

## THE DETERMINANTS OF WOMEN LABOUR FORCE PARTICIPATION IN SABAH

Margret Yap Man, Toh Pei Sung, Sharija Che Shaari  
Faculty of Business, Economics and Accountancy,  
Universiti Malaysia Sabah, Jalan UMS,  
88400 Kota Kinabalu, Sabah

\*Corresponding author's email:  
margret0624@gmail.com

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**Keywords:** Women labour force participation, education level, family consideration, work-life balance, flexible working arrangements, marital status, occupation level.

### ABSTRACT

*This study aims to identify the determinants of women's labour force participation (WLFP) in Sabah. Despite government and NGO efforts to provide benefits to women, and an increase in WLFP rates, male labour force participation remains higher. The objective of this study is to identify the determinants of WLFP by examining the effects of education level, family considerations, and flexible working arrangements in Sabah. Specifically, it seeks to investigate the moderating effects of work-life balance, marital status, and occupation level on these factors and WLFP in Sabah. A quantitative approach was employed with a sample size of 127 women participating in the labor force in Sabah. The results, derived from multivariate analysis and PCA using SPSS, showed the demographic profile of respondents and descriptive statistics. Additionally, measurement model evaluations were generated through SmartPLS 4.0. The study found that education level, family considerations, and flexible working arrangements significantly affect WLFP. Furthermore, the moderating effect of work-life balance on the relationship between family considerations and WLFP was observed. Future research should emphasize the broader context of women's labour force participation, particularly in Sabah.*

## **INTRODUCTION**

This study focuses on women's labour force participation in Kota Kinabalu, Tawau, and Sandakan, Sabah. Successful economic development and improvements in socioeconomic conditions have led to a higher labour force participation rate in Sabah, with women comprising the second largest proportion of the population (Noraain et al., 2019). According to Figure 1.1, the labour force participation rate in Sabah remained between 68% and 71% from 2016 to 2019.

Women's labour force participation in Sabah has been increasing since 1999 (Noraain et al., 2019). Obodoechine (2019) suggests that increased women's labour force participation can improve market conditions and spur economic growth. The change in women's labour force participation rates in Sabah has transformed the economic structure, improved household income levels, created more employment opportunities for women, and evolved socio-economic sectors, such as increased urbanization (Noraain et al., 2019). According to Figure 1.2, women's labour force participation in Sabah remained between 49% and 55% from 2016 to 2019. The relatively low level of women's participation in the labour force is attributed to family considerations, which often prevent women from returning to work (Khazanah Research Institute, 2018).

## **PROBLEM STATEMENT**

Despite numerous benefits provided by the government and NGOs aimed at supporting women, the increase in women's labour force participation (WLFP) in Sabah remains significantly lower than that of male labour force participation. This disparity suggests that the measures currently in place may not be fully addressing the unique challenges and barriers women face when entering or remaining in the workforce. A few issues were identified on WLFP. First, educational barriers.

Education is a critical factor in enhancing WLFP. Discrepancies in access to quality education and vocational training for women may hinder their ability to participate fully in the labour market. Second, traditional gender roles and family responsibilities disproportionately affect women, often leading them to prioritize household duties over employment. The lack of affordable childcare and eldercare options further exacerbates this issue, making it difficult for women to balance work and family life. This is followed by workplace flexibility. Although flexible working arrangements are increasingly recognized as vital for improving WLFP, many workplaces in Sabah may not offer sufficient flexibility. This can include limited options for part-time work, remote work, or flexible hours, which are crucial for women who juggle multiple roles. Therefore, ability to achieve a satisfactory work-life balance is a significant moderating factor that influences WLFP. Women who struggle to manage both work and personal life due to inflexible job structures or demanding family obligations are less likely to participate in the labour force.

Marital status can play a crucial role in WLFP. Married women often face additional pressures to manage household responsibilities, which can deter them from seeking or maintaining employment. In addition in developing country like Malaysia, women are often concentrated in lower-paying, less secure jobs with limited opportunities for advancement. This occupational segregation can discourage WLFP as women perceive fewer benefits and more challenges in participating in the labour market.

Thus understanding the determinants of WLFP and addressing the barriers women face is essential for achieving gender parity in the labour market. This study aims to provide a comprehensive analysis of these issues, with the goal of recommending targeted strategies to enhance women's participation in the workforce in Sabah.

## RESEARCH OBJECTIVE

**The research objectives of the study are as follows:**

- a. To examine the specific factors whether education level, family considerations, and flexible working arrangements that influence WLFP in Sabah.
- b. To investigate how work-life balance, marital status, and occupation level moderate the relationship between these factors and WLFP.
- c. Finally to provide insights that can inform policymakers and organizations about the necessary interventions to effectively increase WLFP in Sabah.

## METHODOLOGY

### *Research Design*

The underpinning conceptual framework for this study was constructed from an adaptation of the Work-Leisure Choice model & Human Capital model (Subramaniam, 2015; Lim, 2017). This research framework examined the factors that affect women's labour force participation in Sabah. The independent variables identified from literature review was education level, family consideration and the flexible working arrangements. The dependent variable of this study was women's labour force participation. Specifically, this study has three (3) types of moderators, such as work life balance, marital status and occupational skills. Non-probability sampling technique was used to investigate the questions of this study. The sampling size of this study comprised of 127 women labour force participation in Kota Kinabalu, Sandakan and Tawau using G-Power Analysis. With regard to this recommendation, primary data in this study are collected using self-administered questionnaires. On the other hand, this study also collected secondary data through published or electronic forms such as the Internet, journal publications, books and

government publications. The information gathered from both data were examined through statistical data analysis.

## RESULTS AND DISCUSSIONS

The results of this study showed the multivariate analysis, principal component analysis (PCA), the demographic profile of respondents, and descriptive statistics, which were generated through the Statistical Package for Social Sciences (SPSS). Furthermore, the results also showed the measurement model evaluations, which were generated through SmartPLS 4.0.

In Table 4.1, loadings of 0.5 or more were considered as minimum acceptable value and significance. The results showed that the loadings for all items range between 0.644 and 1.0, which exceeded the cut-off value of 0.5. Additionally, the composite reliability (CR) for all items ranges between 0.72 and 1.0, which exceeded the recommended value of 0.70 (Gefen, Straub and Boudreau, 2000; Hair et al., 2010). The results also showed that all average variance extracted (AVE) ranges between 0.522 and 1.0, which exceeded the recommended value of 0.50 (Bagozzi and Yi, 1988; Hair et al., 2010; Fornell and Larcker, 1981). Besides that, all the indicators loaded were higher than other latent variables, which means own loading was higher than its loadings on all other latent variables as shown in Table 4.1. Moreover, the square root of the AVE exceeded the squared correlations between the latent variable and all other latent variables as shown in Table 4.1 (Chin, 2010; Chin, 1998; Fornell and Larcker, 1981). Overall, it can be concluded that the measurement model in this study has shown satisfactory by evidence of overall reliability, convergent validity and discriminant validity.

In Table 4.2, there were 16 structural relationships, which consist of three (3) direct relationships and nine (9) indirect relationships. The three (3) direct relationships comprised (H1) education on women's labour force participation; (H2) family consideration on women's labour force participation; (H3)

flexible working arrangements on women labour force participation. However, the nine (9) indirect relationships comprise (H4) work-life balance as moderation of relationship between the education and women labour force participation; (H5) work-life balance as moderation of relationship between the family consideration and women labour force participation; (H6) work-life balance as moderation of relationship between the flexible working arrangements and women labour force participation; (H7) marital status as moderation of relationship between the education and women labour force participation; (H8) marital status as moderation of relationship between the family consideration and women labour force participation; (H9) marital status as moderation of relationship between the flexible working arrangements and women labour force participation; (H10) occupation skill as moderation of relationship between the education and women labour force participation; (H11) occupation skill as moderation of relationship between the family consideration and women labour force participation; (H12) occupation skill as moderation of relationship between the flexible working arrangements and women labour force participation.

The results as shown in Table 4.2 suggested that there were three (3) hypotheses accepted for the direct path, such as H1, H2 and H3. With regards to the moderation effect, hypotheses accepted for H5 only in which the indirect effect was significant whereas hypotheses rejected for H4, H6, H7, H8, H9, H10, H11 and H12. H15 and H16. Clearly, this result suggested that family consideration (H2) was perceived as a significant factor that affected women labour force participation directly as well as the significance of the indirect effect H5 on these relationships between family consideration and women labour force participation. That is, a greater perceived family consideration influence leads to greater women labour force participation. However, no indirect effects (H8) and (H11) on these

relationships between education and women labour force participation using moderating variables. Education (H1), is perceived as a significant factor that affects women labour force participation directly, however, no indirect effects (H4), (H7) and (H10) on these relationships between education and women labour force participation when moderating variables were used. This is similar to the flexible working arrangements are perceived as a significant factor that affects women labour force participation directly. However, no indirect effect of (H6), (H9) and (H12) on these relationships between flexible working arrangements and women labour force participation with the moderating variables.

The findings provide insights into the factors influencing women's labour force participation (WLFP) in Sabah, with particular attention to education level, family considerations, and flexible working arrangements, along with the moderating effects of work-life balance, marital status, and occupation level. The work-leisure choice model posits that individuals allocate their time between labour (work) and leisure based on their preferences and constraints. The significant direct effect of family considerations (H2) on WLFP supports this model. It indicates that family responsibilities and the ability to balance work and personal life play crucial roles in women's decisions to participate in the labour force. The significant moderating effect of work-life balance on the relationship between family considerations and WLFP (H5) further reinforces this model, suggesting that better work-life balance facilitates greater WLFP by alleviating the conflict between work and family responsibilities. The human capital model asserts that investments in education and skills enhance individuals' productivity and, consequently, their labour market participation. The significant direct effect of education (H1) on WLFP aligns with this model, demonstrating that higher educational attainment increases women's likelihood of participating in the labour force. However, the lack of significant moderating effects of work-life balance, marital status, and occupation skill

on the relationship between education and WLFP suggests that while education is a critical determinant, other factors such as work-life balance and family responsibilities might not significantly alter the impact of education on WLFP. Flexible working arrangements (H3) significantly impact WLFP directly, supporting both models to some extent. The direct effect aligns with the human capital model, as flexible working arrangements can be seen as an investment in creating conducive work environments that enhance productivity and participation. However, the absence of significant moderating effects (H6, H9, H12) indicates that while flexibility is important, it alone may not sufficiently address the broader challenges women face in balancing work and other life demands, as posited by the work-leisure choice model.

## CONCLUSIONS

The study aimed to identify the determinants of women's labour force participation (WLFP) in Sabah by examining education level, family considerations, and flexible working arrangements. Additionally, it investigated the moderating effects of work-life balance, marital status, and occupation level on these factors and WLFP. The results, generated through multivariate analysis, principal component analysis (PCA), and descriptive statistics using SPSS, along with measurement model evaluations via SmartPLS 4.0. The findings revealed that education level, family considerations and flexible working arrangements significantly affects women labour force participation rate directly. The moderating variables chosen in the study like work-life balance, marital status and occupational skills did not influence the women labour force participation rate in Sabah indirectly. Overall, the findings support both the work-leisure choice model and the human capital model to varying degrees. Family considerations and work-life balance are crucial in line with the work-leisure choice model, while education significantly enhances

WLFP, consistent with the human capital model. The interplay of these factors suggests that a multifaceted approach, addressing both personal and systemic barriers, is essential for effectively increasing women's labour force participation in Sabah.

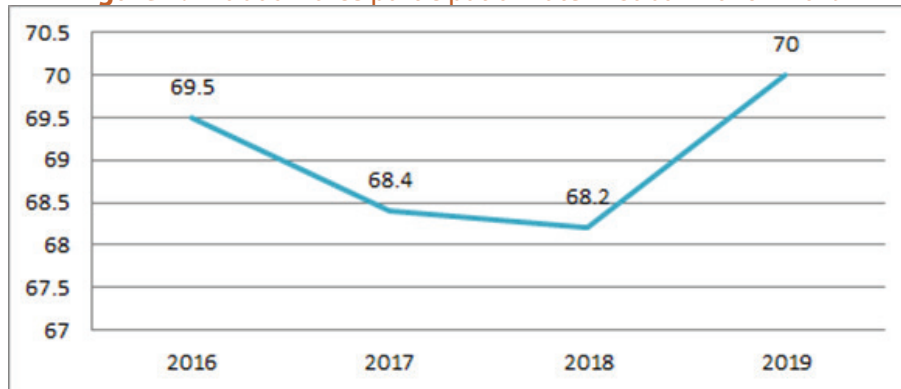
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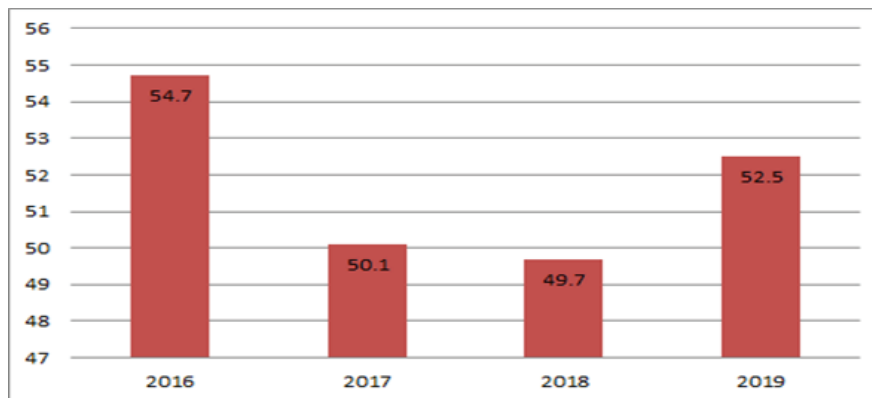
## FIGURES AND TABLES

**Figure 1.1** Labour force participation rate in Sabah 2016 – 2019



Source: DOSM, 2020

**Figure 1.2** Women labour force participation rate in Sabah 2016 -2019



Source: DOSM, 2020

**Table 4.1** Reflective measurement model

Constructs	Scale	Items	Loadings	AVE	CR
Education	Reflective	E2 E3	0.732 0.768	0.562	0.720
Family Consideration	Reflective	FC2 FC3 FC4	0.716 0.775 0.752	0.560	0.792
Flexible Working Arrangements	Reflective	FWA1 FWA2 FWA3 FWA4 FWA5 FWA6 FWA7 FWA8	0.746 0.765 0.842 0.781 0.756 0.850 0.786 0.789	0.625	0.930
Women Labour Force Participation	Reflective	NWPNLP NWPALP	0.841 0.877	0.738	0.849
Work-Life Balance	Reflective	WLB1 WLB2 WLB4 WLB5	0.644 0.698 0.683 0.848	0.522	0.812
Marital Status	Reflective	Marital Status	1.000	1.000	1.000
Occupation Skill	Reflective	Occupation Skill	1.000	1.000	1.000

**Table 4.2 Discriminant validity: Fornell-Larcker criterion**

	Education	Family Consideration	Flexible Working Arrangements	Labour Force Participation	Marital Status	Occupation Skill	Work-Life balance
Education	<b>0.750</b>						
Family Consideration	-0.145	<b>0.748</b>					
Flexible Working Arrangements	0.239	-0.169	<b>0.790</b>				
Labour Force Participation	0.449	-0.377	0.499	<b>0.859</b>			
Marital Status	-0.140	0.251	-0.077	-0.194	<b>1.000</b>		
Occupation Skill	-0.143	-0.022	-0.003	-0.079	0.036	<b>1.000</b>	
Work-Life balance	0.213	0.059	0.236	0.118	0.010	-0.118	<b>0.723</b>

**Table 4.2 Structural model results**

H	Path	Beta	STDEV	T statistics	P values	Indirect Effect	CI	Decisions
H1	Education -> Labour Force Participation	0.300	0.092	3.283	0.001	Accepted Accepted		Accepted
H2	Family Consideration -> Labour Force Participation	0.361	0.086	4.215	0.000			
H3	Flexible Working Arrangements -> Labour Force Participation	0.442	0.070	6.286	0.000			
Moderating Effect : Work Life Balance 2.5 % 97.5%								
H4	Work-Life Balance x Education -> Labour Force Participation	0.067	0.097	0.690	0.490	0.165	0.217	Rejected
H5	Work-Life Balance x Family Consideration -> Labour Force Participation	0.252	0.098	2.561	0.010	0.37	0.015	Accepted
H6	Work-Life Balance x Flexible Working Arrangements -> Labour Force Participation	0.136	0.088	1.534	0.125	0.094	0.259	Rejected

H	Path	Beta	STDEV	T statistics	P values	Indirect Effect	CI	Decisions
H1	Education -> Labour Force Participation	0.300	0.092	3.283	0.001	Accepted Accepted		Accepted
H2	Family Consideration -> Labour Force Participation	0.361	0.086	4.215	0.000			
H3	Flexible Working Arrangements -> Labour Force Participation	0.442	0.070	6.286	0.000			
Moderating Effect : Work Life Balance 2.5 % 97.5%								
Moderating Effect : Marital Status 2.5 % 97.5%								
H7	Marital Status x Education -> Labour Force Participation	0.262	0.162	1.615	0.106	0.55	0.085	Rejected
H8	Marital Status x Family Consideration -> Labour Force Participation	0.129	0.187	0.689	0.491	0.25	0.463	Rejected
H9	Marital Status x Flexible Working Arrangements -> Labour Force Participation	0.149	0.146	1.018	0.309	0.438	0.14	Rejected
Moderating Effect : Occupation Skill 2.5 % 97.5%								
H10	Occupation Skill x Education -> Labour Force Participation	0.150	0.232	0.646	0.518	0.319	0.598	Rejected
H11	Occupation Skill x Family Consideration -> Labour Force Participation	0.357	0.281	1.270	0.204	0.214	0.852	Rejected
H12	Occupation Skill x Flexible Working Arrangements -> Labour Force Participation	0.119	0.218	0.546	0.585	0.461	0.377	Rejected

Source: Derived by Authors.