



Received: 27 August 2017
Accepted: 19 December 2017
First Published: 27 December 2017

*Corresponding author: Liberata Mukamana, School of Women and Gender Studies, Makerere University, Kampala, Uganda
E-mail: lmukamana@ur.ac.rw

Reviewing editor:
Jennifer Croissant, University of Arizona, USA

Additional information is available at the end of the article

SOCIAL ANTHROPOLOGY | RESEARCH ARTICLE

Control over the utilization of the loan and the pattern of the gendered division of labor in the loan-funded activity: A case of Duterimbere MFI in Rwanda

Liberata Mukamana^{1*}, May Sengendo¹ and Edith Okiria¹

Abstract: Microcredit is believed to promote the low status of women in decision-making when they can control their loan-funded activities. However, the gendered division of labor of the patriarchal societies is known to create gender inequality in the ways women and men participate in their businesses as women are puzzled by sharing their time between productive and reproductive responsibilities. Based on a cross-sectional research carried with the borrowers in Duterimbere MFI in Rwanda, this paper examines the effect of microcredit on the ability of women and men to control over loan use and allocation of income gained from loans. The study findings revealed that in overall there was gender equality in participating in income generating activities and power over economic decision-making. The only indicator of control over loan that showed inequality between women and men was their level of freedom from domination. This gender inequality comes from cultural norms that prohibit the participation of men in household chores. Intervention to promote gender equality in control over loan use must target to promote men's willingness to lessen women's reproductive responsibilities.

Subjects: Anthropology - Soc Sci; Gender Studies - Soc Sci; Credit & Credit Institutions

Keywords: control over loan; gender division of labor; loan-funded activity; Duterimbere MFI; Rwanda

ABOUT THE AUTHORS

Liberata Mukamana is a PhD candidate in the School of Women and Gender studies, Makerere University, Uganda. Her research interests are in financial inclusion, economic development and women's empowerment.

May Sengendo is a senior lecturer in the School of Women and Gender Studies at Makerere University. Her research interests include Gender and Local Economic development, value chain, gender and energy and women's empowerment.

Edith Okiria is a senior lecturer in the School of Women and Gender Studies. Her research interests include gender in rural economic development, gender and the marginalized groups in society, sexual and reproductive health, gender based violence, women empowerment and gender and HIV and AIDS particularly in Africa.

PUBLIC INTEREST STATEMENT

Cultural norms that assign different roles and responsibilities to females and males continue to shape the division of labor in the loan-funded activity. Women perform the tasks that are done near the home for sharing their time between their income generating activities and their reproductive roles. This gives to men an opportunity to perform the tasks that require more mobility and interaction with the public. This study explains how social conventions of confining women in reproductive roles increase the probability of being dominated by men in decision making regarding control over the loan's investment activity. For promoting equal opportunities in decisions regarding the utilization of loans, there is a need to ensure that increased access to microcredit is accompanied with other empowering initiatives that reduce women's attachment to household chores.

1. Introduction

There is a growing recognition among development practitioners that increased access to microcredit impact positively the lives of poor entrepreneurs, particularly women (Alhassan & Akudugu, 2012). In Rwanda, microfinance institutions were given greater emphasis in poverty alleviation programs due to their strategies of empowering women and promoting rural development by providing small loans to low-income entrepreneurs (Peege, 2010). The popularity of microcredit is based on the argument that it boosts self-employment and income generation which are considered as the entry point in poverty alleviation programs designed to benefit “the bottom poor” (Heyzer, 1994). Previous researchers such as Angko (2013) and Idris and Agbim (2015) revealed that microcredit plays a greater role of promoting the welfare of the poor by providing numerous benefits including job opportunities for themselves or their relatives, increased productivity of their businesses, access to increased income, buy more household assets and improved standards of living, self-esteem and greater status within the family and the society. Rani and Yadeta (2016)’s findings established that loan services bring change on women’s status and promote the well-being of their families. That is why the interest of promoting increased access to microcredit has evolved from merely accessing to money to empowering women and other low-income folks (Akotey & Adjasi, 2016; Gobezie, 2010; Islam, 2012; Kessey, 2014).

Empowerment is a multidimensional concept that can be viewed as the process of giving power or authority to the powerless for enabling them to make strategic decisions about their life (Muraleedharan, 2005), or as the process of changing the balance of power between the sexes so as to create a more equitable distribution of power in society (Panigrahy, 2006). The empowerment approach used by microfinance policy-makers came from the Framework of Longwe (1991) that defines five hierarchical levels of equality necessary for achieving the Empowerment of women in developmental projects. These hierarchical levels are Welfare, Access, Conscientisation, Participation and Control. The highest hierarchical level of Longwe’s Empowerment framework is control whereby there is equality of control over different aspects of decision-making including factors of production and distribution of the benefits. At this degree of empowerment, there is a balance of power in decision-making; neither men nor women dominate (March, Smyth, & Mukhopadhyay, 1999).

However, the balance of power in the decision about loan use and allocation of income gained from loans has been questioned by a body of empirical researches. Alhassan and Akudugu (2012) revealed that women’s empowerment is constrained by the fact that they don’t control the use of their loans. Kabeer (1998) analyzed control over the utilization of microcredit as a principal factor in the process of empowering poor female and male entrepreneurs. The findings of her study showed that men take a much greater part in making decisions related to women’s loans than women do in decisions relating to men’s loans. Similarly, Bamwesigye (2008) reveals that some women borrowers in Urwego Opportunity Bank in Rwanda had no full control over their loans. Her respondents indicated that they use joint accounts with their husbands for receiving their loans, loan repayment and saving the profit earned from their income generating activities. This claim of loss of power in the control over loan taken by women was also supported by a 2006 World Bank study that discovered that men often hold primary control over loan resources, even when credit is granted in the name of a female family member (Lyby, 2006).

This gender inequality in controlling the use of the loan was based on cultural norms of the patriarchal societies that outline the division of labor between females and males in the conduct of income generating activities (Ngo & Wahhaj, 2012). Social and cultural norms limit women’s control over the use of their loans by attributing them a heavy workload in reproductive roles. Therefore, it is logical that women depend more on the support of male household members than men depend on women’s labor while they are performing their loan’s financed activities (Ngo & Wahhaj, 2012). Women’s limited participation in their loan’s investment activities has many consequences on them and the whole family. Their loss of control over the use of the loan limits their say in household decision-making, strengthen oppressive gender norms and upholds women’s subordination (Chowdhury & Mukhopadhyaya, 2014).

Given that the rationale of giving microcredit is to reduce gender inequality in decision-making, an investigation of how microcredit is controlled by female and male borrowers would enable microfinance providers and policy makers to strength their empowerment approaches. This analysis is based on the caution of Chowdhury and Mukhopadhaya (2014) that women may control and use the loan but surrender her income to the husband for the management. This reality which was scantily investigated in the Rwandan context is necessary for the Economic Development Agenda of expanding the scope of the country's financial inclusion (USAID, 2009). This research paper explored gender dimensions of the Rwandan Society in the control over loan for promoting the design of empowerment approaches that fit the specific needs of the bottom poor of the county. This paper therefore analyzes control over loan by looking at labor provision in the loan-financed activity and control over the income earned through economic decision-making within the household and freedom from domination.

2. Conceptualization of control over loan

The possession of full control over loan, the funded activity and income gained thereof is considered as prerequisite for enhancing the empowerment potential of microcredit in the life of the poor, particularly women (Ganle, Afriyie, & Segbefia, 2015; Goetz & Gupta, 1996; Kabeer, 1998). In this respect, control over loan has been applied to the concept of empowerment in terms of individual's sense of agency (Arestoff & Djemai, 2016). Agency in the process of women's empowerment was considered by Kabeer (1999) as decision-making ability that involves bargaining and negotiation, deception and manipulation, subversion and resistance. Individual's agency is also viewed as the ability to define one's life-choices and act upon them even if these choices are in opposition with their peers (Arestoff & Djemai, 2016). Individual's sense of agency in this process requires that those who were denied the ability to make strategic life choice gain such an ability (Kabeer, 1999). This argument makes clear that microcredit cannot uplift women's status if they remain subordinate in the decision-making regarding control over their loans as well as their income. The conceptualization of female agency in the empowerment process has been collapsed into three domains: women's influence in family decision-making, their freedom of movement in public spaces, and their expressions of views favoring more equitable gender roles (Salem, Cheong, VanderEnde, & Yount, 2015).

This conceptualization of agency as a pathway to control over decisions and empowerment directed a number of measurable indicators to assess the level of control over the loan possessed by the borrower. Goetz and Gupta (1996) classified female borrowers in the categories of having or lacking the managerial capacity over their loans by looking at how husbands of female borrowers interfere with the utilization of the loan taken by their wives. These researchers developed a five point index of loan control as their indicator of empowerment. They identified five levels of loan control, namely: full control, significant control, partial control, very limited control and no control at all. Full control means entire control over the productive process, including marketing. Significant control means control over every aspect of the productive process with the sole exception of marketing. Partial control means loss of managerial control over the productive process, but the provision of substantial inputs of labor. Very limited means minimal input to the production process, for example, small labor contributions. No involvement means that women did not provide labor in the production process of their loan's investment activity. This implies that women had no managerial involvement and this situation corresponds to cases where women stated that they did not know how male relatives used their money. Kabeer (1998) did a research that distinguishes between women who played a minimal role in different areas of their loan investment activities; those who described a joint role in decision-making; and those with a major role in decision-making. She used a matrix which considered women's role in decision-making regarding the use of the loan, participation in running the business, and the use of profits. For exploring the empowerment of women through control over loan use Ganle et al. (2015) used a relational pathway matrix that was composed by three indicators namely control over loan use and income from loans, involvement in major family decision-making and relative freedom from domination and abuse. On the indicator of control over loan use, respondents were asked to specify whether they exercise full, significant, partial or no control over any profits or income that accrued from investment made with the loan.

Respondents were also asked to specify whether their husbands or any other member of their families have ever forcefully taken away income from their loan investments. Involvement in major family decision-making was assessed by asking women to specify whether before and after they received the loan, they participated in decision-making within the family on such issues as sale of family land or livestock, sending children to school or the clinic and marrying out of their daughters. Relative freedom from domination and abuse was assessed by asking respondents to specify whether before and after they had access to the loan, money, jewellery, or livestock had been taken away from her against their will or if respondents had suffered any physical, emotional or verbal abuse from their husbands before and after receiving the loan.

Based on the above mentioned measures, this study split the concept of control over the loan into three main domains: labor provision in the loan-funded activities, involvement in economic decision-making and freedom from domination.

- The first indicator of labor provision was measured by asking respondents to specify their level of participating in different tasks of their loan's investment activities from the initial loan proposal, to investment in productive assets, labor inputs, marketing, and repayment of the loan. A three point scale was used where 1 indicated that the borrower never participated at all in the activity; 2 indicated that there was a partial participation of the borrower in the productive activity (to mean that the borrower received labor support from the spouse or any other person); and 3 indicated that the activity was full accomplished by borrower alone.
- The second indicator involvement in economic decision-making was measured by asking respondents if they were able to participate the family's economic decision such as allocation of household income, buying a new asset of the family, sell of a family asset, decision on small household purchase, decision on large household purchase, children's education and school fees, social contribution, household's investment activity, household saving, job creation for the family members. A five point scale was used where 1 indicated that their economic decision-making was very low, 2 indicated that their economic decision-making was low, 3 indicated that their economic decision-making was moderate, 4 and 5 indicated that the economic decision-making was high and very high.
- The third indicator of freedom from domination was assessed by asking respondents to specify if they are free to take the following decisions: Mobility(visiting family/friends, market, medical facilities), Family planning, marriage of children, Participation in social events, labor provision in household chores, freedom from domestic violence, participate in community politics. A five point likert scale was used where 1 indicated that their freedom was very low, 2 indicated that their freedom was low, 3 indicated that their freedom was moderate, 4 and 5 indicated that their freedom was high and very high.

The first indicator of labor provision relates to control over loan use while the last two indicators i.e. participation in economic decision-making are related to control over the use of income gained from loan's investment activity. Arestoff and Djemai (2016) argued that these three indicators are complementary for the process of women empowerment. Similarly, this research assume that women can't be considered to possess power of her loan if she can't offer labor in her loan's investment activity, participate in family's economic decisions with the income gained or challenge male's domination that restricts women's life-choice.

3. Methodology

3.1. Research design and study setting

This study employed a cross-sectional research design, which involves the collection of data on one or more variables from a large number of people at the single point in time (Bailey, 1987). This research design helped to collect quantitative and qualitative data from January to April 2014. This research design offered an advantage of comparing data because information that is collected at a

single point in time is not affected by changes that occur over time (Bailey, 1987). This enabled the researcher to compare the pattern of similarities and differences between female and male borrowers about control over loan use and their decision-making ability of the income gained.

The study was conducted in Duterimbere, one of the MFIs that aim at empowering women and other low-income entrepreneurs in Rwanda. The choice of Duterimbere was justified by its experience of targeting and empowering women than other lending institutions that operate in Rwanda. In fact, the report of MFI transparency (2011) established that Duterimbere was the MFI that had the largest share of active borrowers (41%) among ten largest MFIs that offer financial services to the poor in Rwanda. Moreover, Duterimbere is the MFI that initiated the idea of targeting women in financial services in Rwanda. Its program of offering credit to women started in 1991, while other MFIs started as NGOs and faith-based organizations after 1994, during the years of the post-conflict reconstruction and peace building processes.

3.2. Study population

This research was carried out in Duterimbere MFI as one of the Female-focused Microfinance Institutions that offer microfinance loans and other financial and non-financial services to poor entrepreneurs, particularly women. Although this study was intended to investigate the extent to which microcredit promotes women empowerment, it was deemed necessary to include men borrowers in data collection because the MFI have shifted from focusing on women to serving women and men in their financial services. The idea of including men at a proportion of 30% of its beneficiaries came from GAD's argument of tackling all the causes of women's oppression. Melnichuk (2015) revealed that including men in women's microcredit program has a positive impact on women empowerment due to reduced violence of men whose masculinity is challenged by poverty. The population for this study was therefore composed of all females and males who were active borrowers in Duterimbere MFI as per December 2013. The statistics provided by the headquarter office of Duterimbere MFI reveals that in December 2013 there were 2,896 borrowers. This population was composed approximately by 70% of female clients and 30% of male clients according to the information of the loan officer at the headquarter office. Having females and males respondents helped the researcher to make a gender analysis by comparing the effect of microcredit on both sexes.

3.3. Sampling procedure and sample size

Simple random sampling was employed to select respondents who answered the survey questionnaire for the purpose of collecting quantitative data. Since Duterimbere MFI operates in the five provinces of the country, the sampling process started by selecting one branch per province for data collection. To select the branches in which the data were collected, the research established five strata according to provinces and one branch per province was randomly selected.

The sample size for this study was derived on the basis of Slovene's formula (Amin, 2005), which enabled to come up with 352 respondents. To select respondents from each branch, the researcher respected the sampling proportion and the participation of females and males in the lending program for each branch. This sampling strategy came up with 99 males and 253 females but only 94 males and 244 females responded to the questionnaire. The response rate of this research was 96% which is sufficient to allow generalization to the whole population as it was greater than the average response rate of 80% for most social research surveys as noted by Bryman (2008). This sampling that used multiple techniques was very important for obtaining a sample that is representative of the target population by respecting both geographical and sex specific characteristics for all the groups concerned by the study.

The study used purposive sampling for collecting qualitative data through FGDs and key informant interviews. In total, five FGDs were conducted (two FGDs of males and three of females). For getting respondents who had sufficient lived experience in credit utilization, focus group members who were chosen are the ones who had taken loan more than once in Duterimbere MFI. The sampling procedure of focus group participants considered the marital status by including both married and

unmarried (single, widow and single mothers) of the target respondents. Selection of focus group participants was carried out in collaboration with loan officers. While the target was for a group of 10 women and 10 men, in most cases a single focus group discussion contained between 8 and 10 participants. FGDs enabled respondents to express themselves using examples that were revealing their lived experiences about the gendered pattern of the division of labor within the household in the conduct of the loan-financed business as well as decision-making authority related to the allocation of income gained from the loan. Key informant interviews were also employed to collect qualitative information from two credit officers (one male and one female) and the branch manager of the MFI at the headquarter office.

3.4. Data collection instruments

This research collected quantitative data by the use of a structured questionnaire and qualitative research data by the use of focus group discussions and key informant interviews.

3.4.1. Survey questionnaire

The study administered a standardized questionnaire to a sample of 244 female and 94 male respondents. As some respondents were illiterate, the questionnaire was administered in form of a face to face interview to facilitate the process of data collection to both literate and illiterate respondents. The questionnaire was composed of four main parts: Part one intended to determine the demographic characteristics of respondents. Part two comprised questions related to labor provision in the loan-funded business. Part three of the questionnaire was composed by questions on economic decision-making within the household and part four comprised question in line with freedom of domination.

3.4.2. Focus group discussions

The study organized 2 focus group discussions (one with men and another for women) at every branch, which made a total of 10 FGDs in all the 5 branches where data collection was made. While the target was for a group of 10 women and 10 men, in most cases a single focus group discussion contained between 8 and 10 participants. This was in line with Smith (1972) who considered an ideal group of a single FGD to be composed by 8–12 members. All focus group discussions were held at the branch of the MFI. The researcher developed a guide on the issues being explored which was translated in the local language (Kinyarwanda) to facilitate a freely interactive group setting. The guide of the focus group discussions covered the following subjects: The challenges faced by respondents in managing and controlling their loans, the benefits gained from the use of the loan services and their ability challenge oppressive norms in the household decisions as well as gender relations. The FGDs helped the researcher to get detailed and comprehensive data, since this instrument allowed serious brain storming with the participants. The approximate length of the focus group discussions was 1 h and 30 min.

3.4.3. Key informant interviews

Key informant interviews were conducted to collect information to selected key informants notably credit officers and branch managers. The interview approach was face to face and it was conducted in the office of the interviewees. In most cases, loan officers were interviewed in evening hours from 17:00 to 19:00 h, while the interview with the branch managers were made in the morning hours before 8:30 h. This interview before or after the working hours helped the researcher to reduce the challenges associated with interruptions related to their daily activities. The duration of individual interviews was approximately forty minutes. Key informant participants provided information about the strategies used by Duterimbere MFI to promote the participation of the borrowers in their income generating activities.

3.5. Pilot of research instruments

A pilot study was conducted to pretest the quality of the questionnaire that was used in the main study. Pretesting helps to discover any kind of ambiguity, lack of clarity, or biases in question wording before administering the questionnaire to the intended sample (Bhattacharjee, 2012). After

piloting the questionnaire, the study tested the validity by calculating the Content Validity Index (CVI) which was 0.86. This CVI was sufficient to allow the research to proceed to test the reliability as it exceeds the minimal acceptable CVI of 0.62 set by Newman, Lim and Pineda (2013) for 10 raters. After validity test, the test tested the reliability using the internal consistency method of Cronbach's alpha. To certify that the instrument was reliable some scholars have set the acceptable minimum 0.6 (Hair, Black, Babin, & Anderson, 2014, p. 124), others have set it at 0.5 (Cronbach, 1951). The result of the internal consistency test of the pilot study was 0.865. This indicates that the instrument was reliable as Cronbach alpha was above the acceptable minimum.

3.6. Data processing and analysis

At the end of individual interview, all answers in the questionnaire were checked and edited for removing any error or omission before leaving the field. This is due to the fact that the researcher can skip an unanswered item in the questionnaire unconsciously which can create missing data and increase the level of non-response rate of the study (Field, 2009). At the end of data collection, a coding frame was developed which helped to assign numerical codes to closed and open-ended questions for facilitating the process of data entry of quantitative data. Quantitative data were analyzed by the use of SPSS version 16 which helped to generate and present descriptive data in frequency tables and charts. SPSS generated also inferential statistics with *t*-test that offered an opportunity of testing whether there was a significant difference in the level of participation of female and male borrowers in their loan-funded activities.

Qualitative data were analyzed using thematic and content analyses in two different stages. The first stage concerned the transcription of the information collected and processed on daily basis from the field notes and voice recorder. To ensure that no information is left out, similar responses were put together under the same theme or sub-theme. Available information in each theme or sub-theme was compared and contrasted to ensure coordination of the data and avoid repetition in data analysis. Thereafter, the researcher interpreted qualitative data and some responses were used as quotations in the presentation and analysis of findings.

4. Findings and discussion

4.1. Description of respondents

The socio-demographic characteristics of the respondents sampled for this study are presented in Table 1. The age of the respondents ranged between 20 and 64 years with a mean of 37.28 years. Seventy-two point two percent of respondents were females. The dominance of female respondents in this research was based on the fact that the sampling strategy respected the existing percentage of females and males served by Duterimbere MFI. This MFI that targets women as its primary clients aims at serving at least 70% of female clients and 30% of male clients. The majority of respondents (78.8%) were married implying that respondents had sufficient information about the division of labor between females and males in a household. The average household size was 4.9 persons which was greater than the national average of 4.3 (National Institute of Statistics in Rwanda, 2012). Large household size increases women's reproductive roles which reduce their time to perform their loan-financed activities. Majority of respondents have formal education skills as 95.9 attained at least primary education. This is very important for a good management of the loan's investment activity in terms of pricing, marketing, accountancy and allocation of the income gained. The duration of respondents in the lending program of Duterimbere MFI varied from 1 to 12 years with a mean of 4.26 years. It means that respondents had sufficient experience on the utilization of the loan received which promotes their participation in loan's financed activities. Only 38.5% of respondents received training from Duterimbere MFI. The loan amount received by respondents varied from 100,000 Rwf to 20,000,000 Rwf with a mean of 2,161,568 Rwf. This implies that Duterimbere MFI finance business projects of different scales and that the dominant group of its loan program is made up by low-income entrepreneurs who run small and medium enterprises. This information was also confirmed by the finding on the loan-financed activities that is dominated by small and medium trade (41.4%) and agriculture projects (27.2%).

Table 1. Socio-demographic characteristics of respondents

Variables	Categories	Sample statistics (n = 338)
Age (Years)	Mean	37.28
Sex (%)	Male	27.8
	Female	72.2
Education level (%)	None	4.1
	Primary	47.3
	Secondary	20.9
	Tertiary	27.7
Marital status (%)	Married	78.7
	Others	21.3
Household size (number)	Mean	4.97
Number of years of membership in Duterimbere MFI (number)	Mean	4.26
Access to training (%)	Yes	38.5
	No	61.5
Loan amount obtained(number)	Mean	2,161,568 Rwf
Loan-financed activity (%)	Small and medium trade	41.4
	Agriculture	27.2
	Handcraft and artisans	4.7
	Transport business	8.3
	Business at large scale	14.8
	Housing and other non-business activities	3.6

4.2. Gender division of labor in the loan investment activity

The study investigated the extent to which female and male borrowers participated in different tasks of the investment activities, from the idea of taking the loan, the choice of the investment activity, labor provision, marketing and price determination, keeping the account, allocation of the earnings and servicing the loan. Respondents were asked to specify whether a given task was performed by the borrower (him/herself), jointly with his/her spouse or any other relative or by the spouse of family member alone. The findings on this matter are presented in Table 2.

Among ten tasks performed by the borrowers in the productive process and management of their loan’s investment activities, the findings of Table 2 show that there are tasks in which the levels of participation of female and male borrowers are equal and tasks where the levels of participation of females and males different. The tasks of equality in the level of participation are six and these are the tasks of deciding to take the last loan, choosing the investment activity, deciding where to sell the product, fixing the price of the product, keeping the account of the business and use of the income gained from the loan’s investment activity.

On the decision about taking the loan, the mean level of participation of female borrowers is 2.34 while the mean level of participation for male borrowers is 2.37. A *t*-test analysis performed to test the difference in these two means revealed that there was no significant difference ($t = -0.474$, $p > 0.05$). On this task, the majority of females (61.5%) and males (66%) reported that they took this decision on joint basis. This dominance of joint decision in the process of taking the loan is based on the policy of the MFI that requires every borrower to get a guarantor for his loan. The policy requires married people, both female and male borrowers, to get the signature of their spouses on their loan contract. This requirement helps to create the awareness to the other partner who is not involved with the lending operations that his or her spouse is taking the loan and involving the spouse’s

Table 2. Gender division of labor in the loan-financed activity

Tasks	Decision-maker	Frequency		Percentage		Mean of the level of participation		Comparison of means
		Male	Female	Male	Female	Male	Female	t-stat
Decision to take the last loan	No involvement	0	2	0.0%	0.8%	2.34	2.37	-0.474
	Joint	62	150	66%	61.5%			
	Self	32	92	34%	37.7%			
	Total	94	244	100	100			
Decision on investment activity	No involvement	2	4	2.1%	1.6%	2.49	2.51	-0.353
	Joint	44	111	46.8%	45.5%			
	Self	48	129	51.1%	52.9%			
	Total	94	244	100	100			
Procurement of the inputs	No involvement	2	24	2.1	9.8	2.64	2.40	3.106**
	Joint	30	98	31.9%	40.2%			
	Self	62	122	66.0%	50.0%			
	Total	94	244	100	100			
Provision of labor in the production process	No involvement	6	12	6.4%	4.9%	2.23	2.40	-2.397**
	Joint	59	122	62.8%	50.0%			
	Self	29	110	30.9%	45.1%			
	Total	94	244	100	100			
Decision on where to sell the product	No involvement	5	16	5.3%	6.6%	2.68	2.60	1.132
	Joint	20	66	21.3%	27.0%			
	Self	69	162	73.4%	66.4%			
	Total	94	244	100	100			
Decision about the price of the product	No involvement	6	19	6.4%	7.8%	2.66	2.60	0.811
	Joint	20	60	21.3%	24.6%			
	Self	68	165	72.3%	67.6%			
	Total	94	244	100	100			
Marketing of the product/ service	No involvement	5	23	5.3%	9.4%	2.61	2.52	1.151*
	Joint	27	72	28.7%	29.5%			
	Self	62	149	66.0%	61.1%			
	Total	94	244	100	100			
Keeping accounts	No involvement	5	13	5.3%	5.3%	2.70	2.73	-0.344
	Joint	18	41	19.1%	16.8%			
	Self	71	190	75.5%	77.9%			
	Total	94	244	100	100			
Use of the income gained	No involvement	2	9	2.1%	3.7%	2.49	2.49	-0.036
	Joint	44	106	46.8%	43.4%			
	Self	48	129	51.1%	52.9%			
	Total	94	244	100	100			
Repayment of the loan	No involvement	0	5	0.0%	2.0%	2.73	2.68	0.965*
	Joint	25	69	26.6%	28.3%			
	Self	69	170	73.4%	69.7%			
	Total	94	244	100	100			
Mean Score of labor provision						2.56	2.53	0.634

*Significant at 5%.

**Significant at 1%.

accountability in case the borrower fails to repay the loan. The management of the MFI revealed that this policy promotes better utilization of the loan by promoting prior consent amongst the spouses before obtaining the loan. If the spouse refuses to sign on the loan contract the borrower cannot receive the loan. This justifies the reason why the majority of female and male borrowers reported that the decision to take the loan was made on joint basis.

The study identified three tasks of equality in the level of participation of female and male borrowers resulting from the strategy of the MFI to provide loans for expanding existing business and not for starting new ones. In fact, when a borrower takes a loan to finance a new business, he uses a portion to cover start-up costs which reduce the profitability of the business. The low profitability of loan invested in new business can also result from lack of business skills and limited experience of running and managing the new income earning activity. But loans given to experienced entrepreneurs enable them to expand the capital base of their businesses and enhance their turnovers because the only constraint that limits their profitability is their inability to get financial capital. One of these three tasks is the decision about the loan's investment activity, the majority of female (52.9%) and male (51.1%) respondents reported that this decision was made on self basis. The mean level of participation was 2.49 for males and 2.51 for females. The *t*-test results disapproved the claim of difference in level of participation of female and male respondents in this task, $t = -0.353$, $p > 0.05$. Female and male borrowers reported that they are the main deciders about their loan's investment activities because they must fulfill the requirement of submitting a business plan in their loan's application file for ensuring that the loan given will be invested in the running business. Before giving loan to the borrowers, loan officers visit them for ensuring that the information provided in the loan's application file are correct in order to minimize the problem of asymmetric information.

Other tasks of gender equality in the level of participation based on the strategy of using loan for business expansion are the tasks of deciding where to sell the product and the task of fixing the price of the product. 73.4% of male respondents and 66.4% of female respondents indicated that the decision about where to sell the product was taken by themselves. The mean level of participation in choice about where to sell their product was 2.68 for males and 2.60 for females. The *t*-test results disapproved the claim of difference in level of participation of female and male respondents in this task, $t = 1.132$, $p > 0.05$. Self-decision in fixing the price of the product was reported by 72.3% of male and 67.6% of female respondents. The mean level of participation in fixing the price of the product was 2.66 for males and 2.60 for females. The *t*-test results disapproved the claim of difference in level of participation of female and male respondents in this task, $t = 0.811$, $p > 0.05$. Since the loan request is based on the condition of being invested in the running business, it implies that the products of the loan's investment activity are sold in the pre-existing market. Therefore the process of deciding where to sell the product and fixing the price of the product does not necessitate too much help from the side of the borrower.

The remaining two tasks of gender equality in the level of participation of female and male respondents in the production process of their loan's investment activities are the tasks of keeping the accounts and decision about the allocation of the income gained from the loan's investment activity. The majority of female (77.9%) and male (75.5%) respondents reported that they keep their own accounts. The mean level of participation in keeping accounts of the business was 2.70 for males and 2.73 for females. The *t*-test results disapproved the claim of difference in level of participation of female and male respondents in this task, $t = -0.344$, $p > 0.05$. On the task of allocating the income generated by the loan-assisted business, 51.1% of male and 52.9% of female respondents indicated that they are the chief deciders about the utilization of the profits gained. The mean level of participation in the allocation of the income gained was 2.49 for males and 2.49 for females. The *t*-test results disapproved the claim of difference in level of participation of female and male respondents in this task, $t = -0.036$, $p > 0.05$. Improved participation of the borrowers in these tasks of managing their income promotes the profitability of the loan's investment activity. Akerly (1995) and Kabeer (2001) established that the most empowering factors of the loan-funded activity are the ability of the borrowers to keep their own accounts together with the allocation of their earnings.

The study findings established also that Duterimbere MFI plays a good role of promoting women's increased participation in these tasks that requires good numeracy skills. This was emphasized by one key informant who said:

Our objective of empowering women cannot be achieved if women do not manage their loan's investment activities. We offer trainings on business skills and women's rights for enhancing women's capacity to manage their businesses and all related benefits. (Female key informant, Kigali main branch)

Low income females are considered to have limited skills in business literacy which obliges them to depend on others for the tasks that require good numeracy skills. The trainings offered by Duterimbere MFI are efficient in promoting their managerial skills and enable them to play a big role in their loan investment activities. This strategy of encouraging women to play a big role in the control over their loan was also supported by the Loan Officer of Nyagatare branch who said that every time before the process of loan disbursement, they do meetings with the borrowers and their guarantors. In these meetings, they sensitize them about the importance of the good management of the loan. They remind them that the loan is not a gift and that the borrower and the guarantor are equally liable for its reimbursement. In addition to trainings, loan officers give further advice on how to solve different problems related to the management of the loan through regular meetings and field visits. In agreement with this, Goetz and Gupta (1996) found that the differences in the level of women's control over loan in five lending institutions in Bangladesh specifically BRAC, the Grameen Bank, TMSS, SNSP, and RD-12 was attributed to the extent to which the MFIs include gender considerations within their program interventions.

The findings of Table 2 showed four tasks of inequality in the level of participation of female and male respondents and these are procurement of the input, provision of labor in the production process, marketing of the product and repayment of the loan. For the first three tasks, unequal participation of female and male borrowers is a result of cultural norms and gender division of labor that limit women's mobility. A comparative analysis of the mean levels of participation of females and males shows that males participated more in the tasks that require more mobility namely procurement of the input and marketing of the product. The mean level of males' participation in the task of procurement of the input was 2.64 while females' mean level of participation in the same task was 2.40. The *t*-test results approved the claim of difference in level of participation of female and male respondents in this task, $t = 3.106, p < 0.05$. On the task of marketing the product, the average level of participation was 2.61 for males and 2.52 for females. The *t*-test results approved the claim of difference in level of participation of female and male respondents in this task, $t = 1.151, p < 0.05$. In the focus group discussion with women, one participant who does the business of selling dried skins of goats explained how her husband help her in different tasks of her business that require more mobility as follows:

To begin with input provision, my husband works around different butchers to buy hides of animals and give command for the following day, and bring them home with his bicycle. Once the hides reach home, I'm responsible for all the tasks related to drying. Because our customers come from Kigali, we are both concerned by the marketing process using mobile phone. If we have a big quantity to sell, the buyers come to pick them at home with their vehicle but if the quantity is small, my husband transports them to Kigali via public means (Female participant, women FGD Nyagatare branch)

In the Rwandan society, this situation is associated with the patterns of gender division of labor that expect women to spend most of their time in reproductive roles. That is why women who invest their loan in home based activities perform the tasks that are compatible with their household activities and receive assistance for the tasks that require more mobility from their husbands or other male relatives. This concurs with Ngo and Wahhaj (2012) that gender norms and cultural practices in line with the division of labor oblige women to perform the tasks that are done near the home due to their limited mobility to the market place As well, Hunt and Kasynathan (2002) proved that the

capacity of women to take control over their loan in Bangladesh and in India is challenged by the lack of access to the market for the purchase of inputs and for the sale of goods. Similarly, Kabeer (1998) found out that women's low mobility in Bangladesh hinder their participation in market transactions and oblige them to depend on male intermediaries for the purchase of inputs and marketing of the product. However, women's mobility in public sphere in Rwanda is mainly inhibited by triple role burden rather than cultural norms as it is for Indian women.

The findings of Table 2 revealed also that male respondents participate less than female respondents in the task of labor provision during the production process of their loan's investment activity. The mean level of participation in this task was 2.23 for males and 2.40 for females. The *t*-test results approved the claim of difference in level of participation of female and male respondents in this task, $t = -2.397, p < 0.05$. On this concern of labor provision in the production process of the loan-funded activity, one male participant of the focus group discussion explained how he shares with his wife the tasks of his poultry project:

I invested my loan in the project of poultry. As the poultry farm is within our residence, my wife helps me in some tasks that are done at the household level like feeding the chick, cleaning the poultry farm, but the tasks that requires more mobility like marketing and selling the eggs fall under my responsibility. (Male participant, men FGD, Rubavu branch)

This shows that male borrowers ask their wives to help them with their labor in the production process of their income generating activity particularly those that are done near the home like farming. It was also observed from the field more women participating in agriculture's loan projects of their husband like Irish potatoes in Musanze and Rubavu districts as food production is still considered as a primary role of women. This point of view was supported by Karl (2009) who found that women are in charge of 50% of the world's food production and that women's contribution in food production in Sub-Saharan Africa varies between 60 and 80% as unpaid labor on family plots. In the process of data collection, the researchers observed that men who are engaged in small trade businesses leave the activity of daily sales in the shop to their wives while men are in charge of looking for places where to buy the merchandizes sold in their shop at the cheapest price. But, it is rare to find a man sitting and selling in the shop of his wife on a regular basis. The reason is that men prefer doing their own businesses instead of being dependent on their wives. This was confirmed by one female respondent who does the business of selling processed cassava leaves known as "Isombe" in Musanze market. That woman revealed that she was used to be helped by his husband in the activity of processing her "Isombe" at the beginning of her project. When her husband noticed that the business was performing well, he decided to do the same business but at a different location. However, there are some circumstances that may push men to offer labor support to the business of their wives including sickness within the family or maternity leave of the woman. When a man realizes that his wife's business is more productive, he can suspend his business and support his wife in her absence for the welfare of the whole family. This was confirmed by the husband of one female borrower of Muhanga branch who was in the shop of her wife. He told that her wife was not available due to the sickness of the kid. Then, the husband who was used to do the business of taxi using a motorcycle decided to stop it because the daily income gained from the shop was greater than his.

The task of loan repayment was also characterized by inequality in the level of participation of female and male respondents. The mean level of participation in the repayment of the loan was 2.73 for males and 2.68 for females. The *t*-test results approved the claim of difference in level of participation of female and male respondents in this task, $t = 0.965, p < 0.05$. This difference between men's and women's participation on the repayment of their loans results from the issue of investing a portion or totality of their loan in the business that is managed by their spouses. The study findings found that both female and male borrowers transfer their loans to their spouses for strengthening the income generating capacity of their household. The study findings revealed that this inequality in the level of participation of females and males in the repayment of their loans results from prior expectations about the contribution of the investor of the loan on the repayment load. On one hand,

women transfer their loans to their husbands with the confidence that their husbands have higher profitable businesses that can enable them to contribute to monthly repayment plan. On the other hand, men invest their loans in their wives' businesses with the aim of strengthening their ability to fulfill their gender roles of feeding the family and other related needs instead of contributing to the repayment of the loan. Currently, the society of Rwanda is challenged by the problem of very high rate of population growth that decreases the productivity of the agricultural sector. Hence women's role of feeding the family as well as men's responsibility of providing the money are challenged by additional cost of food which was previously sponsored by the unpaid labor of women in farming activities. Under such circumstances, some men prefer strengthening their women's income generating capacities with their loans. This enables them to save the money that should be devoted to daily subsistence for the repayment of the loan. as additional opportunity to household earnings. According to Kabeer (2001), some men invest their loans in the businesses of their wives to minimize the risks, meet subsistence expenditures and diversify household income.

The above mentioned scrutiny about the difference or equality in participating in different tasks of performing the loan-funded activities were supplemented by an overall evaluation that used mean scores of labor provision. The findings of Table 1 show that men participated in the conduct of their loan's investment activity with a mean score of 2.56 while the mean score of women's participation in carrying out their business was 2.53. Although the mean score of labor provision of men seems to higher than that of women, *t*-test results proved that this difference was not statistically significant ($t = 0.634, p > 0.05$). Given a 3 point Likert scale used in this study, where 1 indicated no labor participation of the borrower, 2 indicated partial labor participation and 3 indicated full labor participation, the mean score of 2.56 and 2.53 indicate that female and male borrowers provided most labor of their loan's investment activities. The reasons associated with this positive level of control for male borrowers were related to their masculine identity of controlling and managing household resources in patriarchal societies. Due to the patriarchal nature of the Rwandan society, power dynamics assigned gender roles give to men more autonomy and greater opportunity to interact with the public domain as the principal income earner. Patriarchal norms also give to men greater power over productive resources as well as household decisions. This high privilege given to men is then translated into greater control over microcredit loan services given to them. Likewise, Goetz & Gupta (1996) established that men's greater participation in their business activities results from their monopoly of access to market and their primary role for cash management in the household. However, this scenario is different for women. The information of FGDs revealed that women's increased level of participation in their loan-financed businesses is associated with their experiences in the lending operations that enable them to receive training on how to manage their loan profitably. Goetz and Gupta (1996) study on women's control over loan use established that increased experience in the lending program gives to women more chance to training opportunities on how to manage their small scale enterprises as well as more confidence in controlling their loans. The study findings established also that most women controlled their loans because they invested in typical female oriented activities, to match the productivity of their businesses with their gender roles (Goetz & Gupta, 1996; Haq & Safavian, 2013). As patriarchal power patterns and the gendered nature of the division of labor restrict women's authority in the domain of caring for the family, women who were able to invest in large businesses like the men counterparts used a different strategy. They were able to generate sufficient profits from their businesses and used a portion of their income to pay house-girls who help them in household chores while women are occupied with their productive activity. This is because women cannot run income generating activities of higher profitability if they remain responsible for all reproductive roles.

4.3. Participation in economic decision-making

Table 3 shows the ability of female and male borrowers to make economic decisions within their households. The mean score of economic decision-making was 4.12 for male respondents and 4.07 for female respondents. Given a 5 point likert scale used in this study, these mean scores communicate a high position in household's economic decisions. The difference between men and women was not statistically significant ($t = 0.805$) at $p > 0.05$. This achievement in the economic dimension

Table 3. Females and males’ economic decision-making within household

Indicators of economic decision-making	Mean		t
	Males	Females	
Family income	4.64	4.53	1.033
Buy a new asset	4.18	4.07	0.828
Nutritious food	3.93	4.14	-1.604
Small purchases	4.25	4.33	-0.731
Large purchases	4.36	3.97	3.535**
Children’s education	3.84	3.98	-1.281
Household’s investment	3.97	3.86	0.890
Social events	4.14	4.07	0.656
Household saving	3.93	3.89	0.353
Job creation	3.97	3.88	0.583
Mean economic decision	4.13	4.08	0.805

**Significant level at 1%.

was also reflected in the FGDs of women and men. The followings quotations report the views of female participants who said:

The loan changed my status in decision making in my household. Before joining Duterimbere lending program, my husband used to take all the decisions without consulting me. I remember in the past, he bought a piece of land and I was informed later when he was in the process of transferring the land title from the seller’s name to his name. But nowadays, he consults me before any decision, particularly for costly purchases like land, education of the children, because he needs my financial contribution. (Female participant, Women FGD, Musanze branch)

Our first born is a girl. She is a candidate for primary leaving exams. When I discussed with her father about the possibility of putting her in the boarding section this year to enable her to concentrate more on her studies, the father refused, saying that boarding section is very expensive. To avoid quarrels in my family, I kept quiet and planned to pay the extra cost from my business income. When the father saw the results of the girl at the end of the first term, he was very happy and supportive of my decision. (Female participant, Women FGD, Muhanga branch)

For female borrowers, access to income increases their decision-making in the domain that was previously dominated by men. Female participants in FGDs were proud that their earning capacity unlocked their potential to contribute to household decision-making including the allocation of the household income. This agrees with Sardenberg (2008) who views economic empowerment as a means of promoting women’s capacity to stimulate their agency in decision-making. Moreover, Stromquist (1988) explains the economic component in the process of women empowerment as the ability of women to engage in a productive activity that will allow them some degree of financial independence. In the Rwandan society, women who don’t have their own income generating activities are obliged to dependent on their husbands for every monetary need. This incarcerates them in inferior position in decision-making about household resources. In some circumstances, when women have no income, their husbands don’t inform them about developmental projects of their family as they give more value to financial contribution than women’s idea. Young (1992) also notes that when women’s economic contribution to the household expenses is missing, women will remain subordinate to men in household decision-making. After being independent producers, female borrowers who were given low status in decision-making, become self-confident and are given more value in household decision-making by their husbands. Due to the capacity to earn an independent income, there are women who prefer changing the attitude of their husbands by actions instead of spoken arguments for avoiding quarrels or other verbal abuses. This argues with Mayoux (1999),

who states that it is the economic contribution of women to household economy that promotes their empowerment as this give to them a new status of independency in decision-making.

When the results of economic decision-making are analyzed separately, the only item that shows inequality was the decision about large purchases. The mean score was 4.36 for men and 3.97 for women. This difference was statistically significant ($t = 3.535$) at $p < 0.01$. In most cases, profits gained from loan-financed activities are not sufficient to guarantee women full authority on large purchases. They need additional support as it was revealed by one woman participant in Rubavu:

Access to income has been very important for me. Before starting my own income generating activity, I could not do anything on my own. I was obliged to wait for my husband as the only provider for the household. But at the moment, I don't need to wait for him. There are some decisions that I take without consulting him, particularly when I see that my income is sufficient for that expense. However, for big investments, we consult each other and combine our efforts. (Female participant, Women FGD, Rubavu branch)

While women's economic empowerment was linked with their increased voice in household decision-making, men's economic empowerment in this study was equivalent to their increased financial capacity as the main breadwinner of the family. One man participant of FGD in Musanze, said that he benefited a lot from Duterimbere microcredit. He said that he expanded his business from a small restaurant to a bigger one, he started a food store for his wife, and provided permanent jobs to his relatives in his restaurant business. Men's opinions on the contribution of microcredit to their economic decision-making were mostly related to their opportunity to get a stable source of income and their capacity to purchase expensive assets that they could not afford before microcredit. Men do not put much emphasis on the extent to which their decision-making power has been influenced by the use of microcredit in their investment activity. This may be justified by the fact that decision-making is considered as a masculine domain in the Rwandan society which could not be affected by their earning capacity.

4.4. Freedom from domination

Table 4 shows the level of freedom of female and male respondents in taking decision related to the Rwandan cultural norms that confine women at a subordinate position.

The results of Table 4 show that the mean score for males was 4.12 and that of females was 3.82. In the context of a 5 point likert scale used in this investigation, both female and male respondents achieved a high level of freedom. However, the results of a t -test analysis prove a statistical difference in the level of freedom between men and women ($t = 6.9$) at $p < 0.01$. This inferiority of women in decisions related to freedom from domination arises mainly from cultural norms that promote gender inequality in household chores. In this domain the freedom of men was higher (3.94) than that of women (3.06). This difference was statistically significant ($t = 6.07$) at $p < 0.01$. This increase in women's workload reduces their free time for social events (mean scores were 4.24 for men and 3.76 for women). This difference in their freedom to participate in social events were statistically significant ($t = 3.46$) at $p < 0.01$. This is consistent with the information of the FGDs where women reported that the biggest challenge they met when they are using microcredit was the increased workload resulting from increased time devoted to income generating activities. In Rubavu branch, one female participant noted that:

From when I received the first loan, I'm working so hard because I fear to be called "Bihemu", to mean the client who failed to pay back the loan. I get up early in the morning to organize the breakfast and prepare the children for school before going to Goma where I do my daily business. Even if I come back home very late in the evening, I can't sleep before being sure that everyone has eaten and that I have finished all the household chores. I'm the last to sleep in my household. (Female participant, Women FGD Rubavu)

Table 4. Freedom from domination in cultural oppressive decisions

Indicators of freedom from domination	Mean		t
	Males	Females	
Mobility	4.33	4.09	1.77
Family planning	4.00	3.79	1.61
Participation in household chores	3.94	3.06	6.07**
Marriage of the children	4.22	3.55	4.68**
Participate in social events	4.24	3.76	3.46**
Domestic violence	4.22	4.08	1.28
Actions to promote gender equality	4.02	4.11	-0.71
Participate in politics	3.69	3.63	0.41
Participate in MFI activities	4.24	4.06	1.73
Equality in inheritance	4.31	4.07	2.23*
Mean score in freedom from domination	4.12	3.82	6.96**

**Significant at 1%.

*Significant at 5%.

Other women said that access to microcredit has reduced their free time that was used to visit their relatives and friends as they are occupied by their businesses all the time. They can participate in social events only on special occasions like marriage or burial ceremonies. Otherwise, socialization events are planned sometimes on Sundays after church services.

In addition to this challenge of reducing women’s free time, female participants of the FGDs revealed that social and cultural norms that consider reproductive roles as a “women’s domain” restrain men’s willingness to participate in such activities. The following quotations offer an overview on the ways domestic works are divided between women and men within a household.

In our community, when a man is active in household chores, the neighbors say that he was bewitched by his wife. (Female participant, women FGD Kigali)

Culture is the main challenge. Although my husband appreciates my economic contribution, his participation in household activities is very limited. He can only do some tasks that do not make him ashamed like fetching water, feeding the children when I’m not at home. But the main tasks like cooking, washing clothes, cleaning the house, and many others, are my responsibility. (Female participant, Women FGD, Muhanga)

Cultural norms of the Rwandan society discourage men to support their wives in their typical reproductive roles. Community members consider a man who is actively involved in women’s reproductive roles as an “effeminate man”. This offensive name limits men’s willingness to support their wives in reproductive roles and access to microcredit enhances women’s triple role burden for poor women who can’t pay house-workers. They are obliged to combine their income generating activities with their previous reproductive roles. Even women who have the capacity to pay house-girls have said that there are some household duties that are compulsory assigned to a woman. Consequently, active involvement in income generating activity resulted in increased workload for most women. This finding is consistent with Simojoki (2003) who states that microcredit failed to challenge patriarchal norms of gender division of labor by imposing a heavy workload on women. Therefore, the failure of microcredit to challenge the existing gender division of labor increased women’s normal workload by combining their reproductive works with the new tasks of their loan investment activities. Increased workload as a challenge to women empowerment was also reported by Cheston and Kuhn (2002) who says that although MFIs aim to promote gender equality through shared responsibilities between females and males; this reality can’t be achieved overnight. For that reason, female borrowers have to balance between family and business responsibilities.

Women's freedom is also restricted by the patriarchal nature of the Rwandan society that promotes men's power as the head of the household. For instance men are more free than women in taking decision about inheritance (means are 4.31 and 4.07 for men and women respectively, with a statistical significant t results ($t = 2.23$) at $p < 0.05$), and decision about marriage of the children (means are 4.22 and 3.55 for men and women respectively, with a statistical significant t results ($t = 4.68$) at $p < 0.01$).

Despite this inequality highlighted above, women were able to achieve equality in some aspects like participation in community politics, participation in MFI's activities, actions to promote gender equality, reduced domestic violence, mobility and family planning. This was also confirmed by Cheston and Kuhn (2002) who said that participation in microcredit programs helped women to improve their decision-making power in the domain that was previously dominated by men. The report of World Relief Rwanda (1999) has also indicated that female clients of URWEGO opportunity banks were able to increase their power in decision-making in business activities, household, community and church levels from 38 to 54% only after 18 months of participation in microcredit program.

The political arena of the Rwandan community was initially regarded as a privilege of men like in many other patriarchal societies. It is from 1994 that the Government of Rwanda showed a political will of promoting women's participation in leadership and politics particularly through the constitution of 2003 that brought numerous changes in legislation regarding 30% of women seats in the parliament and other higher ranking positions of decision-making, MFIs and other Civil Society Organizations have also put in place supportive actions to promote the entrance of women in the political life of their respective communities. Before joining Duterimbere MFI, some women had low self-confidence and could not believe that they can join decision-making authorities of community affairs. They were reluctant to compete with men as they assumed that men have enough power and resources to win political elections. Their membership in Duterimbere MFI changed this status. From the success of their income generating activities, some women are being promoted to community leadership by their local leaders after noticing that those women have the potential to contribute to the development of the community members. In agreement with this, Lakwo (2006) argues that access to microcredit enhances women power over their voice as they upgrade from unknown to well-known status of being eligible to the position of discussing community issues around the table with men. Women of different branches revealed also that their contribution to politics is not confined to community level as some of them are now participating in higher levels of decision-making. Women of Muhanga branch said that they have supported one member of Duterimbere MFI in the election of the members of the Council in decentralized administrative entities who is now a member of that council at the sector level. Moreover, some women members of Duterimbere MFI of Kigali, Musanze and Rubavu branches revealed that they have been active in the electoral campaigns of women leaders who wanted to become members of the parliament. This highlights that their membership to credit program brought women together where they can meet and discuss on how they can promote the common goal of gender equality in the legal and political ground. When they are together, women know each other and can motivate those who have better aptitude to represent their common interest in the community politics, mainly among the representative of their solidarity groups.

This approach of promoting women's political and community participation corresponds to the idea of liberating empowerment that is conceptualized by Sardenberg (2008). Her definition of empowerment is based on women's liberation whereby united women fight for initiating the process of cultural transformations and measures that may help them to put an end to inequalities that are promoted by the structures of patriarchy at the household, community and in all the institutions of decision-making. This confirms the argument of Bayisenge (2010) that the empowerment of women cannot be achieved if they don't have a say in the institutions where decision are taken. Women are now in a better position to express their opinions confidently and participate actively in the public male world of politics as per Umashankar (2006)'s argument.

Duterimbere MFI promotes awareness about women's rights and equal participation in decision-making amongst its members. The strategy used is in line with trainings that are given to its members for empowering them with the required skills of managing their small SMEs. It was reported in different interviews with branch managers and loan officers that at each and every session of the training in business literacy, the MFI includes a discussion on women's rights and gender equality issues. This strategic approach helped men to understand the importance of promoting women's rights and having women in leadership positions. Different testimonies recorded in the FGDs of men supported the importance of Duterimbere MFI in promoting men's commitment to gender equality in politics and to women's rights:

Before my membership in Duterimbere MFI, I considered the quota of 30% given to women in leadership positions as a political strategy of respecting the international standards. However, the strategy of Duterimbere MFI of gender equality in staffing in all the positions of the MFI helped me to change my opinion. Duterimbere is a good example that women are also as capable of leadership and political position as men. For the moment, I support women who stand for political elections in my community and I shall continue to support capable female candidates. (Male participant, men FGD Rubavu branch)

Duterimbere MFI's trainings helped me to understand the importance of females in decision making positions. Immediately after becoming a member of Duterimbere MFI, for the first time, our Sector received an Executive Secretary who is a woman. If I can compare the management of our Sector at the moment and the past where it was headed by men, I see positive changes in the way we are received and the waiting time for receiving feedback to our requests. (Male participant, Musanze branch)

The above examples show that men's standpoint about women's participation in the positions of decision-making changed as a result of their membership in Duterimbere MFI. Most of them were now supporting women's leadership after being trained on the importance of having female candidates in management positions. All the same, men were now able to appreciate the good experiences of female leaders in the management of Duterimbere MFI and in the local governance. They acknowledged getting better services from female leaders than their male counterparts.

Trainings on gender equality and women's rights offered by Duterimbere MFI helped women to also get increased awareness on how to claim for their rights. One female participant of the focus group discussion said:

I have a daughter who was raped by a neighbor. Since I was aware of the process to follow in such circumstances from Duterimbere trainings, when my girl informed me about the problem she faced, I directly brought her to the hospital for medical check-up and reported the case to the police. Surprisingly, when I was in the process of following up that case with the police, the family members of the offender asked my husband to forgive him; but I told him that it was not possible, and that we need justice for our girl. (Female participant, Women FGD Rubavu branch)

From the above quotation it is clear that the woman faced obstacles in convincing his husband to report the case of gender-based violence to the police due to cultural norms and social resistance. But with access to information regarding women's rights, the woman was able to build self-confidence and assertiveness that enabled her to realize her potential of breaking cultural barriers by promoting justice for her daughter. In agreement with this finding, Simojoki (2003) reveals that women's participation in microcredit programs improved their knowledge of their rights and their competence in reducing domestic violence. As Bayisenge (2010) says, the empowerment of women requires their ability to overcome shyness and act confidently in addition to greater awareness of their rights. Similarly, Rowland-Serdar and Schwartz-Shea (1991) revitalized liberal feminist theory advocated for adjusting the meaning of empowerment in a manner that integrates women's autonomy and ability to challenge all the conditions that reproduce discrimination and subordination, including power relations across various spheres of economics, politics, society and culture.

The findings of Table 4 also showed equality of freedom in mobility between women and men. One female participant of the focus group discussion explained that her increased mobility derived from her desire to do cross of cross-border business:

Cultural norms do not allow women to stay out of their homes more than one night. But when you are using a loan in your business you must search for better opportunities in spite of all cultural challenges. I was used to doing my small business of selling women's clothes, Jewelry and handbags in this market of Muhanga. When I decided to import those products from Uganda, I realized that I gained a bit more than before. At the beginning, my husband was not supportive by saying that cross-border trade is tiresome, but there is no free lunch in this world. (Female participant, women FGD Muhanga branch)

As women have entered the business world where competition is key to success, they are constantly looking for alternatives that can best fit their capacities and cross border trade is among them. The need to get better profits from their loans helped some women to invest in male typical businesses by breaking some of the socio-cultural norms that confined them in the private sphere. This concurs with what Meier-Pesti and Goetze (2005) have called the reduction of masculinity between women and men in this capitalist age whereby women may exhibit masculine qualities and be active in what was conventionally considered as masculine. Similarly, modernization scholars particularly the proponents of the economic modernity supported that microcredit programs sustain women's entrepreneurial activities and lead to emancipative value change through which increased access to resources reduce constraints on women's autonomy and choice in everyday lives (Allen, 2011). In the traditional society, Rwandan women's mobility was very restricted due to culture norms that confined them at home to perform reproductive roles. This new era of modernization and economic liberation brought a change in social norms as women are now obliged to go out of the family to look for income opportunities to sustain the livelihoods of their family as well as meeting the repayment of their loans.

In addition to increased mobility, gender based violence and quarrel resulting from scarcity within the family have been reduced. One woman said:

Before starting my own business, I was constantly quarreling with my husband particularly when I asked him for money. He used to tell me that instead of being a helper, I'm a burden to him. But now, I have my own money that I use to solve some problems instead of conflicting with him. (Female participant, Women FGD Rubavu).

Prior to running independent businesses, most women were beggars and supplicants because all financial needs were catered for by the husbands. This situation is annoying and embarrassing particularly in poor families where men's financial capacity is very limited. The new status of income earner improved marital relationships. Women's economic independence was a solution to marital conflicts which were related to poverty and shortage of resources within the household. That is why some women did not feel the burden of increased workload because the benefits of getting cash compensate the pain of working hard. Similarly research by Kabeer (2001) established that women's access to MFI's loans reduced gender-based violence resulting from scarcity-related conflicts.

4.5. Control over loan use and over profits accrued from the loan-funded activity

The above mentioned analysis of comparing the mean scores of different indicators of control over loan was supplemented by a multivariate analysis of variance (MANOVA) for checking whether female and male borrowers of Duterimbere MFI can be said to be at the same level of controlling their loans or not. Following the orientation of Pallant (2005), MANOVA created a composite score of control over loan which is a linear combination of each of the three variables of loan control (Labor provision, economic decision-making and freedom from domination). After creating this new summary dependent variable, MANOVA performed an analysis of variance for indicating whether there is a significant difference between female and male borrowers on this combined indicator of loan

control. MANOVA also provided detailed information about the univariate results for each of the tree variables separately.

The null hypothesis of this test: The composite indicator of control over loan is not different for female and male borrowers.

The results of MANOVA test are presented in Appendix A.

The MANOVA test in this study was performed using sex of respondents as an independent variable and three dependent variables which are labor provision, economic decision-making and freedom from domination. Prior to MANOVA test, the study tested for preliminary assumptions such as normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. The results of MANOVA test proved a statistically significant difference between males and females on the combined dependent variables: $F(3, 334) = 16.16, p = 0.000$; Wilks' Lambda = 0.873; partial eta squared = 0.127. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of 0.017, was freedom from domination: $F(1, 336) = 44.736, p = 0.000$, partial eta squared = 0.117. An inspection of the mean scores indicated that males reported slightly higher levels of freedom from domination ($M = 4.12, SD = 0.369$) than females ($M = 3.82, SD = 0.371$).

A comprehensive analysis about the causes of this gender inequality in the freedom from domination was provided in Table 4. The study findings showed that difference in women and men's freedom from domination emerges from cultural norms that promote gender inequality in household chores as well as the patriarchal nature of the Rwandan society that give to men the privilege of deciding about the marriage of the children and inheritance of the family property. This therefore implies that female and male borrowers can be at the same position of controlling their loans as well as the benefits accrued thereof if there are strategic interventions that can promote gender equality in household chores.

5. Conclusion

Increased access to microcredit is considered as a strategic tool to deliver wider social benefits in the life of the poor by enabling them to engage more in income generating activities. This linkage between access to microcredit and the wellbeing of the poor is founded on their ability to exert greater control over decision-making regarding microcredit-funded activity. The objective of this paper was to examine the ability of women and men to control their loans. Specifically, the paper examined the pattern of gender division of labor provision in the loan-financed activity, the balance of power in household economic decision-making as well as the level of freedom from domination. Duterimbere MFI was used as a case study of this research due to its experience of empowering women and other low-income entrepreneurs in Rwanda. The study findings revealed that the extent of participation in the productive process of loan-financed activities is influenced by cultural norms that assign roles and responsibilities to females and males in the Rwandan society. It was revealed that women were responsible for doing the tasks that are done near or within the home while men were responsible for carrying out some tasks that require more mobility like the purchase of input, marketing and selling the final outputs to the market. Some scholars such as Chowdhury and Mukhopadhyaya (2014), Kabeer (1998, 2001) and Mayoux (1999) acknowledge that cultural conventions concerning the division of labor restrain women's mobility to the market by obliging them to stay near the home for performing their reproductive roles. Although cultural norms delineate the gendered division of labor in loan-funded activities, the study findings revealed that both female and male borrowers were responsible for the conduct of their businesses. Men's greater participation is promoted by their masculine identity of greater mobility and freedom to interact with the public while women's greater participation derives from their ability to pay house-workers or invest in typical women businesses.

This increased participation in the conduct of the loan's investment activity led to greater power in economic decision-making within the household. The study findings revealed gender equality in different aspects of economic decision-making. Some women were able to take some of the household's economic decision independently. There are other women whose husbands were used to undervalue their voices but this situation was changed by the fact that women were able to earn an independent income. Hunt and Kasynathan (2002) also state that when women have an income they gain more respect in decision-making from their husbands. The only domain that scored difference in economic decision-making was large purchase as women's income gained from microcredit's investment activities is low to guarantee adequate contribution to such expenditures. Regarding the effect of microcredit on freedom from domination, the study findings revealed that men are freer than women in taking decisions related to oppressive cultural norms. Women's low status derives mainly from cultural norms that consider women as sole responsible for household chores. This therefore increases women's workload by combining household and income generating activities.

This paper concludes that the trap of power over loan is not only in labor provision in the loan-financed activity nor in the independence to use the income gained, but also in cultural settings that limit women's freedom to fully commit their time in the income generating activity. Therefore, increased access to microcredit has the potentiality to promote the status of women in decision-making if it is supported by strategic interventions that can transform the culture of prohibiting males' participation in reproductive roles. For promoting gender equality in the control over microcredit in the patriarchal setting of the Rwandan society, it is recommended to Duterimbere MFI and other policy makers alike to design strategies that can increase men's willingness to support their wives when they are using microcredit to support their income generating activities. Particularly, there is a need to promote cooperation and unity in the division of labor for household chores among spouses.

Funding

The authors received no direct funding for this research.

Author details

Liberata Mukamana¹

E-mail: lmukamana@ur.ac.rw

ORCID ID: <http://orcid.org/0000-0003-2152-4017>

May Sengendo¹

E-mail: sengendo4@gmail.com

Edith Okiria¹

E-mail: okiria2002@yahoo.co.uk

¹ School of Women and Gender Studies, Makerere University, Kampala, Uganda.

Citation information

Cite this article as: Control over the utilization of the loan and the pattern of the gendered division of labor in the loan-funded activity: A case of Duterimbere MFI in Rwanda, Liberata Mukamana, May Sengendo & Edith Okiria, *Cogent Social Sciences* (2017), 3: 1421010.

References

- Ackerly, B. A. (1995). Testing the tools of development: Credit programmes, loan involvement, and women's empowerment. *IDS Bulletin*, 26(3), 56–68.
- Akotey, J. O., & Adjasi, C. K. (2016). Does microcredit increase household welfare in the absence of microinsurance? *World Development*, 77, 380–394. <https://doi.org/10.1016/j.worlddev.2015.09.005>
- Alhassan, A.-R., & Akudugu, M. A. (2012). Impact of microcredit on income generation capacity of women in the Tamale metropolitan area of Ghana. *Journal of Economics and Sustainable Development*, 3(5), 41–48.
- Allen, A. (2011). Feminist perspectives on power. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2011 Edition). Retrieved from <http://plato.stanford.edu/archives/spr2011/entries/feminist-power/>
- Amin, M. E. (2005). *Social science research: Conception, methodology and analysis*. Kampala: Makerere University.
- Angko, W. (2013). Microfinance and poverty reduction nexus among rural women in selected districts in the Upper west region of Ghana. *Developing Country Studies*, 3(9), 128–141.
- Arestoff, F., & Djemai, E. (2016). Women's empowerment across the life cycle and generations: Evidence from Sub-Saharan Africa. *World Development*, 87, 70–87. <https://doi.org/10.1016/j.worlddev.2016.06.002>
- Bailey, K. D. (1987). *Methods of social research* (3rd ed.). New York, NY: The Free Press, A Division of Macmillan. London: Collier Macmillan.
- Bamwesigye, J. (2008). *Banking the unbankables: Microfinance and poverty reduction in Rwanda: A case study of Urwego opportunity microfinance bank*. Retrieved from Erasmus University <https://thesis.eur.nl/pub/7054/Bamwesigye%20PPSD%202007-08.pdf>
- Bayisenge, J. (2010). Access to Paid Work and Women's Empowerment in Rwanda. *Rwanda Journal*, 19(1), 84–106.
- Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices*. Textbooks collection. Book 3.
- Bryman, A. (2008). *Social research methods*. Oxford: Oxford University Press.
- Cheston, S., & Kuhn, L. (2002). *Empowering women through microfinance* (Draft). Chicago, IL: Opportunity International.
- Chowdhury, T. A., & Mukhopadhyaya, P. (2014). Are women less efficient in converting microcredit into functionings? Evidence from Bangladesh. *The European Journal of Development Research*, 26(5), 725–742. <https://doi.org/10.1057/ejdr.2013.57>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297–334.
- Field, A. P. (2009). *Discovering statistics using SPSS*. London: Sage.

- Ganle, J. K., Afriyie, K., & Segbefia, A. Y. (2015). Microcredit: Empowerment and Disempowerment of rural Women in Ghana. *World Development*, 66, 335–345. <https://doi.org/10.1016/j.worlddev.2014.08.027>
- Gobeze, G. (2010). Empowerment of women in rural Ethiopia: A review of two microfinance models. *PRAXIS: The Fletcher Journal of Human Security*, XXV, 23–37.
- Goetz, A. M., & Gupta, R. S. (1996). Who takes the credit? Gender, power, and control over loan use in rural credit programs in Bangladesh. *World Development*, 24(1), 45–63. [https://doi.org/10.1016/0305-750X\(95\)00124-U](https://doi.org/10.1016/0305-750X(95)00124-U)
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis*. Harlow: Pearson Education Limited.
- Haq, A., & Safavian, M. (2013). *Are Pakistan's women entrepreneurs being served by the microfinance sector? Are they being served by the microfinance sector?* Washington, DC: World Bank.
- Heyzer, N. (1994). Increasing women's access to credit in Asia, achievements and limitations. In N. Heyzer & G. Sen (Eds.), *Gender, economic growth and poverty: Market growth and state planning in Asia and the Pacific* (pp. 280–297). New Delhi: Kali for Women and International Books, Netherlands in collaboration with Asian and Pacific Development Centre, Kuala Lumpur.
- Hunt, J., & Kasynathan, N. (2002). Reflections on microfinance and women's empowerment. *Development Bulletin*, 57, 71–75.
- Idris, A. J., & Agbim, K. C. (2015). Micro-credit as a strategy for poverty alleviation among women entrepreneurs in Nasarawa State. *Nigeria. Journal of Business Studies Quarterly*, 6(3), 122–143.
- Islam, T. (2012). *Microcredit and poverty alleviation*. Hampshire: Ashgate Publishing.
- Kabeer, N. (1998). 'Money can't buy me love'? Re-evaluating gender, credit and empowerment in rural Bangladesh (Discussion Paper). Brighton: Institute of Development Studies, University of Sussex.
- Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30(3), 435–464. <https://doi.org/10.1111/dech.1999.30.issue-3>
- Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in Rural Bangladesh. *World Development*, 29(1), 63–84. [https://doi.org/10.1016/S0305-750X\(00\)00081-4](https://doi.org/10.1016/S0305-750X(00)00081-4)
- Karl, M. (2009). Inseparable: The crucial role of women in food security revisited. *Women in action*, 1(1), 8–19.
- Kessey, K. D. (2014). Micro credit and promotion of small and medium enterprises in informal sector of Ghana: Lessons from experience. *Asian Economic and Financial Review*, 4(6), 768–780.
- Lakwo, A. (2006). *Microfinance, rural livelihoods, and women's empowerment in Uganda*. Leiden: African Studies Centre. Retrieved December 21, 2012, from www.ascleiden.nl
- Longwe, S. (1991). Gender awareness: The missing element in the third world development project. In T. Wallace & C. March (Eds.), *Changing perceptions: Writings on gender and development* (pp. 149–157). Oxford: Oxfam.
- Lyby, E. (2006). *Microfinance and gender roles in Afghanistan*. Washington, DC: World Bank.
- March, C., Smyth, I. A., & Mukhopadhyay, M. (1999). *A guide to gender-analysis frameworks*. Oxford: Oxfam.
- Mayoux, L. (1999). Questioning virtuous spirals: Micro-finance and women's empowerment in Africa. *Journal of International Development*, 11(7), 957–984. [https://doi.org/10.1002/\(ISSN\)1099-1328](https://doi.org/10.1002/(ISSN)1099-1328)
- Meier-Pesti, K., & Goetze, E. (2005). Masculinity and femininity as predictors of financial risk-taking: Evidence from a priming study on gender salience. *E-European Advances in Consumer Research*, 7, 45–46.
- Melnichuk, V. (2015). *Special of the month: Gender and development: Men are important*. Issue No.5, January.
- Muraleedharan, D. K. (2005). *Empowering Women: Inter-State Comparison of Indian Experiments*. Research Project report submitted to Indian Council of Social Science Research, Ministry of HRD, Govt. of India, New Delhi (Unpublished report). Retrieved from www.eldis.org/fulltextempoweringwomen.pdf
- National Institute of Statistics in Rwanda. (2012). *Fourth population and housing census*. Rwanda: Author.
- Newman, I., Lim, J., & Pineda, F. (2013). Content validity using a mixed methods approach its application and development through the use of a table of specifications methodology. *Journal of Mixed Methods Research*, 7(3), 243–260.
- Ngo, T. M. P., & Wahhaj, Z. (2012). Microfinance and gender empowerment. *Journal of Development Economics*, 99(1), 1–12. <https://doi.org/10.1016/j.jdeveco.2011.09.003>
- Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (version 12)*. Maidenhead: Open University Press.
- Panigrahy, R. L. (2006). *Women empowerment*. New Delhi: DiscoveryPublishing House.
- Peege, F. C. (2010). *Study on supply of training in the financial sector of Rwanda, especially the microfinance sector*. Retrieved from www.sparkassenstiftung.de
- Rani, D. L., & Yadeta, D. B. (2016). Empowerment of rural women through cooperative: A case of saving and credit cooperative society of Dendi district, Oromia regional state. *Ethiopia. International Journal of Applied Research*, 2(8), 367–373.
- Rowland-Serdar, B., & Schwartz-Shea, P. (1991). Empowering women: Self, autonomy, and responsibility. *The Western Political Quarterly*, 44(3), 605–624.
- Salem, R., Cheong, Y. F., VanderEnde, K., & Yount, K. M. (2015, June). *Is women's work a pathway to their agency in rural Egypt?* (Working Papers No. 922). Dokki: Economic Research Forum.
- Sardenberg, C. M. B. (2008). Liberal vs liberating empowerment: A Latin American feminist perspective on conceptualising women's empowerment. *IDS Bulletin*, 39(6), 18–27.
- Simojoki, H. (2003). *Empowering credit-more than just money: The socio-economic impact of micro-finance on women in Nairobi* (Unpublished thesis).
- Smith, J. M. (1972). *Interviewing in market and social research*. London: Routledge.
- Stromquist, N. P. (1988). Women's education in development: From welfare to empowerment. *Convergence*, 21(4), 5–17.
- Umashankar, D. (2006). *Women's empowerment: Effect of participation in self-help groups* (Unpublished dissertation). Bangalore: Indian Institute of Management.
- USAID. (2009). *Rwanda: Investing in the empowerment of women in business, report reproduced for BizCLIR project*. Retrieved from http://www.bizclir.com/galleries/country-assessments/Rwanda_GenderCLIR.pdf
- World Relief Rwanda. (1999). *Impact assessment of TF UK clients in the world relief Rwanda URWEGO program*.
- Young, K. (1992). Household Resource Management. In L. Ostergaard (Ed.), *Gender and Development: A Practical Guide* (pp. 135–164). London: Routledge.

Appendix A
Descriptive statistics

	Sex of respondents	Mean	SD	N
Labor provision	Male	2.56	0.345	94
	Female	2.53	0.395	244
	Total	2.54	0.382	338
Economic decision	Male	4.13	0.498	94
	Female	4.08	0.499	244
	Total	4.09	0.498	338
Freedom from domination	Male	4.12	0.369	94
	Female	3.82	0.371	244
	Total	3.90	0.394	338

Box's test of equality of covariance matrices^a

Box's M	13.956
F	2.296
df1	6
df2	1.990E5
Sig.	0.032

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

^aDesign: Intercept + Sex.

Multivariate tests^b

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial eta squared
Intercept	Pillai's trace	0.992	1.356E4 ^a	3.000	334.000	0.000	0.992
	Wilks' lambda	0.008	1.356E4 ^a	3.000	334.000	0.000	0.992
	Hotelling's trace	121.805	1.356E4 ^a	3.000	334.000	0.000	0.992
	Roy's largest root	121.805	1.356E4 ^a	3.000	334.000	0.000	0.992
Sex	Pillai's trace	0.127	16.162 ^a	3.000	334.000	0.000	0.127
	Wilks' lambda	0.873	16.162 ^a	3.000	334.000	0.000	0.127
	Hotelling's trace	0.145	16.162 ^a	3.000	334.000	0.000	0.127
	Roy's largest root	0.145	16.162 ^a	3.000	334.000	0.000	0.127

^aExact statistic.

^bDesign: Intercept + Sex.

Levene’s test of equality of error variances^a

	F	df1	df2	Sig.
Total participation in labor	3.278	1	336	0.071
Total economic decision	0.306	1	336	0.581
Total freedom	0.033	1	336	0.855

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

^aDesign: Intercept + Sex.

Tests of between-subjects effects

Source	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	Labor provision	0.059 ^a	1	0.059	0.402	0.527	0.001
	Economic decision	0.161 ^b	1	0.161	0.648	0.422	0.002
	Freedom from domination	6.144 ^c	1	6.144	44.736	0.000	0.117
Intercept	Labor provision	1756.420	1	1756.420	1.202E4	0.000	0.973
	Economic decision	4566.191	1	4566.191	1.837E4	0.000	0.982
	Freedom from domination	4278.270	1	4278.270	3.115E4	0.000	0.989
Sex	Labor provision	0.059	1	0.059	0.402	0.527	0.001
	Economic decision	0.161	1	0.161	0.648	0.422	0.002
	Freedom from domination	6.144	1	6.144	44.736	0.000	0.117
Error	Labor provision	49.092	336	0.146			
	Economic decision	83.501	336	0.249			
	Freedom from domination	46.144	336	0.137			
Total	Labor provision	2225.120	338				
	Economic decision	5739.778	338				
	Freedom from domination	5202.111	338				
Corrected total	Labor provision	49.150	337				
	Economic decision	83.662	337				
	Freedom from domination	52.287	337				

^aR² = 0.001 (Adjusted R² = -0.002).

^bR² = 0.000 (Adjusted R² = -0.003).

^cR² = 0.117 (Adjusted R² = 0.115).



© 2018 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format

Adapt — remix, transform, and build upon the material for any purpose, even commercially.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.



Cogent Social Sciences (ISSN: 2331-1886) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com

