2020 N° 30 | ETUDES DU DEVELOPPEMENT | DEVELOPMENT STUDIES

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Who Cares?

Addressing Unpaid Care and Domestic Work as a Barrier to Female Microenterprise Development

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THE GRADUATE INSTITUTE GENEVA

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES

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DOI: 10.4000/books.iheid.7718
Publisher: Graduate Institute Publications
Place of publication: Genève
Year of publication: 2020
Publication date: 28 août 2020
Series: eCahiers de l'Institut
Digital ISBN: 978-2-940600-18-2

ABSTRACT

Gender gaps present themselves in a number of different ways across labour markets, consistently to the detriment of females. Gender gaps are well documented in the returns to capital of microenterprises, which provide substantial employment opportunities for those in low- and middle-income countries. The puzzle for academics and policymakers concerned with issues of gender, labour and development is to understand why these gender gaps exist across microenterprises and what can be done to address them. This ePaper seeks to contribute to these academic and policy debates, using a feminist framework to explore unpaid care and domestic work as one potential explanatory factor. Analyses of primary data collected from women micro-entrepreneurs in Uganda suggest that unpaid care and domestic work is a significant constraint to female microenterprise development. The key implication of this finding is that gender gaps in microenterprise could potentially be narrowed by addressing gender inequality in unpaid work. This requires investing in social and physical infrastructure to reduce the total time spent on unpaid work, and addressing the social norms around its gendered distribution – redistributing unpaid work more equitably between males and females.

We extend our heartfelt thanks to the Vahabzadeh Foundation for financially supporting the publication of best works by young researchers of the Graduate Institute, giving a priority to those who have been awarded academic prizes for their master's dissertations.

AATIF SOMJI

Aatif Somji works as a technical officer at the International Labour Organization, focusing on improving decent work outcomes for micro, small and medium enterprises (MSMEs) across the developing world. He is particularly interested in women's economic empowerment; how the gendered, unequal balance of unpaid care work can constrain this; and the practical steps that can be taken to address this issue.

Aatif was a Master's student at The Graduate Institute in Geneva, graduating in 2018 with a focus on gender, labour and development economics. Prior to this, he worked as a management consultant at PwC in London. His other work experiences include the United Nations Development Programme (UNDP), CARE International and BRAC.

Aatif has lived in the UK, France and Switzerland and has in-country experience in Kenya, Myanmar, Nigeria, Rwanda and Uganda. He speaks English and French. Outside of work, his passions include cooking, coffee and cycling.

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Acknowledgements

To Nanima (1932-2020)

The first of many inspirational women who have helped me develop into the man I am today.

1 Above all, I am grateful to God.

2 This research would be nothing without the voices of the women micro-entrepreneurs interviewed in Luwero. I am indebted to them for their time, generosity and openness. The struggles that these women face on a daily basis are truly humbling. I am in awe of their resilience, determination and dedication to provide everything they can for their children – I hope I have been able to accurately portray their stories here. I am very grateful to have had Marion as a companion while in the field: helping me carry out interviews, translating for me, and getting me out of a tricky situation. I would also like to thank all the staff at BRAC Uganda, and particularly the research department, for welcoming me to the team.

3 This thesis is the culmination of a wonderful, two-year journey at the Graduate Institute. I am grateful for the friends, classmates and professors who have inspired me along the way: sharing their thoughts and experiences, constructively challenging my preconceived views, providing alternative perspectives, helping me discover what I am most passionate about, and encouraging me to pursue this passion. This pursuit was taken to the next level thanks to the generous support of Professor Lore Vandewalle, who provided me with the unique opportunity to explore my subject in greater detail through field research. I am grateful for her support and invaluable contributions throughout the research process – and look forward to the findings of her study on the same topic with eager anticipation!

4 I am privileged to have two loving parents who have always believed in me and encouraged me to follow my dreams. Thank you for providing me with the foundations on which this work was built, for instilling in me a core set of values that motivate this research, and for simply letting me be. I am also blessed to be able to call on a second set of parents for guidance and support. Thank you, Aunty Rahat and Uncle Hassan, for treating me as a son and always being present in my life. To Anna, thank you for being there through all the ups and downs of this journey. Finally, to Papa, who always

provided me with unwavering support and encouragement in my pursuit of education – I hope I have made you proud.

1. Introduction

1 Gender gaps present themselves in a number of ways across labour markets, consistently to the detriment of women (e.g. ILO 2016, 2018a). One way in which gender gaps occur in labour markets is the difference in returns to capital of microenterprises owned by men and women. This focus on microenterprise is particularly relevant in the developing country context, where the majority of employment is in the informal sector (ILO, 2018b). Research conducted on gender gaps in returns to capital among micro-entrepreneurs in low-income countries generally find that returns for women are considerably lower than they are for men (e.g. De Mel et al. 2009; Fiala 2018). Several hypotheses regarding differences between men and women have been put forward in an attempt to explain this, including entrepreneurial ability, attitudes to risk, sectors of employment and preferences for household expenditure (e.g. de Mel et al. 2009; Berge et al. 2015).

2 One key difference between men and women that could help explain these gender gaps, and that appears to have been overlooked in the literature, is that of unpaid care and domestic work. Across the world, this work is overwhelmingly carried out by women (Ferrant et al. 2014). This thesis puts forward the hypothesis that the unequal distribution of unpaid care and domestic work between men and women could be contributing to the observed gender gap in returns to capital among microenterprises. The research question examined throughout the study is whether unpaid care and domestic work is a significant constraint to female microenterprise development.

3 Determining the answer to this question requires accurately calculating how much time is being dedicated to unpaid care and domestic work by women micro-entrepreneurs, assessing whether this work is a key constraint to enterprise development, and investigating whether these responsibilities are specific to women. Primary data was collected from women micro-entrepreneurs in Luwero District, Uganda, to respond to these questions. Time-use surveys were used to estimate the time-allocation of the women, while questionnaires established their key constraints to business development as well as social norms around the distribution of unpaid care and domestic work between men and women.

4 Analyses of the results suggest that unpaid care and domestic work is indeed a significant constraint to female microenterprise development. The women spend a

considerable amount of time on unpaid care and domestic work, with most of them either temporarily pausing their paid work to carry out these responsibilities or conducting both simultaneously. Unpaid care and domestic work is also reported by the women as a key constraint to enterprise development. Finally, the distribution of unpaid care and domestic responsibilities appear to be strongly gender-specific: these tasks are overwhelmingly carried out by women and girls.

5 The key implication of these findings is that addressing gender inequality in unpaid care and domestic work could potentially narrow the gender gap in returns to capital in microenterprise. Reducing total unpaid care and domestic work requires investment in relevant time-saving social and physical infrastructure. Addressing social norms on the gendered distribution of unpaid care and domestic work could then redistribute this work more equitably between males and females. The effects of reducing and redistributing unpaid care and domestic work on the business outcomes of male and female micro-entrepreneurs should therefore be explored further.

6 The thesis is structured across five sections. The Literature Review outlines the broader context within which this research is situated, combining economic and feminist literature to propose an alternative framework for analysing gender gaps within the microenterprise context. The Case Study chapter then physically situates the research, providing an overview of the social and economic context of Luwero District, Uganda. The Methodology section explores what specific data was collected for this research, how it was gathered and how it was analysed. The Results and Analysis chapter presents the results of the field research, synthesising the key findings to elaborate on the extent to which unpaid work is a significant barrier to female microenterprise development. The Conclusion reviews the full research process, closing with a set of broader implications of the findings on gender gaps in microenterprise.

2. Literature Review

Gender Gaps in Labour Market Outcomes

1 The motivation for this research stems from my passion for women's economic empowerment and my firm belief in its potential to redress wider, gender-based inequalities across society. This inspired me to explore the complex relationship between gender and labour market outcomes in greater detail, and better understand the factors underlying this relationship.

2 Gender gaps – differences in outcomes between men and women – present themselves in a number of ways across labour markets, a pattern that transcends economic and geographic boundaries (ILO 2016). Globally, women are less likely than men to participate in the labour market: their participation rate of 48.5% stands at almost 27 percentage points below that of men (ILO 2018a). Among those who actively participate in the labour market, the rate of unemployment for women is higher than for men in almost all countries (ILO 2018a). Occupational segregation, meanwhile, sees those women who are employed overrepresented in the lowest paid jobs (ILO 2016). Finally, the global gender wage gap – the aggregate difference in mean wage between men and women – is estimated at 23 per cent, meaning that on average women earn only 77 per cent of what men earn (ILO 2016).

3 There is a complexity of potential explanatory factors for these gender gaps in labour market outcomes, including: level of education, occupational choice, flexibility of working hours, gender-based preferences for work-life balance, and discriminatory social institutions (Ferrant et al. 2014). Many of these factors could be endogenous: decisions taken at the individual level (such as what level of education to pursue, what industry to work in, or how many hours to work) may already be a result of internalised expectations about gender gaps, which in turn reinforce themselves (Beblo et al. 2003). However, even when a large number of observable characteristics are controlled for, including many of those mentioned above, gender gaps still exist. Women earn less than men even when they are equally educated, graduated in the same field, have the same number of years' experience and work in the same type of job (UN 2015). The puzzle as to what is driving this 'unexplained' gender gap remains to be fully understood.

4 Microenterprises are a common feature across developing countries, in large part due to the limited employment opportunities within the formal sector (Leino 2009). Across Sub-Saharan Africa, for example, the proportion of active workers in informal employment stands at over 90 per cent – with the vast majority of these people self-employed as micro-entrepreneurs (ILO 2018b). An interesting avenue of research for those concerned with issues of gender, labour and development, therefore, is to explore the extent to which gender gaps exist between male- and female-owned microenterprises, and why they may occur. This intersection between gender and microenterprise forms the basis of this research.

5 The literature review is divided into three sections. The first section examines the incidence of gender gaps within the microenterprise context, focusing on the economic literature that uses experimental techniques in an attempt to overcome the endogeneity problems described above. It details how various studies have attempted to measure gender gaps, the extent to which these gaps exist, and possible factors that could be causing them. The second section examines unpaid care and domestic work as a potential explanatory factor for gender gaps in labour market outcomes more broadly. It draws from a multidisciplinary, feminist literature to outline what unpaid care and domestic work is, examine its unequal distribution between women and men, explore how this could be contributing to gender gaps, and finally propose concrete steps that can be taken to address this. The final section combines these two analyses, applying the feminist lens of unpaid care and domestic work to the phenomenon of gender gaps in microenterprise. This forms the theoretical framework through which the research question will be addressed, providing an alternative approach to existing economic studies and making a small, original contribution to the wider literature on the topic.

Gender Gaps in Microenterprise

6 A nascent economic literature explores gender gaps specifically among microenterprises. Much of this research uses experimental techniques in order to establish causal relationships that go beyond simple association. This section of the literature review will focus on the economic literature on this topic, which identify the presence of gender gaps and explore possible reasons why these gender gaps might exist.

7 The research conducted by Suresh de Mel, David McKenzie and Christopher Woodruff (2009) can be seen as the seminal study on gender and microenterprise. It stems from their original work (2008), where they used an innovative approach to estimate returns to capital among Sri Lankan microenterprises. Previous studies exploring returns to capital in the microenterprise context tended to focus on microcredit clients, which generates potential selection biases both on the supply and demand side: microfinance institutions make decisions about who to lend to based on specific selection criteria; similarly, micro-entrepreneurs make the decision about whether to seek credit in the first instance, and if so whether to take up this credit at the given rate of interest. The authors thus overcome this bias by widening the target population to all microenterprises, not only those that apply for credit. They provided a randomly allocated positive capital shock of $100 or $200 to these businesses and observed how their profits changed as a result. The random allocation of the grants meant that there

should be no correlation between receiving the treatment and other factors that could influence the profitability of these firms.

8 On aggregate, they found that average real returns to capital are very high – roughly five per cent per month, or 60% per annum. More importantly, these returns are substantially higher than the market interest rates on loans charged by banks and microfinance institutions. These results suggest that the microenterprises studied are credit constrained: they are able to achieve marginal returns that are on average four times the market rate of interest. Economic theory thus suggests that if these businesses were able to access credit, they would do so until the marginal return of taking out the loan was equal to its interest rate. Therefore, a primary conclusion that can be drawn from the study is that micro-entrepreneurs simply lack the access to credit needed in order to develop their business.

9 However, after disaggregating their data according to sex, the researchers found a stark contrast between male- and female-owned enterprises, casting doubt on this primary conclusion. Mean real returns to capital for men were estimated at 11 per cent per month, a finding that is statistically significant at the five per cent level. Meanwhile, the corresponding estimate for women was slightly negative and not statistically different from zero. This empirical result is puzzling for two reasons. Firstly, the fact that average returns are much lower for women than for men appears to go against the common assumption that women are more credit constrained – for instance due to their relatively limited access to economic and social mobility or lack of physical collateral (e.g. Khandker 1998). Secondly, it is unclear why female micro-entrepreneurs are generating zero returns from a positive capital shock.

10 Several other economic studies have since explored the gendered effect that an increase in financial capital can have on the business outcomes of microenterprises, with broadly similar findings. Fafchamps et al. (2014) replicated the study of de Mel et al. (2008) in Ghana, randomly providing grants to male and female micro-entrepreneurs. For women running subsistence enterprises, they found that the grant had no effect on business profits. Berge et al. (2015) also found that providing grants to female micro-entrepreneurs in Tanzania had no effect on their business profits. Finally, Fiala (2018) randomly allocated subsidised loans to male and female micro-entrepreneurs in Uganda, and noted a strong, positive effect on business profits for the male group but no effect for the female group.

11 Overall, the evidence from the economic literature appears to corroborate the two key findings of de Mel et al. (2009). Gender gaps consistently present themselves in returns to capital for microenterprises, and there is no statistically significant effect of positive capital shocks on the business outcomes of female-owned enterprises. This suggests that addressing only credit constraints is not enough to help poor women grow their business.

12 Given that credit alone is not a sufficient condition for female microenterprise development, it is necessary to explore other possible constraints from across the literature. Alternative hypotheses for the persistent gender gap in microenterprise returns can be grouped into four categories: individual, enterprise, household and society.

Individual

13 At the individual level, female micro-entrepreneurs may lack sufficient entrepreneurial ability to yield positive returns to capital. *Prima facie*, this seems unlikely as there is no reason to believe that women are intrinsically worse at doing business than men, or that they are being deprived of opportunities available to men to improve their business skills. To test the effect of human as well as financial capital on microenterprise development, Berge et al. (2015) and Fiala (2018) randomly allocated business training to micro-entrepreneurs. Both studies found that a combined intervention of human and financial capital had a large positive effect on the profits of male entrepreneurs but no effect on those of females, suggesting that entrepreneurial ability is unlikely to be driving the gender gap in microenterprise returns.

14 Differences between men and women regarding attitudes towards risk and competition could also potentially explain the observed gender gap. De Mel et al. (2009) played a monetary incentivised lottery game with firm owners to elicit a measure of their risk aversion, and found no evidence that this is influencing the gender gap in returns. Berge et al. (2015) also used a game with monetary incentives to measure willingness to compete, finding that women are generally more competition averse than men. Moreover, their data indicates a positive correlation between willingness to compete and business profits, suggesting that competitiveness could be an important factor for entrepreneurial success, which women in general may lack.

Enterprise

15 At the enterprise level, male and female micro-entrepreneurs may be self-selecting into very different industries, which in turn could explain the gender gap in returns. Suggestive evidence from de Mel et al. (2009), Berge et al. (2015) and Fiala (2018) all indicate occupational segregation along gender lines. For instance, Berge et al. (2015) show, at the baseline of their study, that there are statistically significant gender differences across sectors, with women more likely to be in the service sector and men more likely to work in manufacturing. De Mel et al. (2009) also investigated this possibility, and found that as the proportion of females in a sector increases, investment levels and returns to capital both decrease. Given that there does not appear to be a straightforward explanation as to why female-dominated sectors intrinsically yield lower returns, the authors explore how the proportion of females in a sector could be the proxy for other constraints to microenterprise development – most notably geography.

16 Regarding geography, 74% of female-owned enterprises in the de Mel et al. (2009) sample are home-based, compared to 52% of those owned by males. Moreover, almost half of the female-owned businesses have all their customers within a one-kilometre radius of their business, with the corresponding figure for male-owned businesses estimated at 30%. The authors control for these various geographical constraints and conclude that returns to capital are still negatively associated with the proportion of females in the sector. Thus, while the mechanisms through which sectoral decisions affect returns to capital remain unclear, occupational segregation appears to partially explain the gender gap in returns to capital – though a gender difference remains even after accounting for this.

Household

17 At the household level, women may be channelling the positive capital shock they receive away from their business and towards the household. The Sri Lanka study (de Mel et al. 2009) finds that women do not invest any of the smaller treatment amount into their business. Similarly, Fafchamps et al. (2014) suggest that Ghanaian women running businesses with low initial profits, comparable to the entire sample of women in the Sri Lanka study, spend most of their grant on household expenditure. Finally, Berge et al. (2015) find that Tanzanian women who are randomly assigned a business grant receive less from their husband towards household expenditure, suggesting a crowding-out effect that the women may fill with their own business income.

18 However, two factors suggest that household expenditure may not be driving the gender gap in microenterprise returns. Firstly, business outcomes are broadly similar for cash and in-kind treatments, despite the in-kind grants being more difficult to liquidate. Fafchamps et al. (2014) provide both modalities as part of their research and find no statistically significant effect of either of them on women with low-profit businesses. Secondly, de Mel et al. (2009) find that for women who receive the smaller treatment, which is seemingly not invested in the business, there is no statistically significant effect on monthly household expenditure. Moreover, women receiving the larger treatment amount in their experiment actually invest more in their business than men – but still appear to generate zero returns. Therefore, while women may be more likely to spend their business grant on household expenditure, this does not seem to provide a strong explanation for the gender gap.

19 An alternative possibility from within the household is that of spousal capture. De Mel et al. (2009) suggest that fear of spousal capture could lead women to protect their grant by investing it in highly illiquid assets, irrespective of the returns these may generate. They explore this further by estimating how investment decisions and profits for women vary with empowerment – measured through a series of questions on decision-making power within the household. Focusing on those who invest the grant into their business, the authors found that empowerment increases investment in inventories – which are generally more liquid and therefore easier to capture than fixed capital. They also found a significant, positive effect of empowerment on profits. Berge et al. (2015) likewise explored the possibility of spousal capture influencing the gender gap in returns to microenterprises. They conducted an incentivised lottery experiment to test this, finding that greater fear of spousal capture is negatively associated with business profits for women. Together, these results provide suggestive evidence that spousal capture, or at least the fear of it, may be influencing women's investment decisions and contributing to the gender gap in returns to microenterprise.

20 The occupational composition of the household could also provide an explanation for the gender gap. Bernhardt et al. (2017) hypothesise that the low returns for female-owned microenterprises are due to the fact that male and female micro-entrepreneurs often belong to the same household. They propose an Enterprise Household Model, where multiple enterprise households rationally allocate capital towards the business with the higher returns – with women's capital often invested into their husband's business as a result. The authors test this model using data from the de Mel et al. (2008) study. They find that the positive capital shock – which had no impact on profits for the

full sample of women – leads to a statistically significant seven per cent increase in profits among women who are the sole entrepreneur in their household. Meanwhile, they observe an increase in aggregate household income for the entire sample of female entrepreneurs receiving the positive capital shock, suggesting that women in multiple-enterprise households invest the extra capital in their husband's business. While the empirical data appears to fit the Enterprise Household Model, the authors' argument is flawed in that it is unable to explain the gender gap in returns to micro-entrepreneurs. They posit that this is driven by women in multiple-enterprise households rationally allocating capital to their husband's business, due to the latter's higher returns. But this does not explain *why* these male-owned enterprises are likely to have higher returns than those of their wife in the first place.

21 An alternative explanation to the Enterprise Household Model is that being female and the sole entrepreneur in the household is a proxy for being a single woman (i.e. unmarried, separated, divorced, widowed). This is quite feasible given the high incidence of micro-entrepreneurs in most developing countries (ILO 2018b). On the basis of this assumption, there are two corollaries that could help to explain the gender gap in returns to microenterprises. First, there could be a difference in business strategy – sector choice, level of investment – based on whether or not a woman is the sole person responsible for providing for herself and her family. Second, being single would eliminate the possibility of spousal capture – established as a likely contributor to the gender gap. Without this, women may feel free to invest more efficiently in their business and therefore obtain greater returns. In sum, the Enterprise Household Model proposes an innovative way of approaching the issue of gender gaps in microenterprises but lacks explanatory power. Further research is therefore required to understand the specific mechanisms through which these observed effects occur.

Society

22 At the society level, social norms may strongly influence men and women in different ways, leading to significant heterogeneity in returns to capital. During qualitative interviews, women often express their strongly defined roles within the household and community, such as being responsible for childcare and household chores (e.g. Fiala 2018). Empirical evidence from Field, Jayachandran and Pande (2010) demonstrates the importance of social norms within the microenterprise context. Using an experimental approach, they explored the effect of traditional religious and caste institutions on entrepreneurship in India. They found that the most restricted social group did not respond to their business training intervention, despite positive effects among those with fewer restrictions, highlighting the importance of social constraints to enterprise development.

23 While the concept of social norms is nebulous and therefore difficult to measure, it is plausible that these could be driving many of the possible reasons for the gender gap in returns to microenterprises. For instance, gendered social norms may dictate what is a socially acceptable sector to work in, which would explain the occupational segregation that potentially contributes to gender differentials in returns. Alternatively, a societal expectation of femininity being equated with submission to one's husband could explain spousal capture, and why women who are more empowered therefore appear to generate significant profits. Similarly, gender norms around femininity could

discourage women entrepreneurs from being as competitive as their male counterparts. Finally, social norms around the distribution of household labour between men and women could limit the ability of the latter to dedicate sufficient time – and by extension cognitive effort (Mani et al 2013) – to their business.

24 To sum up, the economic literature on gender and microenterprise strongly indicate that women face multiple constraints to enterprise development, beyond access to credit, which operate at multiple levels. The aggregated findings above demonstrate the complexity of this issue. There is no single definitive explanation for the gender gap, rather a combination of many interlinked factors including attitudes towards competition, occupational segregation and spousal capture. Social norms around gender may provide the common thread for these possible explanations. The concept should therefore be unpacked further to potentially reveal additional insights into female-specific constraints to microenterprise development.

Unpaid Care and Domestic Work

25 One avenue through which social norms may influence gender roles and constrain female microenterprise development is the distribution of unpaid care and domestic work. This can be understood as all unpaid services provided by individuals within the household and community for the benefit of its members, including care of persons, housework and voluntary community work (Elson 2000). Common examples include cooking, washing, cleaning, looking after children and caring for elderly, sick, or less able dependents. To deconstruct the phrase, unpaid care and domestic work is a form of work as it involves activities requiring time and effort, it is care as it helps to sustain or develop a decent standard of living, it is domestic as it is largely carried out within the home, and it is unpaid as those carrying out these activities are not remunerated (Elson 2000). It is clear from this definition that unpaid care and domestic work is essential for providing for individuals, families and communities, and can be regarded as the foundation upon which the market economy functions (Collas-Monsod 2011). It is for this reason that unpaid work is often understood as a crucial dimension of social reproduction (e.g. Benería 1979; Folbre 2014).

26 There are strong underlying gender dimensions to unpaid care and domestic work, hereafter referred to simply as unpaid work. Across the world, women and girls carry out the majority of this work. According to global time-use data from the Organisation for Economic Co-operation and Development, women spend on average two to ten times more time on unpaid work than men (Ferrant et al. 2014). Complementary data from the United Nations shows similar findings. In developed countries, women spend on average 4 hours, 20 minutes per day on unpaid work while men spend 2 hours, 16 minutes. This inequality is even more acute in developing countries, where women spend on average 4 hours, 30 minutes per day on unpaid work and men spend just 1 hour, 20 minutes (UN 2015). At the macro level, then, poverty appears to be associated with a significant increase in both the absolute amount of time women spend on unpaid work and the relative proportion of unpaid work assumed by them. Finally, it is important to note that this gender imbalance in unpaid work starts early. Worldwide, girls aged five to nine spend 30 per cent more time helping around the house than boys, with this figure rising to 50 per cent for those aged ten to fourteen (UNICEF 2016).

27 Gender inequality in unpaid work is associated with gender gaps in numerous labour market outcomes. Globally, gender inequality in the amount of time devoted to unpaid work is negatively correlated with gender inequality in labour force participation – even after controlling for many other variables including GDP per capita, fertility rate, urbanisation rate, maternity leave and gender inequality in unemployment and education (Ferrant et al. 2014). Similarly, gender gaps in unpaid work are linked to gender wage gaps. In countries where women spend disproportionately more time on unpaid work, the gender gap in hourly wage is also higher – despite controlling for female labour force participation and unemployment along with the previously mentioned variables (Ferrant et al. 2014). Overall, whilst unable to show a direction of causality, these findings demonstrate the clear relationship that exists between gender gaps in unpaid care work and gender gaps in labour market outcomes. Intuitively, unpaid work constrains the total amount of possible time that can be dedicated to market work. An interesting empirical finding from extrapolating the global data is that full gender equality in unpaid care work corresponds to a predicted female labour force participation of 50% of the total labour force (Ferrant et al. 2014). It appears that, to achieve equality in paid work, women also need to achieve equality in unpaid work.

28 What can be done to redress the unequal distribution of unpaid work between women and men? Diane Elson (2017) summarises the strategies that can help to achieve this as recognising, reducing and redistributing unpaid work.

29 Recognising unpaid work means understanding how this work underpins economies and valuing it accordingly. The first step towards this is to measure the extent of unpaid work through time-use surveys, which would help to make its contribution more visible (Benería et al. 2016). Next, the economic value of these contributions can be calculated by aggregating the total time spent on different activities and multiplying this by the cost of this time.

30 Three methodological challenges render this strategy difficult to carry out in practice. Firstly, collecting time-use data is labour intensive, requiring significant effort on the part of the researcher and the respondent. Secondly, assigning value to non-market work can be ambiguous – for instance, it could be calculated using the market price of any output created, or instead by using a monetary value of the time taken to do this work, imputed either through the replacement or opportunity cost (i.e. the market wage of getting someone else to do this activity or the market wage of the person actually doing the activity) (Ferrant et al. 2014). Finally, the majority of unpaid work falls outside of the production boundary of the System of National Accounts, the internationally-agreed set of recommendations on measures of economic activity (Hirway 2015). Countries may therefore lack incentives to spend limited funds on collecting this data, despite its potential to inform policies aimed at promoting gender equality.

31 Reducing unpaid work would free up time for caregivers to pursue other activities, including paid work. A reduction in unpaid work can be achieved through time-saving technology, physical infrastructure and social infrastructure (Elson 2017). Time-saving technology can help reduce the amount of time spent on unpaid work, for instance through fuel-efficient stoves which speed up the cooking process and minimise the need to collect fuel wood in developing countries (Hirway 2015). Investment in physical infrastructure such as access to a clean water supply, sanitation, electricity and public transport can significantly reduce unpaid work, while relevant social infrastructure

includes the formal provision of care services for children and the elderly. Limited access to time-saving technology, physical and social infrastructure in poorer economies is likely to exacerbate the amount of unpaid work undertaken in these countries (ADB 2015), as alluded to previously in the time-use data (UN 2015).

32 Three examples demonstrate how reducing unpaid work can potentially improve labour market outcomes. Ilahi and Grimard (2000) investigate how water infrastructure affects the time allocation of women in Pakistan. They find that improvements in the public provision of water are negatively associated with the time women spend collecting water and positively associated with time allocated to income-generating activities. Dinkelman (2011) analyses a rural electrification programme in South Africa to estimate its impact on employment growth. She finds positive effects on female labour supply on the extensive and intensive margin: female employment significantly rises by nine percentage points in the wake of electrification and women spend almost nine hours more per week in paid work. The *Estancias Infantiles para Apoyar a Madres Trabajadoras* (Child Crèches to Support Working Mothers) programme in Mexico was created with the specific aim of addressing labour market inequalities resulting from women's unpaid care and domestic responsibilities. It provides childcare subsidies to mothers and single fathers who are working, seeking employment or studying (Holmes and Jones 2013). Angeles et al. (2014) conduct an impact evaluation of the programme, finding a statistically significant positive effect of the subsidised crèche facilities on the rate of female employment and number of hours spent by women in paid employment – similar to the previous results.

33 While recognising and reducing unpaid work can be beneficial for those who undertake this work, gender equality requires that residual care duties are redistributed more equitably between men and women (Elson 2017). Government policies can promote this, for example through a more equal provision of paid maternity and paternity leave. This could encourage fathers to play a greater role in unpaid care and domestic responsibilities while at the same time reducing the disincentive for employers to hire women. Similarly, flexible working conditions could enable parents to better balance their paid and unpaid work (Ferrant et al. 2014). These potential solutions seem particularly suited to high-income countries. More broadly, redistributing unpaid work is likely to require changing social norms on masculinity and femininity – challenging the prevailing narrative of men as breadwinners and women as caregivers (e.g. Budlender 2010; Doyle et al. 2014).

Unpaid Work and Microenterprises: A Contribution to the Literature

34 Returning the focus specifically to the microenterprise context, there are two key mechanisms through which the gendered distribution of unpaid work could be influencing gender gaps in microenterprise returns.

35 A footnote in the de Mel et al. (2009) paper describes how women were more likely to report entering self-employment in order to have the flexibility to care for children or elderly parents. These women's unpaid care and domestic responsibilities therefore appear to have driven their decision to become a micro-entrepreneur in the first place. Moreover, these responsibilities are likely to influence other crucial business decisions,

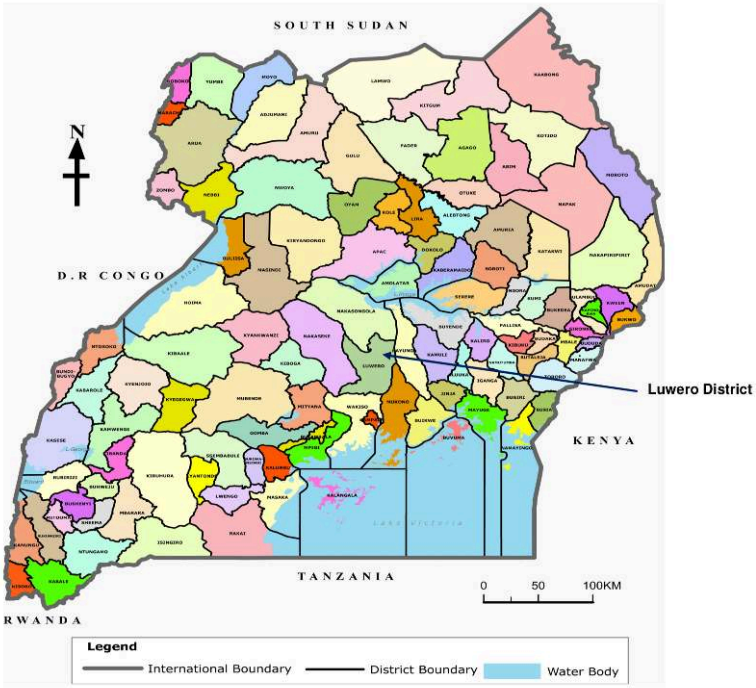
including the choice of sector and geographical location of the enterprise. The economic literature review on microenterprise returns suggests that occupational segregation could be an important explanatory factor for gender gaps. The unpaid care and domestic responsibilities of women entrepreneurs could to some extent be constraining their full choice-set regarding sector choice and other business decisions, potentially contributing to gender gaps in microenterprise returns.

36 Beyond its ability to constrain the decision-making abilities of women micro-entrepreneurs, unpaid care and domestic work takes time. A nuanced appreciation of these demands on micro-entrepreneurs, inspired by the feminist literature review, suggests that it easily diverts attention away from the business. This diverted time is extremely difficult to measure, as it tends to be short, sporadic, and often during working hours. The blurring of activities between paid and unpaid work is commonplace within the microenterprise context – such as women who tend to their children while selling their products (Folbre 2014). A significant critique of the economic literature therefore lies in how the time spent on paid work is calculated. Rudimentary self-reported measures, such as those used by de Mel et al. (2008) may fail to take into consideration that unpaid work is often done alongside paid work – especially so for women whose business is home-based or very close to the home. If this is the case, the self-reported figures on hours of paid work could be overstating the true amount of time dedicated specifically to this. As labour is an essential component of the production function, overstating this figure for women could in some way explain the gender gaps in returns to capital found in many studies (e.g. de Mel et al. 2009; Fafchamps et al. 2014; Fiala 2018).

37 This research seeks to apply the feminist framework of unpaid care and domestic work to the microenterprise context. The central research question examined throughout this thesis is whether unpaid care and domestic work is a significant constraint to female microenterprise development. Establishing this requires accurately calculating how much time is being dedicated to unpaid care and domestic work by women micro-entrepreneurs, assessing whether this work is a key constraint to enterprise development, and investigating whether these responsibilities are specific to women. The focus on unpaid work provides an alternative explanatory approach to the existing economic literature on gender gaps in microenterprise. By situating this research at the intersection of economic and feminist literature, it is hoped that it can make a small, original contribution to the wider academic literature on gender and microenterprise. The next chapter explores the specific context in which this research question was addressed.

3. Case Study – Luwero District, Uganda

Figure - Map of Uganda Districts, Luwero District Statistical Abstract 2012



Source: LDLG 2012

1 Field research for this thesis was undertaken in Luwero District, Uganda over the Spring of 2018. The purpose of this chapter is to physically situate the research and provide an overview of the economic and social context. It begins by outlining the dual purpose of the research, which explains the choice of location and partner organisation. A brief summary of the national context is then provided before going

into more detail specifically on Luwero District. The chapter concludes with a description and justification of the target population for this study.

Background

2 The purpose of this research is two-fold. Firstly, it seeks to address the specific research question of whether unpaid care and domestic work is a significant constraint on female microenterprise development. At the same time, it serves a practical purpose by aligning with a wider research project entitled: *Child Care for Childhood and Business Development*. This project aims to assess whether the provision of pre-school education for children of female micro-entrepreneurs can improve the latter's business outcomes as well as the educational outcomes of their children (NHH 2017). It is being led by a team of primary investigators from across Europe and will be tested through a field experiment in Uganda, run in collaboration with the non-governmental organisation BRAC. In order to help contribute preliminary findings towards the broader research project, the case study for this thesis was therefore based in Uganda and conducted in partnership with BRAC.

3 Uganda is a landlocked equatorial country in East Africa, bordered by Kenya, Tanzania, Rwanda, the Democratic Republic of Congo and South Sudan. It is officially classified as a low-income country by the World Bank (2018), with a gross domestic product per capita in 2017 of 2,475,413 Ugandan shillings, approximately 680 US dollars (December 2017). The annual growth rate of gross domestic product in the same year was 4.0% (UBOS 2018a). According to the most recent official estimates, the population of Uganda stands at 37.7 million. Roughly eight million of these people are estimated to be below the poverty line for their region – a poverty headcount rate of 21.4% (UBOS 2018b).

4 BRAC is a global development organisation originating from Bangladesh. Its key focus areas globally include providing financial services for the poor through microfinance, and targeting the ultra-poor through a graduation approach. The organisation also implements development programmes in livelihood, agriculture, education and healthcare, amongst others. BRAC Uganda was set up in 2006. Its operations are predominantly based around its microfinance service, which has disbursed over 85 million US dollars in microloans to around 200,000 women since it was established. BRAC's second largest area of intervention by expenditure in Uganda is education, which includes the provision of early childhood development centres for children aged three to five (BRAC 2017).

5 Given the potential for economies of scope, it was suggested that the wider field experiment be administered through these early childhood development centres to minimise the initial fixed costs of the project. Upon analysis of districts having a significant coverage of both BRAC microcredit clients and early childhood development centres, a provisional decision was made to focus the intervention on Luwero District – which therefore also served as the physical site of research for this thesis.

Luwero District

6 Luwero District is located in the central region of Uganda, roughly 60 kilometres north of Kampala. The district spans an area of approximately 2,500 square kilometres (LDLG

2012) and its population at the most recent census was 456,958 (UBOS 2017). Luwero District is predominantly rural, with only 21% of district inhabitants residing in the three town councils of Luwero, Wobulenzi and Bombo (UBOS 2017). Disaggregated data reveals a very young population. Approximately one third of the district's inhabitants are less than ten years old, while 60% are below 20 years of age. By contrast, less than 15% of the district population is aged 40 or above. The average household size is 4.2 (UBOS 2016).

7 Regarding the social characteristics of Luwero District, 76% are of the majority Baganda ethnic group. Equally, 76% are of various Christian denominations, with the remaining population being mostly Muslim (LDLG 2012). The literacy rate for adults aged 18-30 is 90%, more than eight percentage points higher than the national average. Similarly, the primary school attendance rate is 86%, six percentage points higher than the national average, while secondary school attendance is 38%, a full ten percentage points above the corresponding national figure (UBOS 2018). It is interesting to note that attendance rates are considerably higher for girls compared to boys, particularly at the secondary level (UBOS 2017). Access to services appears generally good, with 95% of households within five kilometres of a primary school and 84% within the same distance of a health facility. However, household access to electricity is relatively low, at 27%, with almost half of all households instead using a *tadooba*, or paraffin candle lamp, as their main source of lighting. Sixty-three per cent of households use a bore hole as their source of drinking water (UBOS 2017).

8 Economic activity within the district is dominated by agriculture: 81% of households engage in some form of agricultural activity, with subsistence farming the primary source of livelihood for 66% of households. Employment income is the second largest livelihood source and business enterprise is the third – both of which are substantially greater sources of livelihood in the urban areas of the district (LDLG 2012). Overall, 81% of adults are in employment (UBOS 2017). According to the most recently available statistics on poverty, the individual poverty headcount for the district is 18%. Poverty rates within the three town councils of Luwero District – Luwero, Bombo and Wobulenzi – are substantially lower at eight, seven and four per cent respectively (LDLG 2012). Inclusion in traditional financial services is low: only 23% of households possess a bank account (UBOS 2017). However, 69% of those aged 18 to 30 own a mobile phone (UBOS 2017) – a promising statistic given the availability of mobile money accounts that bypass traditional formal banking institutions and have been critical in improving financial inclusion across Uganda in recent years (Bank of Uganda, 2017).

9 Overall, Luwero is a relatively rural, agricultural district that appears to be fairly homogeneous in terms of ethnicity and religion. It performs better than the national average across most social and economic indicators. The three town councils have the lowest rates of poverty within the district and are associated with greater livelihood opportunities in business enterprise.

Target Population

10 In order to fulfil the dual purpose of the research detailed above, the target population for this study was determined as BRAC female microcredit clients in Luwero District with children aged three to five. This satisfied the key criterion of the target population being women micro-entrepreneurs – which would help in establishing whether and

how unpaid care and domestic work constrains female microenterprise development. By further specifying the target population as BRAC microcredit clients with pre-primary age children, the findings of this study could also contribute to the wider research project by providing an insight into the individual, household and business characteristics specific to those female micro-entrepreneurs targeted by the field experiment.

11 A rough census of all the microcredit groups within the district, carried out as part of this research, returned an estimated total target population of 1,315. The research sample for this study was selected from this population, further details of which are set out in the next chapter.

4. Methodology

1 The central research question of this thesis is whether unpaid care and domestic work is a significant constraint to female microenterprise development. This chapter examines the research methodology used to investigate these questions during field research in Luwero District, Uganda. It begins by outlining the specific research tools that were used, providing justification for their appropriateness and inclusion. Next, it details the sampling procedure employed to collect representative sample data from the target population. After establishing how the data was collected, the third section describes how the data was analysed. The final section considers the limitations of the chosen research methodology.

Research Tools

2 The choice of research tools for this study were determined by their ability to respond to the specific sub-questions of the research problem: how much unpaid work is being carried out by women micro-entrepreneurs; what are their self-reported constraints to microenterprise development; and how do social norms on gender influence the allocation of unpaid work?

3 The first sub-question required an accurate understanding of each respondent's time allocation, while the second and third sub-questions required eliciting the opinions of the women. A time-use survey was therefore chosen as the appropriate research tool for the former, while a questionnaire was used for the latter. Throughout the research process, field notes were also taken. This section outlines each of these three tools, largely focusing on the time-use survey, given its relative obscurity as a research method.

Time-Use Survey

4 A time-use survey is a research tool used to analyse how people allocate their time. Specifically, it measures the amount of time dedicated to different activities within a given period to provide detailed and comprehensive information on how individuals spend their time (Hirway 2017). Given the difficulty in accurately measuring unpaid

work through simple self-reported measures, as outlined in the Literature Review, the time-use survey appears to be a more reliable method to calculate this time.

5 The methodological approaches to using time-use surveys vary considerably. The key differences are summarised here, along with a justification for the decisions made in this regard for the field research. Overall, time-use surveys can take one of two forms: a *diary approach*, or a *stylised approach*. The diary approach asks respondents what they did during each period within a 24-hour day. These results are then aggregated and classified into different activities to provide a quantitative summary of how individuals allocate their time. The stylised approach, on the other hand, consists of a set of questions asking respondents how long they spent in total on specific activities over a period of 24 hours (Budlender 2010). Therefore, the diary approach might ask respondents: "*What did you do from 09:00 to 09:30 yesterday morning?*" while the stylised approach might ask: "*How much time did you spend yesterday on the unpaid care of your children?*".

6 The benefit of the diary approach is that it has the potential to yield extremely rich data. By walking respondents through their day, it is likely to provide a more accurate measurement of the time spent on different activities, compared to simple self-reported measures. Beyond establishing how much time is spent on activities, it also tells the researcher when in the day these activities take place. On the other hand, the data collection process for the diary approach is labour-intensive and requires the ex-post classification of activities. The benefit of the stylised approach is that it is much simpler, reducing the burden on both the respondent and the researcher. The questions can directly elicit the amount of time spent on certain activities without further coding required. However, self-reported measures from the stylised approach are likely to produce less accurate results compared to those of the diary approach (Budlender 2007). Given the importance of collecting detailed and accurate time-use data for this study, the decision was therefore taken to proceed with the diary approach.

7 Another benefit of the diary approach is that it allows for the inclusion of simultaneous activities, which is particularly relevant for the study of unpaid work – as alluded to in the Literature Review chapter. Simultaneous activities can be captured through a second column in the diary, which also encourages respondents to think in more detail about how their time is spent. Where two activities occur simultaneously, they can either be ranked according to the primary and secondary activity or given equal weight (Budlender 2010). For the field research, a second column was added to the time-diary to include simultaneous activities. Respondents were actively encouraged to consider if they were doing anything else at the same time as their initial response for each period. To reduce the total time burden for the respondent and the researcher, simultaneous activities were given an equal weight – with each time period divided equally between activities.

8 Context variables can provide complementary information to time-use data in order to provide a richer understanding of the allocation of people's time. Examples include where the activity is taking place; who is present alongside the respondent; for whom the activity is being carried out; and whether the activity is paid or unpaid (Hirway 2017). While most of this information would be interesting to collect, and could perhaps contribute additional insight to the findings, the significant time burden seems to outweigh the usefulness of this data – with the exception of information on whether

the activity is paid or unpaid, given the focus of this study. Therefore, while other context variables were not considered in this time-use survey, respondents were asked to explicitly state when they were carrying out activities for payment.

9 Conducting time-use surveys over multiple days and with multiple household members would have yielded more detailed data – but would have also substantially increased the burden on the researcher and the households under investigation. Similarly, if using very small (e.g. 10-minute) periods for the diary would have produced more granular data on time-use, it would have also been extremely labour-intensive and potentially could also have induced satisficing in respondents. Overall, decisions on the methodological approach for this study were made in order to respond to the research question as fully as possible given time and budget constraints. Further considerations are discussed in the Limitations section later in the chapter.

10 The time-use survey used a diary approach to obtain information on the time allocation of the women micro-entrepreneurs. They were asked by the researcher to recall their previous 24 hours, after confirming that it had been a regular working day for them. The researcher used a time-use survey with 30-minute periods as a template, filling it in by hand according to the responses. Follow-up questions were asked, to establish whether activities were done for payment and whether other activities were being done at the same time. The finalised time-use survey drawn up for the field research is shown in Appendix I.

Questionnaire

11 The second element of the research consisted of a questionnaire. This tool was used to establish women micro-entrepreneurs' self-reported constraints to developing their business, and how social norms on gender influence the allocation of unpaid work within their community. The questionnaire also elicited additional information at the individual, business and household level to provide a better understanding of the background characteristics of the sample and observe how these factors interact with the rest of the data.

12 The questions on constraints to enterprise development focused initially on all possible financial and non-financial barriers, before explicitly asking about time constraints and unpaid work. Social norms were estimated through a series of attitudinal questions asking the women about their own opinions and about their beliefs on the opinions of others. Finally, the background information questions asked basic questions about the women, their business and their household. Other questions were added after consultation with the wider research team in order to provide relevant information specific to their project. The questions most relevant in addressing the research problem of this study are explored in greater detail in the Results and Analysis chapter.

13 The format of the questionnaire was mostly multiple-choice questions. This decision was taken to minimise the burden on the respondents and the researcher, given the volume of questions involved, simplifying the data collection process and allowing a greater number of respondents to be sampled. The finalised choice-set of responses was obtained through an iterative process with the wider research team and local BRAC staff, each of whom brought their unique experience and expertise to improve the options available. For instance, one question asked the women about the mode of transportation commonly used to get to their business but failed to capture the local

knowledge that many people travel by *boda-boda*, or motorcycle taxi. A few questions had follow-up, open responses. This allowed qualitative comments to be considered for the questions deemed most important to understanding the constraints faced by these women to growing their business, and what could be done to alleviate them.

14 The questionnaire was tested on members of the BRAC research team, with questions rephrased and restructured based on their feedback. It was then coded into programming language for SurveyCTO, a mobile data-collection tool, and loaded onto mobile devices to be used in the field for data-entry. The interviews with the women micro-entrepreneurs were conducted in Luganda, the local language, by the research assistant from BRAC. Responses were then translated into English and noted down accordingly. The interviews generally took between 40 and 60 minutes per respondent, inclusive of the time-use survey. The finalised questionnaire used for the field research, together with the time-use survey, can be found in Appendix I.

Field Notes

15 Field notes were taken over the course of the research visit. These consisted of observations, records of informal conversations and personal reflections. The rationale for incorporating these field notes into the research is to provide a richer description and understanding of the observed phenomena.

Sampling Procedure

16 This section outlines the sampling procedure chosen for the field research. It begins by restating the target population and the research setting, before detailing the sampling strategy employed. Difficulties during field research led to this strategy being somewhat adapted, which is openly discussed. An overview of the final sample concludes the section.

17 The target population of this study was female BRAC microcredit clients in Luwero District, Uganda, with children aged three to five. The rough census carried out as part of this research returned an estimated total target population of 1,315 women. Using this census data, the research sample was selected from the target population using a multi-stage stratified random sampling technique, which can be understood in three steps. First, the total target population was divided into three, according to the BRAC microcredit branch they belonged to: Bombo, Luwero or Wobulenzi. Next, microcredit groups – consisting of roughly 10-20 members – were randomly selected from each of these branches. Finally, within these randomly selected groups, respondents were randomly chosen from among those members who fit the selection criteria. Overall, this sampling strategy was chosen for its ability to provide data on a wide range of respondents from different microcredit groups across all three branches within the district. This was therefore likely to yield a representative sample, accurately reflecting the wider population, meaning that findings from the study could be generalised to the larger, target population.

18 While this sampling strategy appeared straightforward in theory, the reality was more complex. The census data did not provide the precise location of the women's businesses, so it was not possible to visit the women at their workplace unannounced and conduct the interviews. While most women provided a contact telephone number

as part of the census, they were often unreachable. Where contact was established, the time constraints of these women meant that many of them said they were unavailable – not surprising given the scope of this research. This produced two key restrictions to the collection of representative sample data. Firstly, only those women who agreed to make time for the interview would be sampled, leading to a strong bias towards those who are less time-constrained. Secondly, this method was time-consuming and expensive for the researcher as it entailed constantly travelling to different locations to conduct interviews with available women. The greater time and expense required per interview using this technique meant that the total sample size would be considerably lower.

19 To ensure a sufficiently representative sample size and a more efficient method of data collection, an element of convenience sampling was introduced. The three BRAC microcredit branches were each supported by a team of credit officers, each of whom was responsible for overseeing a number of microcredit groups: dispensing loans and collecting repayments. Groups tended to meet on a weekly basis at a suitable location close to the members, with credit officers attending multiple group meetings per day. A decision was therefore made early on in the data-gathering process to visit the local microcredit branch each morning and follow one of the present credit officers throughout their day of group meetings. At each group meeting, eligible respondents would then be identified and randomly selected to be interviewed. Thus, respondents were still chosen from all three branches, and eligible members from the visited groups were still selected at random. The only non-random element introduced was the group selection, as this was determined by the credit officer. Overall, the addition of a convenience element to the sampling procedure dramatically reduced the time and expense of the field research without sacrificing the representativeness of the total sample – and from a practical perspective probably improved it.

20 The total sample of women micro-entrepreneurs interviewed was 64, close to five per cent of the total target population. It transpired over the course of the interviews that part of the selection criteria had been translated as *having caring responsibilities for a three to five-year-old*. This led to the inclusion of grandmothers as eligible respondents where these women were responsible for looking after their young grandchildren. Given that these women were still micro-entrepreneurs with significant caring responsibilities, they were included in the final sample. Out of the 64 women, six reported that their previous day had not been a regular working day. This meant that their combined questionnaire and time-use data could not be used, and these women were dropped from the final sample. It also emerged during one interview that the respondent did not actually have a child between three and five years old, so this woman was also dropped. This resulted in a final sample size of 57, equating to 4.3% of the total estimated target population.

Analysis

21 The time-use survey, questionnaire and field notes yielded a mixture of quantitative and qualitative data. This section explains how this data was used: starting with the coding of data for quantitative assessment before turning to the data-analysing process undertaken for both sets of data. It concludes by demonstrating how the mixed methods approach, combining quantitative and qualitative data, likely provided a more

detailed understanding of the relationship between unpaid work and female microenterprise development.

22 Coding of the time-use survey and questionnaire was undertaken in order to facilitate the data analysis process. For the questionnaire, coding was relatively straightforward and consisted of assigning logical numerical values to the various sets of possible responses to questions. SurveyCTO, the mobile data-collection tool used for the questionnaire, digitally documented responses in a spreadsheet format – which allowed for simple ex-post coding using Microsoft Excel. Coding the time-use survey was more complex. Each of these was filled out by hand and therefore required digitising. Moreover, each activity – described in words in the time-use surveys – required numerical classification.

23 The United Nations Statistical Division publishes an International Classification of Activities for Time Use Statistics (ICATUS), which provides a framework of standardised measures of time allocation. The most recent iteration, ICATUS 2016, is a three-level hierarchical classification of activities, with well-described, mutually-exclusive and exhaustive categories (UNSD 2017). The first level of this classification consists of nine major divisions, shown in Table 1. A more detailed classification of the ICATUS 2016 can be found in Appendix II.

Table 1: Major Divisions of the 2016 International Classification of Activities for Time Use Statistics

Major Division	Activity
1	Employment and related activities
2	Production of goods for own final use
3	Unpaid domestic services for household and family members
4	Unpaid caregiving services for household and family members
5	Unpaid volunteer, trainee and other unpaid work
6	Learning
7	Socialising and communication, community participation and religious practice
8	Culture, leisure, mass-media and sports practices
9	Self-care and maintenance

Source : UNSD, 2017

24 A simple typology of work was constructed based on these major divisions. Paid work corresponded to *employment and related activities*. Unpaid work incorporated *production of goods for own final use*; *unpaid domestic services for household and family members*; *unpaid caregiving services for household and family members*; and *unpaid volunteer, trainee and other unpaid work.* These activities coincide with the definition of unpaid work outlined in the Literature Review chapter. The remaining activities were classified as non-work.

25 The major divisions provided a sufficient level of detail for this research and were therefore adopted as the framework for classifying and analysing the time-use data. The only exception was the addition of sleep, a sub-division of *self-care and maintenance*, as a category of its own in order to specifically analyse the time-allocation of waking hours. Each physical time-use survey was analysed by the researcher, with activities aggregated according to these ten categories and coded accordingly. This data was then converted to a digital spreadsheet using Microsoft Excel.

26 The quantitative data generated from the questionnaire and time-use survey were analysed using a combination of Microsoft Excel and Stata, a statistical analysis programme. Manipulation of the data included measures of central tendency (mean, median, mode), disaggregating the data according to certain characteristics, conducting t-tests to establish if two subgroups within the dataset have the same mean value for a given variable, and running basic regression analysis. The quantitative data from the time-use survey generated an overview of how much time was allocated to different activities within a 24-hour period. A qualitative examination of the time-use surveys, on the other hand, indicated *when* specific activities occurred as well as their simultaneity. The qualitative data from the time-use surveys, along with the open responses from the questionnaires and the field notes were collated by the researcher and analysed for common themes across respondents.

27 This study used a mixed methods approach, triangulating the quantitative and qualitative data to provide different perspectives on the same research question (Denzin 1970). The decision to use this approach was based on the complementary nature of the two sets of data, which would hopefully lead to greater validity of any inferences made from the sample data and provide a richer understanding of the complex relationship between unpaid work and female microenterprise development.

Limitations

28 The limitations of this research study were mostly a function of time and budget constraints. This section examines the key limitations of the time-use survey, the questionnaire and the broader fieldwork to demonstrate awareness of the limits of this research and explain why the specific methodology outlined above was pursued.

29 The time-use survey was conducted with women micro-entrepreneurs from a specific location (Luwero District) at a specific point in time (Spring 2018). The time-use statistics therefore do not account for geographical or seasonal variation, which could significantly influence time allocation – particularly in a predominantly agricultural area such as Luwero. However, given the time and budget constraints of the researcher, it was neither feasible to return to this research site on multiple occasions throughout the year, nor conduct additional fieldwork of similar quality in other districts. The chosen research method provided time-use data over the period of a single day for each woman micro-entrepreneur, giving a snapshot of their time allocation on a regular working day. A more accurate way to estimate the lived realities of these women would be to conduct a time-use survey with each of them over the course of multiple days. With the limited resources available, and acknowledging the trade-offs involved in these alternative approaches, it was deemed better to concentrate on collecting as

many data points as possible from different women within a single district – thereby providing as representative a sample as possible from this smaller target population.

30 A second limitation of the time-use survey is that it relied upon respondents accurately recalling how they allocated their time. While the diary approach of walking the respondent through their previous day appears better than the stylised approach in this regard, it is nonetheless prone to reporting errors. A more accurate measurement of time-use could have been achieved through participant observation. Three reasons justified the original, face-to-face recall approach. Firstly, it would have been prohibitively time-consuming to spend a full day with each respondent. Second, issues around gender dynamics would have had to be addressed, including the cultural sensitivity towards an Asian man spending time in the households of single and cohabiting African women with young children. Finally, respondents might have altered their behaviour if they knew they were being observed, commonly known as the Hawthorne effect. Given these restrictions, the face-to-face recall method was retained as the optimal approach with the resources available.

31 A final limitation of the time-use survey is that it failed to fully capture the temporal demands of unpaid work. This is because unpaid work is not merely an activity, but also a responsibility. It constrains the allocation of time even when no unpaid work is being conducted (Folbre 2014). Therefore, by only calculating time spent on specific activities, it is likely that the time-use survey underestimated the true demands of unpaid work on these women. However, combining the analysis of the time-use data with complementary, qualitative comments from the women could overcome this problem by providing a fuller understanding of the demands of unpaid work on the time of these women.

32 One key limitation of the questionnaire is that it tended to use a five-point scale for attitudinal questions, including a neutral, middle option. Psychological insights into the behaviour of survey respondents suggest that the inclusion of this neutral option encourages satisficing (Pasek and Krosnick 2010). However, the trade-off faced when removing this option is that it limits the full choice-set of responses. In the interests of not obliging the women to choose either way when they may have had neutral feelings towards the question being asked, the middle option was retained.

33 Overall, the field research may have been limited by two factors. Firstly, the sample size was small relative to the target population, which meant that the findings may not have been representative. The sampling strategy somewhat addressed this through the stratification and randomisation procedures. Moreover, while the low statistical power from the small sample size meant that relationships between variables were harder to detect, those associations found to be statistically significant would carry substantial weight. Secondly, the research was conducted only with women micro-entrepreneurs. It was therefore not possible to compare the time-use of similar males and females to show that women carried out more unpaid work than men. This therefore remains a large assumption of this study, though the phenomenon is well-documented in the literature and is corroborated by the questionnaire data. Similarly, the attitudes of men towards social norms on gender are estimated through the responses given by the women. Ideally, the time-use and attitudes of men would have been directly elicited; however, the limited available time and budget meant that this was not feasible.

34 Finally, it is worth noting two key points regarding the scope of this research. Firstly, it is not possible to establish causality from the data collected. Any relationships that

appear to exist between variables in the data can only be evaluated as simple associations. Suggestive evidence from the qualitative data could allow for an educated guess as to the mechanism behind this relationship and the direction of causality – but this remains a hypothesis to be tested and cannot be proven with this data. Secondly, the data collected as part of this study is highly context-specific. The sample consisted of women micro-entrepreneurs living in Luwero District, Uganda, who were BRAC microcredit clients and cared for children between three and five years old. The findings documented in the next chapter should therefore be viewed within this context.

5. Results and Analysis

1 The purpose of this chapter is to present findings from the primary data collection and conduct analyses of them in order to respond to the research question of whether unpaid care and domestic work is a significant constraint to female microenterprise development. In order to address this question in detail, it is necessary to assess: how much unpaid work is being done; what the self-reported constraints to enterprise development are; and how social norms on gender may be influencing the allocation of unpaid work. To maintain a practical, policy-driven focus, the research also considers possible solutions to address the distribution of unpaid care, both in absolute and relative terms.

2 The chapter begins by describing the background characteristics of the female micro-entrepreneurs who form the study sample. Next, it turns to the time-use data to provide an indication of the allocation of time of these women, with a particular focus on unpaid work and how the division of this labour within the household specifically impacts them. The third section considers more subjective data on the self-reported constraints to enterprise development, starting broadly before narrowing in on unpaid work and on which specific interventions have the most time-saving potential in this regard. The final section considers social norms around gender, and how these could be contributing to the persistence of gender gaps in unpaid work, and by extension in returns to microenterprise. The chapter concludes with a discussion, summarising the key findings, elaborating on the extent to which unpaid work is a barrier to female enterprise development and suggesting what can be done to potentially mitigate this. Qualitative data from questionnaires and field notes are used throughout the chapter to supplement the quantitative findings and provide a richer understanding of the results.

5.1 Descriptive Statistics

3 The selection of descriptive statistics provided in this section helps to give a basic indication of the background characteristics of the female micro-entrepreneurs sampled for the study. Respondents were selected out of a total population of female micro-entrepreneurs in Luwero District, Uganda, who were BRAC microcredit clients and had caring responsibilities for young children aged three to five years, estimated at

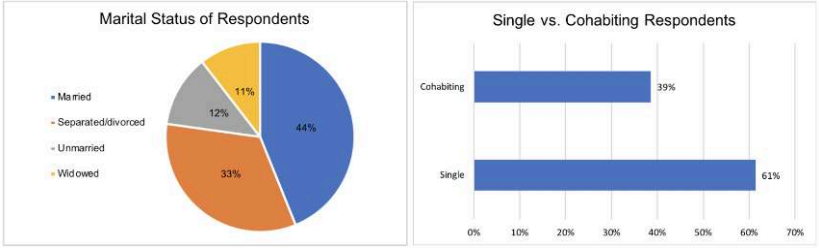
1,315. The total sample size of those who completed both the questionnaire and a valid time-use survey was 57 – roughly four per cent of the total target population.

Table 2: Descriptive Characteristics of Female Micro-Entrepreneur Respondents from Luwero District, Uganda

Characteristic	Mean	Standard Deviation	Minimum	Maximum
Age	37.47	10.37	20	61
Household size	6.04	2.40	1	12
Number of children	4.39	1.81	1	9
Rural	0.88	0.33	0	1
Sole business owner	0.90	0.31	0	1
No. of employees	0.39	0.84	0	4
Home-based business	0.32	0.47	0	1
Business income (USh/month)	369,825	461,958	30,000	3,000,000
Contribution to household income (USh/month)	168,509	114,322	10,000	600,000
Total household income (USh/month)	280,439	138,855	60,000	80,000
% contribution to household income	0.67	0.36	0.20	1

4 Table 2 provides key background information on the women micro-entrepreneurs. The average age of the women was 37.5 years, though the spread was rather large due to both mothers and grandmothers being eligible respondents, as discussed in the Methodology chapter. The average household size was six, while the mean number of children was four. An overwhelming majority of respondents identified their household as being located in a rural area (88%).

Figure 2a and 2b. 2a - Marital Status of Respondents and Single; 2b - Cohabiting Respondents



5 Considering the marital status of the sample, 44% were married at the time of asking, while approximately one third were separated or divorced. The remainder were roughly split between being unmarried and widowed. Exploring this data in more detail revealed that a sizeable proportion of those who reported being married were not actually living with their husband. Informal discussions with respondents suggested that this was largely due to polygamy. On the other hand, all those who reported being unmarried were in fact living with a partner. Thus, an alternative, and perhaps more useful way to summarise the data is to split the sample into cohabiting and single women, with the former consisting of those women – married or unmarried – who are living with a partner. This yields 22 cohabiting and 35 single women, 39% and 61% of the total sample respectively.

6 Regarding education and literacy, 91% of the sample were able to read – almost all of whom could also write. The same percentage of respondents had attended at least primary school, with 46% having attended secondary school or above. These figures are broadly similar to the results of the most recent census data for Luwero District, which show a literacy rate for 18 to 30-year-olds of 90% and a female secondary school attendance rate of 41% (UBOS, 2018).

Table 3: Frequency Table of Business Types

Business Type	**Frequency**
Trading in primary foodstuffs	23
Agriculture (cultivating fruit, vegetables, etc.)	13
Restaurant, food stall	11
Basket-weaving	4
Hair and beauty	4
Selling charcoal	3
Rearing livestock	3
Drinks stall, bar	3
Tailoring	3
Petty shop vendor	3

7 Moving on to characteristics related to the microenterprise, Table 3 shows the most frequently occurring business types. The modal business type was *trading in primary foodstuffs,* which refers to the selling, but not production, of basic food items such as fruit and vegetables. Over 40% of respondents were involved in this activity. The second most common business type was *agriculture*, which refers specifically to the production of crops and was often done in tandem with other food-related activities, such as the aforementioned *trading in primary foodstuffs*, or *preparing food to sell at a stall*

or restaurant – the third most common business type. Overall, the three most common business activities among the sample were all are related to food and nutrition, lending credence to the observation made in the Case Study chapter, that Luwero District's economic activities are largely agricultural in nature.

8 Referring back to Table 2, almost all of the women (51) reported being the sole owner of their business, with the remainder having joint ownership over it. Approximately one third of the women reported that their main business was located at home, and the vast majority (77%) did not have any employees. The mean monthly income from the women's businesses was 370,000 Ugandan shillings (USh), which roughly equates to 100 US dollars (April 2018) – though this figure varied greatly across respondents with a minimum value of 30,000 and a maximum of 3,000,000 Ugandan shillings. The average contribution made by the female business owners toward household income was less than half of their business income, suggesting that these women may be investing some of the latter back into their microenterprise. However, a caveat worth mentioning here is that informal conversations with the respondents suggested they did not consider expenses for things such as school fees to enter into the household income at all, and instead subtracted these expenses directly from their business income. Finally, total monthly household income was approximately 75 US dollars (April 2018), with the female micro-entrepreneurs on average contributing roughly two thirds towards this amount.

5.2 Time Allocation and Division of Unpaid Work

9 The first part of this section uses the data from the time-use survey to provide a snapshot of how the fifty-seven women micro-entrepreneurs allocate their time, going into more granular detail on unpaid work activities. The second part then exploits data from the questionnaire to discuss the division of unpaid work and how this specifically impacts these women.

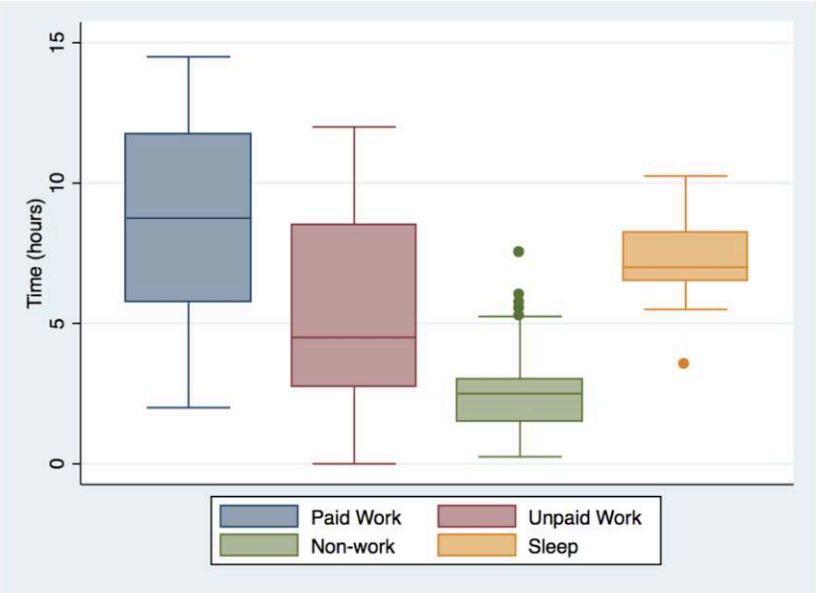
Table 4: Breakdown of Total Time Allocation

Time Classification	Mean	Standard Deviation	Minimum	Maximum
Paid Work	8.63	3.49	2	14.5
Unpaid Work	5.36	3.26	0	12
Non-work	2.60	1.63	0.25	7.5
Sleep	7.41	1.27	3.5	10.25

10 Table 4 aggregates the individual time-use data to give an indication of how the women generally allocate their time within a 24-hour period on a regular working day. On average, they spend 8.6 hours on paid work, 5.4 hours on unpaid work and 2.6 hours on non-work activities, including eating, drinking, bathing, praying, socialising, using mass-media and resting. The remaining 7.4 hours are spent sleeping. In total, 14 hours of the day are spent dedicated to work of some form.

11 The box plots in Figure 3 illustrate the distribution of hours across paid work, unpaid work, non-work activities and sleep. As can be observed visually, the variation in the number of hours spent on sleep and non-work activities are both relatively low. Conversely, paid work and unpaid work have a large variance. Combined, these findings suggest that differences between respondents are driven by these latter two variables.

Figure 3: Distribution of Total Time by Activity



12 Table 5 disaggregates the data specifically on unpaid work to provide greater detail on these activities. Overall, 57% of total unpaid work carried out by the women is dedicated to caregiving services for family members – the recipients of which are generally their own children. One third of unpaid work is spent on domestic services, such as food preparation and cleaning of the house. The remaining ten per cent is allocated to the production of goods for own final use, which exclusively takes the form of subsistence farming within the sample. However, most respondents (79%) do not engage in this activity.

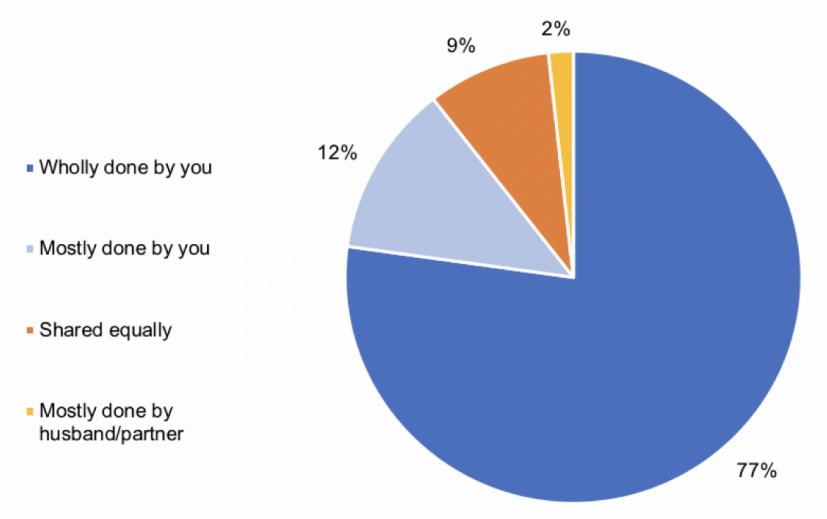
Table 5: Disaggregation of Unpaid Work Activities

Classification	Mean	Standard Deviation	Minimum	Maximum
Unpaid caregiving services for household and family members	3.04	2.69	0	8.5
Unpaid domestic services for household and family members	1.81	1.51	0	7.75
Production of goods for own final use	0.51	1.28	0	6

Unpaid volunteer, trainee and other unpaid work	0	0	0	0

13 A qualitative assessment of the time-use surveys indicates that 36 out of the 57 women are simultaneously carrying out paid and unpaid work – 63% of the total sample. Many other women temporarily stop their paid work in order to do unpaid work. Overall, 81% of respondents are either pausing their paid work to carry out unpaid work, or conducting both simultaneously – suggesting that unpaid work may be constraining the ability of these women to dedicate their full time and attention to their business during working hours. This finding is in keeping with the hypothesis laid out at the end of the Literature Review, which raised the issue of diverted time, the difficulties is measuring this, and how it could be affecting the returns to capital for female micro-entrepreneurs.

Figure 4: Division of Unpaid Work between Women and their Partners



14 Moving from absolute to relative terms, Figure 4 shows the responses to a question on the division of unpaid work between the women and their partner. 77% of the female micro-entrepreneurs reported carrying out all of the unpaid work with respect to their partner, while 89% do either most or all of the caring and domestic responsibilities. However, this result is likely to be skewed by the high proportion of single women, as identified earlier in the chapter. When considering only those women who are cohabiting with a partner, however, 73% are still carrying out most or all unpaid responsibilities. Less than one quarter of cohabiting couples share these unremunerated tasks equally, with only a single reported instance of a man doing more unpaid work than his female micro-entrepreneur partner.

15 The question on the broader division of unpaid labour between these women and their partner, whilst informative, remains fairly abstract. It could therefore potentially be more susceptible to self-reporting bias than more specific, detailed questions. To establish a greater degree of accuracy, the women were also asked about who most commonly carries out specific unpaid care and domestic activities, taking into account all household members. Partial results from this question, relating to the women themselves, are shown in Table 6.

Table 6: Total Unpaid Activities by Proportion Carried Out by the Women Respondents

Activity	**Frequency**	**Proportion 'self'**
Care for ill or elderly	23	0.91
Childcare	56	0.88
Shopping	57	0.86
Cooking and food preparation	57	0.79
Washing clothes	57	0.70
Sweeping the floor	57	0.68
Subsistence	21	0.67
Collecting fuel	48	0.52
Cleaning the dishes	57	0.51
Fetching water	54	0.35
TOTAL	487	0.68

16 The 57 women in the sample reported a total of 487 unpaid care and domestic activities, an average of more than eight discrete unpaid tasks per household – almost all of which are carried out on a daily basis. On aggregate, more than two thirds of all these activities are carried out by the female micro-entrepreneurs themselves. Moreover, 89% of all caregiving activities (for children, ill and elderly family members) are done by these women, suggesting that unpaid care is almost exclusively their responsibility. In sum, even when looking beyond partners to consider the entire household membership, 68% of all unpaid care and domestic tasks are carried out by the female business owners. Given that most of these tasks are daily activities, this finding adds further credibility to the time-use data suggesting that unpaid work is a significant constraint on the time of these women and could be impeding the development of their business.

5.3 Self-reported Constraints

17 Having established how unpaid care and domestic responsibilities affect the women micro-entrepreneurs – both in absolute and relative terms – this section now turns to the more subjective, self-reported constraints to enterprise development. After establishing these broad constraints, particular focus is placed on unpaid work and the practical measures that can be taken to reduce this.

18 Respondents were asked to rank the top three constraints they face to further developing their business, from a choice of ten options, plus *other*. A weighted score

was then created for each constraint, according to the following formula, with the overall rankings shown in Table 7.

19 *Weighted Score* = 3(*Freq.* Rank#1) + 2(*Freq.*Rank#2) + 1(*Freq.*Rank#3)

Table7: Self-reported Constraints to Enterprise Development

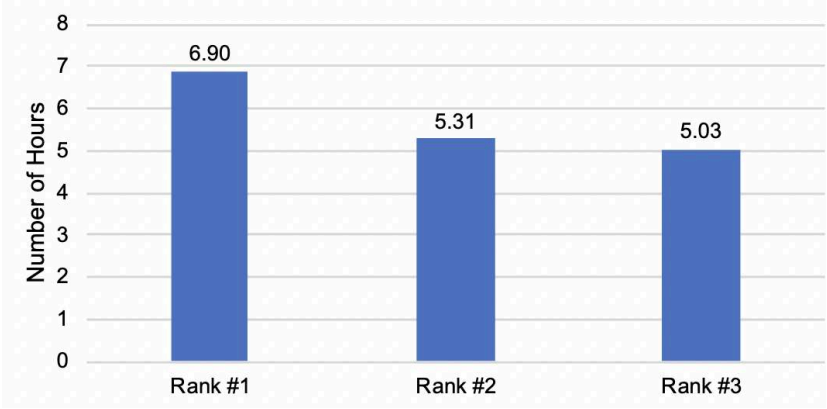
Constraint	Rank #1	Rank #2	Rank #3	Weighted Score
Access to Capital	45	9	2	155
Domestic Responsibilities	5	13	8	49
Access to Better Markets	3	11	9	40
Quality of Employees	2	6	11	29
Business Knowledge	1	6	4	19
Quality of Inputs	1	6	3	18
Control Over Own Income	0	2	12	16
Access to Savings Account	0	2	4	8
Other	0	1	2	4

20 *Access to capital* was by far the biggest factor that these women believe would allow them to further develop their business, with almost 80% of respondents ranking it as their number one constraint. This finding was expected: informal conversations with BRAC research staff and primary investigators of the wider research project suggested that, based on their experiences, capital would habitually be cited as the major constraint. It also fits the narrative of the wider literature on microenterprise, which consistently sees lack of access to finance as the key factor constraining firm growth (e.g. Khandker et al 2013). This result also justifies the provision of microcredit to these women, whose capital constraint may have already been somewhat alleviated through the relaxing of credit constraints. Finally, it is worth considering the potential priming effect of the researcher being associated with BRAC: this may have encouraged respondents to overstate their capital constraint in the hope of receiving additional funds from the microfinance institution.

21 While capital was overwhelmingly reported as the chief constraint to enterprise development, *domestic responsibilities* ranked second highest – despite no framing or prior information, suggesting that this was the focus of the research project. This surprising result adds considerable weight to the previous findings suggesting that unpaid work is a significant time constraint for these women and could be impeding the development of their business. Nine per cent of the sample ranked domestic responsibilities as their biggest constraint, while almost half of the women considered it one of their top three. Figure 5 shows how mean unpaid work varies according to the position of domestic responsibilities among the top three rankings. The more importance attributed to domestic responsibilities in constraining their business, the

greater the amount of unpaid work carried out by the women on average. Most strikingly, those who ranked domestic responsibilities as their number one constraint spent on average almost seven hours on unpaid work per day, compared to the total sample mean of 5.4 hours. These findings suggest that many of those with significant unpaid care and domestic responsibilities are indeed aware of how these impair the development of their business.

Figure 5: Mean Unpaid Work by Domestic Responsibility Constraint



22 On the other hand, the mean unpaid work for those who did not rank domestic responsibilities as one of their three constraints was 5.2 hours – similar to those who ranked it as their second or third largest constraint. Therefore, while it is possible to show how average unpaid work can increase with the self-reported ranking, the data indicates that there are still many women carrying out an equivalent amount of unpaid work who do not consider it to be a constraint on their business. This result suggests three possibilities. For some women, their domestic responsibilities may simply not be constraining their business. Alternatively, they may not be aware of how these unremunerated activities impair their business. Finally, they may have other, more important constraints that have a greater effect on the development of their business.

23 A final noteworthy observation from Table 7 is the third-highest ranked constraint: *access to better markets*. Beyond acting as a constraint on their time, it is feasible that women's unpaid care and domestic responsibilities may also be limiting their choice-set with regards to business decisions, a theory outlined in the Literature Review chapter. Principal among these is geographical restriction, which can be the case when a woman's business is based either within or very close to her home. Thus, a logical hypothesis that can be made here is that unpaid work influences women's decisions on where to locate their business, which in turn limits their access to markets and therefore their ability to grow their business. While it is not possible to prove this causal link with the data collected, the argument is made more convincing by the fact that 100% of those who ranked access to markets as their principal constraint have home-based businesses, with a corresponding figure of 45% for those who ranked it as their second biggest constraint – almost 14 percentage points above the total sample mean.

24 To sum up, the question on self-reported constraints to enterprise development demonstrates that *access to capital* was overwhelmingly the most common response. However, *domestic responsibilities* ranked second despite no indication given to

respondents that this was the specific topic of study for the research. This suggests that unpaid work is indeed identified by many women micro-entrepreneurs as a key factor restricting the growth of their business. Finally, *access to better markets* ranked as the third-largest constraint overall, with suggestive evidence that this may be indirectly linked to unpaid care and domestic responsibilities through geographical constraints.

25 The next question asked respondents how they felt about the amount of time they are able to dedicate to their business. The purpose of this question was to move beyond broad barriers to enterprise development, to focus specifically on the time constraint. The results are shown in Figure 6a. Somewhat surprisingly, given the results of the previous question, most of the women felt that the time they are able to dedicate to their business is *just right*. Only 13 of the 57 respondents reported that they would like to dedicate more time to their business – less than a quarter of the total sample.

26 Qualitative comments from these women overwhelmingly cited care and domestic responsibilities related to children as the main reason why they were unable to spend more time on their business. For instance, several women reported leaving their workplace around lunch time to go home, prepare food and feed their children – before returning to the workplace later in the day. The quantitative data appears to validate these findings, with mean unpaid work by the women increasing with the extent to which they identify time as a constraint to their business (see Figure 6b).

Figure 6a Time Dedicated to Business

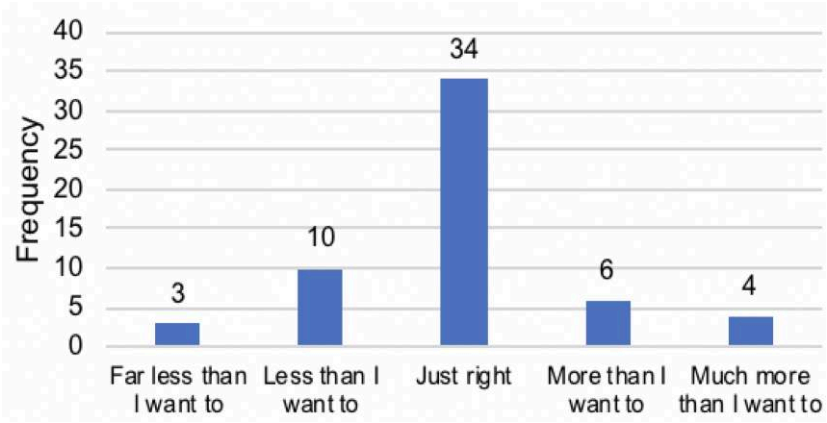
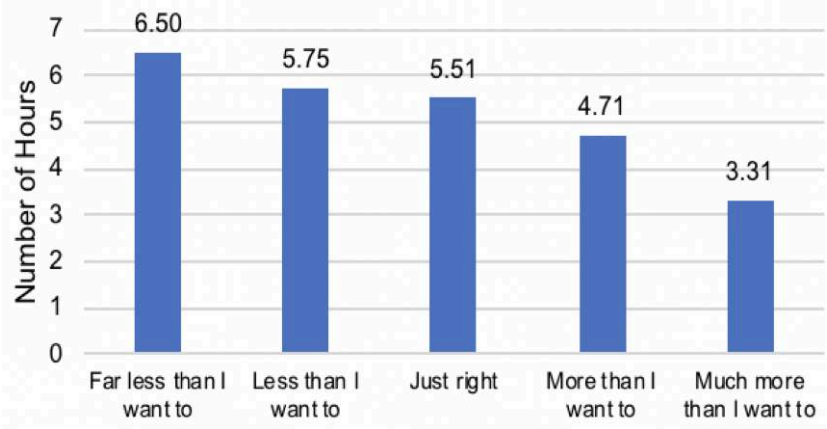


Figure 6b: Mean Unpaid Work by Time Constraint



27 The final question on business constraints asked female micro-entrepreneurs how their business is affected specifically by their care and domestic responsibilities. Twenty-eight of the fifty-seven women reported that unpaid work impairs their business to some extent, while twenty-nine said that it does not affect their business – a roughly even split. What is puzzling about this result is its discrepancy with the previous one: only 13 respondents said that the time they are able to dedicate to their business is less than they would like, yet 28 reported their domestic responsibilities as impairing their business.

28 Two possible hypotheses could explain this. Firstly, it could be the case that domestic responsibilities affect these women's businesses in ways other than time. Alternatively, domestic responsibilities could indeed primarily affect their business through time, but this may only be made salient for many respondents when they are asked explicitly about these tasks. Qualitative comments from the women suggest the latter hypothesis is most likely. Similar to the responses from the previous question, those who reported their domestic responsibilities as impairing their business overwhelmingly stated the time devoted to caring and providing for their children as the main reason for this. Moreover, the time-use data appears to confirm this hypothesis. A t-test shows that, for those who reported domestic responsibilities to be impairing their business, the mean amount of unpaid work is 6.3 hours, while the corresponding figure for those who reported no effect on their business is 4.5 hours – a difference that is statistically significant at the five per cent level.

29 Overall, the combination of the above three sets of results suggest that unpaid care and domestic work is identified by the female micro-entrepreneurs as a significant constraint to developing their business, directly and possibly also indirectly through the geographical restrictions these responsibilities place on these women. Roughly half of the sample reported their unpaid work to be impairing their business, with these women carrying out significantly more unpaid work than the rest of the sample. Finally, qualitative comments from the women suggest that caring and providing for their children constitutes the majority of this time.

30 The final part of this section now turns to the practical steps that can be taken in order to reduce the unpaid care and domestic responsibilities of these female micro-entrepreneurs. The women were asked to rate how helpful a number of services would be in reducing their domestic responsibilities, from 0 (*not helpful at all*) to 4 (*extremely helpful*). The results are shown in the left panel of Table 8.

Table 8a: Rating of Services

Service	**Freq.**
Childcare	38
Household cleaning	9
Water point closer to home	5
Food preparation and cooking	4
Fuel source closer to home	1

Care for ill or elderly	0

Table 8b: Ranking of Service with Most Time-Saving Potential

Service	**Rating**
Childcare	3.02
Food preparation and cooking	2.07
Household cleaning	2.02
Water point closer to home	1.90
Fuel source closer to home	1.83
Care for ill or elderly	1.28

31 *Childcare* received the highest ranking across all services, by quite a large margin. Similarly, when asked to select the one service with the most time-saving potential for them, two thirds of the women picked this option (see Table 8b). Given the qualitative responses from the previous questions, these results should not come as a surprise. Intriguingly, however, a t-test for equality of mean unpaid work between those whose eligible children do and do not attend day-care yields a p-value of 0.46, suggesting no statistically significant difference between them. So, despite childcare being seen as having the most time-saving potential, those women whose children attend day-care do not appear to be benefitting personally from this in terms of time saved on unpaid work.

32 A more detailed analysis of the data sheds some light on why this may be the case. Firstly, 52 of the women send at least one of their eligible-age children to day-care, 91% of the total sample. Despite this, a majority of women still selected childcare as the service with the most time-saving potential. When asked why, the qualitative responses from the women follow a broad trend – and this is backed up by an in-depth qualitative review of the time-use surveys.

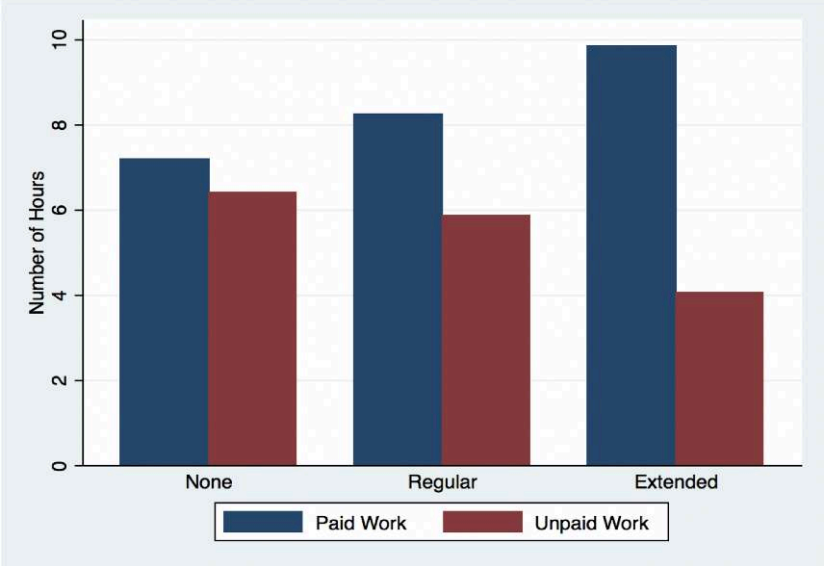
33 In general, the women spend a significant amount of time in the morning preparing for their children: waking them up, clothing them and feeding them. A few then escort their children to their respective childcare facilities before going to the workplace. Once at the workplace, many begin preparing lunch while attending to customers. Most of the children attending day-care finish by 1pm and subsequently either return home or join their mothers at their place of work. Either way, the women are largely responsible for feeding them – diverting their attention away from customers at the workplace, or temporarily leaving in order to return home. After lunch, those who went home journey back to the workplace, while those who remained there balance their paid work with caring for their children. The women are generally responsible for preparing dinner for the household, which forces them to leave the workplace at a specific time – earlier than they may wish to. After returning home and bathing their children, the women serve dinner for their family – sometimes cleaning the dishes

afterwards. They then spend some time caring for their children – talking with them or perhaps helping with homework – before finally preparing their children for bed.

34 As is made clear in this vignette of the average working day for these women, the few hours their children spend at day-care do not appear to be having a transformative effect on the amount of unpaid work they carry out. Therefore, based on the responses to the initial question and the qualitative picture painted above, it seems that *more hours* of childcare services are key to enabling women micro-entrepreneurs to grow and develop their business.

35 The next step in this analysis is therefore to explore how the length of time spent in day-care interacts with unpaid work. The questionnaire data indicated that 17 of the 57 women in the sample had at least one of their children in day-care for extended hours – defined as until at least 4pm. This facility was available in most of the day-care centres visited, at an extra cost. The total sample can therefore be split into three groups according to day-care status: those who do not send any of their eligible children to day-care facilities; those who send at least one child to regular day-care; and those who send at least one child to extended day-care. Figure 7 graphs the mean paid and unpaid work of the women according to this day-care status.

Figure 7. Paid and Unpaid work of the women



36 There appears to be a positive relationship with paid work and a negative relationship with unpaid work carried out by the women micro-entrepreneurs, with respect to the amount of time their children spend in day-care. To test whether these associations are statistically significant, a regression analysis was carried out to estimate how the unpaid work carried out by the women varies in comparison with the extent of day-care their young children receive. Treating regular and extended day-care as two separate dummy variables, the estimation is as follows:

37 $Unpaid_i = ß_0 + ß_i\, Regular_i + ß_2\, Extended_i + \varepsilon_i$

38 The results of this regression are shown in Panel A, Column 1 of the full set of regression results in Table 9. For regular day-care, the estimated coefficient is equal to -0.55 with a corresponding p-value of 0.72. The small coefficient and high p-value suggest there is little evidence of a relationship with unpaid work, compared to those

whose children do not attend day-care. On the other hand, the coefficient on extended day-care is equal to -2.34, with a corresponding p-value of 0.16. While no statistically sound conclusions can be drawn from this result due to a p-value just above the 0.10 threshold, it nonetheless suggests a large negative relationship between extended day-care and unpaid work: those who send their children to extended day-care appear to spend over two hours less on unpaid work than those who do not send their children to day-care. Despite the small sample size, which makes statistical significance more difficult to establish, it can be argued that this result is still noteworthy – and indeed worth pursuing further.

Table 9: Regression Analysis Results

	Unpaid Work	**Paid Work**	**Non-work**	**Business Income**
	(1)	(2)	(3)	(4)
Panel A: Day-care Status				
Regular Day-care	-0.55	1.04	-0.50	0.20
	(1.53)	(1.65)	(0.92)	(0.38)
Extended Day-care	-2.34	2.64	-0.30	0.75*
	(1.63)	(1.75)	(0.97)	(0.41)
Panel B: Extended Day-care Dummy				
Extended Day-care	-1.86**	1.73*	0.14	0.57**
	(0.92)	(0.99)	(0.55)	(0.23)
Panel C: Empowerment				
Empowerment	-0.54*			
	(0.30)			
Panel D: Cohabiting Status				
Single	-1.59*			
	(0.87)			

*** significant at the 1 per cent level, ** significant at the 5 per cent level, * significant at the 10 per cent level

39 Given the small and highly insignificant coefficient on the relationship between unpaid work and regular day-care attendance, this group was combined with those whose children did not attend day-care to create a new dummy variable for extended day-care: taking the value *1* if at least one child attended day-care for extended hours and *0*

otherwise. Doing this reduced the number of sub-groups of an already small sample, thereby increasing the statistical power of further regression results.

40 Column 1 of Panel B shows the results of a regression of unpaid work on the extended day-care dummy, which suggest a strongly negative relationship between the two variables, significant at the five per cent level. Concretely, women sending at least one child to day-care for extended hours spend 1.86 hours less on unpaid work compared to those who do not.

41 Given that these women appear to reduce their unpaid work, where do they reallocate this time? Columns 2 and 3 of Panel B show the results of similar regressions on paid work and non-work activities (including sleep) respectively. The regression of paid work on extended day-care yields a positive coefficient of 1.73 hours, significant at the ten per cent level. Interestingly, the increase in paid work associated with extended day-care is very similar to the reduction in unpaid work (1.86 hours). The regression of non-work activities on extended day-care, meanwhile, has a very small coefficient (0.14 hours) and an extremely large p-value (0.80), suggesting no relationship between these variables. Together, these results provide strong suggestive evidence that children's attendance of day-care for extended hours enables women to reduce their unpaid work, with a corresponding increase in paid work.

42 Continuing with this line of reasoning, an interesting avenue to explore is how the women's business income varies with the day-care status of their children. A similar regression to the original one was carried out with the natural logarithm of monthly business income as the dependent variable, as shown in the following estimation:

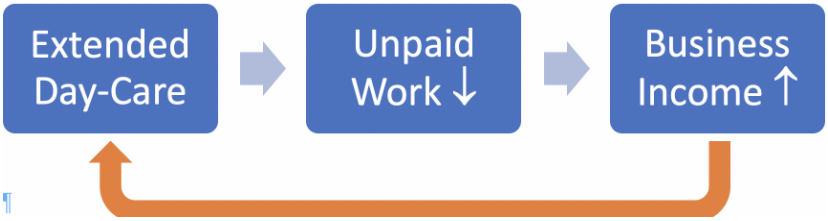
43 $$\ln(Business\ Income_i) = \beta_0 + \beta_i\, Regular_i + \beta_2\, Extended_i + \varepsilon_i$$

44 The results are shown in Column 4 of Panel A. The inclusion of the logarithmic function allows the coefficients to be interpreted as percentage changes. Once again, the coefficient for regular day-care is relatively small and the p-value large (0.60), implying that a relationship with business income is highly unlikely. By contrast, the coefficient for extended day-care is enormous – suggesting that sending children to day-care for extended hours is associated with roughly 75% more business income per month compared to not sending children to day-care at all. This result is significant at the ten per cent level.

45 Following the logic of the previous set of results, the same regression was then run using the extended day-care dummy variable (see Panel B, Column 4). These results appear to confirm the strong positive relationship between extended day-care and business income: having at least one child attend day-care for extended hours is associated with 57% higher monthly business income, a result that is highly significant ($p<0.02$).

46 Based on the combination of the previous two sets of results, a logical explanation is that sending children to day-care for an extended period of time reduces women's unpaid care and domestic responsibilities, thereby allowing them to spend more time in paid work, which in turn increases their business income. Alternatively, the explanation could be one of reverse causality: higher business income allows women to put their children into day-care for longer. Both hypotheses are demonstrated graphically below. With the data available it is not possible to establish the direction of causality.

Figure 8: Alternative Hypotheses for the Relationship between Extended Day-Care and Business Income



47 To sum up, despite the majority of women already sending their children to day-care, they overwhelmingly stated that additional childcare services would be most beneficial to them in terms of reducing their unpaid care and domestic responsibilities. Further exploration of the data demonstrated that the time spent in day-care is usually only a few hours in the morning, with women having to adjust their work schedule to fit around this. There is no statistically significant relationship between unpaid work and sending children to regular day-care. On the other hand, those women who enrol their children in day-care for extended hours do significantly less unpaid work than the rest of the sample, while the relationship between extended day-care and business income is positive, large and significant. Together, this implies that extended childcare services may hold the key to reducing women's unpaid care and domestic responsibilities and unleashing their economic potential in paid work.

5.4 Unpaid Work and Gender Norms

48 The final section considers social norms around gender, and how these may be influencing the allocation of unpaid care and domestic responsibilities between males and females. Three sets of results are analysed: first, the detailed data on total unpaid activities is revisited to observe how many of these are carried out by females; next, a simple measure of empowerment is constructed to test if a relationship exists between decision-making power and unpaid work; finally, a set of attitudinal questions are used to estimate the opinions of women, men and the local community with regard to the role of men and women in unpaid and paid work respectively.

49 Returning to the question of who most commonly carries out specific unpaid care and domestic tasks among all household members, Table 10 shows the proportion done by females.

Table 10: Total Unpaid Activities by Proportion Carried Out by Females

Activity	Frequency	% female
Cooking and food preparation	57	1
Washing clothes	57	1
Care for the ill or elderly	23	0.96
Sweeping the floor	57	0.95

Childcare	56	0.95
Cleaning the dishes	57	0.93
Shopping	57	0.90
Subsistence	21	0.86
Collecting fuel	48	0.67
Fetching water	54	0.65
TOTAL	487	0.89

50 Beyond the previously established finding that women micro-entrepreneurs themselves carrying out 68% of all unpaid activities, these results show that fully 89% of all unpaid care and domestic responsibilities are carried out by females. Males, meanwhile, are commonly responsible for only 11% of total activities. The table ranks the activities according to the proportion of females responsible for doing them, which can be understood as a measure of their relative 'femininess'. Cooking and washing clothes are both unanimously done by females, while the percentages for sweeping the floor, cleaning the dishes and caring for children, the ill and the elderly are all comfortably above 90%. In general, it seems more acceptable for males to be responsible for fetching water or collecting fuel – though it should be added that females are still responsible for these activities in two thirds of instances. Both of these activities are associated with more intense physical exertion, for instance through carrying jerrycans of water or bags of charcoal, and therefore conform to a large extent with traditional gender stereotypes.

51 A final insight to note regarding this result is around *who* these other females are. The female variable includes the women themselves, other female household members and maids. The low incidence of maids in general meant they only carry out three per cent of total activities. Informal discussions with the women micro-entrepreneurs established a common household composition of the women and their children, suggesting that the majority of residual unpaid work is therefore being carried out by their daughters.

52 A series of seven questions were posed to the women to ascertain their level of decision-making power. The questions consisted of decisions about household expenditure on food, education and health; household savings; and expenditure, investment and savings of the women's business income. A rudimentary measure of empowerment was then calculated, based on the number of choices over which the women had decision-making power. Empowerment therefore could take a value from *0* to 7, with a higher score suggesting greater empowerment. A hypothesis to test based on this data is of greater empowerment being associated with less time spent on unpaid work. The results of a simple regression analysis of these variables are shown in Panel C of Table 9.

53 As hypothesised, there is a significant negative relationship between empowerment and unpaid work. More specifically, having decision-making power over one additional factor corresponds to 0.54 hours less unpaid work – significant at the ten per cent level.

More detailed investigation of the data shows that the mean empowerment score is 6.39, with 44 of the 57 women attaining the maximum score of seven. This skew could be driven by the high number of single women in the sample (35), who are likely to make all the decisions about their business and household. To see whether this may be influencing the result, a t-test comparing mean empowerment of single and cohabiting women was run. Mean empowerment for these groups was 6.94 and 5.50 respectively, with the resulting p-value of 0.0001 strongly suggesting that there is a significant difference between them. As hypothesised, mean empowerment for single women is much greater – and extremely close to the maximum value of seven.

54 Based on the assumption that empowerment is in fact being driven by single women, Panel D of Table 9 shows the results of regressing unpaid work against a dummy variable for being single. This yields a large, negative coefficient of -1.59, significant at the ten per cent level. Conceptually, it seems strange that single mothers spend 1.59 hours less on unpaid work than cohabiting women. However, given the apparent gender norms around the distribution of unpaid work, it seems plausible that the additional unpaid care and domestic responsibilities shouldered by women due to a cohabiting partner outweigh the latter's own contributions to these activities. In other words, a cohabiting partner may add to the total unpaid workload of women rather than reducing it. Alternatively, it may be more socially acceptable for single mothers to establish informal arrangements within the community to receive help with their unpaid care and domestic responsibilities. Referring back to the alternative explanations to the Enterprise Household Model (Bernhardt et al., 2017) in the Literature Review, an interesting avenue for further research would be to explore the mechanism through which being single may be associated with higher returns to micro-enterprise, and whether this is being driven by changes in unpaid work.

55 The final set of questions on gender norms asked the female respondents about two situations: the role of men in care and domestic work; and the role of women in income-generating activities. For each of these situations, the women were asked for their own opinion; what they thought was the view of their partner; and what they thought was the view of their local community. Women without a partner were asked about their most recent partner. The possible responses ranged from *much less involvement* to *much more involvement*, on a scale from *0* to *4* respectively. The distribution of results for the two sets of questions are shown in the box plots in Figure 9.

Figure 9a: Distribution of Attitudes towards Men's Role in Care & Domestic Activities.

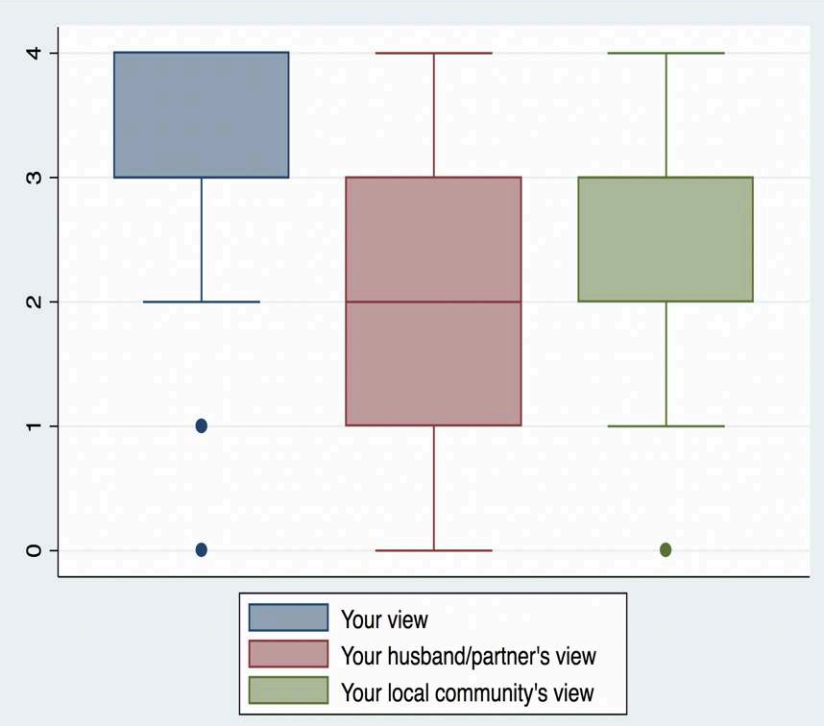
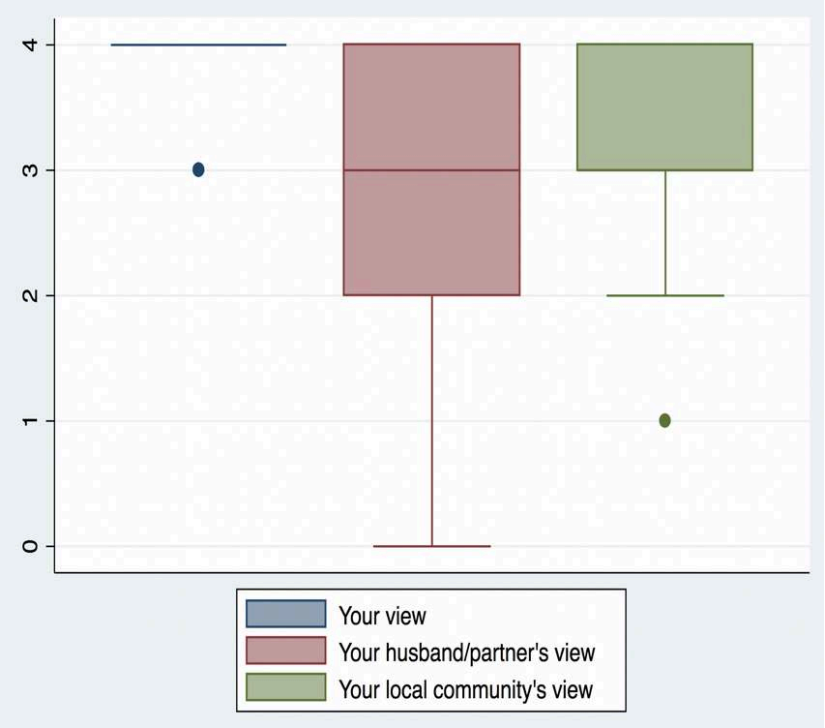


Figure 9b: Distribution of Attitudes towards Women's Role in Income-Generating Activities



56 Regarding the role of men in unpaid care and domestic responsibilities, the women micro-entrepreneurs themselves were strongly in favour of greater involvement from them: more than 84% of respondents answered either 3 or 4 when asked their opinion. By contrast, there were mixed results when the women were asked about their partner's view: 49% of women reported that their partners think men should be less

involved, while the corresponding figure for more involvement was 42%. Finally, the women's opinions on the beliefs of the local community were broadly positive, with 72% of respondents thinking that their local community wants men to be more involved in unpaid care and domestic responsibilities.

57 Moving on to the role of women in income-generating activities, all of the female micro-entrepreneurs stated that women should be more involved to some degree, with almost 90% thinking that women should be much more involved. The women micro-entrepreneur's beliefs about their partners' opinions were also broadly positive, with 71% of them thinking that their partners wanted women to be more involved in paid work. Regarding the view of their local community, the results were overwhelmingly positive: 93% of respondents believed that their local community was in favour of women being more involved in income-generating activities.

58 Two key findings can be drawn from these sets of results. The first is the large disparity between opinions on the role of women in paid work and the role of men in unpaid work. For the elicited opinions of all three actors, the mean score for the former was significantly higher than that of the latter – all valid at the one per cent level. This suggests that it is more socially acceptable for women to be more involved in income-generating activities than it is for men to be more involved in unpaid care and domestic activities. Informal conversations with the women suggested that this is the case: while it is normal for women to engage in paid work, there is a belief that it is still relatively uncommon for men to engage in unpaid work. Several women reported that others in their community would publicly shame men and their families for doing this work, while one woman – whose husband helped her with caring and domestic responsibilities – recounted being accused on multiple occasions of bewitching him. Finally, the implied reference point for this question is the status quo – which, according to the previous results, suggests an already unequal distribution of unpaid work between men and women. That women are encouraged to be more involved in paid work, without an equal amount of encouragement for men to be more involved in unpaid work, suggests that these inequalities will continue to persist over time, and perhaps even widen.

59 The second key finding from these results is their apparent discrepancy with those at the beginning of this section. Despite the women micro-entrepreneurs overwhelmingly responding that men should be more involved in care and domestic activities, the majority of residual unpaid work appears to be done by their daughters. The fact that many of these women are single mothers suggests that they are actively allocating these responsibilities to their daughters rather than their sons, contributing to the reinforcement of prevailing gender norms across generations. When asked during informal conversations why they made their daughters do more unpaid work than their sons, most of the women had no response. Alarmingly, a few of them suggested that girls are responsible for domestic tasks while others claimed that boys are less likely to listen when asked to do unpaid care and domestic tasks. Overall, it appears that it is therefore necessary to shape both men and women's attitudes and behaviour towards the role of males in unpaid work. Without achieving this, gender gaps in unpaid work are likely to persist – which may in turn contribute to the persistence of gender gaps in microenterprise returns.

Discussion

60 The original research question of this thesis asks whether unpaid care and domestic work is a significant constraint to female microenterprise development. Deconstructing this question requires establishing how much unpaid work is being done by women micro-entrepreneurs; the extent to which they identify this as a constraint to their business development; and how the gendered distribution of unpaid work specifically affects females. The questionnaires, time-use surveys and informal discussions conducted with women micro-entrepreneurs in Luwero District, Uganda, provide an insight into the complex relationships between gender, unpaid work and enterprise development. Taking inspiration from the work of Diane Elson (2017), the findings and analysis of the research can be synthesised into three themes around unpaid work, each of which is explored in detail below.

Recognise

61 The first theme focuses on the recognition of unpaid work. This can be understood in terms of accurately identifying the total amount of unpaid work being done by the women and acknowledging how this may act as a barrier to their enterprise development.

62 The unpaid care and domestic responsibilities of the female micro-entrepreneurs are considerable. The time-diary method allows for a detailed appreciation of the allocation of time across different activities, with the data suggesting that these women dedicate an average of 5.4 hours to unpaid work on a regular, working day. Furthermore, over eighty per cent are either temporarily pausing their paid work to carry out unpaid work or doing both simultaneously. Either way, the time and attention of these women is being diverted away from their microenterprises during working hours, which is likely to have a negative impact on their business outcomes.

63 Unpaid care and domestic responsibilities are also reported as a key constraint to enterprise development. Almost half of the women explicitly consider their unpaid work to be a significant barrier to growing their business – second only to capital on an aggregate scoring of constraints. Moreover, there is suggestive evidence that better access to markets, the third-biggest constraint according to the women, is linked to their business being home-based – a decision that may be influenced by expectations around unpaid care and domestic responsibilities.

64 Finally, women who report that their caring and domestic responsibilities impair their business do significantly more unpaid work on average. From a policy perspective, this awareness is promising as it suggests a high take-up of programmes that seek to reduce unpaid work.

Reduce

65 Having recognised how much unpaid work is being done by the women and how this may affect their businesses, reducing unpaid work then requires understanding how different physical and social infrastructure can alleviate this workload.

66 Childcare is by far the service with the greatest time-saving potential according to the women. Most of them already send their young children to day-care for the morning, suggesting that this may not be sufficient in alleviating their time constraint. The provision of extended childcare facilities could therefore have a substantial effect on women's allocation of time to unpaid work. Statistical analysis suggests that sending their young children to day-care for extended hours corresponds with almost two hours less unpaid work done by the women per day, which appears to be reallocated to paid work. Sending their children to extended day-care is also associated with 57% higher monthly business income for the women micro-entrepreneurs. Thus, it seems plausible that additional childcare services alleviate the burden of unpaid work for these women, freeing up time for them to dedicate to their business and thereby generate greater business income.

67 Establishing a causal link between childcare, unpaid work and business outcomes is beyond the scope of this paper. However, the responses from the women coupled with the statistically significant findings from this small sample provide a strong justification for further investigation of this relationship. The forthcoming randomised control trial *Child Care for Childhood and Business Development,* to be carried out in Uganda by the wider research team, aims to establish the causal effect of extended day-care services for children on the business outcomes of their micro-entrepreneur mothers (NHH 2017). The eventual findings of this research are expected to make a substantial contribution to the nascent literature on the topic.

Redistribute

68 While reducing total unpaid work may lead to welfare improvements, it does not change the fact that most of the residual unpaid work will be done by females. Transformative change therefore requires the redistribution of unpaid work, with a more equal sharing of these responsibilities between males and females.

69 Unpaid care and domestic activities are overwhelmingly carried out by women and girls. In this study, 89% of all unremunerated tasks are done by them. Social norms on gender roles appear to explain why this may be the case. The role of men in unpaid work is consistently seen as less socially acceptable than that of women in paid work. Therefore, while women may be increasing their relative participation in paid work with respect to men, an inverse relationship does not appear to hold for unpaid work. These gender gaps in unpaid work are therefore likely to entrench gender gaps in paid work, such as in the business returns of micro-entrepreneurs.

70 Social norms around gender and unpaid work appear to be embodied by both men and women. Despite wanting men to have a greater involvement in unpaid work, women allocate unpaid care and domestic tasks to their daughters far more than their sons. Complementary research conducted in Uganda by Oxfam shows that men and women overwhelmingly select girls as their first choice of helper for unpaid work, with both groups least likely to select boys from a choice of six possible helpers (Rost and Koissy-Kpein 2018). Together, these findings suggest that gender inequalities in unpaid work will persist without targeted interventions – for males and females – aimed at challenging these pervasive social norms.

5. Conclusion

1 This thesis aims to assess whether unpaid care and domestic work is a significant constraint to female microenterprise development. The research question was motivated by economic studies documenting gender gaps in returns to capital within the microenterprise context. These studies appear to demonstrate limited awareness of how unpaid work could be influencing gender gaps – which is the unique contribution of this research to the literature on the topic. Primary field research was carried out in Luwero District, Uganda, to investigate this question through a combination of quantitative and qualitative data.

2 Analysis of this data suggests that unpaid care and domestic work is a significant constraint to female microenterprise development. Three key findings illustrate this. Firstly, the unpaid care and domestic responsibilities of the female micro-entrepreneurs are considerable. Women generally dedicate between five and six hours to unpaid work on a regular working day. More than eighty per cent of them either temporarily pause their paid work to carry out unpaid work, or do both simultaneously. Secondly, unpaid care and domestic responsibilities are identified by the women as a constraint to enterprise development. Almost half of them explicitly consider their unpaid work to be a significant barrier to growing their business. Finally, unpaid care and domestic work is overwhelmingly done by females. Close to ninety per cent of all unremunerated tasks are carried out by women and girls.

3 Three broad implications can be drawn from the findings of this study regarding gender and microenterprise development:

4 First, unpaid work is likely to be an important determinant of business outcomes. It is therefore critical to have a greater awareness of what unpaid work is and the mechanisms through which it affects these business outcomes. Unpaid work should be accurately measured through time-use surveys – establishing how much unpaid work is being carried out and by whom. This data could then inform gender-sensitive policies to promote inclusive labour markets.

5 Second, policies to reduce unpaid work could improve business outcomes for women. Investment in time-saving social and physical infrastructure would free up significantly more time for women, which they could dedicate to paid work. Further research investigating the causal effect of different public services and infrastructure on

women's time and business outcomes would help to establish which of these are most effective in this regard.

6 Third, greater gender equality in unpaid work could lead to greater gender equality in business outcomes. Addressing social norms on gender and unpaid work could encourage greater participation of men and boys in care and domestic responsibilities. This redistribution of unpaid work could in turn narrow gender gaps in returns to capital and other business outcomes. Evidence on what works best to shift these social norms would provide a starting point for testing the effect of these interventions on men and women's time and labour market outcomes.

7 Unpaid care and domestic work is a social good essential for the provisioning of human life. This thesis makes visible the fundamental contribution of unpaid work to society, confirms its gendered distribution and suggests that this could be contributing to gender gaps in labour market outcomes within the microenterprise context. Concrete steps to address this – through recognising, reducing and redistributing unpaid work – could provide a more equal opportunity for female entrepreneurs to fulfil their economic potential.

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Appendices

Appendix I: Questionnaire and Time-Use Survey

1 Microfinance Branch: Date:

2 *Only interview women who have children aged 3-5 years old. Ask this before you start the survey.*

3 *Thank you very much for taking part in this questionnaire. It is part of an ongoing research project on how to potentially improve the range of services offered by BRAC.*

4 *We would like to ask some questions about you, your family and your business.*

5 Part A: Questions about you and your children

6 What is your name?

7 How old are you?

8 *# of years*

9 What is your marital status?

10 *1...Married, living with spouse 2...Unmarried, living with partner 3...Married, not living with spouse 4...Separated 5...Divorced 6...Widow 7...Never married*

11 Are you able to read and write?

12 *1...Yes both, 2...Yes read only, 0...No*

13 What is the highest level of education you have attained?

14 *0...No formal schooling 1...Primary school 2...Lower secondary school 3...Upper secondary school 4...Vocational and technical education 5... University (undergraduate) 6...University (postgraduate) 7... Other, specify*

15 How would you describe the location of your household?

16 *1... Urban area (city, town) 2... Rural (small village, countryside)*

17 Do you have a maid?

18 *1...Yes, live-in 2...Yes, day maid 0...No*

19 What is the total number of people living in your household (excluding maid)?

How many children do you have?

How many children do you have aged 3 to 5 years old?

Can you answer the following questions for all children aged 3 to 5 years old?

ID of the child	What is their first name?	Is it a boy or a girl? *1...Boy 2...Girl*	How old is the child? *# of years*	Who takes care of your child between 8 a.m. and 4 p.m.? *1...You 2... Other family member - provide relationship to you (see codes below) 3...Neighbour 4...Elderly lady in the neighbourhood 5... Nanny/Maid 6...BRAC Play Lab 7...Other day-care 8...Other, specify Use a horizontal arrow to signify time, with the caretaker code beneath it.* *8am 9am 10am 11am 12pm 1pm 2pm 3pm 4pm*																
1																				
2																				
3																				
4																				

Relationship codes: (Note- Relationship to Mother): 2.1... Husband/Partner 2.2... Other Son/ Daughter/Stepchild

2.3... Brother/Sister 2.4... Father/Mother 2.5... Grandparent / Great-Grandparent 2.6...Other relative, specify

If child/children attend day-care:

Do any of these children go to a BRAC Play Lab?

1...Yes 0...No

Do you sometimes talk to the parents of the other children in the day-care/Play Lab before or after the class?

1...Yes 0...No

Do you know the occupation of the other parents?

1...Yes, of all other parents 2...Yes, of some other parents 0...No

Part B: Questions about your business

What did you do from 4am yesterday to 4am this morning?

(Replace by "What did you do last Friday?" if interview takes place on a Monday)

*Write down **one** activity in each box.*

Use time slots as a guide rather than asking about each specific 30-minute period.

Use a vertical arrow to signify time if an activity lasted for more than one 30-minute period.

37 *Encourage respondents to think about simultaneous activities e.g. work and childcare.*

38 ***Write (P) next to an activity if it is done for payment.***

TIME	**What were you doing?** *Write down one main activity*	**If you were doing something else at the same time, what did you do?**
04:00 - 04:30		
04:30 - 05:00		
05:00 - 05:30		
05:30 - 06:00		
06:00 - 06:30		
06:30 - 07:00		
07:00 - 07:30		
07:30 - 08:00		
08:00 - 08:30		
08:30 - 09:00		
09:00 - 09:30		
09:30 - 10:00		
10:00 - 10:30		
10:30 - 11:00		
11:00 - 11:30		

11:30 - 12:00		
12:00 - 12:30		
12:30 - 13:00		
13:00 - 13:30		
13:30 - 14:00		
14:00 - 14:30		
14:30 - 15:00		
15:00 - 15:30		
15:30 - 16:00		

TIME	**What were you doing?** *Write down one main activity*	**If you were doing something else at the same time, what did you do?**
16:00 - 16:30		
16:30 - 17:00		
17:00 - 17:30		
17:30 - 18:00		
18:00 - 18:30		
18:30 - 19:00		

19:00 - 19:30		
19:30 - 20:00		
20:00 - 20:30		
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22:30 - 23:00		
23:00 - 23:30		
23:30 - 00:00		
00:00 - 00:30		
00:30 - 01:00		
01:00 - 01:30		
01:30 - 02:00		
02:00 - 02:30		
02:30 - 03:00		
03:00 - 03:30		
03:30 - 04:00		

39 Was this day a regular/ typical day for you?

40 *1…Yes 0…No, if No specify why*

41 Open question:

42 What have you done differently in your day since your child began day-care/

43 What would you do differently in your day if your 3 to 5-year-old children were in a day-care between 8am and 4pm every weekday (Monday-Friday)?

44 What type of businesses do you run? *(Check all that apply)*

45 *1…Agriculture (i.e. farming of grains, fruits, vegetables, spices) 2… Dairy production (milk, butter, yoghurt, eggs, cheese) 3…Livestock rearing/poultry (meats) 4…Trading in primary foodstuffs (i.e. not producing) 5…Food stall (e.g. restaurant, chapati, etc.) 6…Drinks stall (e.g. juices) 7…Catering (to order) 8…Other food-related, specify 9…Tailoring 10…Weaving/spinning 11…Shoemaking 12…Clothing shop 13…Footwear shop 14…Jewellery shop 15…Other garment/ clothing-related, specify 16…Hair and beauty 17…Manufactured goods vendor (pans, pots, plates, toys, etc.) 18…Toiletries (toothbrush, toothpaste, creams, lotions, oils) 19…Electronic goods 20… Petty shop vendor (e.g. washing powder, snacks, drinks, airtime, etc.) 21…Airtime/mobile credit only 22…Taxi services 23…Pottery 24…Basket/net weaving 25…Rope making 26…Cleaning business 27…Washing business 28…Other, specify*

46 Open question:

47 What have you done differently in your business since your child began day-care?

48 What would you do differently **in this business** if your 3 to 5-year-old children were in a day-care between 8am and 4pm every weekday (Monday-Friday)?

49 How has your business income changed since your child began day-care?

50 How do you think your business income would change if your 3 to 5-year-old children were in a day-care between 8am and 4pm every weekday (Monday-Friday)?

51 *1… Much lower 2… Somewhat lower 3… No change 4… Somewhat higher 5… Much higher*

52 If answered *4* or *5*: Roughly how much more per month?

53 *UGX*

54 Are you the business owner?

55 *1…Yes, sole owner 2…Yes, joint owner 0…No, if Yes, go to Q8*

56 If no, who owns the business?

57 *1… Spouse/Partner 2… Other immediate family member, specify relationship 3… Other extended family member, specify relationship 4… Friend 5… Religious community members 6… Other, specify*

58 Do you have employees in the business?

59 *1…Yes 0…No, if no go to Q10*

60 How many employees are family members?

61 *Ask relationship to the woman*

62 Do you pay these family members? *1…Yes 0…No*

63 How many other employees do you have?

64 Do you pay these other employees? *1…Yes 0…No*

Is your business located at home?

1...Yes 0...No If yes, go to Q13

What is your main mode of transportation to get to your business from your household?

1...Walking 2...Bicycle 3...Boda 4...Taxi 5...Bus/Matatu 6...Motorbike/Scooter 7...Car 8...Other, specify

Using this mode of transport, how long does it take to get to your business location?

1...[< 5 mins] 2...[5-15 mins] 3...[16-30 mins] 4...[31 mins – 1 hour] 5...[>1 hr, < 2 hrs] 6...[> 2 hrs]

How long ago did you start your business?

 # years

Do you use a savings account for your business?

1...Yes, with a bank 2... Yes, with a mobile money account 3... Yes, both 4... Yes, other (specify) 0... No

How much income do you make from your business in an average month?

UGX

Do you wish to grow or further develop your business?

1... Yes 0... No, if No go to Q17

Do you have a specific plan for this?

1... Yes 0... No

Are you planning to hire any new workers for your business in the next yr.?

1...Yes 0...No. If yes: how many?

Are you planning to buy any new equipment for your business in the next yr.?

1...Yes 0...No. If yes: How large is the investment? *UGX*

Are you planning to open a new business in the next year?

1...Yes 0...No. If yes:

What type of business?

Why do you want to open new business instead of expanding existing one?

What would you identify as the top 3 factors that would allow you to further develop your current business or start a new business? Rank 1, 2, 3 (1 = biggest constraint).

1... Access to better markets 2... Access to more capital 3... Access to a deposit/savings account 4... Better quality inputs 5... Better quality employees 6... Better business knowledge

7... Fewer domestic responsibilities 8... More control over your own income

9... Larger social network 10... Taking more risks 11...Other, specify

1. 2. 3.

How do you feel about the amount of time you are currently able to dedicate to your business?

1... Much more than I want to 2... More than I want to 3... Just right 4... Less than I want to

5... Far less than I want to

18.1 If answered *4 or 5*: Why?

98 How do your domestic responsibilities (childcare, cooking, cleaning, etc.) affect your business?

99 *1... Greatly improves your business 2... Somewhat improves your business 3... Does not affect your business 4...Somewhat impairs your business 5... Greatly impairs your business*

100 19.1 If answered *4 or 5*: Why?

101 How helpful would the following services be in reducing your domestic responsibilities?

	0 Not at all helpful	1 Somewhat helpful	2 Quite helpful	3 Very helpful	4 Extremely helpful
18.1 Food preparation and cooking services					
18.2 Household cleaning services					
18.3 Childcare services					
18.4 Care service for ill or elderly persons					
18.5 Access to water point closer to home					
18.6 Access to fuel source closer to home					

102 Of these initiatives, which **one** do you see as having the most significant time saving potential?

103 *1... Food preparation and cooking services 2... Household cleaning services 3... Childcare services 4... Care service for ill or elderly persons 5... Access to water point closer to home 6... Access to fuel source closer to home*

104 Why?

Part C: Questions on Child Care and the Household

105 What is your contribution to household income per month? *(UGX)*

106 What is your husband/partner's contribution to household income per month? *(UGX)*

107 What are the other household members' total contribution to household income per month? (*UGX)*

108 Who makes most decisions about what **food items** to purchase for the household?

109 *1...You 2...Your husband/partner 3...Other household member, specify*

110 Who makes most decisions about what **educational expenditures** to make for the household?

111 *1...You 2...Your husband/partner 3...Other household member, specify*

112 Who makes most decisions about what **health expenditures** to make for the household?

113 *1...You 2...Your husband/partner 3...Other household member, specify*

114 Who makes most decisions about **household savings**?

115 *1...You 2...Your husband/partner 3...Other household member, specify*

116 Who makes most decisions about what to do with the **income generated by your business**?

117 *1...You 2...Your husband/partner 3...Other household member, specify*

118 Who makes most decisions about **investments in your business**?

119 *1...You 2...Your husband/partner 3...Other household member, specify*

120 Who makes most decisions about **savings from your business**?

121 *1...You 2...Your husband/partner 3...Other household member, specify*

122 What is the division of domestic responsibilities between you and your husband?

123 *1... Wholly done by you 2... Mostly done by you 3... Shared equally*

124 *4...Mostly done by husband 5... Wholly done by husband*

125 Who is the household member primarily responsible for the following:

126 *1...You 2...Husband/partner 3...Other family member, female 4...Other family member, male*

127 *5...Maid 0...Not applicable*

128 Caring for children?

129 Caring for ill or elderly persons?

130 Household shopping?

131 Cooking and food preparation?

132 Cleaning of dishes?

133 Sweeping of the house?

134 Washing of clothes?

135 Collecting fuel?

136 Fetching water?

137 Tending to animals and/or farmland?

138 What is your view on men's role in domestic responsibilities?

139 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

140 What do you think is your husband's view on men's role in domestic responsibilities?

141 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

142 What do you think is your community's view on men's role in domestic responsibilities?

143 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

144 What is your view on women's role in income-generating activities?

145 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

146 What do you think is your husband's view on women's role in income-generating activities?

147 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

148 What do you think is your community's view on women's role in income-generating activities?

149 *1...They should be much more involved 2...They should be more involved 3...They should be neither more nor less involved 4...They should be less involved 5...They should be much less involved*

150 ***-END-***

151 *Thank you very much for taking the time to take part in this questionnaire.*

152 *It will be of great use to us in exploring how to make microfinance products like the one you have even more effective in the future. I wish all the best for you, for your family, your business and any future endeavours.*

Appendix II: ICATUS 2016 Classifications

Major division	Division	Activity title
1		**Employment and related activities**
	11	Employment in corporations, government and non-profit institutions
	12	Employment in household enterprises to produce goods
	13	Employment in households and household enterprises to provide services
	14	Ancillary activities and breaks related to employment
	15	Training and studies in relation to employment
	16	Seeking employment
	17	Setting up a business
	18	Travelling and commuting for employment
2		**Production of goods for own final use**
	21	Agriculture, forestry, fishing and mining for own final use
	22	Making and processing goods for own final use
	23	Construction activities for own final use
	24	Supplying water and fuel for own household or for own final use
	25	Travelling, moving, transporting or accompanying goods or persons related to own-use production of goods
3		**Unpaid domestic services for household and family members**
	31	Food and meals management and preparation
	32	Cleaning and maintaining of own dwelling and surroundings
	33	Do-it-yourself decoration, maintenance and repair
	34	Care and maintenance of textiles and footwear
	35	Household management for own final use
	36	Pet care
	37	Shopping for own household and family members
	38	Travelling, moving, transporting or accompanying goods or persons related to unpaid domestic services for household and family members
	39	Other unpaid domestic services for household and family members
4		**Unpaid caregiving services for household and family members**
	41	Childcare and instruction
	42	Care for dependent adults
	43	Help to non-dependent adult household and family members
	44	Travelling and accompanying goods or persons related to unpaid caregiving services for household and family members
	49	Other activities related to unpaid caregiving services for household and family members
5		**Unpaid volunteer, trainee and other unpaid work**
	51	Unpaid direct volunteering for other households
	52	Unpaid community- and organization-based volunteering
	53	Unpaid trainee work and related activities
	54	Travelling time related to unpaid volunteer, trainee and other unpaid work
	59	Other unpaid work activities
6		**Learning**
	61	Formal education
	62	Homework, being tutored, course review, research and activities related to formal education
	63	Additional study, non-formal education and courses
	64	Travelling time related to learning
	69	Other activities related to learning
7		**Socializing and communication, community participation and religious practice**
	71	Socializing and communication
	72	Participating in community cultural/social events
	73	Involvement in civic and related responsibilities
	74	Religious practices
	75	Travelling time related to socializing and communication, community participation and religious practice
	79	Other activities related to socializing and communication, community participation and religious practice
8		**Culture, leisure, mass-media and sports practices**
	81	Attending/visiting cultural, entertainment and sports events/venues
	82	Cultural participation, hobbies, games and other pastime activities
	83	Sports participation and exercise and related activities
	84	Mass media use[36]
	85	Activities associated with reflecting, resting, relaxing
	86	Travelling time related to culture, leisure, mass-media and sports practices
	89	Other activities related to culture, leisure, mass-media and sports practices
9		**Self-care and maintenance**
	91	Sleep and related activities
	92	Eating and drinking
	93	Personal hygiene and care
	94	Receiving personal and health/medical care from others
	95	Travelling time related to self-care and maintenance activities
	99	Other self-care and maintenance activities