Determinants of Women's Participation in Decision-Making on Household Income Allocation

Augustin Mbangala Mapapa Kinshasa Higher Institute of Commerce (ISC-Kinshasa)

Eurasme Kakule Milando Goma Higher Institute of Commerce (ISC-Goma)

In the Democratic Republic of Congo (DRC), as is the case in most sub-Saharan African countries, women make a significant contribution to household income. However, they are traditionally excluded from the decision-making process regarding the allocation of household income, as only the man is considered the head and decision-maker. With modernization, we increasingly observe another form of household organization that takes into consideration the participation of women in decision-making in African households. This article analyzes the determining factors that contribute dynamically to this change. Starting with qualitative analysis, the binary logistic method was used to highlight the variables that explain the probability of a woman participating in the decision-making process that affects the couple's income.

Keywords: Black woman, decision making, household income, logistic method, DRC

INTRODUCTION

A World Bank study shows that women in sub-Saharan Africa have little decision-making power within their households (Banque Mondiale, 2012). Society remains characterized by a sexual division of labor in which men are the head, decision-makers, and providers of household income, while women are relegated to housework and child-rearing (Van Alst, 2014). Over the past few decades, various research studies have shown that a profound change is taking place in African households. Increasingly, women are becoming involved in household decision-making regarding the allocation of family income. Traditional households where the man was the head and sole decision-maker are disappearing in favor of new forms of family organization (Bennholdt-Thomsen, 1988). Globalization, progress due to new information and communication technologies, and social networks are all factors influencing the change in mentality within African households. Indeed, the destruction of the socio-economic fabric of several countries as a result of armed conflict, and the unemployment of the majority of men due to a precarious economic situation, have led women to become involved in household survival through income-generating activities. In addition, higher levels of education have helped to change the attitudes of most African men. National and international NGOs have played an important role in raising awareness of women's rights. Lastly, the emergence and development of NICTs have led to the development of new mentalities and the progressive questioning of certain retrograde customs and habits toward women, thereby contributing to their gradual involvement in decision-making within their households.

For some time now, in response to the poverty that characterizes the majority of households, women have been involved in efforts to combat it through income-generating activities (IGAs). These activities have enabled them to contribute to the household income. In some households, women have become the main contributors to the formation of this income, which has increasingly changed power relations within the household (Titeca and Kimanuka, 2012; Musitu, 2006; Musambwa, 2006).

Research on women's participation in economic decision-making within households has been extensively addressed in Western countries and Asia, particularly in social economics research. However, few studies have examined this issue in Sub-Saharan Africa. Existing empirical and theoretical studies suggest that women's participation in decision-making within their households is associated with their characteristics and the social contexts in which they live (Sadania, 2016; Sultana, 2011; Mojdeh Kiani, 2012; Bradshaw, 2013; Rezapour and Ansari, 2014). This article is based on the premise that women's education, occupation, and income significantly influence important household decision-making. The aim of this article is to identify the factors that influence women's participation in household decision-making. A qualitative methodology based on a questionnaire administered to the populations concerned in the city of Goma in eastern DRC was used to gather the study variables. The binary logistic model is used to identify the explanatory variables that support women's participation in household decision-making.

The article is structured into four sections. The first section is devoted to a literature review. The second and third sections present the methodological approach and results, respectively. The fourth section discusses the results.

LITERATURE REVIEW

The participation of women in household decision-making has been the subject of research in both developed and developing countries. The literature on the determinants of women's participation in decision-making has identified several factors that may explain it. We have identified several variables that are likely to explain the probability of a woman's participation in decision-making regarding the allocation of household income.

The literature on the relationship between age and women's participation in household decision-making suggests that this is one of the most significant factors affecting women's status in both developed and developing countries, particularly in Sub-Saharan Africa (Gage 1995; Sathar & Kazi 1997). In a study on the determinants of decision-making responsibility regarding economic and financial choices in Italian households, Bertocchi et al. (2014) found that the probability of women being responsible for decisions increases with their age. This finding is supported by another study conducted by Bilampoa in Burkina Faso (2014), which suggests that older Burkinabe women are more likely to participate in household decision-making. Acharya et al. (2010) also found that older women are generally more likely to be consulted in household and community decisions than younger women. Additionally, several other studies have shown that women's decision-making power is influenced by the age difference between spouses, as well as the age at which they were married (Gage, 1995; Meekers and Oladosu, 1996; Oyediran, 1998).

Blood and Wolfe (1960) conducted research on the relationship between household members' income, employment, and women's participation in household decision-making. These authors showed, through the theory of resources, that decision-making power in the household depends on resources such as income, education level, and profession of the husband or wife. According to this theory, power assumes that the distribution of household tasks between spouses is a function of differences in resources, such as income, education, or status, and whoever has the most resources will be able to abstain from participating in domestic work (Goran and Christine, 2000).

For Lemieux and Mercier (1989), a member's contribution to the household income increases their decision-making power within the household, particularly if they become the main provider. Several authors have confirmed these results by finding that contribution to household income influences the level of control and power in household financial decision-making, particularly for the wife (Lee and Beatty 2002; Burgoyne and Morison 1997; Goode et al. 1998; Pahl, 1995, 2000; Vogler and Pahl 1993, 1994; Yilmazer and Lyons 2010; Bilampoa, 2014).

According to Sultana (2011), a woman's employment, whether full-time or part-time, plays a significant role in increasing her decision-making power within the household. Bradshaw (2013) notes that the concept of employment is understood differently by men and women, as well as by place of residence. For women, paid work is not only a source of income but also an opportunity to participate in household decision-making, especially in urban areas. In the context of poverty, women's paid work should enable them to improve their negotiating and bargaining positions within the household. Bilampoa (2014) reinforces this viewpoint, stating that paid work is one of the factors that promote women's participation in decision-making within Burkinabe households. Studies by Acharya et al. (2010) and Becker (1985) support this perspective, showing that employed women are more likely to participate in household decision-making than unemployed women, thanks to the income generated by their employment. In sub-Saharan Africa, women's contribution to household income is a factor that favors their participation in decision-making concerning the household (Boateng et al., 2012; Gwako, 1997; Kritz and Makinwa-Adebusoye, 1999). The World Bank (2012) notes similar results in South Africa, where a woman's strong contribution to household income increases her participation in decision-making within her household. All of the above suggests that.

The relationship between women's level of education and their participation in household decisionmaking has been the subject of research. In Africa, research has established a link between a woman's level of education and her participation in the household decision-making process. Urbanization and education promote new behaviors in gender relations (Boateng et al., 2012; Gwako, 1997; Kritz and Makinwa-Adebusoye, 1999). Education can give women self-esteem and self-confidence, which are crucial characteristics for bringing about relevant changes (Fink, 2011; Gresy and Georges, 2012). Similar to Klugman et al. (2014), Bilampoa (2014) shows that the education of spouses and the participation of women in economic activities can enable them to negotiate better within the couple, which is an important means of improving their status within their families. Religion is also an important aspect of family life in Sub-Saharan Africa (Ojo, 1997). Research suggests that a woman's religious affiliation can be associated with decision-making power within the family (Kritz & Makinwa-Adebusove, 1999). In traditional religions, women are mainly bound by certain cultural norms that subordinate them to their male counterparts, especially in patriarchal societies (Kola and Oyediran, 2004). Women from traditional religions may have more weight in family decisions than those from non-traditional religions. Other authors claim that Catholic and other Christian women are about twice as likely to make reproductive decisions as Muslim women (Feyisetan, 2000). Bilampoa (2014) found a significant effect between religion and the participation of women in decisions concerning major household purchases.

Although the literature on the relationship between the nature of the household and women's participation in household decision-making is limited, some research has shown a link between the two concepts. Family nucleation provides women with an opportunity to actively participate in decision-making within the household (Sathar and Kazi, 1997), while polygyny allows them to take the lead in their respective household units. Some studies suggest that husbands in polygamous households are more likely to be irregular visitors to their wives than those in nuclear families (Gage, 1995; Kritz and Makinwa-Adebusoye, 1999). Moreover, women in polygamous households are known for their collaborative efforts to maximize household chores and childcare, and such cooperative efforts could increase their authority in the family (Oppong and Abu 1987).

Some studies have established a link between a woman's place of residence and her participation in the decision-making process. In black Africa, Mwakasangula et al. (2010) found that rural African women tend to have decision-making power over their own fields, while men dominate decision-making for family plots. Yunis et al. (2018) argue that the status of rural women in several countries is defined by their community, traditions, cultures, household income, lifestyles, castes, and many other aspects, although these variables differ from one environment to another.

However, the authors find that women are marginalized in the decision-making process, even though they are more involved in production. Hoque and Yoshihito (2008) support this point, asserting that women's participation in income-generating activities of poor households in rural areas is high, while disparities between men and women in terms of education, health, employment, income, control over

property, personal security, and participation in the political process persist. These authors recognize that contributing to household income can improve women's role in family decision-making.

On the other hand, several studies conducted in Africa have found that urbanization and education promote the emergence of new behaviors in terms of gender relations (Boateng et al, 2012; Gwako, 1997; Kritz and Makinwa-Adebusoye, 1999). This has a significant impact on women's participation in decisionmaking within their households. In fact, urban areas are where most good schools are located, along with the best tools of globalization, such as international television channels and extensive use of NICTs.

METHODOLOGICAL APPROACH AND SURVEY RESULTS

Methodology

Based on the literature review conducted in the previous pages, we have identified five variables that determine women's participation in the household decision-making process. These variables include household residence, employment status of the woman and her partner, level of education of the woman and her partner, age of the woman, and religion of the woman and her partner.

To investigate the relationship between these variables and women's participation in household decision-making, we adopted a qualitative methodological approach. We administered a questionnaire to a sample of 865 married women, selected from a theoretical sample of 1002 women. To determine the sample size, we conducted a pre-survey of 50 women, including 30 in the town of Goma, 10 in the chiefdom of Bukumu, and 10 in the city of Sake. The sample variance was found to be V = 0.65207315.

Using the formula $n = (Z2\alpha/2.V)/E2$ (Bugandwa, 2012; Giannelloni and Vernette, 2015), we calculated a total theoretical sample of 1002 women. The survey questionnaire was administered using cluster sampling in the first degree (the city of Goma, the city of Sake, and the chiefdom of Bukumu) and in the second degree (neighborhoods and groups). The sample was distributed proportionally according to the calculated size (1002), resulting in a sample of 690 in the town of Goma (79.8%), 136 in the chiefdom of Bukumu (15.7%), and 39 in the city of Sake (4.5%).

The chi-squared method allowed us to establish an association between variables and a woman's participation in the decision-making process regarding the allocation of household income. Discriminant analysis was then performed to study the relationship between a woman's participation in the decisionmaking process and a set of significant quantitative or qualitative binary explanatory variables. The primary objective is to validate the classification. Finally, a final analysis is conducted to identify the variables that most effectively predict the likelihood of a woman participating in the household income allocation decision-making process.

Results

Links Between Variables and Women's Participation in Decision-Making on Household Income Allocation

The Chi2 test was applied to each variable studied to determine if there was a relationship between the selected variable and a woman's participation in the decision-making process. The results obtained (Table 1) indicate a link between spousal residence (urban or peri-urban, rural), the wife's level of education, the employment status of both the wife and husband and the wife's participation in decision-making regarding household income allocation. The analysis revealed an increased likelihood of a woman participating in decision-making on the allocation of household financial resources as her level of education increased. Additionally, the results showed that women whose spouses were unemployed participated the most in the decision-making process on household income allocation. Neither the respondent's religion nor that of her spouse was associated with the decision-making process for allocating household income. The same was found for the spouse's level of education.

TABLE 1 KHI2 TEST

Variables	Khi ²	Ddl	P
Residence	31,108	19	0,039
Wife's religion	8,563	6	0,200
Husband's religion	3,496	5	0,624
Wife's level of education	45,435	7	0,000
Spouse's level of education	8,833	7	0,265
Wife's job	96,305	4	0,000
Husband's job	13,114	4	0,011

Discriminant Analysis

Discriminant analysis is used to study the relationship between women's participation in decision-making regarding household income allocation and a set of binary quantitative or qualitative explanatory variables. The main objective was to validate the classification.

TABLE 2
TESTS FOR EQUALITY OF GROUP AVERAGES

	Lambda de Wilks	F	ddl1	ddl2	Sig.
Education level	,967	29,782	1	862	,000
Spouse's level of education	,997	3,013	1	862	,083
Household size	,997	2,704	1	862	,100
Percentage allocated by wife	,713	347,508	1	862	,000
Age at marriage	,992	6,563	1	862	,011
Wife's access to employment	,919	76,192	1	862	,000
Spouse's access to employment	,997	2,450	1	862	,118
Food expenses	,997	2,982	1	862	,085
Catholic	,995	4,471	1	862	,035
Protestant	,997	2,775	1	862	,096
Muslim	1,000	,091	1	862	,762

Source: Analysis of survey data.

Based on the significance values below the 0.05 threshold and the univariate F values for each descriptor, which must be greater than the Fisher's value of the table with 1 degree of freedom in the numerator and 862 in the denominator, we reject the null hypothesis of equality of means for five variables. These variables differentiate between women who participate in the decision-making process on the allocation of household income and those who do not. These variables are the woman's education level, the percentage of income allocated by the woman to household formation, age at marriage, the woman's access to employment, and membership in the Catholic religion. Additionally, at the 0.10 threshold, two other variables are significant: the spouse's education level, the age difference between spouses, and membership in the Protestant church.

To check the validity of the model, three tests were carried out: the box test, the eigenvalue test and Wilks' Lambda.

TABLE 3
BOX TEST OF COVARIANCE MATRIX EQUALITY

Box test		99,350
F	Approx.	9,881
	dd11	10
	ddl2	2123761,749
	Sig.	,000
Tests the	e null hypothesis of covariance matrice	es with equal populations.

The results in this table show a Box M value of 99.35 (the only criterion being that it should be as large as possible). The approximate Fisher value is 9.881, which is greater than the Fisher value of 2.05 in the table with 10 degrees of freedom in the numerator and 2123761.749 (∞) in the denominator. The probability of observing this value with the sample data, if the null hypothesis is true, is 0.000. This allows us to assert that the discriminant function will guarantee the lowest probability of misclassification of individuals (Giannelloni and Vernette, 2015). Therefore, we can demonstrate the validity of our model at this level.

TABLE 4
EIGEN VALUES

Function	Eigenvalue	% of variance	% cumulative	Canonical correlation
1	,564ª	100,0	100,0	,601

a. The first 1 canonical discriminant functions were used for the analysis.

Source: Analysis of survey data.

According to the criterion that a model must have a canonical correlation approaching 1 to be considered good, our model can be deemed good with a value of 0.601. This indicates that there is a significant difference in group means, allowing us to confidently state that our model is valid. The table of eigenvalues shows that the discriminant function will be used 100% to discriminate between groups.

TABLE 5 WILKS' LAMBDA

Test function(s)	Wilks' Lambda	Khi ²	Ddl	Sig.
1	,639	384,703	4	,000

Source: Analysis of survey data.

The results indicate that the model is good, as evidenced by the value of Wilks' lambda, which is close to 0 (0.639). Similarly, the Chi-square value is 384.703, which is 22.36 higher than the table's Chi-square at the 0.05 threshold, with 13 degrees of freedom and a p-value of zero. This suggests that the overall model is sound.

TABLE 6 RANKING RESULTS

		Women's participation in	Group me	mbership	Total
		decision-making on the allocation of household income	No	Yes	
Original	Effective	No	257	64	321
		Yes	105	438	543
	%	No	80,1	19,9	100,0
		Yes	19,3	80,7	100,0
Cross-	Effective	No	257	64	321
validate ^b		Yes	105	438	543
	%	No	80,1	19,9	100,0
		Yes	19,3	80,7	100,0

a. 80.4% of original observations are correctly classified.

The research results show that the score function extracted above accurately classifies 80.4% of women in terms of their involvement in the decision-making process for household income allocation. For those not participating in the decision-making process, 80.1% of items were classified correctly (257x100/321), while for those participating in the decision-making process, 75.1% of items were classified accurately (438x100/543).

However, the error rate (misclassified women) is 19.5% (105+64/865). The error of the first type considering women who do not participate in the decision-making process on the allocation of household income by using the score function among those who do participate in this process - has a rate of 0.199 (64/321), while the error of the second type - classifying women who do not participate in this process by the model - is 0.193 (105/543).

Since the percentage of individuals correctly reclassified should not be analyzed in absolute terms, it must be compared to the percentage that would be obtained if individuals were reclassified at random. Therefore, the Presses Q test must be conducted to verify that the percentage of correctly classified individuals is significantly greater than the percentage obtained by chance (Hair et al., 1992). This calculated statistic follows a chi-square distribution with 1 degree of freedom. The null hypothesis is the equality of the two values: the number of individuals well classified at random and the number of individuals classified by the discriminant function. The test is expressed as follows:

$$Qpresse = \frac{(n - (nc * p))^2}{n * (p - 1)} = \frac{(865 - (695 * 2))^2}{865 * (2 - 1)} = 318,6$$

n is the number of women surveyed (865 in our case); nc is the number of women surveyed correctly classified (257+438=695); p is the number of groups (in our case, equal to 2).

The critical value of Chi-square at 1 degree of freedom with a threshold of 0.05 is 5.024. This allows us to reject the null hypothesis, indicating that the discriminant function performs significantly better than chance in correctly reclassifying women based on their participation in the decision-making process regarding the allocation of household income.

b. Cross-validation is only performed for the observations in the analysis. In cross-validation, each observation is ranked by the functions derived from all the other observations.

c. 80.4% of cross-validated observations are correctly classified.

Factors Explaining Women's Participation in Decision-Making on Household Income Allocation

In contrast to the discriminant analysis discussed earlier, which does not test for causal relationships, this section aims to identify the variables that most effectively predict whether a woman will participate in the decision-making process regarding household income allocation. We examine the impact of various factors, including the woman's age, her spouse's age, age at marriage, the level of education for both the woman and her spouse, the portion of household income allocated by other members, the portion allocated by the woman, the woman's religion (Catholic, traditional Protestant, Muslim, or revivalist church), and household size on her participation in this process.

TABLE 7 COMPOSITE TESTS OF MODEL COEFFICIENTS

		Khi ²	Ddl	Sig.
Pas 1	Pas	288,203	1	,000
	Block	288,203	1	,000
	Model	288,203	1	,000
Pas 2	Pas	95,186	1	,000
	Block	383,389	2	,000
	Model	383,389	2	,000

Source: Analysis of survey data.

By reading the table, we can see the Chi-squared values for each step, which leads us to conclude that the observations come from the same population. In particular, the second step yields a Chi-square value of 383.389 with 2 degrees of freedom and a p-value of zero. Based on these results, we can affirm that the final model predicts, with significance, the probability of a woman participating in the decision-making process for allocating household income, when compared to the model that only includes the constant.

TABLE 8 HOSMER AND LEMESHOW TEST

Pas	Chi-square	Ddl	Sig.
1	58,345	8	,000
2	31,442	8	,000

Source: Analysis of our survey data in SPSS 25.0

After examining the Hosmer-Lemeshow test results in this table, it is evident that there is a significant difference between the predicted and observed values (Chi-square=31.442 with 8 degrees of freedom). Specifically, steps 1 and 2 show a significant difference between the predicted and observed values, as indicated in the table.

TABLE 9
EQUATION VARIABLES (PAS 1 AND 2)

		В	E.S	Wald	Ddl	Sig.	Exp(B)	inter	onfidence val for P(B)
								Inf	Sup
Pas 1 ^a	Allocated percentage	,063	,005	177,5	1	,000	1,065	1,055	1,074
	Constant	1,855	,189	96,02	1	,000	,156		
Pas 2 ^b	Education level	1,952	,223	76,65	1	,000	7,045	4,551	10,908
	Percentage allocated	,079	,006	190,9	1	,000	1,083	1,070	1,095
	Constant	3,209	,271	139,8	1	,000	,040		

Starting with significance values below the 0.05 threshold, the results of the second step allow us to identify two variables that significantly explain the probability of a woman participating in the decision-making process for the allocation of household income. Both variables have positive coefficients and odds ratios greater than 1. Therefore, we can conclude that a woman's level of education and the percentage of household income allocated by her significantly explain her likelihood of participating in the decision-making process for the allocation of household income.

The results indicate that a woman who has obtained at least a state diploma is 10.9 times more likely to participate in the decision-making process regarding the allocation of household income compared to a woman who has not. This likelihood also increases as the percentage of household income generated by the woman increases. Therefore, as the percentage of income allocation by the woman increases, the likelihood of her involvement in the decision-making process regarding household income allocation also increases by 9.5%.

TABLE 10 OVERVIEW OF MODELS

Pas	Log likelihood-2	Cox and Snell R-two	Nagelkerke R-two
1	822,196a	,290	,396
2	727,010 ^b	,366	,500

Source: Analysis of survey data.

The model summary table displays the log-likelihood values for each model step. These values show that all log-likelihood -2 values for each model step are lower than the base probability of 1110.400 (822.196a and 727.010b), indicating that the terms of the final logistic equation better predict the probability of a woman participating in the decision-making process regarding the allocation of household income.

The results above show that the final model is significant. Each independent variable contributes significantly more to predicting the likelihood of a woman's participation in the decision-making process regarding the allocation of household income compared to a model that omits them. To assess how well the model fits the data, the model summary table shows that the Cox and Snell and Nagelkerke R2 values for the third step are 0.366 and 0.500, respectively. Similar to R2 for multiple regression, higher values indicate

better model fit. Despite the relatively low R2 values, observed values increase with each step. Therefore, we conclude that the final model is the best fit.

TABLE 11 CLASSIFICATION TABLE

	Observed			Forecasts	
			Y^1		% correct
	_		No	Yes	
Pas 1	Y	Non	176	138	56,1
		Oui	73	453	86,1
	% global				74,9
Pas 2	Y	Non	221	93	70,4
		Oui	65	461	87,6
	% global				81,2

Source: Analysis of survey data.

The research results indicate that the model accurately classifies subjects into their respective groups based on the final equation. The classification table in the appendix shows that, by chance alone, 74.9% of the women in the study were correctly classified at step 0. The table further shows that the percentage of correct classification increases from 74.9% with a single independent variable to 81.2% at step 2. At this step, 70.4% of women not involved in the household income allocation decision-making process are correctly classified, while 87.6% of women involved in this process are. These findings represent a significant improvement over previous results.

INTERPRETATION AND DISCUSSION OF RESULTS

The results of the discriminant analysis indicate that, at the 0.05 threshold, only four variables significantly differentiate between women who participate in the decision-making process on household income allocation and those who do not. These variables are the woman's level of education, the percentage of income she allocates to household income formation, her age at marriage, her access to employment, and her membership in the Catholic religion. However, at the 0.10 threshold, two more variables are significant: the spouse's level of education, the age difference between the spouses, and membership in the Protestant church.

As discriminant analysis cannot test causal relationships, logistic regression revealed that only two variables - the wife's level of education and the percentage of income allocated by the wife to household formation - significantly explain the probability that the wife participates in the decision-making process on the allocation of household income. The results show a positive relationship between these variables and the probability of participating in the decision-making process on household income allocation. Thus, as the percentage of income allocated by the woman to household income formation increases, she is more likely to participate in the decision-making process on household income allocation.

Acharya et al. (2010) points out, customs in Sub-Saharan Africa do not recognize equal rights between men and women. Systems are built on ideologies of gender inequality that place women in a position of subordination and inferiority to men, which is reflected in the management of public affairs. Indeed, customs contain attitudes, behaviors, and practices that enslave women and relegate them to a secondary role within the household. Increasing the percentage of household income allocated to women can only have positive repercussions on their participation in the decision-making process concerning the allocation of household income, as they become the backbone of household survival. These results are supported by studies that measure the association between the spouse's employer and the woman's participation in the

decision-making process on the allocation of household income. It's worth noting that women whose spouses are working or unemployed are the most likely to participate in the decision-making process concerning the allocation of household income.

The results indicate a positive correlation between a woman's education level and her involvement in household income allocation decision-making. Specifically, the probability of a woman participating in such decisions increases with the attainment of at least one state diploma.

These results suggest that a woman's level of education is associated with her involvement in the decision-making process regarding the allocation of household income. Specifically, an increase in a woman's education level tends to increase her participation in decisions regarding her household's financial resources, which she often allocates. Several studies confirm this trend; for example, Boateng et al. (2012), Gwako (1997), and Kritz and Makinwa-Adebusoye (1999) found that education increases a woman's likelihood of participating in household income allocation decisions. Obtaining a state diploma increases the probability of such participation, as does an increase in the woman's share of household income and a decrease in the contributions of other household members or the man.

The results of this research suggest that there is a correlation between a woman's neighborhood of residence and her participation in household income allocation decisions. Notably, in neighborhoods where women contribute the highest percentage to household income, they are more involved in the decision-making process. In poor neighborhoods, women's high level of participation is driven by the need to ensure the survival of the household, while in wealthy neighborhoods, their high level of education, employability in lucrative activities, and higher levels of education play a significant role. This finding aligns with power theory, which posits that individuals with greater income, education, or status have more decision-making power within the family (Göran and Christine, 2000; Sultana, 2011; Van Alst, 2014).

The results reveal a correlation between the respondent's employer and women's participation in the decision-making process regarding household income allocation (Chi-square=32.669 at 4 degrees of freedom and p=0.000). Specifically, the data indicates that 72.9% of the 579 respondents who work for themselves participate in this decision-making process, while 76.6% of the 47 respondents working for the State, 81.5% of the 119 respondents working for a private enterprise, and 72.7% of the 11 respondents working for an NGO participate in the process. Additionally, only 49.5% of the 109 household respondents (i.e., unemployed individuals) participate in this process. Therefore, it is worth noting that housewives are the least involved in household income allocation decision-making.

CONCLUSION

The objective of this research was to test the variables that could explain women's participation in the decision-making process regarding the allocation of household income.

The results indicate that there is an association between the place of residence, the education levels of spouses, the employers of spouses, and women's participation in the decision-making process regarding the allocation of household income.

The results of the discriminant analysis in SPSS 25.0 indicate that, using a threshold of 0.05, only four variables significantly differentiate women who participate in decision-making regarding household income allocation from those who do not. These variables are the woman's level of education, the percentage of income allocated by the woman to household formation, age at marriage, the woman's access to employment, and her membership in the Catholic religion.

The results of the binary logistic regression indicate that only the woman's level of education and the share of household income allocated by her significantly explain the probability of her participation in the decision-making process regarding income allocation.

However, despite efforts to explore this subject, there are certain limitations that exist. These limitations, though, do not compromise the validity of the main results.

Firstly, one weakness of this study is the small sample size, considering the importance of the research field. It would have been preferable to conduct the research on a larger sample, with a greater representation of the rural population, to enable a more robust comparison between urban and rural women.

Secondly, in terms of the referents, measuring women's participation could take the form of a scale ranging from "not involved at all in the household decision-making process" to "fully involved in the household decision-making process". In addition, this variable could be subdivided into several other subvariables as household decisions do not only concern participation in allocating household income.

ENDNOTE

1. Y = Women's participation in decision-making on how their household income is affected

ACKNOWLEDGMENT

Translated & edited by American Publishing Services (https://americanpublishingservices.com/).

REFERENCES

- Acharya Dev, R., Bell, J.S., Simkhada, P., Teijlingen, E.R.V., & Regmi, P.R. (2010). Women's autonomy in household decision-making: A demographic study in Nepal. Reproductive Health, 7(1), 1–15.
- Banque Mondiale. (2012). Rapport sur le développement dans le monde 2012: Égalité des genres et développement. Washington, D.C.
- Becker, G.S. (1985), Human Capital, Effort, and the Sexual Division of Labor. Journal of Labor Economics, 3(1), Part 2.
- Bennholdt-Thomsen, V. (1988). Why do housewives continue to be created in the Third World, too? In M. Mies, V. Bennholdt-Thomsen, & C. von Werlhof (Eds.), Women: The Last Colony (pp. 159– 167). London: Zed Books.
- Bertocchi, G., Brunetti, M., & Toriccelli, C. (2014). Who holds the purse strings within the household? The determinants of intra-family decision making. Journal of Economic Behavior & Organization, 101, 65-86.
- Bilampoa, G.T. (2014). Genre et prise de décision au sein du ménage au Burkina Faso. Dans Cahiers Québécois de Démographie, 43(2), 249–278.
- Blood, R.O., & Wolfe, D.M. (1960). Husbands and wives: The dynamics of family living. Glencoe: Free
- Boateng, G.O., Kuuire, V.Z., Ung, M., Anim, J., Armah, F.A., & Luginaah, I. (2012). Women's Empowerment in the Context of Millennium Development Goal: A Case Study of Married Women in Ghana. Social Indicators Research, 1, 22.
- Bradshaw, S. (2013). Gender, Development and Disasters. Cheltenham/Northampton: Edward Elgar.
- Bugandwa, M. (2012). Méthodes de recherché appliquée à la gestion. Goma, RDC: ISIG.
- Feyisetan, B.J. (2000). Spousal communication and contraceptive use among the Yoruba of Nigeria. Population Research and Policy Review, 19(1), 29–45.
- Gage, A.J. (1995). Women's socioeconomic position and contraceptive behavior in Togo. In Studies in Family Planning (pp. 264–277).
- Giannelloni, J.-L., & Vernette, E. (2015). Etudes de marché (4ème édition). Paris: Vuibert.
- Goode, J., Callender, C., & Lister, R. (1998). Purse or wallet? London: Policy Studies Inst.
- Göran, A., & Christine, R. (2000). Travail domestique et rapports de pouvoir entre les sexes. In Cahiers du Genre, N°27, Suède : L'égalité des sexes en question (pp. 133–159).
- Gresy, B., & Georges, Ph. (2012). Rapport sur l'égalité entre les filles et les garçons dans les modes d'accueil de la petite enfance. Paris: Inspection générale des affaires sociales.
- Gwako, E. (1997). Conjugal power in rural Kenya families: Its influence on women's decisions about family size and family planning practices. Sex Roles, 36(3–4), 127–147.
- Hoque, M., & Yoshihito, I. (2008). Participation and Decision Making Role of Rural Women in Economic Activities: A Comparative Study for Members and Non-Members of the Micro-Credit Organizations in Bangladesh. Journal of Social Sciences, 4(3).

- Klugman, J. (Publisher). (2014). *Voice & Agency: Empowering Women and Girls for Shared Prosperity*. Washington, DC: World Bank Group.
- Kola, O., & Oyedrian, A. (2004). Poverty and the Dynamics of Women's Participation in Household Decision-Making in Nigeria. *Etude de la Population Africaine Supplément A*, 19(2004).
- Kritz, M., & Makinwa-Adebusoye. (1999). Determinants of women's decision-making authority in Nigeria: The ethnic dimension. *Sociological Forum*, *14*(3), 399–424.
- Lee Ch, K.C., & Beatty Sharon, E. (2002). Family structure and influence in decision making. *Journal of Consumer Marketing*, 19(1), 24–41.
- Lemieux, D., & Mercier, L. (1989). Les femmes au tournant du siècle: 1880-1940. Âges de la vie, maternité et quotidien. Québec, Institut québécois de recherche sur la culture.
- Meekers, D., & Oladosu, M. (1996). Spousal Communication and Family Planning Decision-Making in Nigeria. *Population Research Institute Working papers (AD96-03) in African Demography*. Pennsylvania State University, USA.
- Mojdeh, K. (2012). How Much Are Women Involved in Decision-Making in Family in Iran? *Sociology Study*, 2(6), 417–427.
- Musitu, W. (2006). *La femme congolaise: Pilier de l'économie informelle en milieu urbain*. Université Humboldt, Berlin.
- Muswamba, M. (2006. March). Le travail des femmes en République démocratique du Congo: Exploitation ou promesse d'autonomie? UNESCO, Paris.
- Ojo, M.A. (1997). Sexuality, marriage and piety among charismatics in Nigeria. *Religion*, 27, 65–79.
- Oppong, C., & Abu, K. (1987). Seven roles of women: Impact of education, migration and employment on Ghanaian mothers. Geneva: International Labour Office.
- Oyediran, K.A. (1998). Changes in women's reproductive health and male involvement in Nigeria: Post evaluation findings: 1996-1998. Association for Reproductive and Family Health. Ibadan: 1998. (ARFH Monograph Series No. 2).
- Pahl, J. (1995). His money, her money: Recent research on financial organisation in marriage. *Journal of Economic Psychology*, 16(3), 361–376.
- Rezapour, Z., & Ansari, H. (2014). Studying the factors associated with women's participation in family decision-making (Case study: Northern Khorasan, Iran). *European Journal of Experimental Biology*, 4(1), 553–556.
- Sadania, C. (2016). Working and Women's Empowerment in the Egyptian Household: The Type of Work and Location Matter. *AMSE Working Papers 1722*. France: Aix-Marseille School of Economics.
- Sathar, Z.A., & Kazi, S. (1997). Women's autonomy, livelihood and fertility: A study of rural Punjab. In *Pakistan Institute of Development Economics*. Islamabad, Pakistan.
- Sultana, F. (2011). Factors Effect on Women Autonomy and Decision-Making Power within the Household in Rural Communities. *Journal of Applied Sciences Research*, 7(1), 18–22.
- Titeca, L.K., & Kimanuka, C. (2012). *Marcher dans l'Obscurité: Le commerce informel transfrontalier dans la région des Grands lacs*. United Kingdom, International Alert.
- Van Alst, K. (2014). Household decision-making and gender relations in Tanzania. *Literature and theory Review, Working Paper/2014.02*. Institute of Development Policy and Management, University of Antwerp.
- Vogler, C., & Pahl, J. (1993). Social and Economic Change and the Organisation of Money within Marriage. *Work, Employment and Society*, 7(1), 71–95.
- Vogler, C., & Pahl, J. (1994). Money, Power and Inequality within Marriage. *The Sociological Review*, 42(2), 263–288.
- Yilmazer, T., & Lyons, A.C. (2010). Marriage and the Allocation of Assets in Women's Defined Contribution Plans. *Journal of Family and Economic Issues*, 31(2), 121–137.