



Woman in Development and Politics

Ranking of Factors Influencing the Productivity of Employed Women Using the Analytic Hierarchy Process (AHP) Approach

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ABSTRACT

Introduction

In recent decades, the participation of women in the labor market and their contribution to economic activities have garnered growing interest from researchers and policymakers around the globe. Within this context, novel thematic domains have arisen in both the theoretical and empirical literature. One of these subjects pertains to the productivity of employed women. Productivity in employment denotes the level of output (goods or services) generated by an individual or group within a defined period, relative to the inputs (such as time, effort, resources, etc.) expended. This concept can be assessed both quantitatively (e.g., the quantity of products manufactured) and qualitatively (e.g., the quality of services delivered) (Abtahi & Kazemi, 2000: 57). When this concept is extended to employed women, taking into account the complexities of their familial, social, and economic responsibilities, the scientific definition of their productivity requires a comprehensive approach that extends beyond simply quantifying work outputs.

Recent studies in development economics and labor have highlighted the significance of various factors in accounting for the productivity of working women. Several of these studies ascribe the productivity disparity between women and men in labor markets, particularly in senior positions, to gender inequality and variations in human capital, which result in reduced wages and responsibilities for women (Polachek, 1981; Goldin & Rouse, 2000; Black & Strahan, 2001). Contemporary literature also examines the influence of psychological and non-cognitive characteristics, including self-confidence, risk aversion, competitive willingness, and interpersonal skills (Gneezy et al., 2009; Bertrand, 2011; Huang & Kisgen, 2013; Blau & Kahn, 2017).

In this analytical-descriptive study, we initially delineated the conceptual framework of factors influencing the productivity of employed women across individual, familial, institutional, organizational, and cultural-social dimensions, employing library research methodologies. Finally, based on the theoretical and empirical research discussed, the conceptual framework of this study has been delineated and depicted in Figure 1.

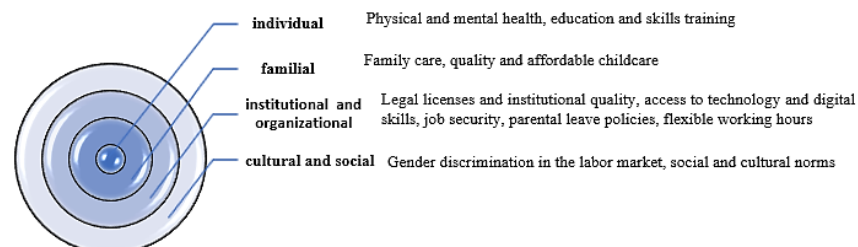


Figure 1. Conceptual model of factors affecting the productivity of working women

Source: Research findings

Methodology

In this study, to identify and prioritize the factors affecting women's productivity, the initial step involved assembling a panel of experts composed of married women aged 30

and older, each possessing a minimum of ten years of professional experience across diverse activities, preferably holding at least a bachelor's degree. Following three rounds of deliberation among 30 experts and the withdrawal of certain participants from the Delphi process, the insights of the remaining 15 experts were utilized as the foundation for prioritizing the factors influencing the productivity of working women. Furthermore, given the analytical-descriptive nature of the research, a comprehensive library review was conducted to identify the factors influencing women's productivity through theoretical and empirical studies, complemented by insights from Delphi experts. The Analytical Hierarchy Process (AHP) method was then employed to prioritize the criteria.

The First Step:

Initially, the productivity criteria for employed women (comprising 35 criteria) were supplied to the panel members in the form of a questionnaire. In this questionnaire, the opinions of experts were evaluated concerning the approval or rejection of proposals or the establishment of new criteria through open-ended questions. Possible challenges in the implementation of these criteria and recommended solutions were also sought. Using the Delphi technique, the opinions of the panel experts were collected and examined through thematic analysis. Subsequently, the updated criteria were conveyed to the panel of experts through a questionnaire, enabling them to indicate their agreement or disagreement with the group's consolidated perspectives on the proposed productivity criteria for working women.

The Second Step:

Based on the analysis of the information gathered during the initial phase, the criteria forming the foundation for decision-making in the second level of the hierarchical analysis process in this study were established as follows: 1. Preservation of the family foundation, 2. Women's participation in the economy, and 3. Women's engagement in formal employment. Based on the conceptual framework outlined in the preceding section and the Delphi expert methodology, women's productivity was consolidated into three principal criteria: First, family-related factors including marital status, childbearing, and caregiving responsibilities are encompassed within a singular criterion of "family foundation preservation." Second, women are driven by factors such as economic independence, income generation, and gender equality, regardless of the nature of the work, in pursuit of "economic participation." Third, while engaging in economic activities, the nature of employment, job stability, and legal protections are also of considerable importance to them. Therefore, the criterion of "women's formal employment" is regarded as an independent measure concerning the productivity of working women.

The Tirth Step:

Finally, from the 35 factors identified in the initial questionnaire by the council of experts, 10 factors were selected to evaluate their influence on women's productivity in the economy. Certain factors were integrated and articulated within more comprehensive propositions (third-level alternatives). These factors include: 1. Age, 2. Skills and educational background, 3. Job conditions and the nature of work regarding hours and flexibility, 4. Compensation, 5. Legal authorizations, 6. Family income, 7. Family expansion through marriage and childbirth, 8. Unemployment rate, 9. Job security, 10. Social justice. Ultimately, all ten factors were classified within the three criteria identified at the second level.

Considering the three steps outlined above, the hierarchical decision tree for this investigation is depicted in Figure 2.

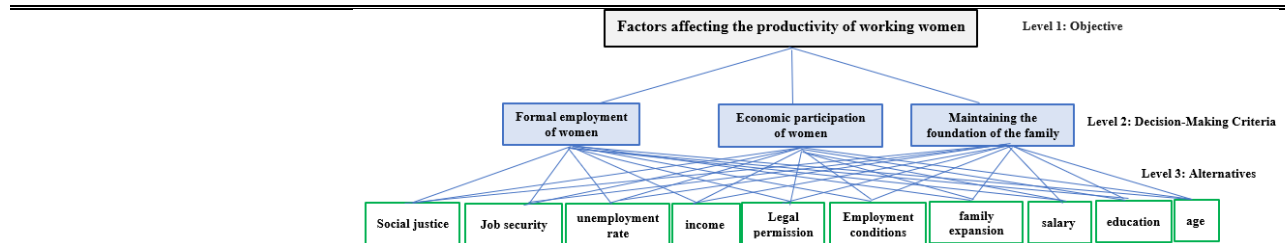


Figure 2. Research hierarchical decision tree

Following the identification of the criteria and factors influencing the productivity of working women, an analytical hierarchy process was conducted utilizing Expert Choice software.

Findings

Research findings suggest that, overall, the economic productivity of employed women—considering the preservation of the family unit, formal employment, and the expansion of women's economic participation—is strongly associated with job security, legal permissions, institutional quality, and working conditions such as flexible hours, parental leave, and access to quality of childcare.

Conclusion

Research findings suggest that when all three criteria—family foundation preservation, formal employment, and the promotion of women's economic participation—are considered concurrently, a strong correlation emerges among factors influencing the productivity of employed women, including job security, legal permits, institutional quality, and work conditions related to flexible working hours, parental leave, and access to childcare services. These factors are of considerably greater significance than elements such as age, skill level, education, income, and social justice (specifically concerning gender discrimination). A significant observation from the prioritization of factors affecting the productivity of employed women in this study is that family expansion does not occupy the anticipated position within the hierarchy of influential variables. This phenomenon may be attributed to the growing propensity of women to engage in socio-economic activities and the necessity of earning an income, which results in a diminished desire to expand the family through marriage and reproduction. The significant decrease in population growth rates observed in recent years exemplifies this discussion in a tangible manner. In fact, the research findings underscore this reality. Accordingly, in accordance with the concerns of policymakers and decision-makers within the country, if the aim of promoting women's employment and enhancing their economic participation is to be pursued concurrently with the goal of safeguarding the family structure and thereby preventing a decline in women's fertility rates and population growth, the findings of this research indicate that: Firstly, job security holds a particularly significant importance in women's employment, especially during periods when, owing to circumstances such as pregnancy, breastfeeding, and childcare, short-term leaves are required. This necessitates the establishment of specialized legal and institutional frameworks to enable flexibility in working hours and the manner of job performance. Secondly, at advanced levels, to facilitate women's participation in key decision-making arenas, it is essential to obtain the necessary legal approvals and permits that establish appropriate frameworks for enhancing both the quantitative and qualitative representation of women in social activities, thereby promoting social justice and eradicating gender discrimination. This would enable women to participate actively in key decision-making sectors and leverage this opportunity to identify and rectify institutional and legal deficiencies conducive to increasing productivity in social and economic endeavors.

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