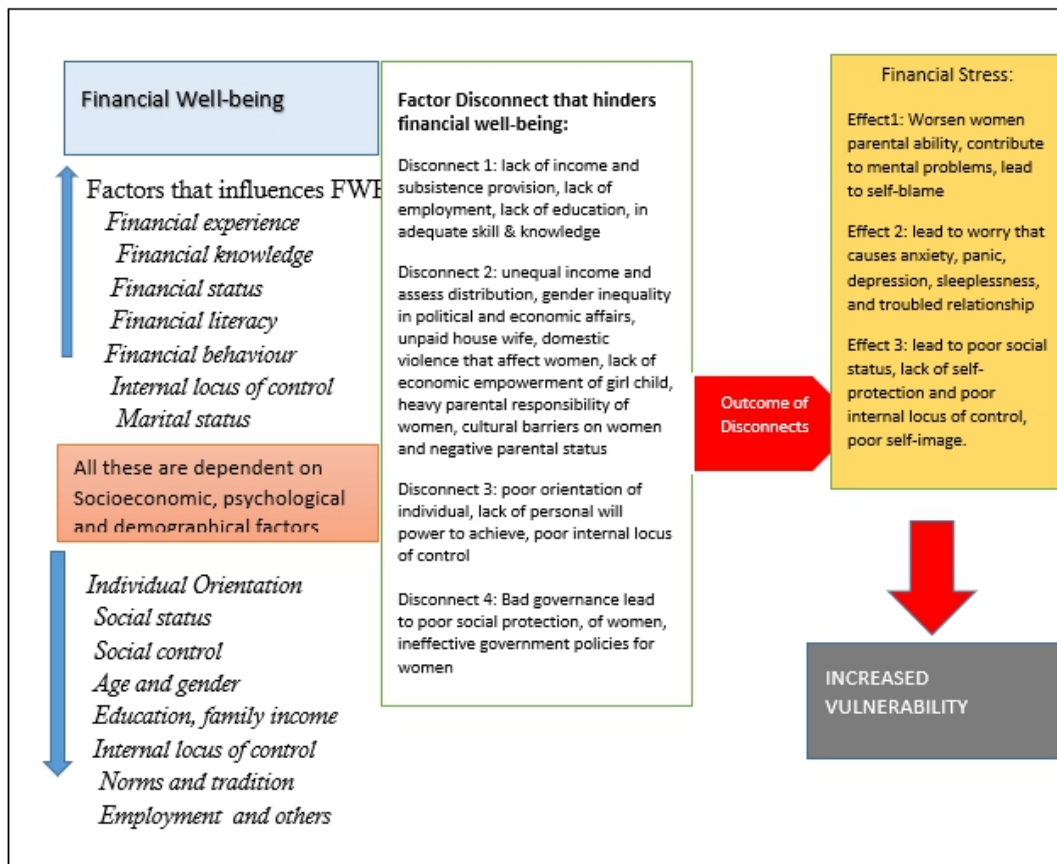
Table 2; Factors of Vulnerability and Financial well-being Compared

<i>Factors of vulnerability</i>	<i>Factors of financial well-being</i>
1. Multi-dimensional vulnerability encompasses factors that limit individuals physically and socially, the impact of economic shock, environmental disaster, climate change and institutional imbalances (Birkmann, 2013).	Financial well-being is determined by physical and mental wellness, socioeconomic, environmental and institutional factors (policies that promote financial inclusion) (sourced from previous studies).
2. Vulnerability as a multiple structure susceptibility coping capacity, the impact of vulnerability on income, structural imbalances and exposure and adaptive capacity of people (Birkmann, 2013).	Financial well-being depends on: source of income, employment, Asset Ownership, resource availability, experience, and knowledge (sourced from previous studies)
3. Vulnerability is likelihood to experience harm (human centered) (Birkmann, 2013); lack of income and employment	Education level, skill, literacy rate, individual orientation, internal locus of control empowerment through job creation, education, knowledge, skill acquisition. (sourced from previous studies).
4. Vulnerability as an internal risk factor (Birkmann, 2013). Lack of Internal locus of control, effect of norms and tradition of society.	Financial well-being emits joy and happiness culminating in adequate nutrition and sense of fulfilment.
	Financial well-being is an asset that every individual should strive for through hard work and industriousness.

Source: Self depiction based on review of previous literature and the study of Birkmann (2013).

From Table 2, it can be depicted that there are similarities between the factors that contribute to vulnerability, and factors of financial well-being. Our factor comparisons are drawn from existing literature on issues of vulnerability and financial well-being.

Figure 5: Conceptual framework of linkage between financial well-being and vulnerability



Source: Conceptual model source: Self depiction; linkage between financial well-being and vulnerability (2022)

The conceptual model of linkage between financial well-being and vulnerability is a summation of factors that determine FWB and vulnerability from the model presented by Consumer Financial Protection Bureau (CFPB) (2015), Kempson et al (2017), Kanchan et al (2021), (Cannon, 2008 in Birkmann 2013). Financial well-being is affected by many determinants: financial experience, financial knowledge, financial literacy and financial status (which are highly dependent on the level of education, resource availability to individual), financial behavior mediate all the determining factors, while internal locus of control and marital status are heavily affected by the psychological and demographic factors (age, gender, norms and tradition, social status, social control, orientation, and employment status). In all, socioeconomic factors empower individual's ability to achieve and sustain financial well-being.

The African perception of “who a woman should be” has continued to put African women in a vulnerable state both economically, politically, socially, and religiously. Women in Africa are considered the “poorest” because of the disproportionate share of responsibilities born by

women as they seek to combine both productive and reproductive responsibilities while combining inadequate resources. A Large number of African women may find it difficult to attain financial well-being because they are heavily disconnected from the factors that promote well-being. And these disconnect arises as shown in the frame above:

Disconnect 1: lack of income and subsistence provision, lack of employment, lack of education, inadequate skill and knowledge.

Disconnect 2: unequal income and asset distribution, gender inequality in political and economic affairs, unpaid housewife, domestic violence that affect women, lack of economic empowerment of girl child, heavy parental responsibility of women, cultural barriers on women, and negative parental status.

Disconnect 3: poor orientation of an individual, lack of personal willpower to achieve, poor internal locus of control.

Disconnect 4: Bad governance leads to poor social protection of women, ineffective government policies for women.

Conclusion

Financial well-being is an important subject because it deals with individual physical and mental states. Financial well-being is an outcome of financial behavior which is dependent on the financial experience, knowledge, and financial literacy of an individual, demographic factors (age, gender, family size, norms, and tradition), and psychological factors (orientation, social status, internal locus of control, and employment). The norms, condition and position of African women have put them in a perilous condition in terms of economic attainment and fulfilment and are limited in choices in terms of survival economically. Therefore, they are faced with chronic financial stress and distress that emerge from the continents' economic dispositions, lack of employment and unfair inequality that exists in gender understanding and treatment and their health is obviously impaired.

The findings suggest that the key variables that explain financial well-being are education, financial knowledge, financial experience and financial behavior (which is heavily reliable on socioeconomic disposition and internal locus of control), financial literacy, financial status and marital status. These factors interplay to position individuals towards enjoying financial wellness. On the other hand, large percentage of rural women in Africa lack education and are financially handicapped. ADB report (2021) affirmed “an estimated 2billion adults have no access to formal financial services globally and more than half live in less developing countries”. Ayo (2020) stressed that millions of women globally engaged in activities that are not financially remunerated. Montpellier affirmed that women lack access to credit facilities and a large number of the poorest and most disadvantaged and marginalized in Sub-Saharan. Therefore, they lack financial literacy, and they are disconnected. *When individuals and families don't feel secure in their ability to meet their financial requirements, they feel stress and anxiety. This stress and anxiety may become overwhelming enough and will further heathen their vulnerability.*

Policy Recommendations

To support women's financial well-being is equally to help alleviate women's subjugation in the Africa continent, improve her educational attainment, support her come out of poverty circle, help her gain access to political power, help her in the employment circles, support her visions without cultural barriers and segregation, include her in the land law ownership, removal of gendered workforce participation, help her gain agricultural extension that will improve her subsistence farming, remove female exclusion in financial circles, help her get enough education, stop molesting her domestically and empower her in skill acquisition.

1. This paper suggests that financial inclusion reduces poverty and vulnerability, and provides opportunity for women to innovate and expand creative ideas, therefore government should design and enhance policies that support them.
2. the government should design or enhance policies that will provide enabling environment for the private sector to innovate and expand financial services to more distant places (Koomson et al, 2020).
3. Secondly, among other strategies, the most important to creating and sustaining financial well-being is the process of human development which impacts positively and creates an opportunity for individual to achieve fully, increase their productive life.
4. Government should come up with policies and practices that promote gender equality, support and protect women in overcoming occupational barriers among others.

Suggestion for Further Studies

This study theoretically reviewed past literature and models on African women's vulnerability and financial well-being and should be interpreted with caution as there were no concrete data for empirical analysis on this aspect. Further studies should use primary data to investigate the correlation between financial well-being and the vulnerability of women in Africa.

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References

- Acharya, M., & Bennett, L. (1982). *Women and the subsistence sector: Economic Participation and Household Decision making in Nepal*. World Bank Staff Working Papers, Number 526.
- Agarwal, S., & Bhashkar, M. (2010). *Cognitive abilities and household financial decision making*, Federal Reserve Bank of Chicago Working Paper 2010-16.
- Alexander, D. (2000). *Confronting catastrophe: New perspectives on natural disasters*, Oxford: Oxford University Press.
- Alexander, D. (2013). Vulnerability. In K. Penuel, M. Statler, & R. Hagen (Eds.), *Encyclopedia of Crisis Management* (ppx. 980–983). Thousand Oaks, CA: SAGE.
- Angel, S. (2016). The effect of over-indebtedness on health: Comparative analyses for Europe, *Kyklos*, 69(2), 208–227. <https://doi.org/10.1111/kykl.12109>.
- Andeloni, L., Bacchiocchi, E., & Vandone, D. (2012). Household financial vulnerability: An empirical analysis, *Research in Economics*, 66(3), 284-296
- Bailey, W., Woodiel, D., Turner, M., & Young, J. (1998). The relationship of financial stress to Overall stress and satisfaction. *Pers Finance Work Prod.*, 2(2), 198-207
- Bairagi, P., & Chakraborty, A. (2018). Influence of risk-perception on retail investors' decision making. *Asian Journal of Management*, 9(2), 999-1004.
- Benhamin, W. (2016). Vulnerability as Concept, Model, Metric and Tool, Oxford Research Encyclopedias” Available: <http://doi.org/10.1093/acrefore/9780199389407.013.25>
- Birkmann, J. (2013). *Measuring vulnerability to natural hazards* (2nd ed.), Tokyo: United National University Press
- Birkmann, J., & Wisner, B. (2006). *Measuring the un-measurable: The challenge of vulnerability*, source 5. Bonn, Germany: United Nations University Institute for Environment and Human Security.
- Bieri, S. (2000). *Disaster risk management and the systems approach*, Alexandria, VA: World Institute for Disaster Risk Management.
- Bridges, S., & Disney, R. (2010). Debt and depression. *Journal of Health Economics*, 29(3), 388-403. <https://doi.org/10.1016/j.jhealeco.2010.02.003>.
- Brown, S., & Daniel, G. (2016). Household finances and well-being in Australia: An empirical analysis of comparison effects. *Journal of Economic Psychology* 53, 17-36.

- Boles, J. S., Johnson, M. W., & Hair, J. F. (1997). Role of Stress, Work-Family Conflict and emotional exhaustion, inter-relationships and effects on some work-related consequences, *JJ. Pers. Sell. Sales Manage.* 17(1), 17-28.
- Bolin, R., & Stanford, L. (1998). *The Northridge earthquake, vulnerability and disaster*. London: Routledge.
- Bonke, J., & Martin, B. (2009). The distribution of financial well-being and income within the household, *Review of Economics of the Household*, 7(1), 31-42.
- Bourque, L., Siegel, J., Kano, M., & Wood, M. (2007). Morbidity and mortality associated with disasters. In H. Rodriguez, E. Quarantelli, & R. Dynes (Eds.), *Handbook of disaster research* (pp. 97–112). New York: Springer.
- Blair, K., David, B. & Robert, T. (2018). Determinants of money management behaviour, *Journal of Applied Social Psychology*, 33(6), 1244-1260.
- Brilianti, T. R., & Lutfi, L. (2020). Pengaruh pendapatan, pengalaman keuangan dan pengetahuan keuangan terhadap perilaku keuangan keluarga di kota Ma diun, *Journal of Business and Banking*, 9(2).
- Brüggen, E., Jens, H., Maria, H., Sertan, K., & Martin, L. (2017). Financial well-being: A conceptualization and research agenda, *Journal of Business Research* 79, 228-37
- Bia owolski, P., W ziak-Bia owolska, D., & VanderWeele, T. J. (2019). The Impact of savings and credit on Health and health behaviours: An outcome wide longitudinal approach, *International Journal of Public Health*, 64(4), 573–584. <https://doi.org/10.1007/s00038-019-01214-3>.
- Bushan, P., & Yajulu, M. (2013). Financial literacy and its determinants. *International Journal of Engineering, Business and Enterprise Applications*, 4(2), 155-160.
- Budlender, D. (2008). *The statistical evidence on care and non-care work across six countries*, Gender and Development Programme Paper 4, December 2008, Geneva: UNRISD.
- Burgard, S. A., Seefeldt, K. S., & Zelner, S. (2012). Housing instability and health: Findings from the Michigan recession and recovery study. *Soc ial Science and Medicine*, 75(12), 2215-2224. <https://doi.org/10.1016/j.socscimed.2012.08.020>.
- Canadienne des Études Africaines, Special Issue: *The roles of African women: Past, present and future*, 6(2), 359-370.
- Cannon, T. (2008). *Reducing people's vulnerability to natural hazards: Communities and Paper No. 2008/34*. Helsinki, Finland: WIDER.

- Carole, C., David, R., John, N., Nicolas, S., Antrea, N., & Jame, R. (2020). Measuring financial Well-being with Self- Reported and Bank- Record Data, ZA Institute of Labour Economics
- Castro-González S., Fernández-López S., Rey-Ares L., Rodeiro-Pazos D. (2020). The influence of attitude to money on individuals' financial well-being. *Soc. Indic. Res.* 148, 747–764.
- Chambers, R. (1983). *Rural development: Putting the last first*, London: Longman.
- Chambers, R. (1989). Editorial introduction: Vulnerability, *Coping, and policy*. *IDS Bulletin*, 20(2) 1–7.
- CFPB (2015). *Financial Well-Being: The Goal of Financial Education*. Washington, DC: Consumer Financial Protection Bureau. Retrieved from consumerfinance.gov/data-research/research-reports/financial-well-being/ [Google Scholar]
- CFPB (2017). *Understanding the Pathways to Financial Well-Being*. Washington, DC: Consumer Financial Protection Bureau. Retrieved from <https://www.consumerfinance.gov> [Google Scholar]
- Chopra, D. (2013). A feminist political economy analysis of public policies related to care: A thematic review. *Institute of Development Studies: Evidence Report* 9: 1–26.
- Coetzee, C., & van Niekerk, D. (2012). Tracking the evolution of the disaster management cycle: A general system theory approach, *Journal of Disaster Risk Studies*, 4(1).
- Coetzee, I. (2022). How Women can reduce their financial stress, Published by Clear score on 08 August 2021.
- Cole, S., & Kartini, S. (2011). *Is high school the right time to teach savings behavior? The effect of financial education and mathematics courses on savings, manuscript*, Harvard Business School.
- Consumer Financial Protection Bureau (2017). *Financial well-being in America*. Retrieved from <https://files.consumerfinancial.gov/f/documents/201709cfpb-fiancial-well-being-in-America.pdf>
- D'Alessio, G., & Iezzi, S. (2013). *Household over-indebtedness: Definition and measurement with Italian data*. In *Questioni di Economia e Finanza* (Issue 149).
- Depompa, R. (2022). *Financial stress higher for women. The lower countries new leader*, Published July 12, 2022

- Dunu L., & Ida, M. (2022). Gender difference in consumer debt stress: Impacts on job performance, family life and health. *Journal of Family and Economic Issues*
- FAO. (1984). *Women in food production and food security in Africa*, Report of the Government Consultation held in Harare, Zimbabwe, 10-13 July 1984. Author.
- FAO. (1998). *Village chicken production systems in Rural Africa*.
- FAO/MAF. (2010). *National gender profile of agricultural households, 2010*. Report based on the Lao Expenditure and Consumption Surveys, National Agricultural Census and the National Population Census. Food and Agriculture Organization of the United Nations, Rome and Ministry of Agriculture and Forestry, Vientiane.
- Fitch, C., Chaplin, R., Trend, C., & Collard, S. (2007). Debt and mental health: The role of psychiatrists, *Advances in Psychiatric Treatment*, 13(3), 194-202. <https://doi.org/10.1192/apt.bp.106.002527>.
- Fontana, M. & L. Natali. (2008). *Gendered patterns of time use in Tanzania: Public investment in infrastructure can help?* Paper prepared for the IFPRI Project on 'Evaluating the Long-Term Impact of Gender-focused Policy Interventions.
- Gayle, T. L. (2016). *Ten factors that affects women's economic empowerment council Foreign relations*, Available: www.cfr.org
- Greta, B. (2021). *Women and finance; Enabling women's economic empowerment CGAP leadership essay series*, Published 8march 2021.
- Greninger, S. A., Vickie L. H., Karrol, A. K., & Joseph, A. A. (1996). Ratios and Benchmarks for Measuring the Financial Well-Being of Families and Individuals, *Financial Services Review* 5(1), 57-70.
- GNDR (Global Network of Civil Society Organisations for Disaster Reduction). (2015). *Views from the Frontline: Beyond 2015*, London
- Gutter, M. & Copur, Z. (2011). Financial behaviour and financial well-being of college students: Evidence from national survey, *Journal of Family and Economic Issues*. 32(4), 659-714.
- Hanushek, E., & Woessmann, L. (2008). The role of cognitive skills in economic development, *Journal of Economic Literature* 46, 607-668.
- Henager, R., & Cude, B. (2016). Financial literacy of highschool graduate, Long and Short-term financial behaviour in different age groups, *Journal of Financial Counselling and Planning* 27(1), 3-19.

- Hilgert, M. Hogarth J., Berverly S (2003). Household financial management: The connection between knowledge and behaviour, *Fed. Res. Bulletin*, 309-322
- Hill, R.V. & Vigneri, M. (2009). *Mainstreaming gender sensitivity in cash crop market supply Chains*, Background paper prepared for the State of Food and Agriculture 2011.
- Hogarth, J. M., & Hilgert, M. A. (2002). Financial knowledge, experience and learning preferences, preliminary results from a new on financial literacy, *Consumer Interest Annual*, 48(1), 1-7.
- International Labour Organization (2013). *Women and men in the informal economy: A statistical picture*, Geneva: ILO.
- IPCC (Intergovernmental Panel on Climate Change). (2007). Appendix 1: Glossary. In M. Parry, O. Canziani, J. Palutikof, P. van der Linden, & C. Hanson (Eds.), *Climate change 2007: Impacts, adaptation and vulnerability; Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (869–883). Cambridge, U.K.: Cambridge University Press.
- Iramani, R., & Lutfi, L. (2021). An integrated model of financial well-being: The role of financial behavior, *Accounting*, 7, 691-700. <https://doi.org/10.5267/j.ac.2020.12.007>
- Issac, K., Renato, A., & David, H. (2020). Effect of financial inclusion on poverty and vulnerability to poverty, Evidence using a multi-dimensional measure of financial inclusion.
- Jain, D. (1996). Valuing work: Time as a measure. *Economic and Political Weekly*, 31(43), 46–57.
- Kantak, D., Futrell, L., Sager, K. (1992). Job satisfaction and life satisfaction in sales force, *J. Pers. Sell-Sales Manage.*, 12(1), 1-7.
- Kenchan, S., Madhu, V., & Gaurav, T. (2021). Understanding the Path toward Financial Well-Being: Evidence from India, *Frontiers in Psychology*, 12. Availbale; [doi:10.3389/fpsyg.2021.6388408](https://doi.org/10.3389/fpsyg.2021.6388408)
- Kim, S., & Allan, S. C. (1998). Detection of differential item functioning under the graded response model with the likelihood ratio test, *Applied Psychological Measurement* 22(4), 345-55.
- Koomson, I., Villano, R. A., & Hadley, D. (2020). Effect of financial inclusion on poverty and vulnerability to poverty: Evidence using a multidimensional measure of financial inclusion, *Soc Indic Res*, 149, 613–639. <https://doi.org/10.1007/s11205-019-02263-0>

- Lanjouw, J. O., & Lanjouw, P. (2001). The rural non-farm sector: Issues and evidence from developing countries, *World Development* 26: 1-23.
- Lewis, J., & Lewis, A. V. (2014). Processes of vulnerability in England, place, poverty and susceptibility, *Disaster Prevention and Management*; 23(5), 586-609.
- Lewis, J. K., Mimura, Y., Mauldin, T., Rupured, M., & Jordan, J. (2008). Financial information, is it related to savings and investing knowledge and financial behavior of teenagers? *Journal of Financial Counseling and Planning*, 19(2).
- Lu, F., & Robin, H. (2021). A Structural Determinants framework for Financial Well-Being, *Journal of Family and Economic Issues*, 1-14.
- Luke D. (2022). *SA's Women are more stressed than Men when it comes to money: New data*, Business Insider South Africa.
- Mahdzan, N. S., Zainudin, R., Sukor, M. E., Zainir, F., & Wan, A. W. M. (2020). An exploratory Study of financial well-being among Malaysian households. *Journal of Asian Business and Economic Studies*, 27(3), 285-302. <https://doi.org/10.1108/JABES-12-2019-0120>
- Marcil, L., Cambell, J., Silva, K., Diana, H., Saraf, S., Hong-An, J., Kissler, K., Michael, K., Michelson, C., & Kistin, C. (2020). Women's experiences of the effect of financial strain on parental and mental health, *National Library of Medicine*, 49(6), 581-592. <https://doi.org/10.1016/j.jogn.2020.07.002>.
- Maria, C. L, Tu. T. Santos, M. & Kunal, S. (2022). Why Women are made to Rely on vulnerable Work” OECD development matters, WIDER Working Paper 2021/154
- Maria, C. L., Tu. T., Santos, M., & Kunal, S. (2022). Gender and vulnerable employment in the developing world: Evidence from global microdata, *World Development* 159
- Max, M. Nno-zarazua, & James, C. (2008). Financial inclusion, vulnerability and mental models from physical access to effective use of financial services in low-income area of Mexico Cooperation of University of Bergaw, *Centre for Socioeconomic Dynamics and City*, 32(4), 353-379.
- Mealli, F., Guacello, L., & Kofati, F. (2010). Household vulnerability and child labour, the effect of shocks credit rationing and insurance. *Journal of Population Economics*: 23(1), 169-198
- Mochammad, R. I. B., Disman, N., & Maya, S. (2020). The correlation between education level with understanding of financial literacy and its effect on investment decisions in capital market, *Journal of Education and e-Learning Research*, 7(3), 306-313.

- Montpeller, P. (2014). *Women in African Agriculture; Farmers, mothers, innovators and Educators*. Women-in-agriculture.pdf.
- Narges, D., & Laily, P. (2011). Determinants of financial wellness among Malaysia Workers. *Asian Life Science*, 5(2), 10092-10100. Doi:10.5897/AJBM10.1267
- Netemyer, R. G, Warmath, D. Fernandes, D, & Lynch, J. G. J. R. (2018). “How I am Doing? Perceived financial well-being. its potential antecedents and its relation overall well-being, *Journal of Consumer Research*; 45(1) 68-89
- Nuradibah, M., & Husniyah A. R. (2017). Determinants of financial well-being among public employees in Putrajay, Malaysia Pertanian, *Journal of Social Science and Humanitie*, 25(3), 1241-1260.
- Nurul, S., Rozaimah, Z., Mohd, E., Fauzi, Z., & Wan, M. (2020). An exploratory study of financial well-being among Malaysian household. *Journal of Asian Business and Economic Studies*, 27(3), 285-302. <https://doi.org/10.1108/JABES-12-2019-0120>
- Oberholzer (2022). *The current financial reality of South Africa Women*” Moneyweb, Published 6th Aug. 2022.
- Payen, E. (2019). *The impact of financial stress on women*’ Published by thrive global, August 22, 2019
- Piotr, B., Dorota, W., & Eileen, M. (2021). The role of financial fragility and financial control for Well-being, *European Journal of Epidemiology*, 155, 1137-1157
- Prawitz, A., Thomas, G., Benoit, S., Barbara, O., Jinhee, K., & Patricia Drentea. (2006). In Charge Financial Distress/Financial Well-Being Scale: development, administration, and score interpretation, *Journal of Financial counselling & Planning* 17(1), 34-50
- Prendergast, S., Blackmore, D., Kempson, E., Russell, R., & Kutin, J. (2018). *Financial well-being, A survey of adults in Australia*. In, ANZ Melbourne, Australia.
- Ruth Meinzen-Dick (2019). *Encompassing Africa's Women Farmer*” International Food Policy Research Institute. Available: IFPRI.org/blog/empowering-africas-women-famers
- Sabri, M. F., Cook, C. C., & Gudmunson, C. G. (2012). Financial well being of Malaysian college students, *Asian Education and Development Studies*, 5(1), 153-170.
- Samman, E. (2016). *Women's work: Mothers, children and the global childcare crisis*, London: ODI.
- Sepulveda Caramona, M. (2014). *Unpaid work, poverty and women's human rights*, New York: United Nations

- Scheresberg, D. B. C. (2013). Financial literacy and financial behavior among young adults: Evidence and implications. *Numeracy*, 6(2), 5. <https://doi.org/10.5038/1936-4660.6.2.5>.
- Shim, S., Jing, X., Bonnie, B., & Angela, L. (2009). Pathways to Life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708-23.
- Shoopfeild, D., Percival, R., Passey, M., Shrestha, R., Callander, E., & Kelly, S. (2010). The financial vulnerability of individual with diabetes, *British Journal of Diabetes & Vascular Diseases*, 10(6), 300-304.
- Smit, S. (2022). Money Stress, More Women than Men are feeling the Pinch, *Mail and Guardian Published 19 Jul 2022*
- Tinker, I. (1990). *A Context for the Field and for the Book*. In I. Tinker. Ed, *Persistent Inequalities: women and world development*, Oxford: Oxford University Press.
- Tortorice, D. L. (2012). Unemployment Expectations and the Business Cycle, the B.E, *Journal of Macroeconomics*, 12, 1-47.
- UNECA (United Nations Economic Commission for Africa). 1972. Women: The Neglected Human Resource for African Development, *Canadian Journal of African Studies, Revue*
- United Nations. (1996). *Food security for all, food security for rural women*, Geneva: International Steering Committee on the Economic Advancement of Rural Women.
- United Nations Development Programme. (1995). *Human development report 1995*, Oxford: Oxford University Press.
- United Nations University Institute for Environment and Human Security (UNU-EHS). (2014). *World risk report 2014*, Bonn, Germany:
- UN Women (1995). *Fourth world conference on women: Beijing declaration*, <http://www.un.org/womenwatch/daw/beijing/beijingdeclaration.html> (last accessed July 2015).
- U.K. Civil Contingencies Secretariat. (2008). *Identifying people who are vulnerable in a crisis: Guidance for emergency planners and responders*. London: Cabinet Office.
- Vannessa, S, Samba, D., & Simplicie, A. (2021). *Africa women vulnerability index (AWVI): Focus on rural women*, African Governance and Development Institute WP/21/095)

- Voukelatou, V., Gabrielli, L., Miliou, L., Cresci, S., Sharma, R., Tesconi, M., & Pappalardo, T. (2021). Measuring objective and subjective well-being: Dimensions and data sources, *International Journal of Data Science and Analytics*, 11:279–309. <https://doi.org/10.1007/s41060-020-00224-2>
- Widayat, W. (2010). Determinants of investing behavior, *Journal of Innovation in Business & Economics*, 1(2), 111-127.
- Wrangham, R. T. (2009). *Catching fire: How cooking made us human*, Basic Books, New York.
- World Bank (2001). *World development report 2000/2001: Attacking poverty*, New York: Oxford University Press.
- World Bank (2019). *Women, agriculture and work in Africa world economic forum (2021)*. A Way to Address the Gender Financial Gap and Empower Women. Published 15 Sept. 2021
- Woodroffe, J., & Donald, K. (2014). *Unpaid care: A priority for the post-2015 development goals and Beyond'*, Briefings 6, July 2014, London: Gender and Development Network.
- Xiao, J., & O'Neill, B. (2018). Propensity to Plan, financial capability and financial satisfaction, *Internal Journal of Consumer Studies*, 42(5), 501-512
- Zaiton, O., Erni, M., & Phang, L. (2018). In Pursuit of financial well-being: the effects of financial literacy, financial behavior and financial stress on Employees in Labuan, *International Journal of Services Management and Sustainability*, 3(1), 55-94.
- Lewis, J., & Lewis, S. (2014). Processes of vulnerability in England?! Place poverty and susceptibility, *Disaster'Prevention'and'Management*, 23(5), 586-609.