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## Bridging the Gap: The Sustainable Transformative Power of Financial Literacy to Women's Economic Empowerment in Punjab, Pakistan

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### ABSTRACT

Among other factors, financial literacy plays a key role in empowering women. The present study has been carried out to assess the sustainable impact of financial literacy on women's economic empowerment in South Punjab, an area characterized by patriarchal norms. The sample of 150 married women of reproductive age (19-49,  $M_{age}=34.43$ ,  $S.D.=8.43$ ) having at least one child was recruited from district Multan, Muzaffargarh and Dera Ghazi Khan, of South Punjab, Pakistan, using mixed sampling technique. The independent variables were listed as area, age, education, job status of women, married life, earning members of family and three dimensions of financial literacy viz., financial attitude, financial knowledge and financial behavior. Women empowerment (the dependent variable) was categorized as highly empowered, moderately empowered and least empowered. Through ordered logit model, the marginal effects of the different independent variables were estimated. The results indicated that with one more unit of financial literacy in terms of two dimension viz., financial knowledge, and financial behavior, women are more likely to be in economically highly empowered category as compared to moderately and least empowered women. Whereas the impact of financial attitude appeared to be non-significant to affect women empowerment. The variables AGE and EDU are indicated to statistically significantly and negatively associated, and variables viz., area, age, marital life, Jobs and earning members are positively and statistically significantly and more likely to impact economic empowerment of highly empowered women as compared to moderately and least empowered women. The recommendations in the light of the results have also been discussed.

**Keywords:** Financial literacy, financial attitude, financial behavior, financial knowledge; women economic empowerment

## INTRODUCTION

Although idea of financial literacy is not novel, it got attention in economic domain during early 1900s. In 1900s, it was the start of the area of consumer learning research originated by the United-States. The idea of financial literacy plays a vital role in shaping the strong future of women's empowerment related to the sustainable development goals. The sustainable development goals agenda stress on gender equality which is the 5<sup>th</sup> goal of SDGs, it is highlighted in the present work with women's economic empowerment and bridging the gender gap to ensure gender equality and attain sustainable development in Pakistan (Sultana, Ahmed, & Imran, 2024; Khan, haq & Naseer, 2022).

There was no consensus on defining the term financial literacy. Different terms had been used during 1990s to describe concept of "financial literacy". Latest literature related to financial literacy described different definitions and role of financial literacy to achieve financial development (Faboyede et al., 2015).

Financial Literacy as a whole is the arrangement of financial attitude, financial knowledge, and financial behavior to form financial decisions. Whereas, (1) financial knowledge explains education or knowledge in basic calculations of day-to-day transaction or record of financial products (the way people use financial products); (2) financial behavior is related to handling of own finances; (3) financial attitude is related to financial planning and managerial power, financial happiness, and enables to achieve development goals and play a role for protection against poverty. Financial literacy could be helpful to solve the problem of adverse selection and also provide a direction for proper financial system (OECD, 2010; Arora, 2016). Whereas, the latest explanation of the concept of financial literacy is put forward by the OECD (2018) which incorporates the three sub-dimensions namely; financial behavior, financial attitude and financial knowledge.

Financial education and financial knowledge both are considered mandatory for sound and effective decision-making regarding life decisions, investment, saving, poverty reduction, access to banks, holding bank accounts and assets. The accurate knowledge about financial decision makes sure to handle the business and economic matters effectively that will lead to enhance the women's capability to take effective economic decisions through proper channel (Kassapi, 2020). The influence of financial literacy on the economic empowerment of women is very much important because of many reasons. Firstly, financial literacy provides an insight to women to learn important skills and make good financial decisions, manage the resources commendably and engage in economic activities. The women's participation in economic activities through financial education will lead to women's economic empowerment and self- efficacy. Secondly, achieving sustainable economic growth and development goals are not possible without the women's economic participation, so financial literacy smooths the path to economic development through women's participation in economic activities based on learning and skills. Additionally, financial literacy can also mobilize the societies for socio-economic change. It can potentially make the patriarchal societies to change the perceptions regarding women's role and participation in economic activities. Financial education can make

women capable to take risks and enhance resilience to reduce their susceptibility to reduce poverty (Ali, et al., 2023; Yasmin, et al., 2020).

In connection with women's financial literacy, there is need to understand the concept of women empowerment and women economic empowerment. Kabeer (1999), defines women's empowerment as women's control over their lives and decisions and the ability to make their own choices. The most important dimension of women empowerment is their economic empowerment; the procedure by which women have power and domination over their own lives and have access to different economic activities and ability to make planned choices as well (Bovinic et al, 2020).

The outgrowth of financial literacy leads towards many outcomes, for example, it guides women towards gaining empowerment in economic, social, political, familial, and psychological domains.

Financial Literacy has been a great challenge worldwide as, only 33% of people globally being literate financially (The Standard & Poor's Global Financial Survey, 2015). Although, it is a global issue but Pakistan's situation in financial literacy is more alarming as, only 13% of total population have their own formal bank accounts. This poor condition of the country's financial literacy rate has led the country to, 16<sup>th</sup> position among 26 nations in the world (Brookings Institution, 2023).

Financial literacy has been a matter of great concern for a developing country like Pakistan. In Pakistan, situation varies in different provinces. Overall, in Punjab, financial literacy rate was reported 63%, in KPK it was reported as, 60% and in Baluchistan this rate was reported as 44% percent. Financial literacy situation in Punjab is also alarming as only 9% of women aged 19-64 hold accounts at banks and other financial institutions. Nationally, female financial literacy rate in Pakistan is estimated to be below 30%. In rural districts like, Muzaffargarh, situation is more noticeable due to lack of education and financial resources. According to the State Bank of Pakistan, less than 15% of women in Pakistan have bank accounts. The low financial literacy is attributed to low literacy rate in general, as uneducated women remain unaware of their financial rights (Batool & Batool, 2018). Total Population of Pakistan is 207.8 Million and that of province in Punjab is 207.8 million. Urban population of Pakistan is 75.6 million rural population is 132 million. But the adult education (general literacy of 10 years and above) in Pakistan is 70% of males, 49% of females. Financial literacy rate in Pakistan is 28.3% for males, and 9.8% for females. Total bank accounts holding in Pakistan is 60% for males and 43% for that of females. In province Punjab, this rate is 24% held by males and only 9% is held by that of females, which is very low (Pakistan Economic Survey 2015 – 2016; Pakistan Bureau of Statistics Census Results, 2017).

State Bank of Pakistan has addressed the issues related to the financial literacy. In this regard, bank launched two important initiatives in the past decade: 1- The national financial literacy program that directed to improve the financial literacy among vulnerable group of people nationwide; 2- The national financial literacy program for youth was initiated by national institute of banking and finance. This initiative targeted more educated segments of the population; specifically youth aged 9-19, to increase long-term economic growth. These plans were launched because

financial attitudes and habits are largely formed at age of 6 to 12 year. The National Financial Literacy Programs (NFLP) focused on developing financial education into institutions including schools, colleges and universities to impart healthy money habits in children and young adults in Pakistan (Pakistan Alliance for Early Childhood, (PAFEC), 2023).

The financial literacy cast positive impact along with its sub-dimensions including; financial knowledge, financial attitude and financial behavior on women in general. If women are unable to access financial services and financial institutions, women's economic empowerment cannot be attained in true sense, as women cannot take well informed decisions without financial literacy in South Punjab, Pakistan (Remund, 2010).

Empirical evidence (viz., Remund, 2010; Hung et al., 2012; Kumari, 2020; Karishnamoorthi et al., 2024) have consensus to suggest that financial literacy alongside its sub-dimensions: the financial knowledge, financial attitude and financial behavior, to enable women to be empowered in economic domain.

The South Punjab, Pakistan is marked as comparatively underdeveloped and have traditional norms regarding role of women in the society. The well-being and progress of women is hindered by socio-economic and cultural challenges they come across with. Women are forced to confine themselves to the four walls of the houses and they are assigned to take up only the household chores. They are debarred to get education and engage themselves into paid jobs (Batool & Batool, 2018). This leads them to be financially dependent on their male counterparts. The orthodox rural areas are characterized by under age marriages, gender-based vehemence, and insufficient healthcare facilities for women.

There is ardent need that women in south Punjab should be empowered so that these critical challenges could be met to foster gender equality. Women should be empowered by giving them equal opportunities for getting education, doing jobs and access to financial resources. This way, they could be able to transform themselves to be productive members of the society and hence add their share in the economic growth of the economy. Once they become aware of their rights and provided with legal support, they can fight against discrimination and violence they are inflicted with. Besides, women's involvement in decision-making at home and in the community, can bring equitable and sustainable growth of the economy as whole (Ali, et al., 2021; Muhammad, et al., 2020; Farooq, et al., 2019). Ultimately, if women in south Punjab are empowered, this would lead not only to individual growth of women but also mushroom socio-economic growth in the entire region, by nurturing an inclusive and unbiased just society.

There are many different aspects of women's empowerment including; familial, social, psychological and economic. The most important dimension is economic empowerment that can bring the others types of empowerments. Unless women are empowered financially, they would find themselves dependent on their male counterparts (Kayani, et al., 2023; Khan, et al., 2021). Similarly there are various socioeconomic factors that can empower women in Multan, for example, women's age, their age at marriage, family system, husband support, social support education

and their paid jobs( Batool & Batool, 2018). The most needed for economic empowerment of women in south Punjab is women's financial literacy to empower women by providing them, knowledge with skills as pre-requisite to take efficient financial choices. So regions, where outdated gender roles usually confine women's contribution in economic activities, financial literacy would raise self-assurance and empowerment of women. Women who are enabled to know about budgeting, worth of savings, and ways to invest can participate more efficiently to their homes and societies (Shoaib, et al., 2024; Zainab, et al., 2023). Furthermore, if women are facilitated to get credit and financial services, they can start small businesses, through their boosted economic resilience and passion to be entrepreneur. As women gain autonomy over their financial resources, they are better positioned to advocate their rights, thus creating a positive ripple effect throughout south Punjab.

Efforts have not been made to initiate financial literacy among women in South Punjab. Although little efforts have been made to provide financial services to women but those are limited. It is the neglected area of the Punjab province and it is ardently needed to give proper attention to enhance women's financial literacy rate.

While Pakistan is trying to enhance financial literacy and overcoming issues that women confront in South Punjab, the related literature (viz., Sharma & Aggarwal, 2018) showed that there is no study found to assess the effect of financial literacy on economic empowerment of women, especially, in region of South Punjab, Pakistan. There is limited research available on this area of financial literacy associated with its sub-dimensions viz., financial knowledge, financial attitude and financial behavior, among women and their direct effect on economic empowerment of women (Rana, et al., 2021; Khan, et al., 2021; Sarmad, 2016). This study is focused to fill this gap by evaluating the impact of 3 different sub-dimensions of financial literacy viz., financial knowledge, financial attitude and financial behavior on women's overall economic empowerment in South Punjab, Pakistan. The present research entailed recommendations to all the stakeholders, including government, NGO's, women and their families to design the interventions to increase financial literacy among women in South Punjab, Pakistan so that women in this area could be empowered economically.

## **LITERATURE REVIEW**

Existing literature highlights the influence of financial literacy with its all-sub-dimensions (financial attitude, behavior and knowledge) on women's economic empowerment for example, Hung et al. (2012), indicated that there were positive and significant impact of financial literacy along with its dimensions on women economic empowerment. Lusadri and Mitchell (2014) revealed positive association of dimensions of financial literacy viz., financial behavior, financial attitude and financial well-being with economic empowerment of women. Haque and Zulfiqar (2015) showed that there was positive association between financial literacy and women economic empowerment in Pakistan.

Arora (2016), showed the positive effect of the financial knowledge and financial well-being on women's economic empowerment in India. Peach & Yuan

(2017) highlighted that women who possessed strong financial status have good financial knowledge face lower level of stress and are more empowered in economic domain. Haq, Bilal, and Qureshi (2020) there was direct effect of the financial improvements i.e., financial awareness, financial attitude and financial behavior on economic empowerment of women.

Singh & Kumar (2017), assessed the women's economic capabilities to take part in economic activities and enhance the growth of economy through financial knowledge and its influence on women's economic empowerment in India. The financially stable women could be excessively helpful for economic development because of their better skills, better knowledge, informed and effective decision making.

Kim (2018) and Hernandez et al. (2021) pointed out significant, positive influence of financial literacy along with its dimension of financial attitude on women's economic empowerment among Hispanics. The model showed, financial attitude directly affects women economic empowerment and indirectly affects women economic well-being. Rai et al. (2019) contended that there is positive association between financial literacy and women's economic empowerment. Women's financial behaviors towards solving financial matters and taking long term financial goals positively affect the women economic empowerment (Dilshad et al., 2024).

Kumari et al. (2020), highlighted the role of financial literacy along with its association with economic empowerment of women. The outcomes showed that financial literacy had significant influence on women economic empowerment in Sri Lanka. Weng (2020), evaluated the positive impact of financial attitude, behavior and financial knowledge on women economic empowerment (Prakasha, et al., 2024).

Maiya (2020) revealed that personal finance, financial products and use of financial services were considered important components of financial behavior that positively and significantly affect women economic empowerment in India. Kumari et al. (2020) noted four key factors related to financial literacy viz., 1. Financial awareness; 2. financial abilities; 3. financial attitude and; 4. financial performance have positive impact on women economic empowerment.

Ma (2022) showed positive and significant correlation of women empowerment with variables viz., financial behavior and financial welfare. Yasmin (2023) assessed the relationship between financial behavior of urban women and women economic empowerment in Southern Punjab, Pakistan. The results showed that women possessing more positive behavior towards financial literacy have more financial access and great contribution to economic development (Feng, et al., 2023; Hafeez, et al., 2011).

The literature disclosed that the influence of financial literacy on women's economic empowerment has been assessed in various countries focusing on the different dimensions of financial literacy such as financial welfare, financial self-efficacy, financial performance, financial knowledge and financial attitude, for example Singh & Kumar (2017) studied the effect of financial literacy on women's capability to save, invest and enhancing their economic independence in India; Sunday et al. (2018), assessed the outcome of financial literacy and women's

involvement in entrepreneurial activities (Ahmad, et al., 2021; Ali, et al., 2020; Ahmad, 2018). These activities based on financial knowledge to develop their management skills and better decision-making about financial matters in Kenya; in Brazil. Rai et al. (2019), undertook the study to carve out the effect of financial education on women's household budgeting and decision making and financial planning. As regards the case of Pakistan, Akram et. al(2020), studied on role of financial literacy to increase women's participation in microfinance and making strong financial decisions. Tabassum et al. (2021) pointed out the behavioral factors that affect investment behavior in a regulating role of the financial literacy among investors of the Pakistan stock market. However, to the best of our knowledge, no study focused the impact of three sub-dimensions of financial literacy viz., financial attitude, financial behavior and financial knowledge on women's economic empowerment (Shah, et al., 2025; Haq, et al., 2024; Noor, et al., 2024). Though the studies on such relationship have been initiated on sub-dimension of financial inclusion, namely, financial knowledge, not all sub dimensions are considered in case of Pakistan viz., Haque and Zulfiqar (2015); Yasmin and Ali (2018). The current study is an edge on the previous studies in a way that it includes all the three domains of the financial literacy viz., financial knowledge, financial attitude and financial behavior, following OECD (2022), to assess their impacts on women's economic empowerment.

Different theories support the impact of financial literacy on women's economic empowerment that leads to overall empowerment of women (Hanif, et al., 2021; Hanif, Naveed & Rehman, 2020). The financial capability theory correlates risk management, money management, financial choices and financial capacity to understand financial process. The theory focuses on the concept of enhancing financial activities i.e., financial jobs, credit knowledge and saving patterns (Sun & Chen; 2022 Nawaz et al., 2023). The theory of financial socialization is about social connection, as children grow up and build connection and association with their friends, family and relatives. If they have provided good environment to build their capacities, then they will come up with stability, gradually. (Gudmunson & Danes, 2011; Sharif and Naghavi, 2022). The theory of goal motivation involves; (i) based on needs and wants, theory of two factors (ii) the theory of need for goal achievements (iii) the theory of expectations (iv) the goal setting theory (v) the behavioral and reinforcing modification theory and (vi) the theory based on link remuneration with achieving goals (Yuliani et al., 2024). The theory of financial literacy related to individuals who have access to financial services, they will be able to take strong financial decisions regarding their asset holdings, properties and saving (Chen & Volpe, 1998).

It is quite clear that financial literacy is very important for the development of economies in worldwide. Most of the researchers has presented their viewpoints in different ways and in different form of research. Adiputra (2021) presented his research on the need of financial training and education programs to increase the women's participation and empowerment and to increase their capability to enhance financial awareness. Different studies has pointed out the impact of financial literacy and financial behavior on women's economic and overall empowerment (Baluja, 2016;

Faboyede et al., 2017; Irfan et al., 2019; Afsheen, 2022; Idres et al., 2023). The studies (Lusadri, 2019; Ngobo, 2021; Nyanzu, 2022; Teja & Singh, 2023) focused on the importance and need for financial knowledge, as these were the main drivers of women's economic empowerment.

### **Research Question**

- What is the impact of three sub-dimensions of financial literacy viz., i. Financial attitude, ii. financial behavior, and iii. financial knowledge on women economic empowerment in Punjab, Pakistan?

### **Research Objectives**

- To assess the impact of three sub-dimensions of financial literacy viz., i) financial attitude, ii) financial behavior, and iii) financial knowledge on women's economic empowerment in Punjab, Pakistan.

### **Hypothesis**

- H<sub>1</sub>: There is statistically significantly positive impact of financial attitude, financial behavior and financial knowledge on women's economic empowerment in Punjab, Pakistan.

## **DATA AND METHODOLOGY**

Data were collected from three districts of South Punjab, Pakistan, including districts D.G. Khan, Muzaffargarh and Multan. Mixed sampling technique was used; primarily we selected the Punjab Province, at the second step three districts namely Multan, D.G. Khan and Muzaffargarh were purposively selected, as these are representative of South Punjab. Finally the disproportionate convenient sample of 150 working women in these three districts, 50 from each district was selected. The sample size of 150 women justified that there were not available women which fulfil the restrictions of married women and having at-least one baby. These restrictions was applied due to the circumstances they were facing after getting married in their surrounding and its impact on their economic empowerment. As the sample frame was not available, despite using random sampling, we followed convenient and not random sampling technique due to restriction bias to collect data.

### **Inclusion/ Exclusion Criteria**

The women with reproductive age (19-49), having at least one child ,doing jobs anywhere in public or private sector in three districts of South Punjab, Pakistan were included in the study. The women below 19 years and above reproductive age of 49 years, widows, divorcee and single women were not included in the sample.

The Ordered logit regression model, first used by Peter McCullagh in (1980) in "regression models for ordinal data", has been used to attain the results. It is used when dependent variable is ordinal in values. If the variable having different options mainly consists on the pattern of "agree", "disagree", "indifferent or indecisive", "stongly agree" and "strongly disagree", containing different numbers in form of "1", "2", "3", "4", "5" in sequence. Results are attained using SATA 16 software.

The marginal effect are also calculated in the present study. The marginal effects reveal the derivatives (change) in the probablity of variables, when one of the independent variables raises by one unit. The purpose of the marginal effects is to see the change in predictor's value. Marginal effects in data analysis are used for the

purpose to understand the impact of “one unit change in an independent variable on the dependent variable”. There are different reasons that marginal effects are important in analysis. They help to deal with complex models output in a more simple way and terms. They are used to check the non-linear relationship i.e., in logit and probit models. Marginal effects provide the simple view that how future predictions change.

**The Econometric Model**

With the help of literature view, following econometric model is constructed for the present study:

$$WEE = \gamma_0 + \gamma_1 AREA_i + \gamma_2 AGE_i + \gamma_3 EDU_i + \gamma_4 ML_i + \gamma_5 JOBS_i + \gamma_6 MEARN_i + \gamma_7 FA_i + \gamma_8 FB_i + \gamma_9 FK_i + u_i \dots \dots \dots (1)$$

Where:

$\gamma_0$ = Intercept and  $\gamma_1, \gamma_2, \gamma_3, \gamma_4, \gamma_5, \gamma_6, \gamma_7, \gamma_8, \gamma_9$  are slope of co-efficient of the attached variables

- AREA<sub>i</sub>= Area of residence
- AGE<sub>i</sub> = Women’s own age
- EDU<sub>i</sub>= Women’s level of education
- ML<sub>i</sub> = Married life span in year
- JOBS<sub>i</sub> = Jobs status
- MEARN<sub>i</sub> = Members earning in the family
- u<sub>i</sub> = Error term

The reason of why ordered Logit model has been used in the present study is that outcome (explained) variable women’s economic empowerment has been arranged in three groups viz., highly empowered, moderately empowered and least empowered. The Ordered Logit model for the present study is as follows:

The construction of ordered logit model following Diebold (2014), Batool et al. (2017).

as:

$$yt^* = xt' \beta + et \dots \dots \dots (1)$$

In above equation “yt\*” is known unobserved”.

The “et” is dispersed as;  $ei \sim \text{logist} \dots \dots \dots (0,1)$   
 $\dots \dots \dots (2)$

It is assumed that there are “N” well-ordered outcomes;

$$It (yt^*) = \{ 0 \text{ either } yt^* < c1 \text{ 1 or } c1 < yt^* < \text{the } c2 \text{ 2 either } c2 < yt^* < c3 \dots \dots \dots \text{“N” either } cN < yt^* < cN+1 \dots \dots \dots (3)$$

Above “c’s” are unpredictable parameters to be considered with “β”.

Marginal effects of logit model “∂E (y|x)/∂xi” are not easy to find straight, They are not simply provided by ‘βi’s”. So, they need to be calculated from the original values. On the other hand, we have the values of “(y|x) ∂xi”= “(x’β)βi”  
 $\dots \dots \dots (4)$

$$R^2=1 \quad - \quad \ln L1 / \ln L0 \quad \wedge \dots \dots \dots (5)$$

**Table1**  
**Description and operational definition of the study variables**

<b>Variable Abbreviation</b>	<b>Explanation</b>	<b>Variable status</b>	<b>Expected Sign</b>
WEE <sub>1</sub> *	Women's economic empowerment	Explained	Relationship with WEE
AREA	Area of residence; urban=1, rural=0	Explanatory	+ve
AGE	Age of respondent in years; chronological age	Explanatory	-ve
ML	Married life span ; conjugal marriage	Explanatory	+ve
EDU	Education of women; years of education	Explanatory	-ve
JOBS	Job status; permanent=1, contract base/temporary=0)	Explanatory	+ve
MEARN	Members earning in the family=total members	Explanatory	+ve
FL <sub>2</sub>	Financial literacy= It is arrangement of financial knowledge, financial behavior and financial attitude to form financial decisions(OECD, 2018). It is basically the index attained after adding the values of three dimensions of financial literacy as, (FL= FA+FB+FK).	Explanatory	+ve
FA <sub>3</sub> *	Financial attitude=It is the personal disposition towards financial matters	Explanatory	+ve
FB <sub>4</sub> *	Financial behavior= It is the way how individuals accomplish their money, pacts with financial problems and make financial choices	Explanatory	+ve
FK <sub>5</sub> *	Financial knowledge= It is understanding of financial definitions, terms and concepts	Explanatory	+ve

**Source: Author's own construction of table using MS word.**

**Note:** The explanation of the star-variables in the Table is given below:

**Women Economic Empowerment (WEE<sub>1</sub>\*)**

A five- item scale is women's economic empowerment index (Batool & Batool,

2018) is used to represent women economic empowerment. The items included in the index are: (i) "Purchasing of items of everyday use (e.g., grocery, vegetable etc.)" by women (ii) "Purchasing of durable goods (e.g., refrigerator, TV, vacuum cleaner, car etc.) by women" (iii) "Increasing family's sources of income /saving by working and adding income" (iv) "Purchasing of gifts for friends/relatives (on events of weddings and birthdays etc.)" by women (v) "Purchasing of dresses /clothes (your own/children) from women by their own choices".

Women economic empowerment categorized into three categories namely; (i) highly empowered (ii) moderately empowered and (iii) least empowered using the mean  $\pm 2$  Standard Deviation and Mean-2 Standard Deviation.

### **Financial Literacy (FL<sub>2</sub>)**

It is the aptitude and confidence to take effective financial decisions that benefit the individuals to achieve satisfaction and well-being (Rai et al., 2019). It is attained by adding the three basic dimensions of financial literacy namely; i. financial attitude, ii. Financial behavior, and iii. financial knowledge. However, the current study did not use this index rather used its sub-dimensions mentioned above by simply adding the items to represent the concerned sub-dimensions.

### **Financial attitude (FA<sub>3</sub>\*)**

Financial attitude is the personal disposition towards financial matters. It changes with the quality of financial services, access and financial background of the family (Katauke et al., 2023). Financial attitude of working women measured by generating eight (8) items following OECD, (2022) using Likert scale including; I prefer saving over consuming ii. risk lover on investing money iii. satisfied with current financial position iv. clear understanding of financial matters v. set enduring financial goals and make efforts to attain them vi. too much indebted at present vii. think money is safe to keep money in banks rather than keeping it at home viii. before buying something, I keep in mind my capacity to buy. The Cronbach alpha for variable financial attitude is 0.86. The likert scale (agree=1, strongly agree=2 indecisive=3, disagree=4, strongly disagree=5) is used to collect the data.

### **Financial behavior (FB<sub>4</sub>\*)**

Financial behavior is the way how individuals manage their money, associated with financial problems and make financial choices (Rai et al., 2019). Financial behavior of women is measured by generating (9) items following OECD, (2022) including; i. I pay my bills (electricity, gas bills type) on time ii. I share the passwords and PINS (of ATM, credit or debit cards) with close friends. iii. I share my financial information about my financial assets publicly/online (e.g., face-book, WhatsApp). iv. I always optimized even during financial crises v. I tend to live for today and let tomorrow take care of itself vi. I regularly change the passwords on websites (different shopping websites) that used for online shopping and personal finances. vii. it is safe to shop online using public wi-fi networks (e.g. in cafe, airports, shopping malls) viii. it is important to pay attention on security of the website (shopping purposes/ buying) before making a transaction online (e.g., https sites, safety logos). ix. prefer online shopping than to shop on shops and in malls. The Cronbach alpha for variable financial behavior is 0.88. The likert scale (agree=1, strongly agree=2 indecisive=3, disagree=4,

strongly disagree=5) is used to collect the data.

### Financial knowledge (FKs\*)

Financial knowledge is understanding of financial definitions, terms and concepts related to financial decisions and choices (Rai et al.,2019). In measuring working women's financial knowledge eight (8) items were generated following OECD, (2022) as; i. An investment with high return involves high risk ii. High inflation means the purchasing power is decreasing iii. Financial risk can be decreased by buying different types of stocks and shares. iv. Chance to lose all of your money is less when you save it in different places. v. If there is chance to make lot of money, there is also a chance to lose a lot of money as well. vi. A digital financial contract requires a stamp paper or any paper contract with signatures to be valid. vii. Personal financial data shared on different online sources (Facebook, WhatsApp, and Instagram etc.) can be used to approach for different financial and commercial offers viii. Crypto currency has the same legal tender as bank notes and coins. The Cronbach alpha for variable financial knowledge is 0.85. The likert scale (agree=1, strongly agree=2 indecisive=3, disagree=4, strongly disagree=5) is used to collect the data.

**Table 2: Demographics of the sample (N=150)**

Variables	Categories	Frequency	Frequency (%)
Area of residence	Rural	70	46.67
	Urban	80	53.33
Age of Respondent in Years	19-23	9	6.0
	24-28	30	20.0
	29-33	32	21.33
	34-38	19	12.66
	39-43	32	21.33
	44-49	28	18.68
Married Life of respondent in years	10-15	40	26.67
	16-20	33	22.0
	21-25	38	25.33
	26-30 and above	39	26.0
Education of Respondent in years	10	17	19.22
	12	46	28.30
	14	25	18.21
	16	32	25.10
	18 and above	30	9.17
Job Status of respondent	Not permanent	77	51.3
	Permanent	73	48.7
Earning members in	1-3	49	32.67

Family	4-6	56	37.33
	7-9	45	30.0

Source: Author's own illustration.

The Table 2 represents the demographics used in the study. Sample consists of 150 married women, taken from Multan, Muzaffargarh and D.G.Khan. The area of residence means rural and urban areas, 70(46.67%) belong to rural and 80(53.33%) women are from urban area. The age of respondents in years includes, different age groups. The women who lie in age group of 19-23 are 9(6.0%) and women in age group of 24-28 are 30 (20.0%). women in age group of 29-33 are 32(21.33%), women in age group of 34-38 are 19(12.67%), women in age group of 39-43 are 32(21.33) and women in age group of 44-49 are 28(18.7%). The marital life in years of women includes the groups of 10-15 which is 40(26.67%), group of 16-20 includes the women 33( 22.0%), the group 21-25 includes 38(25.33%) and 26-30 and above includes 39(26.0%). The education level includes different years of education, as 10 year (matric), includes women 17(19.22%), 12 year (Intermediate) includes 46(28.30%), and 14 year of education (graduation) includes 25(18.21%) women. The 16 years of schooling includes the women 32(25.10%). The women having education of 18 years and above are 30(9.17%) in the sample.

The job status of respondents includes the status of having permanent and non permanent jobs. The number of women having permanent job status are 77(51.3%) and those having non permanent jobs are 73(48.7%).

The earning members in the family includes the three groups. The group one included 1-3 members that includes, 49(32.67%) in number. The group second includes 4-6 members having values of 56(37.33%). The last group lies between the number of 7-9 members consists of 45(30.0%) numbers.

**Table 3: Descriptive Statistics of study variables (N=150)**

Variable	Mean	Std. Dev.	Minimum	Maximum
WEE	2.127	.678	1	3
AREA	-	-	0	1
AGE	34.427	8.429	19	49
ML	10.593	6.864	1	32
EDU	14.24	2.741	10	22
JOBS	-	-	0	1
MEARN	-	-	1	9
FA	28.573	5.501	8	37
FB	19.12	3.709	8	28
FK	28.153	5.085	18	36

Source: Author's own calculation.

The Table 3. represents the list of independent variables, mean, maximum, minimum values and standard deviation of women economic empowerment (dependent variable) and the list of other independent variables including, AGE, ML, EDU, MEARN and dimensions of FL including FA, FB and FK for the sample of 150 women in Punjab, Pakistan.

**Table 4:** Inter-correlation of the study variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) WEE	1.000									
(2) AREA	0.424*	1.000								
	(0.000)									
(3) AGE	-0.391*	-0.145	1.000							
	(0.000)	(0.076)								
(4) ML	-0.182*	-0.098	0.579*	1.000						
	(0.026)	(0.231)	(0.000)							
(5) EDU	-0.421*	0.058	0.288*	0.114	1.000					
	(0.000)	(0.484)	(0.000)	(0.166)						
(6) JOBS	-0.320*	0.084	0.408*	0.224*	0.676*	1.000				
	(0.000)	(0.304)	(0.000)	(0.006)	(0.000)					
(7) MEARN	0.314*	0.024	-0.174*	-0.123	-0.487*	-0.482*	1.000			
	(0.000)	(0.775)	(0.033)	(0.135)	(0.000)	(0.000)				
(8) FA	0.363*	0.007	-0.177*	-0.127	-0.325*	-0.435*	0.331*	1.000		
	(0.000)	(0.928)	(0.030)	(0.121)	(0.000)	(0.000)	(0.000)			
(9) FB	0.303*	0.076	-0.065	-0.040	-0.085	-0.075	0.025	0.312*	1.000	
	(0.000)	(0.353)	(0.427)	(0.625)	(0.303)	(0.362)	(0.763)	(0.000)		
(10) FK	0.413*	-0.023	-0.301*	-0.134	-0.327*	-0.335*	0.242*	0.424*	0.205*	1.000
	(0.000)	(0.778)	(0.000)	(0.102)	(0.000)	(0.000)	(0.003)	(0.000)	(0.012)	

Source: Author's own calculation using the primary data. (Note: \*p<.01)

The Table 4 represents the inter-correlation of the study variables including the dependent variables. Most of the inter-correlation is significant which justifies the relationship.

**Table 5: Results of Ordered Logit Model: The Impact of Financial Literacy: FA, FB and FK and other factors on Women Economic Empowerment (N=150)**

WEE	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]
AREA	2.83***	.509	5.57	0.00	1.837	3.83
AGE	-.080**	.032	-2.53	.011	-.142	-.018
ML	.024	.036	0.66	.512	-.047	.095
EDU	-.339***	.102	-3.33	.001	-.539	-.139
JOBS	.533	.564	0.94	.345	-.573	1.639
MEARN	.14	.123	1.14	.254	-.101	.38
FA	.063	.042	1.49	.136	-.02	.145
FB	.160***	.056	2.84	.004	.05	.269
FK	.133***	.046	2.86	.004	.042	.224
cut1	1.053	2.407	.b	.b	-3.665	5.77
cut2	5.708	2.512	.b	.b	.784	10.632
Mean dependent var		2.127	SD dependent var			0.678
Pseudo r-squared		0.368	Number of obs			150

Chi-square	110.738	Prob > chi2	0.000
Akaike crit. (AIC)	212.060	Bayesian crit. (BIC)	245.177

\*\*\* p<.01, \*\* p<.05, \* p<.1

**Source: Author's own calculation using the primary data.**

The Table 5 consists of seven columns wherein column 1 shows the list of the independent variables. The column 2 carries values of the coefficients of the independent variables. The columns 3 and 4 consist of standard errors and t-values, respectively. The columns 5, 6, 7, and 8 carry p-values, the confidence interval at 95% , and the levels of significance and non-significance, respectively.

The pseudo-R-square value is 0.368, which indicates that the model explains approximately 36.8% of the variability in WEE, but being pseudo, the R-square value does not matter here. The values of Chi-square is 110.738 and significant (p=0.001), which means that model is generally, statistically significant, it means that at least one predictor significantly affects WEE.

The results in Table 5 indicate that financial literacy in terms of two dimensions viz., financial knowledge, and financial behavior have positive impact on economic empowerment of women in districts under consideration.

The variable AREA having coefficient value of (p =0.001) displays a significant positive impact on WEE, which means that when women shift from rural to urban area their economic empowerment increases.

The variable AGE having coefficient value of -0.08 (p=0.02) shows a significant and negative impact on WEE, which means, as age of women increases, their economic empowerment, participation in economic activities, decreases.

Variable EDU having coefficient value of -0.339 (p=0.002) indicates significant and negative impact on WEE, which means as education level of women increases, they have to face more problems in terms of economic participation, from their families (spouse, in-laws, children) or non-availability of job satisfaction. Hence their economic empowerment decreases.

The coefficient value of variable FB is 0.16 (p=0.005) indicates the positive and significant impact on WEE, which means as financial behavior of women towards financial matters is positive, women will be economically more empowered.

The coefficient value of variable FK is 0.133 (p=0.005) shows the positive and significant affects WEE, which means if financial knowledge (education) of women increases, their economic empowerment i.e., confidence to take part in economic activities also increases.

Among the nine variables, two variables including, AGE and EDU are indicated to statistically significantly and negatively impact women economic empowerment, whereas, the variables viz., AREA, FB and FK are shown to positively and statistically significantly impact WEE. All the rest variables indicate having non-significant impact on women economic empowerment.

In order to show the impact of different independent variables on three categories of women economic empowerment, we estimated their marginal effects (Table 6). Because if the variable, empowerment is taken as simple index, we cannot notice which category of women empowerment is responding to the independent variables.

The survey showed that the present sample varied with 20 highly empowered, 80 moderately empowered, and 50 least empowered women.

**Table 6: Marginal Effects of the determinants of women's economic**

WEE	Coef.	St.Err.	Z-value	p-value	Marginal Effect(1)	Marginal effect(2)	Marginal Effect(3)
AREA	2.833***	.509	5.57	0	-0.235***	-0.10***	0.336***
AGE	-.08**	.032	-2.53	.011	0.007***	0.003***	-0.009***
ML	.024	.036	0.66	.512	-0.002	-0.001	0.003
EDU	-.339***	.102	-3.33	.001	0.028***	0.012***	-0.04*
JOBS	.533	.564	0.94	.345	-0.044	-0.019	0.063
MEARN	.14	.123	1.14	.254	-0.012	-0.005	0.017
FA	.063	.042	1.49	.136	-0.005	-0.002	0.007
FB	.159***	.056	2.84	.004	-0.013***	-0.006***	0.019***
FK	.133***	.046	2.86	.004	-0.011***	-0.005***	0.016***

1=Least, 2=Moderate and 3=High (n=150)

Sources: Calculation by authors using the data. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. (cut1 | 1.053 SE = 2.407), (cut2 | 5.708 SE = 2.512). Log Likelihood =-95.02. Pseudo R<sup>2</sup> (McFadden) = 0.368. LR Chi2 (degree of freedom=9)=110.732. Prob > Chi2= 0.000, empowerment(N=150)

The Table 6 exhibits the marginal effects of different variables on three categories of women economic empowerment (dependent variable) in the model. The marginal effects show the degrees of change of the dependent variable with respect to different independent variables. The first column shows the list of the variables. The coefficients values (column 2) indicate the anticipated change in WEE (dependent variable) for a one-unit change in one independent variable, holding all the other variables constant. The column (5) shows that their significance levels (\*\* = p < 0.05, \*\*\* = p < 0.001). P>|z|, column 3 designates the p-value connected with the z score (column 4) for the variable. The small p-value typically ≤ 0.05, proposes that null hypothesis must be rejected. Marginal effects (1), (2) and (3) represent the marginal effects of least empowered, moderately empowered and highly empowered women, respectively.

The Table 6 indicates that the variable having greater values or having higher marginal effects of category three means women are highly empowered. The marginal effect of variable AREA of highly empowered women is (0.336), moderately empowered is (-0.100) and least empowered is (-0.235), positive, negative and negative, respectively, which means, women when shift from rural to urban area, they are about 33.6 percentage points more likely to be in the highly empowered, 10 percentage points less likely in moderately empowered, and 23.5 percentage points

less likely to be in least categories of women economic empowerment. Our results are in line with Kuma and Godana, (2022); Adira and Abdisa, (2023) revealed that women living in rural areas with limited access to opportunities to work were least empowered as compared to women living in urban areas, the study suggested to the migration of women from rural to urban areas so that they could be able to access the opportunities to take part in economic activities and be economically empowered. Our study is related to this concept of migration of women from rural to urban areas and those women were more economically empowered.

The coefficient value of variable AGE is negative, which predicts that women having increase in their age lead to decrease their economic empowerment. Marginal effect of AGE of highly empowered women is (- 0.009) moderately empowered are (0.003) and least empowered are (0.007), negative, positive and positive, respectively. Which means when age of women increases, they are about 0.9 percentage points less likely to be in the highly empowered, 0.3 percentage points more likely in moderately empowered, and 0.7 percentage points more likely to be in least categories of women economic empowerment. Our results match with results drawn by Adira and Abdisa, (2023), shows that as the age of women increased, they were found less empowered in economic domain, as they used to get limited participation in economic activities as compared to women of younger age (Lusadri and Mitchel, 2014; Hernandez et al., 2021; Dilshad et al., 2024; Kim and).

The coefficient value of variable of EDU is negative, predicting the opposite change in economic empowerment of highly educated women, as women highly educated may face some barriers to attain their goals (may be no job satisfaction, family issues, no. of children, dependent persons responsibility in family, spouse/in-laws' permission etc.). The marginal effect of EDU of highly empowered women is (- 0.04), moderately empowered are (0.012) and least empowered are (0.028), negative, positive, and positive, respectively. Which means when women's years of schooling increase, they are about 4 percentage points less likely to be in the highly empowered, 1.2 percentage points more likely in moderately empowered, and 2.8 percentage points more likely to be in least categories of women economic empowerment.

Our results are supported by (Reshi et al.,2022;Tokal et al.,2023), revealed that education is not just enough but education with opportunities and access to resources with confidence were more important as women having education with limited access to resources, having family issues related to their taking care of the family hindered women to take part in economic activities. These studies revealed that most of women having education were traced as economically least empowered as compared to women having lesser level of education.

The coefficient value of variable financial behavior (FB) is positive which shows that if financial behavior of women is positive and have intension to make well-informed and good financial decisions, they will be more empowered in economic domain and have more control over financial matters. The marginal effect of FB of highly empowered women is (0.019), moderately empowered women are (-0.006) and least empowered women are (-0.013) holding the sign of positive, negative and negative, respectively. It signifies, women when carry financial behavior they are

about 1.9 percentage points more likely to be in the highly empowered, 0.6 percentage points less likely in moderately empowered, and 1.3 percentage points less likely to be in least categories of women economic empowerment.

Our results are supported by Haque and Zulfiqar, (2016) revealed that financial literacy along with its dimensions of financial attitude and financial behavior have positive and significant impact on women's economic empowerment; Showkat et al. (2025) signifies that financial behavior is crucial to attain women's economic empowerment and improve financial literacy that might lead to empower women economically (Singh and Kumar, 2017; Ma, 2022; Yasmin, 2023). The coefficient value of variable financial knowledge (FK) is positive, which indicates that with financial knowledge (education) women can make good financial decisions and can predict the future plans regarding, investment, saving and expenditures and plan a household budget as well. Marginal effect of FK of highly empowered women is (0.016), moderately empowered women are (-0.005) and least empowered women are (-0.011) holding the sign of positive, negative and negative, respectively. Which means when women's financial knowledge increases, they are about 1.6 percentage points more likely to be in the highly empowered, 0.5 percentage points less likely in moderately empowered, and 1.1 percentage points less likely to be in least categories of women economic empowerment.

Our results are in line with Adira and Abdisa, (2023); Showkat et al. (2024); Kandolo and Ngibe, (2024), highlighted that financial knowledge has positive and significant impact on women's economic empowerment, being well aware of the financial matters.

Financial attitude (FA) which is also the dimension of financial literacy is statistically non-significantly associated with women economic empowerment. The remaining three variables viz., married life (ML), job status (JOBS), earning members (MEARN) came out to be statistically non-significant which means there are no impacts of such variables on women's economic empowerment.

## CONCLUSION

Study aimed to assess the impact of the three dimensions of financial literacy namely; financial behavior, financial attitude and financial knowledge, along with other variables on women's economic empowerment. Taking sample size of 150 married women of reproductive age (19-49) having at least one baby was recruited from district Multan, Muzaffargarh and Dera Ghazi Khan, of South Punjab, Pakistan using mixed sampling technique. The independent variables were listed as age, area, education, job status of women, married life, earning members of family and three dimensions of the financial literacy viz., financial behavior, financial attitude and financial knowledge. Women empowerment (dependent variable) categorized as highly empowered, moderately empowered and least empowered. Marginal effects of ordered logit model were estimated. The results indicated that women having financial literacy in terms of two dimensions financial knowledge, and financial behavior are more empowered economically. The variables AGE and EDU are indicated to decrease women empowerment whereas, the variables viz., area,

financial behavior and financial knowledge augment economic empowerment of highly empowered women as compared to moderately and least empowered women. The variables viz., marital life, Jobs, and earning members did not appear to influence women economic empowerment in the sample area.

In Punjab, women are facing socio-cultural barriers and have limited access to financial institutions that is biggest obstacle in the way to attain women's economic well-being and progress. In the light of the results it can be concluded that financial literacy among women is vital for economic empowerment of women especially, in South Punjab, Pakistan. The increased financial knowledge leads to empower women economically through skills, decision making capacity, saving, investment decisions for future and credit control. This kind of empowerment enhance the self-efficacy and more participation on individual and community level. In this scenario, financial literacy could play a transformative role to enhance their financial position and strengthen their economic status. Financial literacy could play pulsating role to bridge the gap between men and women and unlock the opportunities and economic freedom to women in Punjab, Pakistan.

#### **Policy Implication**

Financial literacy plays a decisive role in women's empowerment. The important key policy implications leading to augment their empowerment are as follows:

Governments and non- government organizations should target financial literacy programs precisely planned for women for example, initiatives should be taken in terms of organizing online courses, workshops, and public seminars—to launch various learning schedules to equip women with crucial financial knowledge, e.g., saving, investing, budgeting, and understanding credit. Such programs could support them to take brilliant financial decisions and attain long-term economic stability.

Policies could endorse the incorporation of financial literacy into school syllabuses focusing the young girls, by imparting financial knowledge so that they could be able to enter in practical life being well prepared to manage their funds, involve in investment prospects, and steer financial matters self-confidently.

Priority should be given to women to access financial resources, for example, loans, and savings accounts. They should be given loans on lower interest rates and flexible payment opportunities. Guaranteeing women for equal access to financial resources could empower them to spend on education, trades, and well-being of their families.

Effective policies should influence the nonprofit organizations and community groups that concentrate on women's financial education.

Initiatives to raise cognizance about the vitality of financial literacy for women can further bring societal change. Campaigns focusing on media outreach; success stories, and role models to stimulate women to pursue financial knowledge and proclaim their financial independence.

#### **Limitation of the study**

Because of time limit and financial issue related to data collection, the study has not included all districts of South Punjab, so the generalization issue could be raised. The

study employed mixed sampling data collection technique due to non-availability of the sampling frame. The study included only working women with reproductive age (19-49), having at least one child. So, it could not be applied on the women who were not working and excluded from those specific criteria. The study used three sub-dimensions of financial literacy, including; i. financial attitude, ii. financial behavior and iii. financial knowledge. The future study can use its composite index to observe the collective effect of financial literacy. In future researchers are suggested to undertake qualitative study to reveal the any further possible factors affecting women economic empowerment.

In the future, further longitudinal time horizon can be used for the data collection. Different sampling techniques can be used, viz., purposive sampling, quota sampling, snowball sampling, etc. Another research can be conducted by collecting research data from specific respondents; specific age groups, genders, users of the different products, etc. Such type of research can be conducted for other sectors, i.e., insurance, the banking sector, and the medical field, etc. Other variables can be used in the proposed framework, i.e., perception of women empowerment and social welfare for women. Furthermore, the use of financial literacy along with financial attitude can be observed in future as it is the important dimension of the financial literacy. The restrictions of widows, divorced, single and married women having no children can also be observed in future researches to extend the scope of comprehensive research and practice in financial literacy.

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