



WOMEN'S EMPOWERMENT AND RETENTION RATE

Abstract

There is no clear link between women's empowerment and retention rate; the next theoretical foundation points toward women's empowerment and entrepreneurial development. Khan (2018) "*finds that participation of women in microfinance, more particularly through self-help groups (SHGs), empowers them in economic, social, psychological, and political factors. The issue as to whether microfinance empowers or disempowers women is an open question.*" The paper presents three microfinance institutions and examines retention rates and their effect on women's empowerment. It is noble to propose that retaining women in the microfinance system and making them eligible to stay in the program can benefit and empower them, thus maximizing access to growth opportunities. However, at the end of the day, retention rates remain a business decision.

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Introduction

The paper examines microfinance and its effect on women's empowerment and retention rate. According to United Nations Secretary-General António Guterres (2019), one of the essential elements in achieving global progress is women's empowerment. The International Labour Office (n.d.) cites that women were found to have higher loan repayment rates and contribute a more significant percentage of their income for household consumption and education than men. Although data availability has constantly challenged the microfinance industry, the paper examined the effect of retention rate on women's empowerment using data from 1999 to 2018 from the Microfinance Exchange, Mix Market Data sampling clusters of three microfinance institutions in the National Capital Region and Calibration area.

Review of Literature

According to a study by Al-Mamun, Wahab, Mazumder, and Su (2014), microfinance is a powerful service that boosts women's empowerment in their everyday lives in Malaysia. Several authors defined empowerment as a person's capability and personal characteristics (Rahman et al., 2017). Others believe it is a change of development (Mayoux, 1998), while others think it is the ability to make a change and good decisions (Kabeer, 2001). The main objective of empowerment is to improve women's absolute and relative well-being. In absolute well-being, the measurement of status, such as financial literacy, health and nutrition, and labor force participation, are indicators for improving the well-being of women. As for relative well-being, the improving position of women in their households could be akin to deciding on what to do over income, assets, and loans (Ali & Hatta, 2012). When women are empowered, it could be a life-changing event for their families to escape the harsh realities of poverty and live a good life.

Women's empowerment has been gaining traction ever since the 20th century. Table 1 shows that roughly 85% of Filipino women make household, healthcare, and other significant decisions. Also, as reported by the Philippine Statistics Authority, Table 2 shows that the proportion of poor women is relatively high. Regarding the Labor Force Participation Rate, women are gaining traction with 47.6 percent compared to men, with a relatively higher percentage at 74.8 percent. The number of women going abroad to work in other countries. They have decided to take these jobs abroad, knowing that there are certain risks of fraud and mistreatment from employers for the pay that they opt to get. Evidence of this can be seen from a recent news headline dated June 8, 2020, titled "POEA cautions job seekers vs. online 'seminar' scam," which tells the risks of being an OFW, yet these women are eager enough to take the risk. Jadie and Lanuzo (2016) show that wives tend to develop and enhance their self-esteem and confidence aside from garnering the trust of their husbands. A sense of achievement contributes mainly to their ability to earn higher salaries.

Table 1: 2020 Fact Sheet on Men and Women (Decision-Making and Ownership)

Decision Making			Ownership		
Indicator	% of Females (aged 15 - 49 years old)	Ref. Period/Source	Indicator	% of Females (aged 15 - 49 years old)	Ref. Period/Source
Currently married women employed in the past 12 months	58	2017/ NDHS, PSA	Percentage of women who own a house, Alone or Jointly	32	2017/ NDHS, PSA
Currently married women employed in the past 12 months, by type of earnings: Cash only	75	2017/ NDHS, PSA	Percentage of women who own a land, Alone or Jointly	12	2017/ NDHS, PSA
Wife and husband jointly who decides how the wife's cash earnings are used	54	2017/ NDHS, PSA	Percentage of women who decides on her own healthcare major household purchases, visit to her family or relatives	85	2017/ NDHS, PSA
Mainly wife decides how her cash earnings are used	43	2017/ NDHS, PSA	Percentage of women who have and use a bank account	22	2017/ NDHS, PSA
Percentage of currently married women who can say no to their husbands if they do not want to have sexual intercourse	87	2017/ NDHS, PSA	Percentage of women who have and use mobile phones	86	2017/ NDHS, PSA

Source: *Philippine Statistics Authority*

Table 2: 2020 Fact Sheet on Men and Women (Indicators)

UPDATES ON WOMEN AND MEN IN THE PHILIPPINES				
Indicator	Women	Men	Ref. Period / Sour.	
2. Work and Economic Participation				
Labor Force Participation Rate (%)	47.6	74.8	2019/ LFS, PSAa1/	
Unemployment Rate (%)	4.9	6.1	2019/ LFS, PSAa1/	
Proportion of Unpaid Family Workers (%)	8.9	3.9	2019/ LFS, PSAa1/	
Proportion of Poor Families by Sex of Family Head (%) m/	6.3	13.8	2018/ PSA	
Proportion of Poor Women (%)	22.5	n/	2015/ PSA	
Most Common Occupation	Service & Sales Worker	Elementary occupations	2019/ LFS, PSAa1/	
Major Industry Division Where Most are Employed	Wholesale & Retail Repair of Motor Vehicles & Motorcycles & Personal & HH Goods	Agriculture, hunting and forestry	2019/ LFS, PSAa1/	
Number of Overseas Filipino Workers (in thousands)	1,254	1,016	2018/ SOF, PSA	
Age Group with the Largest Proportion of OFWs	30-34	30-34	2018/ SOF, PSA	
Most Common Destination of OFWs	Saudi Arabia	Saudi Arabia	2018/ SOF, PSA	
Most Common Occupation of OFWs	Elementary occupations	Plant and machine operators and assemblers	2018/ SOF, PSA	
Total remittance in cash and in kind (in million pesos) m/	109,857	135,002	2018/ SOF, PSA	
Average remittance in cash and in kind per OFW (in thousand pesos) m/	86	143	2018/ SOF, PSA	

Source: *Philippine Statistics Authority*

Frame works

One of the essential literature on women's empowerment and microfinance is by Tariq Khan (2018). As posited earlier, he cited that “*participation of women in microfinance, more particularly through self-help groups (SHGs), empowers them in the domains of economic, social, psychological, and political factors. Apart from the benefits women derive from Microfinance, there is evidence regarding disempowerment as well, such as increased workload for women, lack of control over income and assets, and negative impact on children’s education.*” The author further asserts that whether microfinance empowers women is an open issue and requires further empirical investigation. In a seminal paper by Mayoux (1998) as published in the ILO, researchers Goetz & Sen Gupta (1996), Ebdon (1995), and Rogaly (1996) also provide similar results regarding the mixed effects of microfinance on women empowerment.

Methodology

The study adapts the methodology of Wainaina et al., P. & Kiama, M. (2018) and uses retention rate as the proxy variable for women's empowerment. A higher retention rate assumes that women are empowered with more financial resources to access and source. Furthermore, it is hypothesized that the retention rate

is unaffected by the delinquency period, number of active borrowers, and outstanding loans. Variables related to women empowerment include active borrowers, depositors, loans outstanding enterprise, delinquency (1 month), delinquency (3 months), delinquency (6 months), delinquency (more than six months), write-offs, average portfolio, average balance, average deposit, and returns.

Table 3 A-priori Model

Independent Variables	Definition		Source
Active borrowers	Number of active female borrowers	+	(MIX, 2019)
Loans outstanding enterprise	The number of loans in the gross loan portfolio. For financial institutions using a group lending methodology, the number of loans should refer to the number of individuals receiving loans as part of a group or a group loan. > Segmentation based on loan product. > Loans that finance the activities of a business.	+	(MIX, 2019)
Delinquency (1 month)	All outstanding principals are due for all outstanding client loans. Includes current, delinquent, and renegotiated loans, but not loans that have been written off. > Segmentation based on the principal balance of all loans outstanding that have one or more installments of principal past due or renegotiated. > The total principal value outstanding of loans with at least one payment at least one and up to 30 days overdue.	+	(MIX, 2019)
Delinquency (3 months)	All outstanding principals are due for all outstanding client loans. Includes current, delinquent, and renegotiated loans, but not loans that have been written off. > Segmentation based on the principal balance of all loans outstanding that have one or more installments of principal past due or renegotiated. > The total principal value outstanding of loans with at least one payment over 30 days overdue. > The total principal value outstanding of loans with at least one payment at least 31 and up to 90 days overdue.	+	(MIX, 2019)
Delinquency (6 months)	All outstanding principals are due for all outstanding client loans. Includes current, delinquent, and renegotiated loans, but not loans that have been written off. > Segmentation based on the principal balance of all loans outstanding that have one or more installments of principal past due or renegotiated. > The total principal value outstanding of loans with at least one payment over 90 days overdue, including any loans over 90 days past due and loans that have missed three housing payments for housing loans. > The total principal value outstanding of loans with at least one payment at least 91 and up to 180 days overdue.	+	(MIX, 2019)
Delinquency (more than six months)	All outstanding principals are due for all outstanding client loans. Includes current, delinquent, and renegotiated loans, but not loans that have been written off. > Segmentation based on the principal balance of all loans outstanding that have one or more installments of principal past due or renegotiated. > The total principal value outstanding of loans with at least one payment over 90 days overdue, including any loans over 90 days past due and loans that have missed three housing payments for housing loans. > The total principal value outstanding of loans that have at least one payment more than 180 days overdue.	+	(MIX, 2019)
Write-offs	Represents the value of a financial institution's loans that have been removed from the balance of the gross loan portfolio because they are doubtful to be repaid.	+	(MIX, 2019)
Average portfolio	Average gross loan portfolio	+	(MIX, 2019)
Average balance	Average deposit balance per depositor	+	(MIX, 2019)
Average Deposit	Deposits / Number of Depositors	+	(MIX, 2019)
Depositors	Number of depositors	+	(MIX, 2019)
Returns	(Net Operating Income - Taxes) / Average Total Assets	+	(MIX, 2019)
Dependent Variable/	The number of customers a company retains over a given time = Borrower Retention Rate		(MIX, 2019)

The data are from the MIX Market Data of Microfinance Institutions in the Philippines. Independent variables are gathered from a list of 32 variables. Twelve variables were considered to avoid multicollinearity: active borrowers, loans outstanding enterprise, delinquency (1 month), delinquency (3 months), delinquency (6 months), delinquency (more than six months), write-offs, average portfolio, average balance, average deposit, depositors, and returns and the dependent variable, the retention rate. They are based on a cleaned set of values for each MFI with missing (unavailable) values imputed using a simple STL smoothing procedure (Cleveland et al., 1990). According to Cleveland et al., the STL smoothing procedure has a basic structure that comprises a series of Loess smoother applications enabling the procedure's properties and quick calculation, including vast quantities of trend and seasonal smoothing for quite an extended period.

Results and Discussion

Table 5. Average Raw Data (Female Population)

Variables	CASE A	CASE B	CASE C
Average Borrowers	591,386.70	26,837.15	34,1845.20
Loans Outstanding Enterprise	1,197,382.20	34,330.00	550,096.70
Average Loans per Borrower	10069.20528	11092.25399	10464.46228
Delinquency (1 Month)	0	2,576,163.00	7,248,833.00
Delinquency (3 Months)	1,114,710.80	1,247,958.80	8,666,057.90
Delinquency (6 Months)	0	1,450,466.00	10,422,416.40
Delinquency (More Than 6 Months)	0	6,620,328.00	83,975,744.60
Write-Offs	21,674,106.00	739,344.30	12,061,025.40
Average Portfolio	3,461,768,046.00	333,303,082.70	2,274,075,463.00
Average Balance	2,419.60	2,225.07	4,644.79
Average Deposit	2,419.60	1,450.33	4,321.36
Depositors	592,296.10	30,365.07	89,7175.30
Returns	0.0684	0.0282	0.0447
Retention Rate	0.6852	1.0001	1.0442

Source: Mix Market Data

Table 5 shows that Case A has the highest average number of borrowers. All three microfinance institutions have almost the same average loans per female borrower, with Case A the highest number of borrowers.

Table 6. Summary of Descriptive Statistics

	Overall		1999 to 2008		2009 to 2018	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Active Borrowers In ten thousand	29.28	42.10	4.18	4.82	46.02	47.49
Loans Outstanding (Enterprise) In hundred thousand	4.31	4.81	2.80	2.61	5.31	5.66
Depositors In hundred thousand	4.58	6.75	0.46	0.57	7.32	7.57
Delinquency (1 Month) In millions	2.54	2.85	2.11	1.30	2.83	3.52
Delinquency (3 Months) In millions	3.71	4.95	1.93	1.91	4.89	5.94
Delinquency (6 Months) In millions	4.21	5.84	1.91	3.34	5.74	6.66
Delinquency (> 6 Months) In millions	21.49	39.10	6.38	5.57	31.56	47.97
Write-Offs In millions	15.45	28.46	2.98	4.83	23.75	34.27
Average portfolio In millions	1942.80	3131.25	207.93	176.73	3099.38	3617.55
Average balance In thousands	3.43	2.11	4.31	3.03	2.84	0.79
Average deposit In thousands	3.11	2.13	4.21	2.78	2.38	1.09
Returns	0.04	0.05	0.01	0.05	0.05	0.04
Retention Rate	1.01	0.29	1.16	0.32	0.90	0.21

Note: Values have been refactored to the units stated in the table to control the level of variation in each upon modeling with panel regression.

Case C has the most significant number of delinquencies among the three MFIs: one month, three months, six months, and more than six months. Its clients may still avail themselves of additional loan financing even if they have an existing loan under MF-Sikap 1 as business capital. Case A is stricter in releasing loans to clients with loans above 5,000 pesos that are not released in a lump sum but are assessed by their capacity to pay. They have a Locked-in Capital Buildup program. It has the highest write-off rate, while Case B maintains low and stable write-offs. Case A's low retention rate can be attributed to its large number of active borrowers due to the firm's stricter credit policy. There are also many delinquencies regarding the payment of loans. Unfortunately, the COVID-19 pandemic and the Data Privacy Act also limited data.

Furthermore, in Table 6, most of the indicators of the clients (e.g., loans, outstanding amounts, deposits, and balances) and the firms (e.g., personnel, loan officers, revenue from loans) have generally increased between 1999 and 2018. The number of active borrowers has increased from an average of 4.18 from 1999 to 2008 to 46.02 from 2009 to 2018. At the same time, loans outstanding for enterprises have risen again from an average of 2.80 (in hundred thousand) during the first ten years in the data to 5.31. Examining these average increases in Table 6 suggests that more and more women have had the experience of being empowered by having access to financing, as evidenced by the increase of active borrowers among them.

Table 7. Estimates of panel regressions with dependent variable and retention rate.

Variable	Pooled OLS			Fixed Effects		
	Est	S.E.	P	Est	S.E.	P
Intercept	1.16	0.08	0.00			
Active Borrowers In ten thousand	-0.01	0.01	0.22	0.00	0.01	0.68
Loans Outstanding (Enterprise) In hundred thousand	0.03	0.02	0.19	-0.02	0.01	0.11 *
Depositors In hundred thousand	0.05	0.05	0.26	-0.03	0.03	0.28
Delinquency (1 Month) In millions	0.01	0.02	0.56	-0.02	0.01	0.05 *
Delinquency (3 Months) In millions	-0.01	0.01	0.45	0.00	0.01	0.54
Delinquency (6 Months) In millions	0.04	0.02	0.03 *	0.00	0.01	0.82
Delinquency (> 6 Months) In millions	-0.01	0.01	0.47	-0.02	0.00	0.00 *
Write Offs In millions	0.00	0.00	0.50	0.00	0.00	0.23
Average Portfolio In millions	0.00	0.00	0.90	0.00	0.00	0.22
Average Balance In thousands	-0.04	0.05	0.51	-0.03	0.03	0.32
Average Deposit In thousands	-0.05	0.07	0.48	0.02	0.04	0.67
Returns	-1.00	1.27	0.44	-0.03	0.80	0.97
AFTER2008	-0.26	0.10	0.02 *	-0.07	0.06	0.27

The Pooled OLS model yielded an R Square of 0.63514 with an F test of 2.41029, $p=0.04248$ ($df = 13, 18$). For the Fixed Effects Model, an R Square of 0.82938, with an F test of 5.98271, $p = 0.0001$ ($df = 13, 16$). The Breusch-Pagan LM test for the presence of panel effects resulted in a Chi-Square statistic of 3.2604, $p = 0.07097$ ($df = 1$), prescribing the Fixed Effects Model as the better fit for the data.

From Table 7, two models are estimated: the pooled OLS model (for absent panel effects) and the Fixed Effects model for interpretations based on the results of a Breusch-Pagan LM test for panel effects and panel F test for nullity of errors (see footnote under Table 7). A level of 0.10 is used to assess significance. Significant variables have already been flagged in Table 7 with an asterisk (*) to the right of their corresponding p-values.

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given its strong support in the literature. In modern hypothesis testing, P-values are generally not considered hard thresholds (Efron & Hastie, 2016). Significant effects in delinquency values indicate a behavior influencing better retention rates for MFIs. While this outcome appears to be associated with increasing proportions of loans tagged overdue up to 1 month, it may indicate a decrease in delinquencies longer than six months. A change in the indicators of delinquent loans, with fewer delinquencies in the more extended periods (> six months) and an increase overdue only for up to 1 month, would probably imply better loan performance overall.

As seen in Table 7, the R-squared of Pooled OLS is 63.5%, while the Fixed Effect is 82.9%, which means that this model explains the variation or changes in retention rate. The panel regression results are tested from diagnostic tests to confirm the model's validity. A Breusch-Pagan test for heteroskedasticity (null hypothesis: homoscedastic errors) resulted in a test statistic of 35.889 on 13 degrees of freedom ($p = 0.0006$), implying a robust likelihood that the data exhibited issues of heteroskedasticity under a typical Pooled OLS model. Likewise, a panel F test for the nullity of errors prescribed the Fixed Effects Model better than the OLS model for fitting the data. Table 7 has been estimated using robust standard errors that are not sensitive to heteroskedasticity. All variance inflation factors associated with the data ranged in values greater than 5. These results affirm the validity of the models used to measure the association between variables and retention rates. Table 7 presents a logical relationship: as loans outstanding enterprise, delinquency (1 month), and delinquency (more than six months) increase, retention rates diminish.

Conclusions and Recommendations

The data from the three microfinance institutions exhibited that loans outstanding enterprise, delinquency (one month), and delinquency (more than six months) negatively correlate with the retention rate. It implies that the longer the delinquency period and the larger the loans outstanding, the lower the retention rate among women borrowers. For practical implications, the

result advocates that women, if retained and allowed access to financing, are more likely to be empowered through exercising such options. Policies can consider expanding access to financing without dampening private sector participation. In hindsight, the paper closes that while higher retention rates would mean, women are afforded access to financing, empowering them with financing options they can access and source, retention rates remain a financial issue for MFIs to decide.

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References

- Five benefits to Microfinance programs – Plan International Canada (2020, December 4). Plan Canada. They were retrieved from <https://planCanada.ca/microfinance-benefits>.
- Abu-Hadi, A. O., Ali, A.Y. & Ali, A. H. (2013). The Accessibility of Microfinance for Small Businesses in Mogadishu, Somalia. *International Journal of Humanities and Social Science*, 3(11), 172-179.
- Addai, B. (2017). Women Empowerment Through Microfinance: Empirical Evidence from Ghana. *Journal of Finance and Accounting*, 5(1), 1–11. 10.11648/j.jfa.20170501.11
- Agbola, F. W., Acupan, A., & Mahmood, A. (2017). Does microfinance reduce poverty? New evidence from Northeastern Mindanao, the Philippines. *Journal of Rural Studies*, 50, 159-171. doi: <https://doi.org/10.1016/j.jrurstud.2016.11.005>
- Ali, I. & Hatta, Z.A. (2012). Women's Empowerment or Disempowerment through Microfinance: Evidence From Bangladesh. *Asian Social Work and Policy Review*, 6(2), 111-121.
- Brüderl, J. and Ludwig, V. (2015) 'Fixed-effects panel regression', in C. Wolf (ed.), *The Sage Handbook of Regression Analysis and Causal Inference*, Los Angeles, CA: Sage, pp. 327–357
- Carrier, J. (2019). Adams' Equity Theory of Motivation: A Simple Summary. Retrieved January 2, 2021, from *The World of Work Project*: <https://worldofwork.io/2019/02/adams-equity-theory-of-motivation/>.
- Cleveland, R. B., Cleveland, W. S., McRae, J.

E., & Terpenning, I. (1990). STL: A seasonal trend decomposition procedure based on Loess. *Journal of Official Statistics*, pp. 6, 3–73.

Cull, R., Demirgüç-kunt, A. & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *The Economic Journal*, 117, 107-133.

Efron, B., & Hastie, T. (2016). *Computer Age Statistical Inference: Algorithms, Evidence, and Data Science* (Institute of Mathematical Statistics Monographs). Cambridge: Cambridge University Press. doi:10.1017/CBO9781316576533

Equity v.s. Equality: What is the Difference? (2017, July 26). Y.W. Calgary. They were retrieved from <https://www.ywcalgary.ca/news/equity-v-s-equality-whats-difference/>.

Habaradas, R. B. & Umali, M. (2013). *The Microfinance Industry in the Philippines: Striving for Financial Inclusion amid Growth*. Working Paper 2013-05, Center for Business Research and Development.

<https://dx.doi.org/10.2139/ssrn.2568021>

Hartarska, V., Nadolnyak, D. (2008). Impact analysis of microfinance in Bosnia and Herzegovina. *World Development*, 36(12): 2605–2619.

Hermes N, Lensink R. (2011). Microfinance: Impact, outreach, and sustainability. *World Development*, 39(6): 875–881.

Jadie, Rosemarie R. and Lanuzo, Myrna M., Gender Roles of Microfinance Institutions' Beneficiaries in Sorsogon City, Philippines (August 30, 2016). *Proceedings Journal of Education, Psychology and Social Science Research*, Available at SSRN: <https://ssrn.com/abstract=3139728> or <http://dx.doi.org/10.2139/ssrn.3139728>

Kabeer, N. (1999). Resources, agency, achievements: reflections on the measurement of women's empowerment. *Development Change* 30, 435–464. DOI: 10.1111/1467-7660.00125

Tariq Khan, Shagufta. (2018). *Microfinance and Women empowerment: A Brief Review of Literature*.

Kabeer, N. (2001). "Conflicts over credit: re-evaluating the empowerment potential of loans to women in rural Bangladesh," *World Development*, Vol. 29 No. 1, pp. 63-84

Khan, R. E., & Noreen, S. (2012).

Microfinance and women empowerment: District Bahawalpur (Pakistan) case study. *African Journal of Business Management*, 6(12). doi:10.5897/ajbm11.2407 Khandker, Shahidur R. (2005). *Microfinance and Poverty: Evidence Using Panel Data from Bangladesh*. Published by Oxford University Press on behalf of the World Bank. © World Bank.

<https://openknowledge.worldbank.org/handle/10986/16478> License: CC BY-NC-ND 3.0 IGO.

Mamun, Abdullah & Abdul Wahab, Prof Dr Sazali & Mazumder, Mohammad & Su, Zhan. (2014). Empirical Investigation on the Impact of Microcredit on Women Empowerment in Urban Peninsular Malaysia. *The Journal of Developing Areas*. 48. 287-306. 10.1353/jda.2014.0030.

Mayoux, L. (1998). Participatory learning for women's empowerment in microfinance programs: Negotiating complexity, conflict, and change. *IDS Bulletin*, p. 29, 4th ser., pp. 39–51.

Microfinance Information Exchange. (2019). *MIX Market Financial Performance Dataset In USD* (2019). Retrieved January 29, 2021, from <https://datacatalog.worldbank.org/dataset/mix-market>.

Microfinance Information Exchange. (2019). *MIX Market Financial Performance Field Definitions* (2019). Retrieved January 29, 2021, from <https://datacatalog.worldbank.org/dataset/mix-market>.

Nayak, P. and Mahanta, B. (2008). Women Empowerment in India. *Bulletin of Political Economy*, 5, 2, pp. 155-183, 2012, <https://ssrn.com/abstract=1320071>

Peace Corps. (n.d.). *Global Issues: Gender Equality and Women's Empowerment*. Retrieved December 11, 2020, from <https://www.peacecorps.gov/educators/resources/global-issues-gender-equality-and-womens-empowerment/>.

Perez, J.A. (2012). Revisiting loan grant and default characteristics and women in microfinance, *International Journal of Information Technology and Business Management* 8(1), 46–54.

Philippine Statistics Authority | the Republic of the Philippines. (n.d.). Retrieved December 2, 2020, from <https://psa.gov.ph/gender-stat/wmf>.

Rahman, M., Luo, J., & Minjuan, Z. (2014). Welfare Impacts of Microcredit Programmes: An Empirical Investigation in the State-Designated Poor Counties of Shaanxi, China. Retrieved December 11,

2020, from
<https://onlinelibrary.wiley.com/doi/full/10.1002/jid.3020>. Rahman, M.M., Khanam, R. and Nghiem, S. (2017). "The effects of microfinance on women's empowerment: new evidence from Bangladesh,"

International Journal of Social Economics, Vol. 44 No. 12, pp. 1745-1757. <https://doi.org/10.1108/IJSE-02-2016-0070>

Rosenberg, B., & Rosenberg, R. (n.d.). Does Microcredit Help Poor People? Retrieved December 11, 2020, from <https://www.cgap.org/blog/does-microcredit-really-help-poor-people>.

Suprabha, K. R. (2014). Empowerment of Self-Help Groups (SHGs) towards Microenterprise Development. *Procedia Economics and Finance*, pp. 11, 410–422. [https://doi.org/10.1016/S2212-5671\(14\)00208-1](https://doi.org/10.1016/S2212-5671(14)00208-1)

Wainaina, M., R., Shavulimo, P. & Kiama, M. (2018). Financial Factors Influencing Client Retention in Microfinance Institutions in Kenya: A Case of Kenya Women Microfinance Bank-Nyeri County, *Journal of Finance & Accounting*, Vol 2(1) pp. 75-92.

Weber, Olaf, & Ahmad Adnan. (2014). "Empowerment through Microfinance: The Relation between Loan Cycle and Level of Empowerment," *World Development* 62:75-87 <http://dx.doi.org/10.1016/j.worlddev.2014.05.012>

Zulfikar, R. (2018). Estimation Model And Selection Method Of Panel Data Regression: An Overview Of Common Effect, Fixed Effect, And Random Effect Model. 10.31227/osf.io/9qe2b.

https://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_117993.pdf

<https://innovation-entrepreneurship.springeropen.com/articles/10.1186/s13731-022-00250-3>