

## Microfinance's Business Breakthrough for Women Empowerment

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| ARTICLE INFO   | ABSTRACT   |
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| <p><b>Article History:</b><br/>Received: 30 Sep, 2023<br/>Revised: 26 Nov, 2023<br/>Accepted: 28 Feb, 2024<br/>Available Online: 29 Feb, 2024</p> <p><b>DOI:</b><br/><a href="https://doi.org/10.56536/jebv.v4i1.92">https://doi.org/10.56536/jebv.v4i1.92</a></p> <p><b>Keywords:</b><br/>Gender Diversity, violence against women, Microfinance</p> <p><b>JEL Classification:</b><br/>M01, K12</p> | <p>We analyzed the vital role microfinance initiatives are playing towards their confidence and growth in undertaking business reducing the violence against women (VAW), resultantly women empowerment. We utilized data from the Women Economic &amp; Social Well-being Survey of Punjab, with a specific focus on women aged 15 to 64 years. Our study employed the logit and probit modeling technique to find out the intricate interplay between microfinance and various socio-economic factors especially with regard to VAW. We explored the connections between microfinance, women's economic empowerment through female employment and their wealth status, age, education, marital status, area of residence, elucidating their combined influence on the likelihood of occurrence of violence against women in Pakistan, with particular analysis of urban and population. The conclusions arrived at from this investigation not only add to the scholarly debate on gender economics and VAW but also equip the policymakers with considerable fresh insights, development strategies, and identification of organizations for advocating and steering enhancement in female employment, microfinance initiatives for women, financial assistance, and education for transformative initiatives of gender equality and reduction in VAW.</p> |

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## INTRODUCTION

Violence against women (VAW) represents a transgression of fundamental human rights which exerts and entraps its influence across all communities. It breeds repercussions to the physical and psychological realms related to female life (Heise, & Fulu, 2014, Swaine et al., 2018). The issue in hand is a global challenge which originates from and is rooted in peculiar societal structures which are influenced by gender-based predefined roles, particularly in developing countries like Pakistan. This issue is further intensified by circumstances involving conflict and displacement of priorities among the culture. Violence against women (VAW) has not only consequences on the women and girls experiencing it, but it transfers to their generations. Moreover, particular demographic groups such as refugees, elderly individuals, individuals with disabilities also confront a considerable level of violence emanating from the aforementioned societal perceptions (Dale et al., 2021). VAW leads to social, economic and health ramifications for survivors, perpetrators and the society (Durevall & Lindskog, 2015; Krishnan et al., 2008). It is crucial to tackle VAW through interconnected policies,

comprising upon modifying attitudes and social norms, as well as programs for empowering women socio-economically (Semahegn et al., 2019; Ahmad et al., 2023).

Violence Against Women (VAW) requires the necessitating legal framework for defense of women on not just in disadvantaged countries but also at a massive global scale (Vaigè, 2016). The Violence Against Women Act (VAWA) stands as a landmark legislative act, which explicitly targets domestic violence, stalking, rape, and other comparable crimes where women are prone to different types of victimization (Ratkoczy, M. 2018). Contributing economic factors, like poverty, low incomes (Zulfiqar et al., 2017), low wealth status further intensify the cycle of domestic violence. Women, across different socioeconomic levels, face diverse forms of oppression, including workplace harassment and interference from in-laws as indicated in studies by Pulla (2014) and Sudarso et al., (2019). Inefficient policy interventions generally overlook the major role of educational empowerment, which disconnect women from resources, and divest from the education of young women (Aslam et al., 2017). This is particularly more serious in economically advantaged regions and also at provincial differences (Sadiq et al., 2018). The prevalence of domestic violence is widespread among women seeking induced abortion, with over one-third acknowledging such experiences and forms of violence. In Pakistan, the persistent issue of violence against women is root cause of significant challenges to women's rights and health (García-Moreno et al., 2005). The acceptance of violence is influenced by ingrained gender dominance attitudes of men, rigid gender norms, and a general deficiency of awareness regarding women's rights among both men and women (Sikweyiya et al., 2020; Ozaki, R., & Otis, M. D., 2017). It is no wonder that Pakistan ranks low on the Gender Development Index and inclusive growth index (Aslam et al., 2017; Aslam et al., 2019; Aslam & Ghouse, 2023; Aslam & Zulfiqar, 2016; Aslam & Farooq, 2019; Aslam & Ghouse, 2023b). Not only that but it also unfortunately experiences high rates of violence against women (Murshid & Critelli, 2020; Amir-ud-Din et al., 2021). The patriarchal family framework in Punjab, Pakistan too normalizes the domestic violence consisting of both physical and emotional abuse, which is significantly under-reported (Utton, P., 2013). The experiences of women across different socioeconomic levels reveal a diverse of various forms of oppression and abuse, including workplace harassment and interference from in-laws (Qaisrani et al., 2016).

Now the solution to this issue is both difficult but also complex in nature. It has been seen that microfinance, however, has proven to be an effective instrument for empowering women, particularly those belonging to lower socioeconomic strata. Microfinance helps women start up their own businesses and economically empowers them. By easing access to financial provisions such as small loans and savings accounts, microfinance institutions are providing Pakistani women with the essential resources to initiate and augment their business ventures, which provides some hope. This economic elevation sets the stage for reduction in violence against women (Cepeda et al., 2021; Kapiga et al., 2019). Microfinance has been found to have a positive impact on poverty alleviation among women, leading to increased income and improved economic, political, and social conditions (Ayesha Aziz et al., 2021; Nnenna, Christiana, Irobi; 2008). Microfinance access has validated its role in curbing

poverty, particularly among female population, and it furthermore yields a positive stimulus on overall poverty decrease within rural communities (Uttam, Paul.; 2014).

As women in Pakistan acquire financial autonomy, their dependence on potentially abusive relationships borne out of economic necessity diminishes (Khanum, N., 2017; Murshid, N. S., 2017). Their improved economic and financial standings (Aslam et al., 2022) can lead to transfer in power dynamics within households and broader communities, with the potential to diminish instances of domestic abuse (Hughes et al., 2015; Thurston et al., 2013). Furthermore, as these female entrepreneurs' flourish (Khizar, 2022), they serve as motivating factor while empowering other women in their societies. This cultivates a chain reaction of affirmative transformation (Aslam & Rashid Husain, 2019).

Inclusive economic growth of any country is not possible without women contributing into human capital (Aslam & Shabbir, 2019; Ghouse et al., 2022; Aslam et al., 2023; Ghouse et al., 2021; Aslam et al., 2021; Ghouse et al., 2022). Nonetheless, it is obligatory to concede that whilst microfinance harbours substantial potential for facilitating women's empowerment and dropping violence in Pakistan (Adeel et al., 2023), it is not a panacea (Murphy, C., 2018, Shelar, K., 2020; Niaz, M. U., & Iqbal, M., 2019). Much of the violence against women is also attributed to their inheritance issues and property rights (Aslam et al., 2023), combined with their low income or wealth status. Its efficiency is contingent on other initiatives such as educational advancement, academic proficiency and legal reforms (Owolabi, O. E., 2015; Nicholls et al., 2015). This article will inquire into these dynamics, providing microfinance towards the empowerment of Pakistani women and the reducing the violence against them. The main question of this article is, does microfinance empower women by reducing violence against them in Punjab? To answer, we delve into following objectives:

- (i) Does microfinance (M) shield women from violence (V)?
- (ii) Do education (EDU), female employment (FE) or household wealth (HEWS) contribute to or protect women from violence?
- (iii) Do urban / rural environments (q), marital status (MS) and age play any role in violence patterns?

The primary objective here is to investigate the economic factors influencing violence against women, shedding light on how financial aspects contribute to controlling against VAW. The second objective focuses on scrutinizing gender dynamics, aiming to find how societal roles and perceptions impact instances of violence against women. The third objective seeks to explore contextual factors, examining the broader environment which may influence the prevalence of violence against women. This study introduces a novel addition to literature by contributing to design a framework backed by data on violence against women. We aim at contributing valuable insights to the existing body of knowledge on women empowerment on this pressing social, economic, institutional and most importantly a societal issue.

## LITERATURE REVIEW

The relationship between microfinance and violence against women (VAW) is multifaceted and is not that easy to tackle as it seems. Microfinance access may empower women and reduce VAW. Literature has indicated potential risks effects depending on outcomes. Some studies have also argued that involvement in microfinance programs does not lead to a reduction in domestic violence as indicated by Abdallah et al. (2024). Whereas, other studies suggest that women with control over microcredit or finances, have lower levels of physical violence (Sahu et al., 2024). Conversely with much interest to us, studies have also reported that increased likelihood of spousal violence among women participating in microfinance programs (Chattopadhyay et al. 2024). However, the mixed literature, underscore the importance of considering hidden costs and potential risks associated with microfinance, including heightened vulnerability to VAW (Parwez, et al., 2024).

Microfinance availability may lead to reduced financial (Ghouse et al., 2022; Ghouse et al., 2022) and emotional violence. Numerous studies, as well as Cepeda et al. (2021) and Eggers Del et al. (2020), have found that access to microfinance has controlled both economic, physical and emotional violence against women. On the other hand, it may also lead to increased physical violence, as indicated Dalal et al. (2013). Sunte (2023) highlight the possibility of microfinance programs, which may lead to increased physical and psychological violence, particularly among educated and empowered females. Olayiwola (2021) emphasizes the socio-emotional vulnerability faced by women borrowers or micro-finance holders. They have experienced harassment and pressure from loan providers, further making things difficult for women. De et al. (2019) revealed that the link amid microfinance and VAW, has much variations and is based on the specific program design.

Allan-Blitz et al. (2023) have also found that microfinance interventions combined with other policies may be associated with reduced psychological and emotional violence. Afzal (2019) have also highlighted the detrimental impact of IPV on female empowerment, particularly in the rural Bangladesh. Moreover, Panda (2016) indicates that microfinance has the prospective to reduce or limit different forms of violence. Lastly, another study by Peters (2017) offers a distinctive perspective on microfinance's potential to empower vulnerable females. They highlight the significant role of collective action.to tackle VAW.

Ferrari (2016) delves deeper into the mechanisms of empowerment, revealing that access to financial resources and soft-skills training (e.g., negotiation) can lead to women gaining control over their time and reducing their exposure to IPV. This provides valuable insights into program design and targeting for maximum impact. Contradictory evidence and narrow definitions of IPV in existing studies emphasize the need for standardized definitions and rigorous research methodologies like RCTs to provide definitive answers.

Regarding the methodologies to explore the link between microfinance and various outcomes, using regression models as the primary analytical tool, we found several studies. Key findings and methodological approaches are highlighted here. Innocent (2012) examines the effect of microfinance

on poverty reduction among female entrepreneurs in Nigeria. They utilized propensity score matching and instrumental variable methods to address potential selection bias. Their findings suggest positive impacts on poverty reduction. Fingerlos (2021) has explored the application of logit and probit models in the financial industry, focuses on model selection and interpretation through simulation studies. The article itself does not offer specific findings on microfinance impacts. Cueva (2017) has analyzed the financial fragility of companies in Ecuador using logit and probit models. The research demonstrates the effectiveness of these models in assessing financial strength. Mason (2022) has discussed microfinance as a potential strategy to combat global recession, but lacks quantitative analysis using regression models. Ali Cetin (2023) has investigated the relationship between economic stress and household financial decisions, employing logit and probit models to analyze data from Turkey. Though not explicitly focused on microfinance, the findings might have indirect implications for the sector.

In addition to above discussion, Poddar (2015) has applied logit and probit models to predict the impact of macroeconomic indicators on the microfinance industry in India. Their study emphasizes the influence of external factors on microfinance performance. Valencia (2014) has further developed a credit scoring model for microfinance institutions using a mixed logit approach. This highlights the potential of tailoring regression models to specific microfinance needs. Kasali (2015) has assessed the impact of microfinance on poverty alleviation in Nigeria using a binary logit regression model. Positive connotations between microfinance participation and poverty reduction were showed in their findings. Kanimozhi (2022) has evaluated the effectiveness of microfinance in poverty alleviation and entrepreneurship using descriptive statistics and standard statistical tests. The study concludes that microfinance has limited impact on a large scale. Asif (2014) explored the impact of microfinance on poverty mitigation and women's empowerment in India, trusting predominantly on descriptive statistics and chi-square tests. Their analysis underscores the significance of incorporating robust regression models in future research efforts. Bent (2018) has investigated the influence of microfinance on poverty reduction and women's empowerment using various methods, including regression analysis. Their findings indicate modest impacts on poverty reduction but emphasize social and economic benefits for women. We found that regression models, particularly logit and probit, are widely used to analyze microfinance impacts on poverty, financial stability, and women's empowerment. This methodology is also used by other studies to measure the relationship among such kind of variables like Rahman et al., (2017), Addai, (2017), Pitt et al., (2006). While some studies show positive correlations between microfinance and desired outcomes, others reveal limitations and call for further research with robust methodologies. The role of microfinance within a broader developmental context, considering external factors and social impacts, also warrants further investigation.

Concluding the in-depth carried out literature review, we find a significant research gap, which suggests further investigation into the relationship between microfinance and VAW across different contexts, particularly in the context of Pakistan and Punjab province. Hardly any study has been found up to date and covering this regional location. We aim to incorporate these perspectives of economic, financial and geographical areas to address above said limitations.

## RESEARCH METHODOLOGY

This is an empirical study. We denote the level of violence against women (VAW) as  $V$ , the amount of microfinance facilities as  $M$ , the level of women's education as  $E$ , and women business empowerment as  $B$ . One could posit that these four variables are interrelated, which can be represented by the equations:

$$V = a - bM + cE - dB \dots \text{Equation} \quad (1)$$

The equation (1) draws from Feminist Economics, which suggests that empowering women economically through access to microfinance facilities ( $M$ ), enhancing women's education ( $E$ ), and promoting women's business empowerment ( $B$ ) can contribute to the reduction of violence against women ( $V$ ).

$$M = e - fV + gE + hB \dots \text{Equation} \quad (2)$$

The equation (2) refers to the theory of Economic Empowerment, which proposes that environment with less violence against women ( $V$ ), higher women's education ( $E$ ), and greater women's business empowerment ( $B$ ) can foster the proliferation of microfinance facilities ( $M$ ).

$$B = i - jV + kM + lE \dots \text{Equation} \quad (3)$$

Where  $a$ ,  $b$ ,  $c$ ,  $d$ ,  $e$ ,  $f$ ,  $g$ ,  $h$ ,  $i$ ,  $j$ ,  $k$ , and  $l$  are constants. Equation (3) is beached in Women's Empowerment theory, postulating that a decline in violence against women ( $V$ ), amplified accessibility to microfinance facilities ( $M$ ), and higher levels of women's education ( $E$ ) mutually drive women's business empowerment ( $B$ ). In concert with Social Role Theory, education appears as an essential factor capable of reducing violence against women by reforming societal norms and endowing women with the means to disentangle themselves from abusive relationships. After adding  $EDU$ , our equations become:

$$V = a - bM + cE - dB + pEDU \dots \text{Equation} \quad (4)$$

$$M = e - fV + gE + hB + pEDU \dots \text{Equation} \quad (5)$$

$$B = i - jV + kM + lE + pEDU \dots \text{Equation} \quad (6)$$

According to Social Ecological Theory, the environment in which a woman lives can influence the rates of violence she experiences. Discrepancies in challenges and resources between rural and urban backgrounds can influence rates of violence against women. Upon integrating the variable of residence, our equations are adapted accordingly:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) \dots \text{Equation} \quad (7)$$

$$M = e - fV + gE + hB + pEDU + q(Rural/Urban) \dots \dots \text{Equation} \quad (8)$$

$$B = i - jV + kM + lE + pEDU + q(Rural/Urban) \dots \dots \text{Equation} \quad (9)$$

According to Life Course Theory, experiences of violence can vary at different stages of life. Age can influence a woman's access to resources and societal roles, affecting rates of violence (Kabeer, N. (2018). After adding age, our equations are:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE \dots \text{Equation} \quad (10)$$

$$M = e - fV + gE + hB + pEDU + q(Rural/Urban) + rAGE \dots \text{Equation} \quad (11)$$

$$B = i - jV + kM + lE + pEDU + q(Rural/Urban) + rAGE \dots \text{Equation} \quad (12)$$

According to Empowerment Theory, employment can provide women with economic independence and negotiating power, which can decrease rates of violence (Lenze, J., & Klasen, S. 2017). After adding female employment, our equations become:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (13)$$

$$M = e - fV + gE + hB + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (14)$$

$$B = i - jV + kM + lE + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (15)$$

According to Gender Role Theory, women who are heads of households may have more authority and access to resources, which could reduce rates of violence (Grabe, S. 2010). After adding HH, our equations are:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (16)$$

$$M = e - fV + gE + hB + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (17)$$

$$B = i - jV + kM + lE + pEDU + q(Rural/Urban) + rAGE + sFE \dots \text{Equation} \quad (18)$$

According to Resource Theory, wealthier households might provide more opportunities for women's empowerment and protection from violence (Cools, S., & Kotsadam, A. 2017). After adding household wealth, our complete equations become:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE + sFE + uHEWS \dots \text{Equation} \quad (19)$$

$$M = e - fV + gE + hB + pEDU + q(Rural/Urban) + rAGE + sFE + uHEWS \dots \text{Equation} \quad (20)$$

$$B = i - jV + kM + lE + pEDU + q(Rural/Urban) + rAGE + sFE + uHEWS \dots \text{Equation} \quad (21)$$

In order to focus our analysis on the impact of various factors on violence against women (V), we choose to drop the equations with M (microfinance facilities) and B (business empowerment), as dependent variables. The reason behind this decision is that violence against women (V) is our primary concern, and we want to understand how different variables directly affect it.

Hence, the final equations will be:

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE + sFE + uHEWS \dots \text{Equation (22)}$$

Here in equation (22), AGE is in its linear form.

$$V = a - bM + cE - dB + pEDU + q(Rural/Urban) + rAGE^2 + sFE + uHEWS \dots \text{Equation (23)}$$

In this equation (23), AGE is squared to capture the non-linear effects of age on violence against women (V). AGE is squared to capture the non-linear effects of age on violence against women (V).

The prime variable of interest, signified as V, incorporates instances of physical, psychological, and sexual violence described by respondents within the foregoing year. Several independent variables delve into potential determinants of this violence. M investigates the source of credit, specifically whether microfinance institutions were involved, potentially testing if microfinance participation plays a role in violence dynamics. FE examines the respondent's employment status (Ahmed et al., 2020), assessing if economic independence influences vulnerability to violence. EDU, focusing on the respondent's partner's education level, investigates whether educational disparities or traditional gender roles contribute to violence risk. q differentiates between urban and rural environments, considering how geographic contexts impact violence patterns. Age and its squared term explore the potential non-linear relationship between age and violence exposure. Finally, HEWS measures the household's economic well-being, considering its potential influence on violence prevalence as indicated by Qamar et al. (2020).

This study depends on micro data provided by the Bureau of Statistics Punjab, a product of Women Economic and Social Wellbeing (WESW) survey conducted in all districts of Punjab (Attock, Rawalpindi, Chakwal, Jehlum, Gujranwala, Gujrat, Sialkot, MandiBahauddin, Hafizabad, Faisalabad, Chiniot, Jhang, Sargodha, Mianwali, Khushab, Lahore, Kasur, Sheikhpura, Narowal, Nankana Sahib, Okara, Sahiwal, Pakpattan, Toba Tek Singh of upper Punjab and Khanewal, Bhakkar, Vehari, Bahawalnagar, Bahawalpur, Multan, Rahim Yar Khan, Rajanpur, DG Khan, Muzaffargarrh, Layyah and Lodhran of lower Punjab) and disseminated in January 2022.

## RESULT AND DISCUSSION

In this section, VAW is the dependent variable for both models i.e. using Logit and Probit. Two models have been estimated, with and without the inclusion of Age Square to make it linear and non-linear functions. We conclude key findings in this section. Education demonstrate a statistically significant negative association on VAW. The result shows that higher level of education are interrelated with a lessened likelihood of experiencing violence (Oluwagbemiga et al., 2023; Masaitiet et al., 2022, Amir-ud-Din et al., 2021; Maher & Hayes, 2023; Sanz, et al., 2019). The urban/rural divide, represented by AREA, does not exhibit a significant influence on VAW across all models. Age and its quadratic term (AGEsquare) demonstrate mixed effects, suggesting a potential nonlinear relationship between age and violence (Websdale et al., 1998, Xie., et al., 2012). Marital status (MS) consistently shows a negative association with VAW, indicating that being married is linked to a



reduced risk (Yari et al., 2021; Alejandro et al., 2022; Callie et al., 2013). Female employment (FE) appears as a protective factor, representing a negative connotation that suggests women's economic contribution is linked to a reduced probability of experiencing violence (Seema, et al., 2009; Sarah, et al., 2018).

**Table I: Logit Results**

| Dep Variable:<br>VAW | (1)<br>Non-Linear<br>Associations | (3)<br>Linear<br>Associations |
|----------------------|-----------------------------------|-------------------------------|
| pEDU                 | -0.0530**<br>(0.0212)             | -0.0530**<br>(0.0212)         |
| Q (Area)             | 0.00546<br>(0.0428)               | 0.00539<br>(0.0428)           |
| rAge                 | -0.00273<br>(0.00941)             | -0.00140<br>(0.00167)         |
| AGEsquare            | 1.77e-05<br>(0.000124)            |                               |
| MS                   | -0.516***<br>(0.0569)             | -0.520***<br>(0.0504)         |
| sFE                  | 0.352***<br>(0.0966)              | 0.352***<br>(0.0966)          |
| Thh                  | 0.0791<br>(0.0601)                | 0.0784<br>(0.0598)            |
| uHEWS                | -0.139***<br>(0.0159)             | -0.139***<br>(0.0159)         |
| M                    | -0.206<br>(0.427)                 | -0.205<br>(0.427)             |
| Constant             | -0.805*<br>(0.456)                | -0.825*<br>(0.435)            |
| Observations         | 29,020                            | 29,020                        |

Note: Robust SE in parentheses, while \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Household Economic wealth status (HEWS) consistently exhibits a negative association with VAW, indicating that higher wealth is associated with a lower likelihood of violence as also indicated by Tehmeena et al (2021), Ghazi et al (2021), Cynthia, (2006) and Qamar et al. (2020). The presence of micro finance assistance (M) also shows a negative association with VAW, suggesting that households receiving micro finance are less likely to experience violence (Asli, et al., 2013; Panda, 2016; Cepeda, 2021; Kapiga, 2019; Niaz, 2019). Microfinance assistance by government has always performed a major backbone in improving satisfaction levels of its receivers, while improving their lives in multiple ways (Aslam et al., 2023; Qamar et al., 2021; Raza & Aslam, 2020). In a nutshell, these outcomes emphasize the intricate interaction of socio-economic factors in swaying the risk of violence against women.

**Table II: Probit Results**

| Dep Variable:<br>VAW | (1)<br>Non-Linear<br>Associations | (2)<br>Linear<br>Associations |
|----------------------|-----------------------------------|-------------------------------|
| pEDU                 | -0.0285**<br>(0.0113)             | -0.0285**<br>(0.0113)         |
| Q (Area)             | 0.00301<br>(0.0230)               | 0.00293<br>(0.0230)           |
| rAge                 | -0.00148<br>(0.00507)             | -0.000686<br>(0.000897)       |
| AGEsquare            | 1.06e-05<br>(6.64e-05)            |                               |
| MS                   | -0.283***<br>(0.0312)             | -0.285***<br>(0.0277)         |
| sFE                  | 0.193***<br>(0.0545)              | 0.193***<br>(0.0545)          |
| tHH                  | 0.0435<br>(0.0338)                | 0.0431<br>(0.0336)            |
| uHEWS                | -0.0755***<br>(0.00855)           | -0.0755***<br>(0.00854)       |
| M                    | -0.0930<br>(0.237)                | -0.0924<br>(0.237)            |
| Constant             | -0.547**<br>(0.253)               | -0.559**<br>(0.241)           |
| Observations         | 29,020                            | 29,020                        |

The negative impact of the age square of respondents on violence against women suggests that, as respondents' age increases, the likelihood of experiencing violence tends to decrease initially. However, this negative effect diminishes at a decreasing rate with age, indicating a curvilinear relationship between age and violence against women. This implies that while older age may be associated with a reduced risk of violence, the protective effect diminishes as respondents age further. However, its impact is insignificant.

## CONCLUSION AND POLICY IMPLEMENTATION

This section elaborates on the study's implications and is followed by the overall conclusion of the study.

### Theoretical Implications

The theoretical implications of microfinance in empowering women and reducing violence against women in Pakistan is substantial. We assert that economic empowerment through microfinance, education, female employment leading to future business entrepreneurship opportunities can alleviate violence against women. We also emphasize the impact of institutional factors on violence rates.

## Practical Implications

We stress that microfinance presents practical implications for bolstering women's economic empowerment and curbing violence against women, particularly in Punjab, Pakistan. Through facilitating financial access, education, and entrepreneurship opportunities, it has immense potential to address gender-based violence. Customizing strategies to regional variations as captured by our empirical model, ensures effective implementation, fostering women's empowerment and safety in diverse settings of Punjab, Pakistan.

## Limitations and Directions for Future Research

In acknowledging the concern regarding the ambiguity of whether the presented equations represent a structural or reduced-form model, we highlight this as a limitation of our study. Moreover, detailed post estimation tests can further enhance the quality of results. Moreover, we understand that data is not available to larger audience and requires acquiring it with some efforts. However, this study is an important study and the idea can further be enhanced by looking at deeper relations among variables with advanced econometric techniques such as structural equation modeling.

## Conclusion

This paper delves into the intricate relationship between domestic violence against women (VAW) and micro-finance in Pakistan. Of our particular interest is the negative association between microfinance participation and VAW. This aligns with the potential of microfinance to foster women's business development and financial independence, ultimately leading to greater agency and reduced vulnerability to violence. In furtherance of above, to extend our analysis of impact of women-oriented microfinance initiatives, we explore the same through various variables including education, age, marital status, household wealth status, female employment, and urban/rural location with regard to prevalence of violence against women (VAW) in Punjab, Pakistan. Our findings offer that education and household wealth also emerge as protective factors on the economic empowerment side, with higher levels of it correlating with decreased VAW exposure. This suggests that increased economic stability and knowledge empower women and contribute to safer environments.

*Note: This article is based on PhD thesis of the first author, Ms. Sadia Naseem Naik, titled "A comprehensive study of investigating causes against women's violence through financial inclusion and economic empowerment". The second and third authors are her advisors*

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