Determinants of Women Empowerment in the Onion Value Chain: A Case of Simanjiro District in Tanzania

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Abstract

The impact of women participation in agricultural value chains into their empowerment is poorly understood. This paper explores the linkage between women's participation in onion value chain development activities and their empowerment. The study involved 402 women of whom 207 (51.2%) were participating in the onion value chain development activities and 195(48.5%) were non-participants. Data was analyzed using SPSS program, four index scales were constructed to measure women empowerment (personal autonomy, household decision making, economic domestic consultation and freedom of movement). A composite women empowerment index was developed to gauge women empowerment. Women in Simanjiro District were categorized in medium level of empowerment (mean score on CEI = 0.6033). Empowerment was found to increase with education attainment, age at first marriage and women income. Generally, women participating in the value chain development programme were more likely to be empowered than their counterparts. Ordinal logistic regression analysis revealed that there was a significant relationship between women empowerment and marital status, education level, age at first marriage, land ownership, access to credits and participation in onion value chain (P<0.05). The study recommends to the government, non governmental organization and farmers groups to introduce gender and life skills education in value chain programmes to sensitize and mobilize actors to challenge gender inequalities and promote women empowerment.

Key words: Women empowerment, empowerment indices, onion value chain, rural women.

1.0 Background Information

The existing gender inequalities in society are recognized as one of the critical challenges impacting the attainment of sustainable development in the world. Despite several efforts by governments and non government organisations (NGOs) gender inequalities still exist in almost all the countries in the world. Gender equality is identified as a development objective in itself, and as a means to promote growth, reduce poverty and promote better governance (World Bank, 2001:10). Power imbalances between men and women is said to be the origin of gender inequalities in many countries; hence many people have used the concept of power to describe empowerment. Empowerment is a complex concept, which may vary between cultures, persons, sexes, occupations and positions in life. It may also vary with time and geographical location. Furthermore, men and women may have a different view on empowerment in general and women's empowerment in particular. The concept of women empowerment is multifaceted, the following terms feature in most of the definitions: self-strength, control, self-power, self-reliance, own choice, life of dignity in accordance with one's values, capable of fighting for one's rights, independence, own decision making, being free, awakening, and capability (Malhotra *et al.,* 2002:10; World Bank, 2002:10). Mosedale (2005:243) argues that, a review of literature on women empowerment seems to agree on four key aspects: Firstly to be empowered one must have been disempowered (e.g. as a group women are disempowered relative to men), Secondly empowerment cannot be bestowed by a third party. Therefore government and development organizations need to create conditions favourable to women empowerment, so that women take initiatives of empowering themselves. Thirdly, empowerment involve people to make decisions on matters which are important in their lives and be able to take action which may happen on an individual or a collective level. Finally empowerment is viewed as an ongoing process rather than a final product. The author further argues that, people are empowered, or disempowered, relative to others and in relative to themselves at a previous time. All definitions of women empowerment stress the importance that women empowerment is a process of change in which women are significant actors. Therefore, the definitions of empowerment reveal both diversity and commonality. Many definitions focus on issues of gaining power and control over decisions and resources that determine the quality of one's life. There

are also tendencies by NGOs and other development organisations espousing for women empowerment to focus on structural inequalities that affect entire social groups, which take an assumption that women are a homogeneous group rather than focus only on individual characteristics (World Bank, 2002:16).

Kabeer (1999:435) defines empowerment as a process by which those who have been denied ability/power to make strategic life choices acquire the ability to do so. For women, strategic life choices may include the capacity to choose a marriage partner, a livelihood, whether or not to have children. This definition views women empowerment as both a process and an end result. The author further argues that, for this power to come about, three interrelated dimensions are needed: access to and control of resources; agency (the ability to use these resources to bring about new opportunities) and achievements (the attainment of new social outcomes). Therefore, poverty levels may affect or act as barrier for one to make strategic life choices. In the context of value chain development, empowerment is viewed as a process of reducing inequalities and enhancing people's ability to make choices on issues of interest which impact on one's life; such changes may result into changes in gender roles and relations (Coles and Mitchell, 2011:1; Laven *et al.,* 2009:5). In this study woman empowerment is viewed as a process in which women become aware of their rights and potentials and are able to take control over material assets (e.g. access to and control of income) and acquire knowledge, information and ideas to challenge beliefs, attitude and behaviour that contribute to their subordinate position in their families and societies.

Oxfam GB (2005:7) argues that "women's empowerment is important for reasons of both principle and pragmatism; it's the right thing to do because women have the same rights as men, but it's also a necessary thing to do, because it will make the world a better place and help many countries to attain human development". Empowering and investing in rural women is anticipated to increase productivity, reduce hunger and malnutrition and improve rural livelihoods for women and men. Women's empowerment is ranked third in the Millennium Development Goals (MDG) and endeavours to promote gender equality and empower women (UN, 2011:20). According to Basu and Basu (2001:4), women are less empowered compared to men in many aspects such as education attainment, income, control over own income, bargaining power in selling their own produce and labour, participation in decision making bodies, access to production inputs and employment opportunities. Throughout the world; Governments, NGOs and development organisations are concerned with women empowerment in order to enable them to gain power to challenge their subordinate position or oppressive situation in their families and societies. Many efforts to empower women at household and community levels have been focused on raising women's status through education, training, access to health, and family planning services as well as legal counseling and support. Politically, efforts have been made to increase women representation in decision making organs such as setting quota for women political posts (URT, 2010:18). Economically, the most popular strategy, especially since the 1990s, has been to involve women in credit and microfinance programs to help them acquire capital needed in production (Malhotra *et al.,* 2002:12; Mayoux, 2000:7; Makombe, 2006:59). In recent years government and non government organizations have started implementing projects and programmes that aim to empower women involved in agricultural related livelihoods using value chain approaches.

The literature on whether women participation in value chain development activities impacts on their empowerment lacks consistency (Lastarria, 2006:1). While some studies have found that women's involvement in agricultural value chains does not always translate into women empowerment (e.g. Laven *et al.* 2009:10; Riisgaard *et al.* 2010:203); others have found that women involvement in value chain development results into women empowerment at household and community levels (KIT *et al,* 2006:123; Coles and Mitchell, 2011:1, Shackleton *et al.,* 2011:136). For example Coles and Mitchell (2011:26) reported the findings from seven action research projects which analyzed gender issues and related upgrading strategies in seven countries: Tanzania, Viet Nam, Mali, Philippines, India and Mali where six out of the seven projects showed positive impacts on women empowerment and gender equality. For example in the Tanzanian case (processing and commercialization of cassava); it was found that placement of women in strategic organizational positions helped to correct household and chain power imbalances, which implies that women had increased control of the value chain and its improved output. However, Barrientos *et al,* (2003:1523) and Coles and Mitchell (2011:11) also argue that the impact of value chain development into empowerment depends on complex context-specific socio-cultural norms, which varies from location to location as they can also vary with time. Therefore, applications of development intervention using generic value chain approach are more likely to exacerbate gender inequalities. The authors further propose that development interventions that use value chain approach need to be done on case to case basis after thorough analysis on the particular location, hence the essence of this study. Given this gloomy picture in agricultural value chains, the focus of this research was to understand where women empowerment occurs in agricultural value chains and their determinants.

2.0 Methodology

The study was conducted in Simanjiro District located in Manyara Region in Tanzania (see Figure 1). The area was selected as it has some wards that are actively involved in onion production in northern Tanzania. The District has both government and Non-Governmental Organizations promoting onion production and marketing using value chain approach. There are many farmer groups organized for onion production and marketing and women are the majority in these groups.

2.1 Data for the study

The study adopted a cross-sectional research design, where data were collected only once. Four wards and eight villages that had women participating in onion value chain development activities were selected purposively. The sampling unit for this study was the individual women participating and those not participating in onion value chain development activities. Data were collected during October, 2011 to February, 2012 using a structured questionnaire where 402 respondents participated in this study, 207 (51.2%) of whom were participating in onion value chain development activities and 195 (48.5%) were non-participants. Qualitative data was collected using focused group discussions and key informants interviews which were conducted at village and ward levels.

2.2 Data analysis

A combination of qualitative and quantitative methods was employed to analyze the collected data. Qualitative analyses were used to describe the characteristics of the respondents. Women empowerment was measured by developing women empowerment index (WEI). Four women empowerment indices were developed and used to construct a composite empowerment index (CEI). Personal autonomy index (PAI) sought to understand whether a woman was able to visit parental home, hospital, market, help a relative with money, seek financial help or set money for personal use without seeking permission from her husband. The household decision-making index (HDMI) sought to know who makes decisions over: children's education, family planning, day to day expenditure, purchase of permanent items, going outside home, medical treatment, spending personal income, use of family income, marriages of sons/daughters, selection of crops to plant in the field, food purchase, and purchase of clothes and entertaining guests. Domestic consultation index (DCI) sought to assess whether women are consulted by their husbands when they want to spend family income on: purchasing furniture and utensils, land, medicine, clothes, food, consumer durables, spending money for children education, spending money accrued from onion sale, opening up a bank account, and spending up a personal salary. The freedom of movement index (FM) included items regarding women's freedom to visit market, medical facility, relatives/friends, parental home, meetings, social functions e.g. marriage ceremonies, going to a distant places for shopping and visiting financial institutions e.g. banks. For the PAI, DCI, FM, and PoA indices the response weights were generally (1.0), occasionally (0.5) and never (0). For the household decision making index the scores were wife alone (1.0), joint decision (0.5) and husband alone (0). Since all these indices relate to different aspects of empowerment they were combined into a single index for use in multivariate analysis. In accordance with the construction methods of the Human Development Index (UNDP, 2005 cited by Varghese, 2011:45) the CEI was computed by averaging these four indices.

$$Y= 1/4(PA+ HDM + DCI+ FMI) \ldots\ldots\ldots\ldots\ldots..(1)$$

Human development can be measured on an index ranging between the value of 0 which indicates one is deprived of development and value one (1) shows the full development (UNDP, HDI, 2005; cited by Varghese, 2011:44). IFPRI (2012:4) has also developed Women Empowerment in Agriculture Index (WEAI) where women empowerment is also measured on an index ranging from a value of 0 to 1. According to UNDP, HDI scale the human development is further categorized into three levels: minimum level of development (0 - 0.5), medium level of development (0.6 - 0.7) and high level of development (0.8 and 1). Since empowerment and women empowerment is considered to be important aspects of human development; this study adopted the UNDP classification of human development index, where empowerment was classified into four levels. Respondents scoring (0) on the composite empowerment index were categorized as "No empowerment", scores of (0.1 - 0.5) "low empowerment", (0.6 – 0.7) "medium/moderate empowerment" and a score higher than (0.8) was classified as "high empowerment". Other scholars (Varghese, 2011:43; Tayde and Chole, 2010:34; Handy and Kassam, 2006:70) also used similar methods to estimate women empowerment using index scales.

This research also sought to underscore the contribution of value chain development activities into women empowerment among women participating into value chain development programme versus those not in the programme. Therefore, the contribution and the net effects of value chain development activities on women empowerment was assessed using ordinal logistic regression model. The dependent variable (Y) was categorized into four levels (no empowerment, low empowerment, medium and high empowerment) based on individual scores the CEI. The independent variables included a mixture of socio-demographic variables and value chain intervention variables such as access to credit, increase in income, access to extension services and participation into onion value chain activities.

The ordinal logistic regression model took the form:

$Y = a + b_1X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 + b_8 X_8 + b_9 X_9 + b_{10} X_{10} + U \ldots (2)$

a = Constant

$b1 \text{----} b10$ = Regression coefficient representing the amount of change in the depended variable

U = error term

X_1 = Age of respondent measured in years

X_2 = Marital status of the respondent (married/cohabiting 1, 0 otherwise)

X_3 = Education level of respondent measured in years of schooling

X_4 = Age at first marriage (married at >18 =1 and 0 if married < 18 years)

X_5 = Age of husband (measured in years)

X_6 = Income level of women compared to spouse/husband (Tshs) (higher income than husband=1, 0 otherwise)

X_7 = Land owned/cultivated by respondent's family (measured in acres)

X_8 = Access to credit (Ever received credit 1, 0 otherwise)

X_9 = Participation into onion value chain programme (Participant 1 and 0 for non participant)

X_{10} = Access to extension services (average number of visits by extension officer)

3.0 Results and Discussion

3.1 Profile of the respondents

The respondents' ages ranged between 18 and 80 years; the mean age of the respondents was 37.6 years. Majority of respondents were in their active productive and reproductive age; 76.3% of the sample was in the 18 - 45 age range (see Table 3). Women empowerment is usually associated with education attainment. In this study found it was found that a significant percentage (18.2%) of the respondents had no formal education and three quarters of respondents (75.6%) had only attained primary education. About half of the respondents (56.5%) depended on agricultural production as their main economic activity followed by 24.6% who depended on both agricultural production and livestock keeping. These characteristics represent a true picture of many rural societies in Tanzania, where many people derive their livelihood in agriculture and related activities. Monogamy was found to be the common form of marital arrangements in Simanjiro District (86.9%) and Christians were more numerous than Muslims (64.2% and 35.8% respectively). The data in Table 1 reveal that age difference between spouses was very high; about over-third of the respondents (35.2%) were married to husbands who were more than ten years older than them. The average incomes of women were reported to be equal or higher than husbands' incomes (42.2% and 47.7% respectively).

[Table 1: about here]

3.2 Status of Women Empowerment

The mean score on the composite empowerment index was found to be 0.6033 which is the medium level. These results imply that, generally, women in Simanjiro District were categorized in the medium level of empowerment. Less than half of the study sample (45.8%) had attained a higher level of empowerment, and about a quarter (24.2%) of the sample was categorized as having medium empowerment; the rest were categorized into low and no empowerment (16.4% and 13.6% respectively), Figure 1 presents the level of women empowerment in Simanjiro District. The study compared levels of empowerment between women participating in value chain development programme and those not participating. Figure 2 presents these results. As per Figure 2, the distribution on the levels of empowerment is disaggregated by their involvement into value chain development activities; it shows that women participating into onion value chain development programme have acquired relative higher level of empowerment than their counterparts.

[Figure 1: about here]

[Figure 2: about here]

Further analysis (using F - test) and comparison on the composite empowerment index revealed that attainment of empowerment varied with some socio-demographic variables. Table 2 presents the status of women empowerment by selected socioeconomic and demographic variables. The data in Table 2 show that, generally, the relationship between age and women empowerment was not statistically significant (P=0.394). However, mean score on women empowerment was observed to increase with age up to the 31-35 age brackets where it started to fall below index mean. Similar trend has also been observed by Mostofa *et al.* (2008:419) in Bangladesh. This study found that women empowerment was the lowest in women with younger ages and for those aged above 50 years. This low status of women empowerment in this aspect is contributed by the nature of questions asked, most of which sought to understand women decision making and power relative to their male partners or husbands of whom those aged above 50 years were mostly widows, where as women with younger ages were mostly living as singles. Other studies (e.g. Amin *et al.* 1995:111; Mostofa *et al.* 2008:419) also found that women empowerment increased with women age. During focus group discussion it was emphasized that women married at relatively older ages were more likely to participate in household decision .Older women as

opposed to young ones, have more autonomy over themselves and closer relationship with their spouses; their experiences enable them to have better ways to do what they want without causing conflicts to their spouses.

[Table 2: about here]
This study found that there was a significant relationship between marital status, education level and type of marriage of the respondents (P<0.05). Education attainment is frequently cited (Malhotra, 2002, Malhotra et al, 2002; Chaundrly and Nosheem; 2009 and Varghese, 2011) as one of the key variables that positively impact on women's empowerment by increasing women's self confidence, decreasing dependence from other family members as a result of new skills acquired and to enhance women's value on the labour market and hence their income. This study also found that women empowerment increased with increase in education attainment; the scores on the CEI index scales were highest among those with secondary level education and above. Although age at first marriage and age difference between spouses were not statistically significant, the mean score on the CEI index reveals that low levels of empowerment were found among women who were married at their adolescent age than their counterparts.

Results in Table 2 also shows that age difference between the spouses had impact on women empowerment; higher mean scores on CEI index were recorded among those with little age difference and relatively lower scores were reported among those with big age difference. The husband's greater experience and self-confidence compared to the wife is argued to deprive women of empowerment which implies the bigger the husband-wife age gap the more likely is the low empowerment status of women. Some scholars (including Mostofa *et al.,* 2008:419) argue that women who are married at relatively older ages are expected to experience more empowerment than those married at their adolescent ages because of the their better understanding and experience of marital relationships including fulfilment of certain social obligations like bearing children.The experience acquired may also transform into self-confidence that result from marrying at an older age and thus make older-marrying women more autonomous than those married at their adolescence.

This study also found that there was a significant relationship (P<0.05) between level of income and women empowerment; scores on the CEI index was higher among women with higher income levels than their husbands and relatively low scores were obtained among women with lesser income than their spouses. Women's incomes increase their independency on their husband's incomes and contribute more to household expenditures, which in turn increases their voices in household decision making.

3.3 Value chain development activities and women empowerment
In the study area (Simanjiro District), the district council in collaboration with some development organizations (e.g. VECO and World Vision) have facilitated and supported development of onion value chain. Farmers have established production and marketing groups in villages and have formed a network of farmers' groups at village and ward levels; the farmer's groups and network help farmers to access production inputs, credits, extension services and marketing linkages. The production and marketing groups established under this initiative are also encouraged and supported by the government under different development programmes such as Participatory Agricultural Development and Empowerment Programme (PADEP) and Farmers' Field School approach (FFS) programs in order to increase farmers' access to production inputs and extension services. It is anticipated that women participation in the value chain development activities will gradually generate reasonable incomes for involved actors and bring a range of benefits that will lead to empowerment within families and societies in general. This study hypothesized that women involvement in the value chain development activities would impact on their empowerment

Table 3 shows the results of the ordinal logistic regression model that was employed to explore the factors that can influence women empowerment significantly. The ordinal logistic regression analysis was performed for all women and separately for women participating in the value chain development programme and for those not in the programme. Generally, the Pearson correlation was statistically significant for both program women and non-programme women (P<0.05). This indicates the presence of relationship between the dependent variable (women empowerment) and a combination of independent variables. Results in Table 3, further, show that the Nagelkerke R^2 which represents the adjusted Cox and Snell R^2 statistic for the study sample was 0.316 which implies that 31.6% of variation in women empowerment was explained by a combination of the independent variables entered in the model.

[Table 3: about here]
The result of ordinal logistic regression model (Table 3) further reveal that marital status, education level, age at first marriage, land ownership, access to credits and participation in onion value chain were the most important factors for women empowerment in Simanjiro District (P<0.05). Among these factors five were related to value chain development activities (i.e. level of income, land ownership, access to credits, access to extension services and participation in onion value chain), four factors have significant relationship to empowerment. Access to credit was significant for both women participating into value chain program and

non-participants; access to extension services was not significant for both programme participants and non-programme participants. Conversely, land size ownership had significant relationship for women not participating in the value chain development programme (P=0.019); than those involved in the programme (P=0.391), this may be partly explained by the intensive production methods adopted by women participating into the programme versus extensive method of production adopted by programme non-participants women as the study sought to know the size of land that was actually used for agricultural production. Therefore, the hypothesis that women involvement in value chain development programme will significantly contribute to their empowerment is not confirmed.

4.0 Implication of the findings in value chain programme and women empowerment

The results of this study reveal that women in Simanjiro District, based on women empowerment index, are categorized in the medium level of empowerment. Generally, women participating in onion value chain development program were relatively more empowered than non-participants. Most of the factors contributing for women empowerment in the area were similar for programme and non programme women except for access to credits which have been found to have significant difference for the programme participants' women than their counterparts. This implies that, value chain development activities have not had direct impact on women empowerment. This study recommends the government, non governmental organisations, and farmers groups that; apart from focusing on activities that will increase women incomes such as increased production, productivity and marketing; they should also focus on issues and factors that are required to change household decision making and dynamics such as introducing gender awareness and family life education to stimulate and encourage women participation in decision making at their families and community levels. Elders, traditional leaders and religious leaders who usually have high opinion in family matters and decision making need to be especially targeted. Programmes espousing to empower women using value chain approach should identify gender and location specific factors for women empowerment and mainstream them in the value chain development activities. Application of generic intervention to value chain development activities like the one from which this paper emanates, may fail to address the underlying causes for gender inequalities or exacerbate gender inequalities. This paper did not establish whether the level of women empowerment acquired were due to programme intervention in the area or value chain dynamics among women involved in the programme and spill over effects. Therefore, more research is required to explicitly establish causal effects relationship between value chain development and women empowerment.

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Table 1: Percentage Distribution of Socio-demographic Characteristics of the Respondents (N=402)

Variable	Frequency	Percent
Age		
<20 years	22	5.5
21-25 years	40	10.0
26-30years	79	19.8
31-35 years	62	15.5
36-40years	68	17.0
41-45years	34	8.5
46-50years	33	8.3

51+ years	61	15.3
Education level		
No formal education	73	18.2
Primary education	304	75.6
Secondary education	19	4.7
Technical education/Diploma	6	1.5
Economic activity		
Farmer/crop producer	227	56.5
Livestock keeper	32	8.0
Farming and livestock keeping	99	24.6
Pet trader self employed	15	3.7
Wage laborer	13	3.2
Civil servant	2	.5
Housewife	6	1.5
Farm/crop trade & pet trade	1	.2
Fishing	7	1.7
Religion		
Christian	258	64.2
Muslim	144	35.8
Type of marriage		
Monogamy	319	86.9
Polygamy	48	13.1
Age of husband		
Younger than	18	5.2
Same age	11	3.2
1-3 years older	65	18.9
3-6 years older	71	20.6
6-9 years older	58	16.9
More than ten years older	121	35.2
Income level of husband		
Lesser than	158	47.7
Equal to	139	42.0
Higher than wife	34	10.3

Table 2: Status of Women Empowerment by Selected Socio-Demographic Variables

Variable	Mean index	F	P
Age			
15-20 years	0.509	1.052	0.394
21-25 years	0.616		
26-30 years	0.634		
31-35 years	0.674		
36-40 years	0.607		
41-45 years	0.598		
46 50 years	0.566		
50 + years	0.536		
Marital Status			
Single	0.180	21.833	0.000
Married	0.674		
Divorced	0.255		
Separated	0.378		
Widow/widower	0.565		
Age at first marriage			
<18years	0.579	1.742	0.140
19-23 years	0.657		
24-29 years	0.682		
30-34years	0.444		
35+ years	0.635		

Type of marriage			
Type of marriage			
Monogamy	0.645	8.229	0.004
Polygamy	0.497		
Age of husband compared to wife			
Younger than	0.703	1.358	0.240
Same age	0.751		
1-3 older	0.602		
3-6 older	0.696		
6-9 older	0.613		
more than ten older	0.594		
Education level			
No formal education	0.433	9.713	0.000
Primary education	0.629		
Secondary education	0.747		
Technical education/Diploma	0.940		
Economic activity			
Farmer/crop producer	0.618	1.555	0.137
Livestock keeper	0.432		
Farming and livestock keeping	0.624		
Pet trader self employed	0.497		
Wage labourer	0.669		
Civil servant	0.840		
Housewife	0.520		
Farm/crop trade & pet trade	0.800		
Fishing	0.711		
Income level of respondent (wife/woman)			
Lesser husband	0.587	5.320	0.005
Equal to husband	0.676		
Higher than husband	0.765		
Religious affiliation			
Christian	0.596	0.327	0.568
Muslim	0.617		
Index mean	**0.603**		

Table 3: Results of the Estimated Ordinal Regression Model

Variable		All women (n=402)		Program women (n=205)		Non-program women (n=197)	
Variable		**Coefficient**	**Wald**	**Coefficient**	**Wald**	**Coefficient**	**Wald**
Age	X_1	-0.008	0.609	0.012	0.614	-0.028	3.367
Marital status	X_2	-1.662	34.258***	-1.683	21.544***	-1.665	13.853***
Education	X_3	0.992	15.233***	1.246	9.384***	0.920	7.511***
Age at first marriage	X_4	0.065	3.729**	0.020	0.174	0.096	3.915**
Age of husband	X_5	-0.052	0.434	0.030	0.069	-0.086	0.549
Level of income	X_6	0.140	0.617	0.174	0.501	0.093	0.113
Land holding	X_7	0.159	6.758***	0.061	0.737	0.344	5.520***
Access to credit	X_8	-0.946	9.119***	-1.069	6.823***	-0.536	1.075
Participation in OVC program	X_9	-0.480	2.623*	-0.338	0.633	-	-
Access to extension services	X_{10}	-0.018	0.004	0.202	0.305	-1.026	2.885
Model			0.000		0.002		0.000

statistic (Pearson)						
Cox and Snell R^2			0.287		0.265		0.325
Nagelkerke R^2			0.316		0.298		0.352

Parameter estimate significance: *** at 1%, and ** at 5%

Figure 1: Status of women empowerment in Simanjiro district
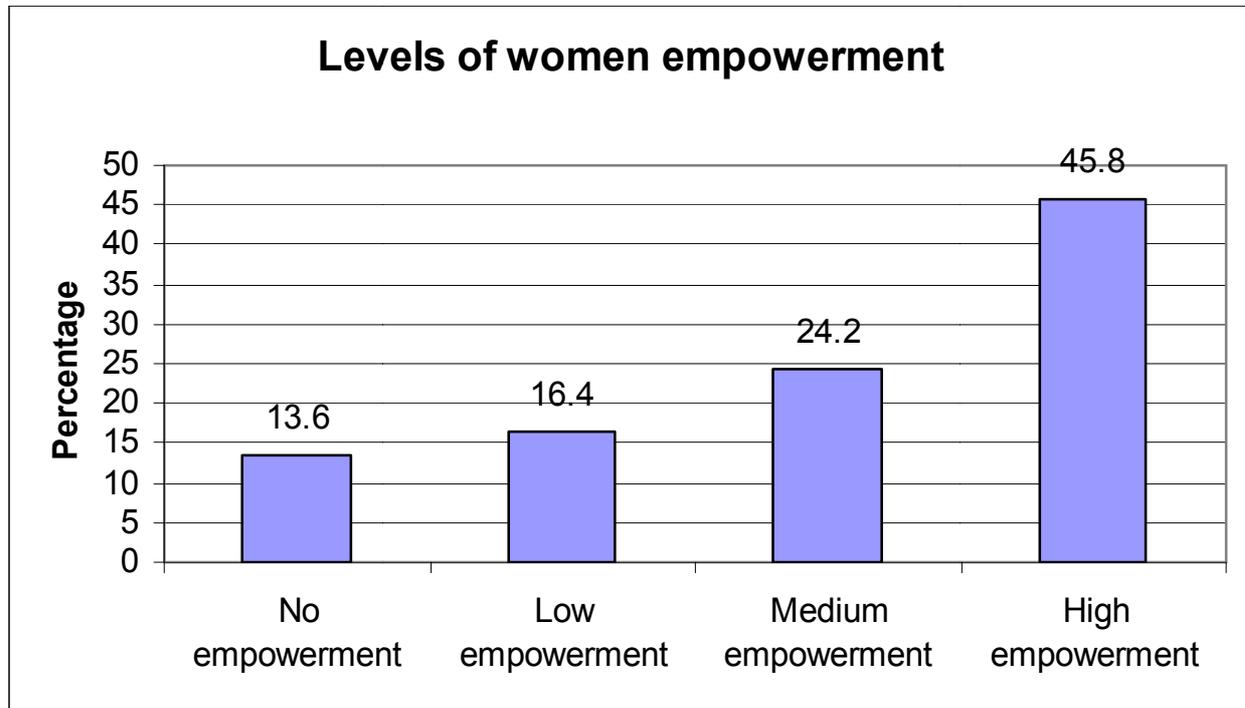

Levels of women empowerment

Figure 2: Comparison of women empowerment in Simanjiro district

Status of women empowerment