Spring 2020

How Access to Finances Affects Gender Inequality Across Cultures

Allison Muntin
agm41@zips.uakron.edu

How Access to Finances Affects Gender Inequality Across Cultures

Allison G. Muntin

The University of Akron

Abstract

While many studies of financial inclusion have been undertaken, very few discuss the inclusion of women. Financial inclusion plays a large role in unlocking resources for the disadvantaged, resulting in higher economic growth and development. The economic opportunity allows individuals and businesses to have a greater contribution to society as a whole, enhancing all aspects of the economy. This paper furthers the conversation of women's access to financial institution accounts across cultures and what underlying factors play a key role. The results indicate that the female demographic has fewer financial institution accounts in comparison to men when: (i) a country's governance is lower, (ii) national wealth is lower, (iii) their country does not practice common law, (iv) and cultural values such as long-term orientation and masculinity are considered.

How Access to Finances Affects Gender Inequality Across Cultures

Financial inclusion is typically defined as the ability for individuals and businesses, including underrepresented demographics such as minorities, low income, the vulnerable, and disadvantaged. A demographic which is scarcely studied in regard to financial inclusion is women. Achieving gender equality in financial inclusion is an important way to unlock resources for economic empowerment and growth, by enhancing access to economic opportunity for many demographics of society. In doing so, women's lives are improved by giving them a voice and improving their decision-making capabilities (Morsy 2020). Not only does this improve the lives of women but it enhances the economy as a whole. GDP per capita losses that are attributable to gender gaps in the labor market are estimated to be 23 percent in South Asia, 27 percent in the Middle East and North Africa, and a loss of around 15 percent in the rest of the world (Morsy, 2020). In order to tap the full potential of the economy, financial inclusion from a gender perspective must be studied and become a larger consideration in policymaking.

As of 2017, 49.6% of the world's population was women (Ritchie & Roser, 2019). Diving into women's access to financial institution accounts allows us to take a look at one of the world's largest demographics. Although many studies have been done on access to finances, as it is correlated to levels of economic development and the quality and regulation of the financial services sector, the conversation is just beginning for the sexes. Financial inclusion is defined by (Gopalan & Rajan, 2018) to "encompass the process of broadening the accessibility of financial services for households and firms." Closing the gap of financial inclusion not only empowers those that have been historically excluded but brings greater opportunities for total economic prosperity. The main focus of this paper is how gender inequality affects access to finances across cultures. I take a look into the various cultural implications that affect access to finances

such as GDP per capita, governance, common law, masculinity, long-term orientation, the Women, Business & Law index, and the UN Gender Development Index. Using the World Bank's Global Findex database, I was able to gather what percentage of females aged 15 and over had access to a financial institution account as opposed to men. The data covers 101 countries and regions in the years 2011, 2014, and 2017[1]. Using the Global Findex data, an advantage is that they refer to the individual behavior and not the household level, allowing for a measurement of women's direct control over their finances, an important component of economic empowerment (Morsy, 2020).

The paper is structured as follows. The next sections involve a review of the literature that is currently published in regard to financial inclusion from the gender perspective. Section 3 then explains the data and methodology behind the study followed by the results of cultural indicators that play key roles in the levels of inclusion for women across cultures. Section 4 includes a discussion that touches on the impact of undertaking this research. Section 5 draws conclusions on everything discussed.

Literature Review

Although the subject of financial inclusion between the genders is scarcely researched, it is becoming a more popular area of study. Those studies that do exist typically cover female entrepreneurship and the barriers that women face when running a business. The focus of this study is to move away from women's access in the realm of credit and startup funds and to broaden to scope to females with any kind of financial institution accounts. The importance of closing the financial disparity between men and women, however, is very prevalent in the existing literature on related topics which I will touch on later.

There is a positive association of greater access to financing with greater national wealth, better investor protection, and financial architecture that favors equity financing over debt financing (Aggarwal & Goodell, 2014). Equity financing is more favorable as the funds need not be repaid, and makes them better investments, therefore increasing their contribution to overall economic development. Broad access to financial services is not only important for individuals but also the economy at large; capital constraints create a reduction in the efficiency of capital allocation creating an intensity of income inequality by impeding the flow of capital to poor individuals with investment opportunities that have high expected returns (Aterido et al., 2013) implying that the efficiency of the economy is dependent on financial access.

Furthering the conversation, Morsy (2020), explains that the availability of financial services to all is important in spreading equality of opportunity and tapping the full potential of the economy. Inequality is not something that happens in a specific scenario or instance in time but continues to be handed down through families and demographics. International persistence of inequality can be reduced with the help of improved access to finance to the poorer segments which in some countries can heavily involve women (Asongu, et al., 2020). It is important to find a way to involve the unbanked population which can be done through financial access as it is designed to reduce inequality and can be tailored by policymakers (Asongu et al., 2020). When women are financially included, they are provided with income generated opportunities that engender positive development externalities in terms of investment, employment, and economic prosperity (Asongu et al., 2020).

Many pieces of literature touch on the factor of national wealth playing a role in financial inequality. The benefits of financial access are fundamentally restricted to wealthier demographics of the population because they can more easily address the constraints of financial access (Asongu et al., 2020) which can translate to different countries having different levels of wealth and therefore different levels of economic inclusion for women. Morsy found that a higher percentage of high-income countries have a gender ratio of about 80 percent which is a small gap in comparison with 68 percent of middle-income countries and 29 percent of low income countries having a similar gender gap. (2020). Morsy also concluded that from a household perspective, there is a positive effect of income and wealth on financial access in most countries (2020.) Not only does higher GDP correlate to greater access to finances, but higher individual wealth plays a role in inclusion levels.

From a business perspective, improved access to finances plays a critical role in helping firms overcome liquidity constraints and therefore improve resource allocation in the economy and in enabling them to exploit growth and investment opportunities (Morsy, 2020). Morsy also found that in 82 percent of the countries studied, women have less access and or usage of bank accounts than men. The same applies to 86 percent of the countries when looking at business accounts, 82 percent of the countries for savings in a financial institution, and 82 percent for obtaining loans. There is also an 81 percent gap in the use of credit cards and a 77 percent gap in the use of debit cards (2020). Not only is there a disparity in individual females' access to financial institution accounts across cultures, but there is an even greater number of countries with disparities in women with business accounts. At the household level, improved access to finances is believed to help in smoothing consumption and reduce financial hardship and over-indebtedness that result from a lack of appropriate banking service, affordable credit, and

accessible savings productions (Morsy, 2020). There are so many things for society to gain by closing the gender gap of financial inclusion.

Another study has considered the cultural implication of masculinity vs femininity and found that lower access to financing is the association with the cultural dimension of uncertainty avoidance and masculinity (Aggarwal & Goodell, 2014). This point was carried over into my research to determine whether masculinity plays a role in the gender disparity of access to financial institution accounts.

Another interesting point in the literature is that female-led enterprises face a higher probability of being confronted with worse bank financing costs as they are more likely to experience an increase in interest rates and other costs than their male-led counterparts (Mascia & Rossi, 2017). Higher costs of financing is not something that is touched on in my research, as I focus on the cultural implications of financial exclusion, but an interesting consideration from a more specific viewpoint is how institutions play a role in the gender disparity.

Overall, it is fundamentally proven that financial inclusion is a benefit to society. The more people with access and opportunities equate to more idea generation, innovation, entrepreneurship, and power to the consumer. These effects are then multiplied as they support the economy and allow for more individuals to have higher spending power. When access to finances is fully equal between men and women, the economy will have a greater chance of being efficient and performing to its highest capability.

Data and Methodology

When considering the undertaking of this research, existing economic theory and research conclude that various factors affect levels of financial access. The main goal was to relate cultural indicators to differences in financial inclusion between genders.

My approach was to use different databases to determine how various factors play a role in financial inclusion and the significance of GDP, governance, common law, and culture, as well as the Women, Business, and Law Index and Gender Development Index. Databases used were the World Bank's Global Findex database and GDP indicator, The Worldwide Governance Indictors database, and Hofstede Insights in additional to the Women, Business, and the Law and Gender Development Indexes.

The GDP factor presents how a countries' economic environment plays a role in access to finances. Cultural dimensions that were studied include Hofstede's idea of cultures supporting a traditional role of masculine or feminine values as well as whether cultures have a long-term or short-term orientation viewpoint. Geert Hofstede was a social psychologist who conducted one of the most comprehensive studies of how values in the workplace are influenced by culture. His insights are frequently used in intercultural research and studies to get a better understanding of international business.

An additional factor looks at how different governments affect the disparity between men in women's financial inclusion. This is relevant in the governance indicators comprising of six aggregate indicators based on over 30 underlying data sources reporting the perceptions of governance of a large number of survey respondents and expert assessments worldwide (Kaufmann et al., (2010). The six indicators are as follows: voice and accountability, political stability – no violence, government effectiveness, regulatory quality, rule of law, and control of corruption. Another variable with significance in the conversation of financial inclusion is whether or not a country is a common law country.

Variables that take into consideration gender differences across cultures are The Women, Business and the Law index which shows indications for how women's employment and entrepreneurship are affected by legal gender discrimination, and how this, in turn, affects economic outcomes. The Gender Development index measures three dimensions of human development – healthy, knowledge, and living standards and accounts for the disparities between men and women.

These four dimensions are used to gain a broad insight into the variations of female inequality pertaining to financial access. When comparing the levels of financial access across cultures, it is important to consider all of these factors to get an accurate gauge of which have the most significance so that we can work to close the gap between men and women's financial inclusion.

Results

Table 1 is a synopsis of the variables with their descriptions and sources used in running the regressions for the empirical tests. Table 2 reports the descriptive statistics with the number of observations, mean, standard deviation, minimum and maximum of varies used in the

empirical tests. Table 3 reports the results of empirically testing the determinants of the percentage of women that have a bank account. Model 1 tests the association of national wealth with the percent of women holding a bank account. This results in national being significantly positive at 1%. This result is consistent with wealthier countries have greater female financial inclusion. An R-square of 0.73 suggests that national wealth alone has considerable explanatory power with regard to explaining cross-national differences in the financial inclusion of women.

Model 2 adds to the set of independent variables three governance variables: the average of the six World Bank governance indicators, a measure of laws specifically related to gender equality, and a dummy variable for a common law legal origin. This results in all three governance variables being positively significant. These results are consistent with countries with better governance having greater financial inclusion of women.

Model 3 adds to the set of independent variables measures of national culture from Hofstede. This results in the Hofstede estimate of masculinity being negatively significant and the measure of long-term orientation being positively significant at 1%. These results are consistent with countries having a culture of greater separation of gender roles having less financial inclusion of women. Results are also consistent with a greater long-term orientation associated with a greater percentage of females having bank accounts. The addition of cultural variables increases the R-square by 6%, consistent with culture explaining a meaningful amount of cross-national variance in female financial inclusion.

Model 4 adds to the set of independent variables the UN Gender Development Index. Consistent with intuition, the level of gender development is positively associated with greater financial inclusion of women. More interesting, the results for culture remain, with MAS

negatively significant and LTOWVS positively significant. These results strongly point toward culture being an important determinant of female financial inclusion.

Model 5 is a robustness test. In Model 5, I use the same set of independent variables as in Model 4, but alternatively, random effects estimations are done. Results are qualitatively similar to the results of Model 4. An exception perhaps is that MAS is now significantly negative at 10%. Overall the results of panel estimation confirm our results. (please insert Table 3 about here)

Discussion

The importance of this research pertains to the effect that financial equality has on society and how inclusion increases economic development. When economic and financial policy is being created, the discussion of women's inclusion must be considered as they are one of the world's largest demographics in the financial sector.

National wealth is a key factor in whether females have financial institution accounts with a correlation between wealthier countries and higher inclusion for females. This is not surprising as it is logical that greater wealth would equate to more people owning a portion of that wealth. This is a majorly significant variable and the baseline for our research as when used as a standalone variable it has a coefficient of 21.62 and when all variables are incorporated still has a significant coefficient of 17.50.

(Please insert Table 3 here)

The governance indicators and the common law variable also show a significant correlation to females having a financial institution account. A country governed by common law

increases the likelihood that a woman has a financial institution account by 12.68 percent as seen in Table 3.

When governance is first incorporated, it shows a coefficient of 6.08.

(Please insert Model 3 here)

The difference in the percentage of females with a financial institution account between countries increases by 6.08 when high levels of governance are involved.

The cultural values of Hofstede such as masculinity and long-term orientation are also significantly correlated to the disparity in access to finances across the genders. As the percentage of females with financial accounts increase by 10 percent between countries, a countries' masculinity decreases by 2.1 percent as seen in Model 3.

Long-term orientation shows an even greater effect on access to finances as for every 10 percent increase in women with financial institution accounts, there is a 3.1 perfect increase in the correlation of long-term oriented countries as seen in Table 3.

These cultural values results allow us further insight that previous research has scarcely covered in the study of financial inclusion. Understanding cultural implications and how they play a role in financial inclusion can better educate policymakers to close the gap between the genders, therefore, allowing not only women to be better participants in society, but also to increase overall economic prosperity worldwide.

Unsurprisingly, the level of gender development positively correlated to financial inclusion. This is important to note as strides made in decreasing the gap between men and women in the areas of health, knowledge, and living standards increase women's participation in

society, and empowerment as well as reducing the need restructuring how the financial industry interacts with women. The more a country works at incorporating women to be equal to men, the fewer strides that need to be made to close the gap in financial equality.

With all factors accounted for in the models and the robustness test undertaken, R-squared, the coefficient of determination lands at .84 as seen in table 3.

As this result is very close to one, it proves that there is a high correlation between the variables discussed in relation to whether females have financial institution accounts when compared to men. It is important to understand the underlying factors that determine whether one country has more financial inclusion than others. Studying these differences across cultures and educate policymakers to create legislation that lowers the disparity between men in women in the financial world, empower women to increase their participation in society, and in doing so, increase economic growth and development for all.

Conclusions

Financial institution inclusion across the genders must be achieved in order to fully unlock the economic empowerment of women which causes a trickle-down effect of raising GDP across countries to benefit the economic environment of the entire world. My results suggest that GDP per capita, governance, common law, masculinity, long-term orientation, the Women, Business & Law index, and the UN Gender Development Index play a significant roll in women's inclusion in financial institutions.

Women's access to finances can benefit from their country having greater national wealth. Another important dimension is that of culture such as masculinity which is shown to decrease women's financial inclusion where long-term orientation is shown to increase women's

financial inclusion. Governmental factors that play a key role are common law countries significantly increase the likelihood of women having a greater percentage of financial institution accounts and greater governance also improves this likelihood. Cultures with greater gender inclusion already in place increase the number of women with financial institution accounts as indicated by the UN Gender Development Index and Women, Business and the Law index. These four factors all have a highly significant impact on female's financial inclusion across cultures.

Countries that aim to close the gender gap of financial inclusion would benefit from diving deeper into their own cultural factors that impact the financial sector and gender inclusion in financial institutions. The financial inclusion of women matters to economic development and economic development matters to society. When women are provided the means to fully participate in the economy on a scale equal to men, not only are individuals being benefitted by opportunities that did not previously exist, society as a whole benefit.

References

Aggarwal, R., & Goodell, J. W. (2014), "Cross-national differences in access to finance: Influence of culture and institutional environments", *Research in International Business and Finance* 31 pp. 193-211.

Asongu, S. A. Nnanna, J., & Acha-Anyi, P. N. (2020), "Inequality and gender economic inclusion: the moderating role of financial access in Sub-Saharan Africa", *Economic Analysis and Policy* pp.

Aterido, R. Beck, T., & Iacovone, L. (2013), "Access to finance in Sub-Saharan Africa: is there a gender gap?", *World development* 47 pp. 102-120.

Gopalan, S., & Rajan, R. (2018). Foreign banks and financial inclusion in emerging and developing economies: An emprial cinvestigation. *Journal of International Development*, 30(4), 559-583.

Kaufmann, D. Kraay A., & Mastruzzi, M. (2010). "The Worldwide Governance Indicators: A Summary of Methodology, Data and Analytical Issues". *World Bank Policy Research*, Working Paper No. 5430.

Mascia, D. V., & Rossi, S. PS. (2017), "Is there a gender effect on the cost of bank financing?", *Journal of Financial Stability* 31 pp. 136-153.

Morsy, H. (2020), "Access to finance–mind the gender gap", *The Quarterly Review of Economics and Finance* pp.

Muravyev, A. Schafer, D., & Oleksandr, T. (2007), "Entrepreneurs' gender and financial constraints: evidence from international data", *DIW Discussion Papers, No 706* pp. 1-35.

Ritchie, H., & Roser, M. (2020) - "Gender Ratio". *Published online at OurWorldInData.org.* Retrieved from: 'https://ourworldindata.org/gender-ratio' [Online Resource]

Footnotes

[1] The complete individual-level database and detailed country-level information about the data collection can be found at: www.worldbank.org/globalfindex.

Tables

Table 1: Sources and descriptions of variables	
Variable	**Descriptions and sources**
acctfem	Percentage of women (age 15+) that have a bank account. Measured for 2011, 2014, 2017
gdi	Gender Development Index of the United Nations
wbl	WBL Index from the World Bank's World Bank's Women, Business and the Law project. A higher score indicators more gender equality laws.
gov	The arithmetic average of the six World Governance Indicators of the World Bank
com	A dummy variable assigned "1" is the country has an English legal origin (common law) and "0" otherwise.
uai	Uncertainty avoidance from the cultural dimensions of Hofstede (2001)
idv	Individualism versus collectivism from the cultural dimensions of Hofstede (2001)
pdi	Power distance from the cultural dimensions of Hofstede (2001)
mas	Masculinity from the cultural dimensions of Hofstede (2001)
ltowvs	Long-term orientation from the cultural dimensions of Hofstede (2001) updated with World Values Survey by Hofstede, Hofstede, and Minkov (2010)
lngdpcap	The natural log of GDP per capita (constant 2000 US dollars) from World Development Indicators

Note: References cited in Table 1 Hofstede, Geert, (2001), *Culture's Consequences* (Sage Publications, London). Hofstede, Geert, Gert Jan Hofstede, and Michael Minkov, (2010), *Cultures and Organizations: Software of the Mind* (McGraw-Hill, New York).

Table 2: Descriptive statistics

This table reports the number of observations, mean, standard deviation, minimum and maximum of variables used in the empirical tests.

	Obs	Mean	Stdev	Min	Max
acctfem	162	66.21	31.46	2.95	100.00
gdi	162	0.95	0.06	0.72	1.03
wbl	162	49.70	13.28	20.60	71.30
gov	162	0.42	0.92	-1.57	1.86
com	162	0.30	0.46	0.00	1.00
uai	162	66.65	22.25	8.00	104.00
idv	162	44.07	23.35	12.00	91.00
pdi	162	58.09	19.53	11.00	95.00
mas	162	49.83	18.48	5.00	95.00
ltowvs	162	45.15	23.82	4.00	100.00
lngdpcap	162	9.43	1.24	6.66	11.60

Table 3: Results of empirical models.

This table reports results of empirical testing. The dependent variable is the % women (age 15+) with a bank account (*acctfem*). Variable sources and descriptions are in Table 1. *** 1% significance; ** 5% significance; * 10% significance. Models 1–4 use OLS regression with robust standard errors. Model 5 reports results of random effects panel estimation.

	Model				
	1	**2**	**3**	**4**	**5**
wbl		0.22** (0.021)	0.12 (0.168)	0.01 (0.938)	–0.01 (0.960)
gov		6.01** (0.035)	–0.73 (0.826)	–1.10 (0.736)	–2.89 (0.417)
com		6.37*** (0.009)	11.28*** (0.000)	11.67*** (0.000)	12.62*** (0.008)
uai			0.00 (0.937)	–0.03 (0.584)	–0.04 (0.687)
idv			0.07 (0.239)	0.07 (0.203)	0.07 (0.536)
pdi			–0.10 (0.281)	–0.12 (0.119)	–0.13 (0.346)
Mas			–0.21*** (0.000	–0.18*** (0.001)	–0.19* (0.051)
ltowvs			0.34*** (0.000)	0.35*** (0.000)	0.35*** (0.000)
Gdi				76.30*** (0.004)	76.30** (0.021)
lngdpcap	21.62*** (0.000)	17.41*** (0.000)	17.41*** (0.000)	16.39*** (0.000)	17.50*** (0.000)
intercept	–137.71*** (0.000)	–113.30*** (0.000)	–117.06*** (0.000)	–165.07*** (0.000)	–1818.69*** (0.000)
observations	162	162	162	162	162
R-square	0.73	0.77	0.83	0.84	0.84
F-stat or Wald Chi Square	64.72** (0.00)	227.50*** (0.000)	227.50*** (0.000)	227.50*** (0.000)	317.75*** (0.000)
econometrics	OLS robust	OLS robust	OLS robust	OLS robust	Random effects panel
Groups					54
R-square within					0.13
R-square between					0.88

Table 4: Correlations

	acctfem	***gdi***	***wbl***	***gov***	***com***	***uai***	***idv***	***pdi***	***mas***	***ltowvs***	***lngdpcap***
acctfem	1										
gdi	0.60	1									
wbl	0.49	0.51	1								
gov	0.78	0.51	0.50	1							
com	0.00	-0.20	0.08	0.07	1						
uai	-0.18	0.11	-0.17	-0.23	-0.52	1					
idv	0.60	0.33	0.37	0.63	0.10	-0.23	1				
pdi	-0.59	-0.29	-0.31	-0.69	-0.16	0.25	-0.72	1			
mas	-0.06	-0.12	-0.06	-0.12	0.10	0.08	0.10	0.03	1		
ltowvs	0.51	0.24	0.29	0.37	-0.20	-0.03	0.18	-0.10	-0.01	1	
lngdpcap	0.85	0.60	0.44	0.80	-0.16	-0.06	0.62	-0.60	0.06	0.37	1