Determinants of Female Labour Force Participation in Swaziland

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***Abstract* — Swaziland is a small country in southern Africa where nature and customs often favour men over women, similar to other regions in Sub Saharan Africa. Partly for this reason, women's participation in productive work is often low, as they are expected to be mainly reproductive. This study analyses cross-sectional data to investigate the association between female labour force participation and socio-economic characteristics. Data used in this study have been taken from Swaziland DHS 2007. The study was conducted with women aged 15 to 49. Cross tabulations were used for descriptive analysis. Logistic regression was used to analyze the effects of correlations in female labour force participation. From the descriptive analysis, it was seen that 55% of the women were not working. Among the key predictors of female labour force participation were age, education and number of living children. It was found that older women aged 40 to 44 were four times more likely to work, compared to women aged 15 to 24. Also, women who have attained tertiary education were two times more likely to work, compared to women with no education. From our results, we suggest that, in order to solve the problem of women's access to the labour market in Swaziland, education for women must be their prime focus, as it is an important factor in increasing the value human capital.**

***Index Terms* — Female labour force participation, Swaziland.**

I. Introduction

Reproduction levels in Swaziland remain very high compared to developed countries, at about 3.03 **(CIA, 2011, [1]),** and can also be attributed to the very young age structure of the country. The number of children that a woman will have is usually determined by biological, cultural,and socioeconomic conditions **(Population Reference Bureau (PRB), 2011, [2]).** These conditions would usually influence her exposure to sexual activity and her ability to conceive a child, as well as the number of children she may wish to have. Other factors include age at marriage, use of family planning methods, and breastfeeding. Also, low condom use (influenced by traditional beliefs and practice) and the high incidence of multiple concurrent partnerships (whether sanctioned, as in polygamy, or not) also serve to increase sexually transmitted infection rates in the country. Many socioeconomic factors are also important influences on fertility and these factors are sometimes indirectly related. Education, urbanization, labour force participation, and infant mortality have a strong correlation with levels of fertility. The low economic status of women and insecurity in old age are some of the factors known to support the desire for many children **(Population Reference Bureau (PRB), 2011, [2]).**

Harmful cultural practices in Swaziland also have negative impacts on efforts to achieve gender equality and to ensure that women are able to exercise and enjoy their rights both in the private and public spheres **(Government of Swaziland, 2006, [3]).** Some of the harmful practices include polygamy, which celebrates men that have more than one wife, and single men that have multiple partners, which also encourages widower inheritance. The practice also places both men and women at a higher risk of contracting HIV, and also disregards the rights of women to choose, as the process is controlled by men. In addition, women, who are seen as minors, are not given opportunities to make decisions, especially those which are related to their bodies and sexual health. Swaziland is a polygamist society. This practice contributes to its patriarchal principles through which women are particularly affected by poverty, due to limited employment opportunities and control over their earnings and/or capital.

At the International Conference on Population and Development (ICPD), held in Cairo in 1994, the importance of economic activity among women, towards achieving the goal of gender equality and empowerment, was emphasised. The conference explained that, the empowerment of women will strengthen their economic status in society **(United Nations, 2004, [4]).** Globally, there exists an increasing number of women in the labour force, but women in some regions, of which Swaziland is not an exception, still struggle with participation in the labour force, due to certain cultural, religious and socio-economic barriers. In Africa, female labour force participation, especially non-family employment, is usually limited by many social and economic forces. **Haghighat, 2002, Khattab, 2002, Parrado & Zenteno, 2001, Togunde, 1999, Jibou, 1988 [5].**

In general, the most important determinant of participation is education. Overall labour market conditions and cultural attitudes also play an important role. Education is fundamental to labour force participation, as the education of girls and

women leads to higher wages, a greater likelihood of working outside the home, lower reproduction levels, reduced maternal and child mortality rates, and better health for and education of children. It will also address the high rate of HIV, as women would have knowledge about contraceptive use, thereby increasing their chances of decision-making when it comes to their reproductive health.

An increased female labour participation rate in Swaziland will increase per capita income, reduce poverty, and promote long-term economic growth. In the era of an aging population, upward mobility of female workers on the career ladder will encourage increased participation of female workers and therefore broaden the economic base to sustain social safety nets. **E. Tromp, (2012) [6]**. This study is important in order to determine the factors that affect labour force participation in Swaziland of women throughout their reproductive years. Therefore, the purpose of this study is to determine the association between female labour force participation and socio-economic variables.

Many studies of different countries have attempted to analyse the determinants of women's participation in the labour force, but not much has been done to explore the factors that determine labour force participation of women in Swaziland. Also, the significance of each determinant cannot be concluded to be the same all the time. For example, **Sackey (2005) [7]**, in his study has shown that female education has a significant positive impact on female labour force participation in Ghana, while **Don M. Baridam, 1996, [8]** explained that wealth status has an impact on female labour force participation in Nigeria as poverty forces women to join the labour force. This study intends to identify the main factors that largely explain the variations in labour force participation among women of child-bearing, using Swaziland as a case study.

The objectives of the study will be threefold: a) to describe the characteristics of the study population; b) to investigate the unadjusted relationship between female labour force participation and each of the predictors; and c) to test the adjusted association between female labour force participation and the predictors.

II. Review of Literature

According to Lin Lean Lim, in the 1980s and early 1990s, [9], labour force growth was substantially higher for women than for men in every region of the world, except Africa. In the developed industrialised countries, increasing female labour force participation has been linked to the completion of the reproduction transition. In many developing countries, however, reproduction decline has been slow or halted as a result of the low participation of women in the labour force.

Female labour force participation or the kinds of jobs women find themselves doing are likely to empower them, raise their status and ability to make decisions within their families, upgrade their economic or financial independence, limit domesticity or motherhood, thereby providing alternative fulfilment and satisfaction to having children.

The labour force participation of women remains determined, to a large extent, by their level of education, overall labour market conditions, and cultural attitudes. Female labour participation has important implications for many other phenomena, including marriage, reproduction, divorce, the distribution of family earnings, and male-female wage differences. According to **Standing, Sender and Weeks, (1996) [10]**, women enter the labour market at a severe disadvantage in some countries, as a result of discrimination in the education system.

Studies have shown that there is an increase in female labour force participation as economic development increases. This can be supported by the fact that industrialization leads to reduced levels of reproduction, which can result in women being mobilized to enter the labour force.

It is important to review the economic theory of labour supply, particularly how it relates to female labour force participation. The effects of female labour force participation on development and growth has not been comprehensively researched. However, **Klasen & Lamanna (2008) [11]** have found that a lack of female participation in the labour force hinders economic growth in ways similar to those in education inequality. For example, increasing the levels of female education provides women with the capability to read. Similarly, increasing female labour force participation allows women to develop other capabilities. The ability of a woman to earn an income, independent of a man, affords her a large degree of freedom and empowerment. Women have the choice not to marry or to file for divorce, and can allocate their income in a way that more closely matches their own needs and not the needs of their husband. They also have more bargaining power within the household unit.

Psacharopoulos & Tzannatos (1989) [12], describe participation in the labour force as 'the decision to work and, if so, for how long.' This decision arises from the assurance that the advantages of working surpass those of household activities. Therefore, time is divided into work and leisure. Thus, the determination to work is determined by personal preference, number of working hours and wage rate. Higher wages make the idea of working more attractive and promote women's participation in the labour market. It also encourages women who are already working to continue working.

Gary Becker, (1965) [13], elaborated on the simple income-leisure model to include household production. This new concept viewed households in a similar fashion to that of companies. It explains the concept of the household as a decision unit where the decision of one member of the household is influenced by other members of the household.

A. Factors that influence women's participation in the labour force

Age is a significant variable that influences this, and usually shows a concave relationship with the decision to

work, where highest participation is observed in women in their mid-30s. **Contreras et al., 2005 [14].**

Demography is inextricably linked to labour force participation, since what happens to the rate of reproduction affects a woman's decision to participate. **Iacovou, (2001) [15],** noted that the impact of the number of children a woman has determines how likely she will go out to work, if she goes out to work, and for how many hours. There is a steady agreement that when reproduction is high, women are more likely to be occupied with household responsibilities and therefore less likely to be able to join the labour force. Because children and work make simultaneous demands, the more time a woman spends on one, the less time is available for the other. Consequently, women's participation during the period of child bearing and rearing should be lower than that of women outside this age.

In addition, theoretical considerations point towards an ambiguous relationship between reproduction and going out to work. First is the simultaneity of reproduction and work. For example, more children mean more work for women, either directly (more farming to feed the children), or indirectly (more paid work to support them). Secondly, in poorer developing countries, the specialization of activities does not permit a sharp distinction between work, leisure, and consumption. Reproduction and consumption are intermingled with production, broadly defined to include reproduction (children can be thought of as an investment). Finally, a single child requires a considerable amount of parental care. However, a second child, born a few years after the first, reduces the demand for care because the older child can look after the younger one, and may even perform some household tasks. The decline in reproduction increases the ratio of working-age to total population, thereby increasing income per capita.

Declines in reproduction can also increase physical and human capital per capita. **Galor and Weil 1996 [16]**. According to **Bussman (2009) [17]**, there is a negative relationship between reproduction and women in the workplace, as having more children increases the amount of household activity that needs to happen. Since household activities are largely performed by women, this allows less time and energy for generating income. However, **Ahn and Mira (2002) [18]**, have found that, since the 1980s, there has been a positive relationship between reproduction and women going out to work. For much of a country's development, this relationship is negative, but once a high level of development is reached, this relationship stops being negative. This may be due to wealthy households outsourcing their household activities by hiring child minders.

Reproduction rates affect women's participation in the labour force, due to the amount of unpaid household responsibilities required. When women are occupied with raising children, they have less time and energy for other activities, such as employment. For mothers, childbirth also means time off from work. This produces gaps in their employment history, providing them with less experience than men and women without children, potentially decreasing their relative income, and making entering the labour force less attractive. The direction of causality between reproduction and female labour force participation has long been debated in academic literature. **Engelhardt, Kogel, and Prskawetz, (2004) [19]** explain that causality could be in both directions, which may be as a result of social norms and financial incentives, and the presence of preschool children, and can have a negative effect on participation.

A study by Mlatsheni & Leibbrandt (2001) [20], in South Africa, on female labour force participation, found that divorced women are the most likely to seek employment, followed by married women, and lastly, single women. This may be because they are more likely to enter the labour market in response to their lack of prospects for economic dependence. Using Egypt as an example, Hendy explains that, in Egypt, women are likely to work before they get married. Her explanation for this is the high cost of marriage in Egypt. Women therefore need to work so as to afford these costs. Once married, women's work patterns generally differ according to the employment sector. **Hendy, 2011 [21]**.

Fosu (1999) [22] shows that the willingness of married women to participate in the labour force arises from a desire to provide their family with a higher standard of living. Empirical evidence shows that women, especially the heads of households, will take advantage of all opportunities for employment or income.

It is also important to note the non-economic aspects of female labour force participation, for example, religion. Countries with the lowest rate of women in the workplace are those with strong religious views about women in society and in business in particular. Scholars like **Guiso, Sapienza & Zingales (2003) [23]** have concluded that different religions have an influence on economic attitudes and decisions. Secularization theories have claimed that, as modernization occurs and levels of development and education increase, religious beliefs and influences will decrease. However, **Iannaccone (1998) [24]** argues that empirical results are mixed and vary from country to country. There is no clear pattern that emerges for all countries.

Education is unquestionably the most fundamental and important form of human capital investment, which emphasizes the characteristics of the individual as an important determinant of work. Education and participation in the work force both depend on and affect a country's economic and general development. There is a positive correlation between education and female labour force participation, which has been documented by **Borjas (2000) [25]**. This is not always the case, but a higher education attainment leads to a higher rate of participation in the labour market, especially in the case of women. This implies that there is a stronger tendency for a more educated woman to remain economically active than a less educated woman.

The rising education attainment of women is also a factor in their increasing participation in the labour force, because it affects their wages. However, it is also likely that, as women expect to participate more fully and continuously in the labour force, they will be inclined to invest more in their education and training. Most likely, this trend is not only because of the higher rewards offered, but also because expectations in the labour market are quite discriminatory.

It has also been found that the degree of the impact of female education on the labour force participation is affected by a country's specific variables. For example, **Cameron, Dowling, & Worswick (2001) [26]**, found that, in countries with traditionally more rigid gender roles, female education has less of an impact on women's participation in the labour force, and secondly, that higher education plays a bigger role in increasing women's participation. In fact, for certain countries, primary education has no effect or even a negative effect. This may be due to the fact that an increase in wages from an investment in primary education is not substantial enough to convince a woman to enter the labour force.

III. METHODS

This study was a quantitative, retrospective study, which is secondary in nature, and a cross-section of the data was collected, using questionnaires.

The 2006/2007 Swaziland Demographic and Health Survey (SDHS), which is a national-level sample survey designed to provide information on various demographic issues, was used to analyse the determinants of women participating in the labour force. A primary objective of the 2006-07 SDHS was to provide up-to-date information on reproduction, childhood mortality, marriage, fertility preferences, awareness and use of family planning methods, infant and child feeding practices, maternal and child health, maternal mortality, and HIV/AIDS-related knowledge and behaviour. The information collected through the SDHS is intended to assist policy-makers and program managers in evaluating and designing programs and strategies for improving health and social services in Swaziland. The survey interviewed a total of 4,987 women in their reproductive years (age 15-49) concerning their participation in the labour force.

The 2006-07 SDHS was designed to provide estimates of health and demographic indicators at national level, for urban-rural areas, and for the four regions of Manzini, Hhohho, Lubombo, and Shiselweni. Standard DHS sampling policy recommends a minimum of 1,000-1,200 women per major domain. To meet this criterion, the number of households selected in each of the various domains, particularly in urban areas, was not proportional to the actual size of the population in the domain. The 2006-07 SDHS sample points (clusters) were selected from a list of enumeration areas (EAs) defined in the 1997 Swaziland Population and Housing Census. A total of 275 clusters were drawn from the census sample frame, 111 in the urban areas, and 164 in the rural areas.

A. Variables Used in the Study

Employment status is the dependent variable in this study and is coded as Y. This variable has a binary outcome as it has been categorized into two groups: women who are working and women who are not working. The independent variables or predictor variables shall be coded X variables. There are eight predictor variables which are broken down into categories.

Age has been coded into three categories: 15-24 (Adolescents), 25-39 (Young Adults), and 40-44 (Adults). Education has four categories: women with no education, those with primary education, women with secondary education, and those with tertiary education. Marital status has three categories: women who have never been married, women who are currently married, and those formerly married (separated, widowed and divorced). Reproduction has three categories: women with no children, women who have one to three (1-3) children, and those who have more than three children.

Place of residence has two categories: rural and urban. Religion has two categories: Christianity and others. This is because the majority of the women in Swaziland are Christians. Region is split into four categories: Hhohho, Manzini, Shiselweni and Lubombo. Finally, wealth status has three categories: poorest, middle class, and rich.

B. Logistic Regression Model Justification

Logistic regression models are often used for the analysis of dichotomous response variables. They are appropriate for the analysis of categorical response variables. These models are used to describe categorized response variables and one or more categorized or continuous variables, also called predictor variables. The response (Y) variable has two categories: binary or dichotomous. A logistic regression model is used for data with binary outcomes and predictors (X) that are categorized and continuous. Logistic regression generates coefficients (and standard errors and significance levels) of a formula to predict a logistical transformation of the probability and presence of characteristics of interest.

$$\mathbf{Y = \beta_0 + \beta 1 x_1 + \beta 2 x_1 + \beta 3 x_1 + \beta 4 x_1 \ldots\ldots\ldots\ldots \beta 6 x_1 + \epsilon_1}$$

$$\mathbf{Logit\ (p) = \beta_0 + \beta 1 x_1 + \beta 2 x_1 + \beta 3 x_1 + \beta 4 x_1 \ldots\ldots\ldots\ldots \beta 6 x_1 + \epsilon_1}$$

β_0 = the intercept (constant)

β1 = unknown coefficients to be estimated

$\chi 1_1$ **...** = Predictor variables from the first to the last one in the mode,l i.e. Age

ϵ_1 = random variability

C. Limitations

Data on female labour force participation are usually of poor quality and limited comparability across countries. Also, secondary data, which was obtained from the 2007 DHS, was

used for this survey. Issues may arise with this kind of data as it was collected by other researchers and they decide what to collect and what to omit, which might make all the desired information not available.

IV. ANALYSIS

Table 1. Percentage Distribution of Women by Demographic and Socio-economic Characteristics

Variables	Frequency Distribution	Percentage (%)
Response Variable:		
Employment Status		
Working	2,220	44.68
Not Working	2,749	55.32
Predictor Variables		
Age:		
15-24	2,592	45.96
25-39	1,870	37.5
40-44	825	16.54
Educational Status:		
No Education	413	8.28
Primary Education	1,636	32.81
Secondary Education	2,541	50.95
Tertiary Education	397	7.96
Marital Status:		
Formerly Married	2,486	49.85
Currently Married	2,208	44.28
Never Married	293	4.88
No. of Living Children:		
No Children	1,597	32.02
1-3 Children	2,280	45.72
>3 Children	1,110	22.26
Place of Residence:		
Urban	1,544	30.96
Rural	3,443	69.04
Religion:		
Christian	4,704	98.39
Other	77	1.61
Region:		
Hhohho	1,263	25.33
Manzini	1,475	29.58
Shiselweni	1,983	21.72
Lubombo	1,166	23.38
Wealth Status:		
Poor	1,635	32.79
Middle	934	18.73
Rich	2,418	48.49

From the table represented above, we can see that a larger percentage of the women are not working. Of these, 46% are in the age group 15-24. Half of the female population have attained their secondary education, and only 8% have attained tertiary education. Just a small percentage of the women have been married, and over 40% are currently married and have been married before. About 46% of the women have 1-3 children, and 32% have no children at all. The majority of the women are Christians and there is an even distribution in each of the four regions. Finally, it can be seen that about 48% of the women are rich.

A. Bivariate Analysis

A logistic regression model was used to access the unadjusted odds ratio for each of the selected explanatory variables. Logistic regression assumes that the outcome variable is binary (i.e., coded as 0 and 1).

Table 2. Logistic Regression Model

Variable	Odds Ratio	P>|z|	[95% Conf. Interval]	
Age:				
15-24	Rc			
25-39	4.843102	0.000	4.237811	5.534847
40-44	5.899148	0.000	4.963952	7.010533
Educational Status:				
No Education	Rc			
Primary Education	0 .6598777	0.000	0.5311503	0.8198029
Secondary Education	0.6808182	0.000	0.5525616	0.8388447
Tertiary Education	3.410559	0.000	2.512507	4.629603
Marital Status:				
Formerly Married	Rc			
Currently Married	2.378234	0.000	2.11267	2.67718
Never Married	4.502525	0.000	3.464409	5.851713
No. of Living Children:				
No Children	Rc			
1-3 Children	3.497776	0.000	3.036977	4.028491
>3 Children	4.148385	0.000	3.516428	4.893914
Place of Residence:				
Urban	Rc			
Rural	0.4098836	0.000	0.3624325	.4635472
Religion:				
Christian	Rc			
Other	1.853415	0.008	1.171117	2.933223
Region:				
Hhohho	Rc			
Manzini	1.016307	0.834	0.8739251	1.181886
Shiselweni	0.6278824	0.000	0.5312275	0.7421233
Lubombo	1.235797	0.009	1.053094	1.450198
Wealth Status:				
Poor	Rc			
Middle	1.235832	0.013	1.045329	1.461053
Rich	2.37507	0.000	2.084605	2.706008

Any variable which has a P-value less than 0.05 and a confidence interval that does not include zero, was considered statistically significant for the study. All the variables are significant; this implies that these variables are associated with female labour force participation in Swaziland.

B. Backward Selection

In order to select explanatory variables for a model, a possible strategy is to include every potentially useful predictor

and then delete those not making significant partial contributions at some pre-assigned P value.

Table 3. Model Fit at Initial Stage of Backward Selection

Variable	P - value	Confidence Interval
Education	0.000	1.218905 1.555802
No. of Living Children	0.000	4.27814 5.877992
Marital Status	0.000	8.290591 11.43982
Place of Residence	0.000	0.5055013 0.752435
Religion	0.632	0.4468036 1.631528
Region	0.049	0.8601525 0.9997085
Wealth Status	0.000	1.222313 1.537274

From the initial model, we can see that religion is not statistically significant; therefore we eliminate it from the model.

Table 4. Model Fit at Second Stage of Backward Selection

Variable	P - value	Confidence Interval
Education	0.000	1.163251 1.47416
No. of Living Children	0.000	4.286 5.83978
Marital Status	0.000	8.18927 11.20228
Place of Residence	0.000	0.5103977 0.7525326
Region	0.072	0.8686065 1.005964
Wealth Status	0.000	1.209655 1.512285

Table 5. Model Fit at Third Stage of Backward Selection

Variable	P - value	Confidence Interval
Education	0.000	1.179812 1.492625
No. of Living Children	0.000	4.299533 5.857502
Marital Status	0.000	8.156136 11.15095
Place of Residence	0.000	0.5102955 0.7523439
Wealth Status	0.000	1.217681 1.52149

From the backward selection, we deduced that region and religion contribute least to the model. If we had included variables in the original model, we would have ended up with a different final model. However, the final model has the advantage of simplicity and better predictive power.

Table 6. Multivariate Analysis

Variable	Odds Ratio	P>|z|	[95% Conf. Interval]
Age:			
15-24	Rc		
25-39	3.279691	0.000	2.758223 3.899747
40-44	4.402298	0.000	3.461015 5.599579
Educational Status:			
No Education	Rc		
Primary Education	0.9168581	0.474	0.7229448 1.162784
Secondary Education	0.8634625	0.231	0.6789193 1.098168
Tertiary Education	1.926858	0.000	1.362615 2.72475
Marital Status:			
Formerly Married	Rc		
Currently Married	1.006609	0.937	0.8558598 1.18391
Never Married	1.672851	0.001	1.232467 2.270593
No. of Living Children:			
No Children	Rc		
1-3 Children	2.028459	0.000	1.705301 2.412856
>3 Children	1.652156	0.000	1.297164 2.104297
Place of Residence:			
Urban	Rc		
Rural	0.5852585	0.000	0.5002266 0.6847446
Wealth Status:			
Poor	Rc		
Middle	1.214335	0.041	1.007949 1.462981
Rich	1.909415	0.000	1.601801 2.276103

From the table above, we observe that women aged 40-44 gave 4.4 times higher odds of working, compared to women aged 15-24. Women aged 25-9 have 3.2 times higher odds of working, compared to women aged 15-29. Women who have attained tertiary education have 1.9 times higher odds of working, compared to women with no education, whereas women with secondary education have 0.8 times lower odds of working, compared to women with no education. Women that have never been married have 1.6 times higher odds of working, compared to women who have been married before. The currently married women with a P – value of 0.937 is not statistically significant. Women who have more than three children have 1.6 times higher odds of working, and women who have between one and three children have 2.0 times higher odds of working. Women who reside in rural areas have 0.58 times lower odds of working, compared to their urban counterparts. Rich women have 1.9 times higher odds of working, and middle-class women have 1.2 times higher odds of working

V. Discussion of Results

From the Bivariate analysis, we found that the Manzini category was not significant, but all of the other variables were significant. Religion and region were not included in the final model, as they contributed least to the model from the backward selection done. Age, education, number of living

children, wealth status, marital status and place of residence, add to the patterns of increased participation rates.

From the results, it is observed that females in the age groups 25-39 and 40-44 are, respectively, 3.27 and 4.40 times more likely to participate in the labour force, compared to women in the age group 15-24, which is the reference category. This is in line with a study carried out by **Contreras and others (2005) [14]**, who found out that highest participation is observed among women in their mid-30s. They explained that as a woman completes her education, she will join the labour market and continue to work until a maximum level of participation, when about 36 years is reached.

In general, female labour force participation is shown to increase with the level of education. Among the females in the study, 8% were without educational skills, 33% had primary level education, over 50% had some secondary education, but only 8% had tertiary education. Education is one of the most important determinants of female labour force participation. Taking no education as a reference, the results show that having tertiary education increases the odds of women participating in the labour force. Females who had completed tertiary education had 1.9 times odds of being employed. Also, women with secondary and primary education had 0.8 and 0.9 less likelihood of being employed. Our results show that tertiary education exerts a positive impact on female labour force participation and these findings are similar to the conclusions made by **Sackey (2005) [7]** using Ghana as a case study.

A study has shown that female labour force participation is related to the income of the husband. **Killingsworth and Heckman (1986) [27]**, focusing only on married women. Focussing on marital status and using formerly married women as a reference category, women who have never been married are 1.67 times more likely to be employed, compared to formerly married women. This finding is contrary to the findings of **Mlatsheni and Leibbrandt, (2001) [20]**, who concluded that divorced women are most likely to participate in the labour market, followed by married women and then, single women. However, our results are similar to that of **Hendy, (2011) [21]**, who found that women in Egypt are likely to have higher labour participation before they get married, due to the high cost of marriage in Egypt.

The analysis further shows that females with more than three children have 1.6 higher odds of working, compared to women with no children, and females who have one to three children have twice the odds of being employed (odds ratio = 2.02), compared to women with no children. Our findings are not similar to the traditional neoclassical theory of the labour supply and household production model, which predicts that the presence of children will be negatively related to women's labour force participation, as it raises their non-market time. **Becker, 1965 [13]**. However, the findings corroborate with research carried out by **Ahn and Mira, (2002) [18]**. They found that there is a positive relationship between reproduction and female labour force participation, depending on a country's development. They concluded that wealthy households could outsource household activity by hiring child minders. In addition, **Bray and Brandt (2007) [28]** explained that older children can provide caregiving roles to younger siblings, which could encourage mothers to participate fully in the labour force.

Some studies have concluded that women in rural areas are more likely to be 'pushed' into the labour market, due to economic needs, instead of being 'pulled' through the opportunity to earn a higher wage like their urban counterparts. **Lee (2005) [8].** From this study, it is observed that residing in the rural areas reduces the odds of working by 0.58. A woman's place of residence or environment could also determine if she would participate in the labour force. The reason for this is because urban residence is considered to be correlated with factors that increase female labour force participation. Moreover, rural women often engage in activities such as producing agricultural crops, tending animals, preparing food and collecting fuel, water and wood. The activities are not defined in national accounts as active employment (United Nations, 2012).

Regarding the wealth status group, taking the 'poor' as a reference category, it is observed that rich women are 1.90 times more likely to participate in the labour force, compared to poor women. This may be because rich women were more likely to be educated, which would increase their chance of being employed.

VI. Conclusion

In this chapter, the factors associated with female labour force participation are identified and discussed.

Female labour force participation is an important factor in economic development, and the study arrives at several interesting results which are empirically supported. The need to improve the status and unlock the potential of women in sub-Saharan Africa is very important. The results of this paper have unveiled that education, age, marital status and wealth status played important roles in determining the level of female labour force participation in Swaziland in 2006/2007.

This result is significant because it highlights the challenges of labour market entry for females who do not have an education. This is consistent with previous findings that have shown employment rates generally to be higher among females who are more educated, compared to those who are not. **Borjas (2000) [25].** It also implies that, as the demand for unskilled labour continues to decline in Swaziland due to development, female labor force participation will likely remain low for some time, as many women lack the basic education to compete in the labour market. The findings are consistent with the Human Capital Theory, in that there is a strong correlation between the level of education and Female Labour Force Participation. **Sackey, (2005) [7]**. The better educated that women are, the more likely they are to participate in the labour market. Therefore, with an

enhancement in their human capital, the women in Swaziland will be better equipped to participate in the labour market.

Although the relationship between female participation and a number of economic variables appears to be doubtful in theoretical terms and unclear in empirical estimates, several variables stand out. In theory, socio-economic variables like education and wealth status have a positive effect on female participation. However, both labour force participation and these variables depend on a number of other demographic variables, such as religion, age, region and marital status.

On the basis of the above discussions, if greater participation of women in the labour force is a desirable goal, education for women may be the prime policy option, and it appears that government intervention is vital to accomplish the desired goal of ensuring maximum participation of women. The study concludes that efforts to address the problem of women's access to the labour market should focus on improving their access to education as one of the important factors for improving their human capital.

VII. Recommendation

In the light of these findings, enhanced data collection is necessary to provide a better quality of data to be more accurate with regards to female labour force participation. This is because the data used is several years old and may not reflect current conditions. In order to determine the factors that affect the labour force participation of women, it is necessary to ask more in-depth questions with regards to their work history, as well as interrupted work behaviour.

Implementing more detailed questions, with regards to work behaviour, would enable the creation of more accurate data sets which can be used to carry out further research with respect to female labour force participation. Finally, it is necessary to take note of employment in the informal sector and not just the formal sector. This information was non-existent, which led to informal sector workers being classified as unemployed or not economically active. One of the limitations of this study is that we were unable to measure the relationship between reproduction, i.e. having children, and female labour force participation. A cohort approach which would focus on a particular population of women sampled and studied more than once would be needed to measure the effects of fertility on female labour force participation. It is usually found that the labour force participation of women is negatively affected by the presence of young children. Women with children as young as six years or under are often hindered in their ability to participate fully in the labour force, as they must spend time taking care of their children.

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