Advance Journal of Econometrics and Finance

Vol-4, Issue-1, 2026

Advance Journal of Econometrics and Finance

Online ISSN
2959-8990
Print ISSN
2959-8982
https://ajeaf.com/index.php/Journal/About

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB
Review Type: Double Blind Peer Review
Journal Frequency: Quarterly Research Journal

DETERMINANTS OF FEMALE LABOR FORCE PARTICIPATION IN DEVELOPING ASIAN ECONOMIES: A STRUCTURAL, DEMOGRAPHIC, AND DIGITAL PERSPECTIVE

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Abstract

This research examines macroeconomic, demographic and technological factors determining the level of female workforce participation in 23 developing economies in Asia. Based on a balanced panel dataset from 2003-2024 we utilize Fixed Effect (FE) and 2SLS models. The findings indicate that the GDP per capita has a weak negative correlation with female labor force participation implying that structural transformation in the area has not yet been reflected into inclusive jobs to the women population and the fertility rate has a string negative correlation, whereas female life expectancy positively and significantly impacts participation. Health infrastructure is significant because of the negative influence of infant mortality. The increase of urban population is not statistically significant. However, to the contrary, Internet engagement has impacted negatively, showing that there are ongoing gendered digital divide. These results emphasize that demographic and institutional variables are still decisive in the matter of women labor market participation.

Keywords:

Female Labor Force Participation, Structural, Demographic, Digital factors
JEL Codes: J01, J21, J82, M54, N35

1. INTRODUCTION

Female labor force Participation (FLFP) is essential indicator of economic empowerment, inclusive growth as well as social development in women. The participation of women in the labor force in the area of developing Asia, is significantly lower in comparison with men. The data on the participation of the female population in the East Asia and Pacific as represented by the World bank is nearly 58.1 per cent against 73 percent in the male population. Such a gender disparity still exists even after a rapid rise in economy, increase in education and health status as well as widening digital connectivity.

In the past, the U-shaped hypothesis were introduced to explain the relationship between economic development and women's participation in labor market. Females labor force participation initially declines as the economy industrializes, manly due to the structure shift of the economy from agriculture and home-based production to male-dominating manufacturing sectors. As the economy achieves later stages of development, female participation in labor force increases as economy enters in a phase where activities which is intensive in human capital and service sectors rose (Goldin, 1994). Many Asian developing economies are however seen to break this trend. To give one example, the growth in the GDP per capita did not translate into increased female labour participation in a consistent manner, in part because of the pervasive gender roles, informality in the labour market and computer and infrastructural inequalities, which continues to constrain women's employment opportunities (Klasen & Lamanna, 2009; Klasen & Pieters, 2015; Verick, 2025).

Demographic and social-structure factors are also core issues that determine choices of women to engage in labor market activities. Higher fertility rates and large households-care burden have been found to reduce women's labor supply (Bloom et al., 2009). Conversely, better health outcomes, such as increased female life-expectancy, are positively associated with higher participation rates, as they enable longer working lives and higher human-capital returns (Bloom et al., 2009; Spence & Leipziger, 2010). At the same time, rapid urbanization and increased use of internet in theory should provide new employment opportunities for women, better access to information, and support flexible work arrangements(Abrar et al., 2023; Ahmad et al., 2024; Bussolo et al., 2024; Jaumotte, 2003; Kaur et al., 2021; OECD, 2025). Yet many empirical studies indicated that gendered digital access, skill gap, access to knowledge and urban labor market segmentation, limits these potential benefits for women.

Despite these theoretical and empirical insights, comparative and updated evidence for Asian developing economies remains limited. The literature covers multiple studies which are country specific or focuses on short time periods, and this constrains the scope of regional generalization. Furthermore, only a few studied examined macroeconomic and demographic determinants within this short panel data sets (Thévenon, 2013; Thévenon & Solaz, 2013). The literature still lacks the dynamic interaction between structural transformation, demographic transition along with the digital integration in shaping female labor participation in developing Asian states. This paper fills these gaps by analyzing a comprehensive panel of 23 developing Asian economies over 2003 to 2024. The study uses fixed-effects estimation and robustness checks via Two-Stage Least Squares (2SLS). Explanatory variables include GDP per capita, fertility rate, female life-expectancy, female infant-mortality rate, urban population growth, and internet use. By doing so, the paper contributes to understanding how economic growth, demographic transition and digital integration affect women's labor market engagement in developing Asia.

The contribution of this paper in the empirical literature is in three ways. First, this study provides updated and comprehensive panel evidence from 23 developing Asian economies over the period 2003 to 2024, which captures more than two decades of structural, demographic, and technological transition in the Asian developing region. The coverage of extended time allows for more reliable assessment of long-term trend in female labor force participation, which also improves the generalizability of the finding across diverse economic contexts. The second contribution of this study is that it integrates structural, demographic and technological determinants within a single empirical framework. This means that study Simultaneously examines the economic growth, fertility, health conditions, urbanization, and digital connectivity. Such multidimensional approach offers a more detailed and comprehensive understanding of how these interrelated factor collectively affects the women's labor market participation. Third and an important part under folds when this study utilizes Two Stage Least Square to address the potential endogeneity between economic growth and female labor force participation, alongside the fixed effect technique. This enhanced the robustness and consistency of the empirical results

The remainder of the paper is structured as follows. Section 2 reviews the literature on determinants of FLFP in developing countries, with emphasis on Asian contexts. Section 3 presents the data sources, variable definitions and econometric methodology. Section 4 reports empirical results, including robustness checks, section 5 offers conclusions and policy recommendations.

2. LITERATURE REVIEW

The factors of female labor force participation (FLFP) have been measured extensively in the development and labor economics field, and the scholars highlight the importance of economic growth, demographic transition, and the intricacy of workers institution. However, the results are very multi-faced in the countries and the degrees of development, which shows the multifactorial nature of the issues raising the issue of this participation of women in the economy or not.

There is a lot of literature that explores the connection between economic progress and female participation in the labor force. The mentioned literature takes the U-shaped hypothesis of women involvement, where there is a decreasing involvement of women during the initial stages of the development of economies that shift to agriculture production, where home based jobs and family work are the norm, to a more manufacturing-focused sector that is male dominated. With the improvement in development and the industry changes to service and knowledge based ones, the number of women is likely to increase once again (Goldin, 1994). but as an empirical observation, this tendency is not always uniform throughout in the case of the developing economies. One of the studies cited that in several developing countries, the growth in GDP per capita has not been adequate to increase FLFP due to occupational segregation and lack of formal sector roles of women (Klasen & Pieters, 2015). The same results were observed in (Gaddis & Klasen, 2014) that the participation of women in middle-income countries is at times a stagnant state in case industrialization is not matched by inclusive employment of women. Concerning the developing Asian world, (Verick, 2025) notes that men have gained at the expense of women because of the limitation of movement, poor working environment and the tendencies of social norms.

The female labor participation is also influenced greatly by the demographic and health factors. Their participation has always been low because the more fertility rates are high, the less time women can obtain paid employment because their family roles and responsibilities, as well as childcare, tend to be high (Ahn & Mira, 2002; Bloom et al., 2009). The increase in health and life expectancy as indicated by an increase in the number of female years of life is likely to increase labor participation by boosting productivity, and increasing the working life (Spence & Leipziger, 2010). Conversely, low infant mortality rates, an indicator of poor health provision, has the propensity of reducing FLFP by laying heavier care giving burdens on women (Barro & Lee, 2013). These correlations show that demographic changes and better health facilities are important in enhancing women being part of the workforce in the long run.

Urbanization has been regarded as the potential source of economic relevance in women due to its tendency to increase the access to employment, education and state services. Nevertheless, the facts are contradictory. It was also observed in literature that the fast urbanization without the involvement of inclusion policies may aggravate informality and

job insecurity, which reduce the opportunities of women (Bussolo et al., 2024; OECD, 2025). Most of the South and Southeast Asian economies also face cultural constraints, a poor childcare systems, and lack of comfort at the urban settings further deter women to enter or stay in the labor market (Jaumotte, 2003). Therefore, the effect of urbanization on the employment of women partially determines the inclusion and success of the urban development, and the success of labor and social programs.

There is a technological growth and digital connectivity as the new dimensions that affect the access to work by women. Increased internet connectivity and dissemination of digital technology provides women with greater power and empowerment through increased access to education, growing flexibility in work and several work-wherever-you-go options, as well as entrepreneurship (Ahmad et al., 2024). Still, the data on such correlation is not so decisive. One of the studies also provided that in some middle-income economies, digital growth has failed to enhance the participation of women due to the presence of gender disparities in terms of access and skills (Abrar et al., 2023). Similarly, (Kaur et al., 2021) document that in India, increased internet penetration also led to the decrease in the female participation indicating that the progress in technology cannot be used solely as the means to break the established structural interruptions. These findings suggest that digital inclusion needs more than just access but policy-specific support and capacity building which will help see to it that women can equally enjoy the benefits of technological change.

Although the previous studies offer good knowledge, majority of the current research is nation wide or is based on a short period of time, hence making it hard to generalize on a region. Not many people have explored the joint effect of the economic, demographic, and technological determinants under one analysis framework in the developing Asian economies. In addition to this, endogeneity of economic growth versus the participation of the female population has been ignored and this has biased the estimates. The current paper aims to address these shortcomings through the use of fixed-effect and Two-Stage Least Squares (2SLS) estimations of a sample (a panel of 23) develop economies of Asia between the year 2003 and 2024. This methodology offers recent facts about the various forces that motivate female workforce and gives a better insight into how the forces of economy, social and technological interplay to create the role of women in the changing labor force in the region.

3. MODEL AND METHODOLOGY

This research paper examines the macro-economic and the social-demographic predictors of the labour force participation by women in 23 non-industrialised economies in Asia makeup between the years 2003 and 2024. The analysis is based on the preexisting theoretical and empirical background, such as (Ahn & Mira, 2002; Gaddis & Klasen, 2014; Klasen & Pieters, 2015), who attribute the success of female participation in the labor market to their roe in an economic development, fertility, health and education. The empirical design accounts not only country-specific but also time variation by taking into consideration possible econometric problems that are normally involved with the analysis of panel data.

3.1 Model Specifications

The baseline model assumes that female labor force participation is influenced by economic growth, fertility, life expectancy, infant mortality, urbanization, and digital connectivity. The general functional form is expressed as:

$$LFP_{it} = f(GDPPC_{it}, FRT_{it}, LEA_{it}, MRI_{it}, UPG_{it}, IUT_{it})$$

This relationship is modelled econometrically as follows:

$$\log(LFP)_{it} = \alpha_i + \alpha_1 \log(GDPPC_{it}) + \alpha_2 \log(FRT_{it}) + \alpha_3 \log(LEA_{it}) + \alpha_4 \log(MRI_{it}) + \alpha_5 UPG_{it} + \alpha_6 \log(IUT_{it}) + \lambda_t + \varepsilon_{it}$$

The identifiers (i), (t) and (i) are the country, time and the alpha (i) and (t) are country and time unseen effects respectively. All the variables are in natural logarithm to explain the skewness and enable elasticity-based interpretation of the coefficients except UPG in its own growth-rate because negative values appear in some of the observations, thus making the application of a logarithmic transformation impossible.

The rationale behind the choice of variables is theoretical and supported by previous empirical studies. The increase in economic development (GDPPC) will have a positive impact since it will generate non- agricultural and service sector jobs that will result in an increase in women participation. The negative effect is on fertility rate (FRT) as there is the increase of household and child responsibility. An increase in female health and longevity can elevate the level of participation in the labor market, and this is measureable through life expectancy (LEA). Female infant mortality (MRI) can be used as a proxy in health conditions and care in accordance to gender; and it is projected to decline participation. The urban population growth (UPG) may impact positively or negatively on the withering based on the inclusivity of the urban employment. Lastly, IUT is expected to have a positive effect on the engagement of females because access to education and information and flexible working opportunities is enhanced. The summary is presented in Table 1.

Table 1: Description of Variables and Expected Signs

Variable	Description	Expected Sign	Explanation
LFP	Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate)	N/A	Dependent Variable
GDPPC	GDP per capita (constant 2015 US$)	+	Economic growth creates non-agricultural and service-sector jobs that attract female workers, improving participation (Duflo, 2011; Klasen & Pieters, 2015).
FRT	Fertility rate, total (births per woman)	-	Higher fertility rates increase household and childcare duties, reducing time available for market work (Ahn & Mira, 2002).
LEA	Life expectancy at birth, female (years)	+	Longer female life expectancy reflects improved health and education, enabling

			greater lifetime labor participation (Spence & Leipziger, 2010)
MRI	Mortality rate, infant, female (per 1,000 live births)	-	High infant mortality indicates poor health conditions and care burdens, discourage women's labor force participation (UNDP, 2021)
UPG	Urban population growth (annual %)	+/-	Urbanization expands access to jobs, education, and childcare; however, rapid urban growth may also increase informal employment an gender gaps.(OECD, 2025).
IUT	Individuals using the Internet (% of population)	+	Internet use enhances access to online work, education, and market information, empowering women's economic participation.(Ahmad et al., 2024)

Note: all data had been extracted from WDI except IUT which has been extracted from World Bank

3.2 Data Coverage and Transformation

The given work refers to an imbalanced panel size of 23 developing Asian economies in 2003-24, which was chosen according to the level of data availability, and the suitability of developing Asia under the group of the United Nations. The sample comprises of Bahrain, Bangladesh, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Israel, Jordan, Kuwait, Lao PDR, Malaysia, Mongolia, Nepal, Oman, Pakistan, the Philippines, Qatar, Samoa, the Syrian Arab Republic, Thailand and Turkiye. There is a diversity of representative samples of the country demographic, structural, and digital transformation in the labor market in the selected countries.

All monetary variables namely, GDP per head of population (GDPPC), are put in constant 2015 US dollars so as to check inflation. Continues variables were log-transformed so that variable and interpret coefficient can be elasticities, except that in case of urban population growth, the variable was retaining its original value because of the negative values.

The data were taken mostly through the WDI with the internet use being the extracts of the world banks. Upon the elimination of missing values and outliers performed on the screening stage of the analysis, all estimates were obtained in E-Views 12.

3.3 Estimation Strategy

In making the prediction, a number of diagnostic and model selection approaches were used to make it reliable. The first was Pesaran Cross-Sectional Dependence (CD) test to ensure that there is not an interlinkage among the countries as economic shocks may spill over the region. In order to consider this, techniques that are resistant to cross-sectional dependence were employed.

Cross-sectionally augmented IPS (CIPS) test (Pesaran, 2007) was then used to eliminate non-stationarity of the variables and allowing them to be inter-dependent. Upon establishment of the order of integration, the estimation of a single OLS model was first performed and then the Breusch Pagan Langrage Multiplier (LM) test was performed to gain the present of random effects.

The way of selecting between the Fixed Effects (FE) and Random Effects (RE) was based on the Hausman test. The FE estimator was chosen as the base don model diagnostics as it is important to capture the country -specific heterogeneity. A 2SLS analysis has also been conducted in order to check the robustness and potentially endogenous between economic growth and female labor participation. All of them were estimated using EViews 12.

4. EMPIRICAL ANALYSIS AND RESULTS

4.1 Descriptive Statistics

The descriptive statistics shown in table 2 gives a summary of how all the variables were distributed throughout 23 economies of Asia between 2003 and 2024. The central tendency of the labor force participation value of women shows that women are moderately involved in the economic activities, with very big variation in the economic activity across nations as evidenced by the large gap between the lowest and highest values. By the same manner, GDP per capita is fairly varied and this indicates the existence of diverse economy across sampled countries. There are also significant cross country differences in the variables, such as fertility rate, life expectancy rate, infant mortality rate, urban population growth and internet usage. These variables imply the necessity to consider country-specific effects in the econometric estimations concerning them.

Table 2: Descriptive Evaluations

Variables	Mean	Median	Maximum	Minimum	Obs.
LOG(LFP)	3.68	3.82	4.40	2.38	506
LOG(GDPPC)	8.56	8.34	11.31	6.35	506
LOG(FRT)	0.91	0.92	1.59	0.00	506
LOG(LEA)	4.31	4.32	4.45	4.12	506
LOG(MRI)	2.67	2.67	4.34	0.92	506
UPG	2.78	2.46	21.95	-10.88	506
LOG(IUT)	3.20	3.53	4.61	-1.81	506

Source: Authors Calculations

4.2 Cross-Sectional Dependence Diagnostics

Before proceeding to panel estimations, the presence of cross-sectional dependence was assessed using the Pesaran CD test. As shown in table 3, the test statistics for all variables are highly significant, confirming strong interdependence among countries. This finding implies that shocks or policy changes in one economy may influence others within the region, likely due to shared economic structures, trade linkages, and regional development trends, therefore, econometric methods robust to cross-sectional dependence were employed in the subsequent analysis to ensure reliable and unbiased estimates.

Table 3: Pesaran CD test Outcomes

Variable	Statistic	d.f.	Prob.
LOG(LFP)	5.03*	253	0.0000
LOG(GDPPC)	20.46*	253	0.0000
LOG(FRT)	47.89*	253	0.0000
LOG(LEA)	39.90*	253	0.0000
LOG(MRI)	32.87*	253	0.0000
UPG	13.57*	253	0.0000
LOG(IUT)	70.79*	253	0.0000

* Significant at 1%, ** significant at 5%, *** significant at 10%
Source: Authors Calculations

4.3 Stationary Analysis

To check the stationarity of the variables, cross-sectionally augmented IPS (CIPS) tests developed by (Pesaran, 2007) was used which considers cross-sectional dependence on countries, the outcome of the test in Table 4 shows that GDP per capital and life expectancy and urban population growth and internet usage remain stationary at level I(0), whereas female labor participation, fertility rate an infant mortality became stationary at the first differencing level I(1). These two variables of I(0) and I(1) prove that there is mixed order of integrations and, thus, panel estimation techniques that can deal with such peculiarities should be employed in the analysis.

Table 4: CIPS Unit Root Test

Variable	C	C+T	C	C+T	Results
LOG(LFP)	-2.1954**	-2.2440	-3.5995*	-3.8385*	I(1)
LOG(GDPPC)	-2.2827**	-2.7818**	-	-	I(0)
LOG(FRT)	-2.0636	-1.9438	-2.3279**	-2.9644*	I(1)
LOG(LEA)	-2.3459**	-2.1341***	-	-	I(0)
LOG(MRI)	-1.4548	-2.1852	-2.3681**	-3.2389*	I(1)
UPG	-2.6967*	-2.7482**	-	-	I(0)
LOG(IUT)	-2.5627*	-2.9248*	-	-	I(0)

* Significant at 1%, ** Significant at 5%, *** Significant at 10%
Source: Authors Calculations

4.4 Empirical Findings

Table 5 presents the outcomes of the Pooled Ordinary Least Squares (POLS) and Fixed Effects (FE) estimation. The BreuschPaganLagrange Multiplier claim that demonstrates the presence of a high cross-sectional difference proves that POLS is not the most appropriate to use with this data. The Hausman test also confirms that the FE model is the more consistent estimator results which indicate a significant country specific heterogeneity in the 23 developing Asian economies.

Results of the FE demonstrate that there are some significant findings. The negative and significant economic growth in terms of GDP per capita makes the economic growth indicate that women participation may weaken in the short term as the economy grows. This confirms the hypotheses of the U shape provided (Goldin, 1994) in that, the participation of women in labor declines at the beginning of industrialization and increases after service and education industries take over. The same trends were identified by (Tam, 2011) as far as developing Asia is concerned.

There is a strong negative impact of the fertility rate, which shows that an increase in female participation decreases as a result of increased childcare and household duties. This observation is in line with (Ahn & Mira, 2002; Bloom et al., 2009) that focuses on the negative correlation between fertility and the supply of labor by women. Conversely, female life expectancy has a positive and significant impact meaning that the greater the longevity and health the more strength and desire women have to work. This aligns with (Klasen, 2019; Klasen & Pieters, 2015), who concur that human-capital benefits are one of the causes of female employment.

Table 5: Results of POLS and Fixed Effects

Variable	***POLS***	***FE***
LOG(GDPPC)	0.1644* (0.0258)	-0.0388 ** (0.0153)
LOG(FRT)	-0.7688 * (0.0634)	-0.1019 * (0.0205)
LOG(LEA)	-4.6399 * (0.6184)	0.7566 * (0.1799)
LOG(MRI)	-0.3486 * (0.0644)	-0.0805 * (0.0233)

UPG	-0.0101 (0.0070)	-0.0008 (0.0009)
LOG(IUT)	-0.116296 * (0.0185)	-0.0106 ** (0.0049)
C	24.31096 * (2.7904)	1.0896 (0.822)
R-squared	0.3866	0.9771
Adjusted R-squared	0.3792	0.9758
F-statistic [Prob.]	52.42949 * [0.0000]	728.2586 * [0.0000]
Durbin-Watson stat	0.0396	0.2770
Breusch-Pagan Test	***Cross-section***	***Time***
	3539.1570*	0.0434
Hausman Test		
Test Summary	***Chi-Sq. Statistic***	***Chi-Sq. d.f.***
Cross-section random	36.8807*	6

* Significant at 1%, ** Significant at 5%, *** Significant at 10%
Standard Errors are reported in brackets
Source: Authors Calculations

The low infant mortality of the female gender also affects the level of labor participation in a negative way, which implies that the low health infrastructure discourages the females to participate in the market. Similar evidences are present in (Barro & Lee, 2013). Even though the population growth in urban areas is negative and non statistically significant, this conclusion implies that urbanization in itself without any accompanying and inclusive policies can not always lead to job creation among women. The same evidence is mentioned in the (Bussolo et al., 2024), which results that urbanization was not playing a significant role in enhancing the labor force participation of females in South Asian economies, as social and structural barriers are still present.

Surprisingly, the internet usage is the one with negative coefficient which can be interpreted as the reflection of the institutionalized gender differences in access and use of digital technologies. Similarly, in a recent survey in high- and middle-income countries, researchers discovered that digitalizing did not positively affect the labor force participation of women in the settings with continued gendered digital inequalities (Abrar et al., 2023). Likewise, the analysis in terms of India (20012018) indicates that there is a strong negative correlation between internet/mobility subscriptions and the participation of female labor force (Kaur et al., 2021). The implications of such findings are that further increase in internet usage will not provide power to women in the labor market unless there is fair access, skills, as well as inclusive policies on digitization.

Generally, the FE model has a very high level of explanatory power (R 2 =0.9771) which indicates that all the macroeconomic and demographic variables included in the model explain the majority of the variation in the female labor force participation in the sample. The statistical strength and the usual direction of main variables used in the model increases the trust to the empirical results of the study. Overall, the Fixed Effects evidence can show that there are Multidimensional effects of development, fertility, health and technology on the issue of women participation in labor. On a further note to implement robustness and address the possible endogeneity, the second section is a Two-Stage Least Squares (2SLS) estimation, which is used as a sensitivity analysis.

4.5 Robustness and Sensitivity Analysis

The two-stage least squares approach of estimation is used in the study in order to establish the consistency of the Fixed Effects estimates as well as to overcome the issue of endogeneity, especially that between economic growth and female labor force participation. The findings shown in Table 6 mostly support the key findings.

The GDP per capita is still negative and significant, which is in line with results that increased economic growth may not necessarily translate to increased female participation in the labor force as was demonstrated in (Gaddis & Klasen, 2014; Klasen, 2019). The fertility still has a vigorous negative impact, which highlights the demographic limitation on the employment opportunities of women (Bloom et al., 2009). Again, life expectancy continues to play a positive and important role, which means that the better the health and education achievements, the better the female labor engagement (Jaumotte, 2003).

In the meantime, infant mortality and internet adoption are negative and significant as in the estimates made in the past, which points at the problematic continuity of structural and digital barriers. Urban population growth coefficient is also not significant, which means that urbanization without gender responsive planning is not necessarily going to increase the employment opportunities of women (Klasen & Pieters, 2015). These strong findings with the methods of estimation imply the consistency and validity of the empirical findings of the study.

On the whole, the robustness checks indicate the validity of the baseline estimation by showing that the structural, demographic and technological factor always work in specifications with respect to female participation in the labor force. These results can be taken as a good empirical background to the policy implication and strategic suggestions ensuing discussion in the following section.

Table 6: Results of Two Stage Least Square (TSLS)

Variable	*Coefficient*	*Standard Error*
LOG(GDPPC)	-0.0389 **	0.0153
LOG(FRT)	-0.1019 *	0.0205
LOG(LEA)	0.7566 *	0.1800
LOG(MRI)	-0.0806 *	0.0233
UPG	-0.0008	0.0010
LOG(IUT)	-0.0107 **	0.0049
C	1.0896	0.8220
R-squared	0.9771	

Adjusted R-squared	0.9758
F-statistic [Prob.]	728.2587 [0.0000]
Durbin-Watson stat	0.2771

* Significant at 1%, ** Significant at 5%, *** Significant at 10%
Standard Errors are reported in brackets
Source: Authors Calculations

5. CONCLUSION AND RECOMMENDATIONS

In this analysis, the researcher looked at the factors of female labor force participation (FLFP) in the 23 developing Asian economies, namely, Bahrain, Bangladesh, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Israel, Jordan, Kuwait, Lao PDR, Malaysia, Mongolia, Nepal, Oman, Pakistan, the Philippines, Qatar, Samoa, the Syrian Arab Republic and Thailand and Turkiye, between the years 2003 and 2024. The analysis with the help of the fixed-effects estimation and robustness, in the form of the Two-Stage Least Squares (2SLS) technique, shows that macroeconomic and socio-demographic factors can affect the labor market participation of women in the region significantly.

The findings show that there is a poor negative relationship between GDP per capita and FLFP, implying that due to the economic development, structural change towards more capital intensive sectors can negatively impact women employment unless job creation is inclusive. The negative correlation between FLFP and fertility rates indicates the low working ages born to bear the responsibility of childcare and household duties. The impact of female life expectancy is quite positive which highlights the influence of the advanced health and education results and the infant mortality rates lower the chances of women being involved in the working force.

The increase in urban population seems to be statistically insignificant, and it presupposes that urbanization that lacks labor policies to include women does not necessarily increase female participation. Whereas the use of internet is supposed to empower women, it is having a negative impact, and this fact might be attributed to ones lack of equal access to internet use and continued gender differences in internet activity along the developing economics.

These findings have given policy suggestions such as the expansion of low cost childcare and work policy conducive of families to overcome fertility-related limitations, more investments in the health, education and digital literacy of women, and more flexible and telecommuting work, especially in the service sector and in technology. Governments must also make sure that urban planning assists in the mobility and safety of women, and there are specialized training programs, and digital inclusion programs will help close the gender gap in technology. Furthermore, gender equity in employment can enhance more through the inclusion of labor regulations under which equal pay is assured and one is not discriminated against over pretexts like sex among others. Last, an augmented regional collaboration and coordination of policies within these developing economies in Asia may facilitate exchange of best practices and solidarity in working with the aim of ensuring the inclusion of gender in growth.

Future studies can focus on the institutional and cultural aspects that can inform FLFP of Asian contexts such as gender norms, legalism, and labour market institutions as a means of maintaining gains of long-term participation.

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