Nurturing Progress: Empowering Pakistani Women Through Education, Employment and ICT's

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Abstract

The process of giving women the tools and opportunities they need to assert their rights, take part in decision-making, and take charge of their lives is known as women empowerment. It is a critical issue in today's modern world, which tries to strengthen women's economic, social, and political power. Therefore, this study aims to assess the effect of ICT, education, and employment on women's empowerment in Pakistan. To this end, we have employed binary logistic regression analysis. The outcomes indicated that ICT, education, and employment positively influence women's empowerment in Pakistan. This study contributes to policy making. Therefore, through effective public policies, women's access to ICT should be improved. Moreover, the government of Pakistan should introduce more excellent and improved educational prospects for women. Employment opportunities should also be provided at the national level.

Keywords: Progress, Women Empowerment, Education, Employment and Technology.

Introduction

Women's empowerment is a crucial topic today, which attempts to strengthen women's economic, social, and political power. Women empowerment gives women the tools and opportunities they need to assert their rights, participate in decision-making, and take charge of their lives. Due to the growing recognition of the significance of gender equality for sustainable development by different organizations and governments, women's empowerment has become a significant global problem. To achieve gender equality and sustainable development, women must be empowered (Reshi & Sudha, 2022). In every community, region, and nation, specific population segments are consistently deprived of their inherent rights, often without awareness of these entitlements. Considering these societal aspects, women would emerge as the primary group facing such circumstances. Women hold the utmost importance within each society's fabric. No one is willing to accept this fact, even though everyone knows it (Sundaram et al., 2014). Economic development and women's empowerment go hand in hand. On the one hand, development can significantly reduce the gap between men and women; on the other, development may be aided by women's empowerment (Duflo, 2012).

The notion of women's empowerment has evolved, encompassing interpretations and viewpoints. In general, women's empowerment enables them to have agency in their lives, make choices, and fully engage with all aspects of society. It encompasses their social and political empowerment. Economic empowerment pertains to women's capacity to access resources and

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actively contribute to decision-making. Social empowerment focuses on women's inclusion in social and community undertakings. Lastly, political empowerment relates to women's ability to participate in the process and contribute to decision-making (Reshi & Sudha, 2022). Table 1 represents the facts and figures about women's socio-economic conditions worldwide.

Table 1: Women Empowerment Concerning Different Aspects around the World

Participation in Decision-making	1.6% - 31%
Women Heads in councils	0.2 - 7%
Illiterate women	796 million
Rural girls' school education	39%
Urban girls' school education	59%
Working hours	17.4% - 14%
Women agricultural labor force	43%
Share in production	20% - 30%
Share in agricultural production	2.5% - 4%
Maternal health from 1990-2008	55% - 66%
Prenatal health care during pregnancy as compared to 50% in developing nations	1/3
Domestic violence rural survivors seek help	Less than 5% out 0f 60%
Domestic violence urban survivors seek help	16% out of 49%
Global women hunger	60%
Women landholders	Less than 20%
Women employment in South Asia	60%

Source: United Nations

Types of Women Empowerments

Political Women Empowerment: Research findings indicate that granting women political power yields outcomes, as they tend to prioritize policies that address the needs of women. These policies often revolve around areas like healthcare and education.

Economic Women Empowerment*:* Moreover, studies have demonstrated that enhancing women's participation in the workforce and ensuring access to opportunities can profoundly impact economic growth.

Social Women Empowerment: Furthermore, social empowerment for women encompasses their ability to engage fully in society, including religious practices. When women can exercise their rights and freedoms without hindrance, they gain autonomy.

Women's empowerment plays a role in fostering development within societies and the nation. It has become a focus in the initiatives undertaken by the United Nations and governmental and non-governmental organizations. When examining definitions associated with empowerment worldwide, we encounter a range of terms encompassing concepts such as self-strength, self-control, self-power, self-reliance, personal choice, the ability to fight for one's rights, independence, decision-making authority, freedom, and more (Mandal, 2013).

The use of ICT plays a crucial role in empowering women. Through the utilization of Information and Communication Technology (ICT), women can expand the range of their activities and tackle challenges that were previously beyond their capabilities. Numerous studies have highlighted the increasing evidence of how ICT can empower women (Beena & Mathur, 2012). It is crucial to note that utilizing ICT requires users to possess skills, and it would be a mistake to assume that simply providing the facilities guarantees universal adoption of the technology within a community (Jain, 2006).

Based on the findings from the Pakistan Social and Living Standards Measurement (PSLM) Survey (PSLM) report 2018-2019, the literacy rate is 58%, and the contrast in rural areas is quite noticeable. In urban areas, the literacy rate stands at 74 per cent, while in rural areas, it is comparatively lower at 51%. There is a disparity between men and women, with men exhibiting literacy rates. Among the provinces, Punjab's literacy rate is 64%, Sindh and 57% KPK, and Baluchistan lags with a 40 per cent literacy rate. This suggests a pressing need to prioritize the education sector and formulate policies for the merged areas.

Problem Statement

The issue of women's empowerment in Pakistan remains unresolved due to the presence of gender inequalities and discriminatory practices that impede the advancement and equal involvement of women in aspects of society. These barriers restrict their access to education, economic opportunities, healthcare, and decision-making authority. The percentage of women making decisions in their personal affairs was 53% in 2018-2019 (PSLM report 2018-2019). Despite progress in time, Pakistani women still encounter obstacles that undermine their rights, autonomy, and overall welfare. This challenge calls for actions to tackle norms, enhance legal structures, increase access to resources and opportunities, and advocate for gender equality. Such measures are crucial for fostering an inclusive and empowered society that uplifts women in Pakistan.

Literature Review

The term "economic empowerment" pertains to women's capacity to attain resources and engage in economic decision-making. Meanwhile, "social empowerment" pertains to women's capability to partake in cultural, communal, and social endeavors. Lastly, "political empowerment" signifies women's involvement in political activities and decision-making processes (Reshi & Sudha, 2022).

Empowerment encompasses achieving parity in women's presence within decision-making procedures, encompassing formal and informal realms. This allows them to influence the legislation that molds their community. Furthermore, women's involvement in household decisions and their contributions to the family's earnings exemplify further dimensions of women's empowerment (Yusuf, 2010). Incorporating women's empowerment entails enhanced availability of information and resources, augmented self-reliance in shaping decisions conducive to their well-being, heightened influence over the settings that shape their existence, and liberation from any constraints imposed upon them by their heritage, convictions, and customs (Gu, 2005).

According to (Sahay, 1998), for women to fully realize their identity and potential in all sectors of life, empowerment is an active, multifaceted process. Laizu et al. (2010) integrated quantitative and qualitative methods to explore the impact of ICT on women's empowerment. Information was collected from female residents of two villages incorporating ICT initiatives. The findings show that ICT intervention had changed the perception of women in one village but did not affect women's perception in the other village. Beena and Mathur (2012) conducted a study in the Jaipur district of India. Two hundred trainees and thirty instructors from various governmental and non-governmental organizations were used as a sample size for the study. The sample for the study was chosen to use a random sampling procedure by the researcher. This study concluded that women are empowered by information and communication technology in various contexts, including social, educational, and personal. A study was conducted in southern Indian coastal regions from October 2010 to July 2011. The study investigated how ICT help vulnerable women. Using a Habermasian-based approach, they concluded that marginalized coastal women of coastal India should make better use of ICTs like computers, e-mail, and the internet to generate revenue. (Kenkarasseril, 2013). Badran and

Humanities (2014) employed techniques to gain insights into the impact of ICT ownership on the gender gap and its potential to empower women in Egypt. According to the results, education and gender play a role in determining the ICT ownership index, contributing significantly to women's empowerment. However, when considering factors like women's occupation and economic activity, the statistical significance of the ICT ownership index becomes less pronounced in the obtained outcomes.

Education is a crucial strategy for empowering women. A well-educated woman understands her rights better and chooses to work for a salary that increases women's empowerment (Khan, 2010). Education is the primary catalyst for fostering women's empowerment, advancement, development, and well-being. Women encounter bias and prejudice from the earliest stages of life to the decisive moments. Across all spheres, women remain subject to subjugation and susceptibilities, and an enduring imbalance prevails among them. The need for empowerment spans across all facets of existence. Women find themselves compelled to navigate against the prevailing tide, which demands heightened resilience to confront profoundly ingrained gender disparities in society (Sundaram et al., 2014). Shoaib et al. (2012) examined the impact of education on women's empowerment in Chiniot, Pakistan. Results of the study showed that education affects women's empowerment positively.) conducted a primary study in Madurai city of India, to investigate the impact of education on women's empowerment. In total, 455 women between the ages of 20 and 50 were taken as the study's sample size. The study's findings demonstrated that education is essential to women's empowerment. Further, they conclude that the only way to achieve this goal is through the medium of education.) investigated the role of education in women's empowerment. They conducted a study in India using secondary data analysis. The results of the study found that early marriages, gender inequality and restrictions are significant causes that hinder women from being empowered. Sandhya (2015) studied the impact of education on women empowerment in Bagalkot District, Karnataka. Research has revealed that modern education and improved facilities significantly influence women's empowerment. However, rural women in the Bagalkot district still face a considerable gap in empowerment compared to their urban counterparts. Furthermore, women residing in villages experience even more significant disparities in empowerment when compared to women living in urban areas within the same region. Riaz and Pervaiz (2018) conducted a study to investigate the impact of education on women's empowerment in Pakistan from 2012-2013. The results suggest that the education and employment of women play a substantial role in enhancing women's empowerment. Educated women display a greater propensity to participate in decision-making concerning their healthcare, substantial household expenditures, visits to family members and relatives, financial management within the household, and decisions about contraceptive utilization. This inclination is notably more pronounced than in women who lack formal education. In the Baluchistan province of Pakistan's Quetta area, (Habib et al., 2019) experimentally assesses the effects of employment and education on women's emancipation. According to the conclusions drawn from the regression and correlation analyses, education and employment considerably benefit women's empowerment. The findings indicate that employment boosts women's earning power by allowing them to contribute to the family income and enables them to participate in decision-making at the social and domestic levels. It can benefit their health and the education of their offspring and relatives. The results show that employed women have some control over their resources, such as bank accounts, savings, and valuables (jewelry), but this power is limited. However, due to societal conventions, family standing, education level, income, and the patriarchal system, they need more influence and ownership over property and land (Habib et al., 2019). Riaz and Pervaiz (2018) conducted a study to investigate the impact of education on women's empowerment in Pakistan from 2012-2013. The findings indicate that women's employment has been linked to a positive correlation with their involvement in decision-making

processes related to getting education, getting employment, using contraceptives, family planning, major household food purchases, clothing, health care travel and recreation.

Research Gap

There several studies that studied the impact of education, employment and ICT on women's empowerment (Beena & Mathur, 2012; Sundaram et al., 2014; Sundaram et al., 2014). However, it is limited in the case of Pakistan. Furthermore, we are also interested in checking the impact of health on women's empowerment as well. (Relating to the works of Allendorf in 2007, Agarwal in 1994, and the collaborative effort by Frankenberg and Thomas in 2001). Several research investigations have been undertaken concerning the topic of enhancing the status of women in Pakistan. Various instances of in-depth analysis have employed primary information from diverse parts of the nation. Nevertheless, there is a need for more studies concentrating on the impact of women's education and employment status as potential factors contributing to women's empowerment, especially using nationwide data.

Methodology and Data

To assess the influence of ICT, education, and employment on their empowerment, we have utilized data from the Pakistan Social and Living Standard Measurement (PSLM) conducted during 2018-2019. The survey encompasses a sample size of 25,145 households, distributed among 8765 households in urban regions and 16,380 in rural areas. Our focus lies on women aged 15-49 who are married and serve as the respondents in our empirical analysis. We are focusing on a central element of our inquiry: the empowerment of women, which we measure by their participation in household decision-making. The variables we examine independently include ICT, women's employment and educational status, and various other potential factors that could influence their empowerment. The following econometric model has been used based on the theoretical basis,

$$WE_i = \beta_0 + \beta_1 ICT_i + \beta_2 EDU_i + \beta_3 EMPL_i + \beta_4 K_i + \mu_i$$

Where, WE= Women empowerment, ICT= Information and Communication Technology, EDU= Education level of respondent woman, EMPL= Employment, K= control variables.

Variables Description

Eight separate regressions have been employed for women's decision-making in getting education, employment, contraceptives, family planning, major household food purchases, clothing, health care, travel, and recreation. According to the Pakistan Social and Living Standard Measurement 2018-2019, the participation of women in the decision-making process has been divided into six well-defined categories. These groups encompass women making decisions independently, women making decisions in conjunction with their spouses, women making decisions in collaboration with other family members, husbands making decisions alone, decisions being taken by someone else, and other scenarios. The initial three responses, which highlight women's active engagement in the decision-making process, have been assigned a code of 1, while the remaining three have been coded as 0. Consequently, within our research, the dependent variable is categorical, with two potential results. To categorize women's age, we have divided it into seven cohorts: 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, and 45–49. This classification renders it a categorical variable presenting seven possible outcomes.

ICT is the first independent variable categorized as women who use mobile phones, women who use smartphones, and women who use none of these. The educational level of respondent women is classified into three tiers: primary education (at least five years of schooling), secondary education (at least ten years of schooling), and higher education (at least 16 years of schooling). The employment status of respondent women has been employed as a dichotomous variable, where 1 represents self-employment, and 2 indicates paid employment. The

geographical area is also employed as a categorical variable, presenting four potential results contingent upon the specific region within the country (Khyber Pakhtunkhwa, Punjab, Sindh, and Baluchistan) the respondent lives in. *Residential location* is a dichotomous variable, categorized into urban area (1) and rural area (0). WI refers to the wealth status of women's households (Income), quantified in three categories. Women with monthly income, women with annual income, and women who receive income in-kind.

In this study, the dependent variable is binary; we have opted for binary logistic regression as the suitable analysis method. In this regard, we conducted binary logistic regression and computed odds ratios (ORs) to gauge the relationship between our independent and dependent variables. The odds ratio represents "the likelihood of an event happening given a specific exposure, relative to the likelihood of the event occurring without that exposure (Gujarati, 2009).

Results and Discussion

Table 2 visually represents diverse socio-economic and demographic attributes linked to the married women who served as respondents. This table provides an extensive overview of women's decision-making involvement, segmented by age, regional and residential contexts, ICT usage, education, and employment status.

In Table 2, the proportion of women deciding to get an education ranges from 14.1% in the 15–19 age group to 59.6% in the 40–44 age group. The proportion of women participating in decisions about significant household purchases ranges from 4.2% in the 15–19 age group to 20.3% in the 30-34 age group. And then again fell from 30-34 to 45-49. Participation in decisions related to employment gradually rises from 4.2% in the youngest age cohort (15-19) to 19.9% and again falls to the seventh age cohort. Regarding decisions about utilizing the birth-controlling method, involvement fluctuates between 5.9% and 9.1% across various age groups. Thus, participation in decisions concerning contraceptive use is at its lowest (5.9%) among women aged 15–19 and reaches its peak (21%) among women aged 25-29. When considering the decision-making about family size, women's involvement progressively increases with age up to 25-29 and then falls (5.4% to 20.2% and again 10.5%). Notably, it is at its lowest in the initial age bracket (15–19 years) and peaks in the third age bracket (25-29 years). Women's involvement in decision-making about food purchases progressively increases with age. When considering the decision-making about health care, women's involvement progressively increases with age. Notably, it is at its lowest in the initial age bracket (15–19 years), peaks in the third age bracket (425-29 years), and then again falls. Specifically, 4.8% of women aged 15–19 are engaged in decision-making for their health care, whereas this figure rises to 21.4% for women aged 25-29. Likewise, when considering the decision-making about clothing, women's involvement progressively increases with age. Regarding travelling, the involvement of women gradually rises and then falls; 4.7% of women aged 15–19 are engaged in decision-making, whereas for travelling, the figure rises to 21.6% for women aged 25-29.

Furthermore, women's wealth status also plays a role, with women from affluent families (which receive monthly income) participating more actively in household decisions. Educated women exhibit a more substantial presence in household decision-making. Additionally, employed women display higher participation than unemployed women do across various types of decision-making, except for decisions related to contraceptive utilization; no notable distinctions are observed between women who are employed and those who are not. Educated women exhibit a more substantial presence in household decision-making. Additionally, employed (paid-employed) women display higher participation than self-employed women do across various types of decision-making.

The empirical results depicted in Table 3 indicate that the utilization of ICT, along with women's engagement in employment and education, contributes to enhancing their

empowerment by fostering greater involvement in decisions related to education, employment, contraceptive usage, family planning, significant household food purchases, clothing preferences, healthcare choices, as well as travel and recreation options. The presence of employment provides women with economic autonomy and fosters a sense of confidence in their decision-making autonomy (Batliwala, 1994; Roy & Tisdell, 2002; Roy & Niranjan, 2004; Heaton et al., 2005; Jones et al., 2006; Khan & Maan, 2008; Acharya et al., 2010; Pambe et al., 2014; Farooq, 2015; Riaz & Pervaiz, 2018). Similarly, their educational attainment enhances their awareness, sensitivity, and understanding of their rights, empowering them. This discovery aligns with prior research (Chaudhary et al., 2012). Furthermore, it emboldens individuals to assert their rights and motivates them to raise their voices against societal inequities (Parveen & Leonhauser, 2005; Heaton et al., 2005; Rahman et al., 2008).

Nevertheless, our empirical findings indicate that women's employment does not result in an increased involvement in decisions regarding contraceptive usage. However, in this context, the significance lies with their education; educated women are more prone to participating in the decision-making process regarding contraception. This underscores that while women's employment contributes to their empowerment across various aspects of life, it does not automatically eliminate all the deep-seated biases and preconceptions that persist against their autonomy in a patriarchal nation such as Pakistan.

Various factors, including age, geographic location (specifically province), regional residence, and wealth status, exhibit strong connections to women's empowerment as evaluated through their participation in household decision-making. Our investigation's outcomes indicate a noteworthy connection between women's ages and their level of engagement in household decision-making.

The odds ratios associated with women's age display a significant pattern: as women advance, their decision-making authority increases. Notably, although decision-making authority tends to decrease in higher age cohorts, it attains its peak within the 20-30 age range. Our findings align with earlier research that proposes newlywed women possess diminished autonomy in decision-making (Dali et al., 1992). Conversely, older women are more inclined to exercise autonomy in household decision-making (Pambe et al., 2014; Acharya et al., 2010).

The province in which a respondent lives significantly impacts whether or not she participates in decision-making. Comparatively to women in all other regions, those living in Punjab are likelier to take an active role in family decisions, including getting education, employment, contraceptives, family planning, major household food purchases, clothing, health care, travel and recreation.

The empirical findings show that as the development level rises, so does women's empowerment as measure by their participation in family decision-making. In terms of making decisions about getting employment, using contraceptives, family planning, major household food purchases, clothing, health care travel and recreation, rural women are more empowered than urban women are. However, it is interesting to note that Pakistani rural women have more freedom to choose whether to utilize contraception than urban women do. The interventions of government, as well as non-governmental organizations and programs with a distinct focus on women residing in rural locales and less developed segments of the nation, may have been instrumental in raising awareness about contraceptive utilization among these demographics.

Compared to women from households that earn monthly, women from poorer households are less likely to participate in household decisions. The use of contraception and large household purchases are more likely to be decided upon by the women of wealthy households. This finding concurrent various studies (Khan & Maan, 2008; Acharya et al., 2010; Pambe et al., 2014; Adhikari, 2016).

Table Table 2: Women participation in decision making (%)

Socio-economic and demographic characteristics	Participation in decision concerning education. (%)	Participation in decision concerning employment (%)	Participation in decision concerning contraceptives (%)	Participation in decision concerning family size (%)	Participation in decision concerning food. (%)	Participation in decision concerning clothing (%)	Participation in decision concerning health care (%)	Participation in decision concerning Travel. (%)
KPK	12.4%	12.7%	13.5%	13.5%	14.4%	24.0%	23.45	22.6%
Punjab	69.1%	63.3%	36.8%	51.35%	68.3%	53.7%	52.6%	52.1%
Sindh	16.3%	22.3%	29.3%	24.8%	13.9%	20.5%	22.35	22.7%
Baluchistan	2.2%	1.7%	20.3%	10.2%	3.4%	1.8%	1.8%	1.7%
Rural	60.1%	63.1%	70.8%	69.3%	64.6%	61.6%	63.2%	64.7%
Urban	39.9%	36.9%	29.2%	30.7%	35.4%	38.4%	36.8%	35.3%
ICT-Mobile	27.3%	26.3%	20.7%	23.5%	29.7%	29.1%	26.5%	26.1%
ICT-Smart phone	22.7%	18.7%	7.4%	9.1%	14.0%	14.2%	14.9%	15.1%
None	50.0%	55.0%	71.9%	67.4%	56.3%	56.7%	58.6%	58.7%
Monthly Income (1)	15.7%	19.0%	8.6%	9.2%	11.1%	11.3%	11.15	11.3%
Annual Income (2)	1.3%	1.7%	1.3%	1.5%	1.5%	1.3%	1.4%	1.5%
Income In-kind (3)	0.5%	0.6%	0.5%	0.6%	0.5%	0.4%	0.45	0.3%
Age group 15-19 (1)	4.2%	4.2%	5.9%	5.4%	3.9%	4.4%	4.8%	4.7%
20-24 (2)	14.4%	14.8%	19.2%	17.9%	14.4%	15.5%	15.6%	15.4%
25-29 (3)	21.4%	20.6%	21.0%	20.2%	20.7%	20.65	21.4%	21.6%
30-34 (4)	20.3%	19.9%	17.4%	17.6%	19.7%	18.8%	18.75	18.7%
35-39 (5)	17.5%	17.7%	15.1%	14.9%	17.6%	17%	16.55	16.5%
40-44 (6)	12.6%	12.3%	12.2%	13.5%	13.6%	13.4%	12.7%	12.9%
45-49 (7)	9.5%	10.6%	9.1%	10.5%	10.2%	10.45	10.3%	10.2%
Education Primary (1)	13.9%	13.5%	11.0%	13.1%	15.0%	14.3%	14.6%	14.5%
Middle (2)	24.0%	21.4%	12.5%	15.6%	20.9%	20.45	20.8%	20.6%
Higher (3)	21.6%	17.7%	6.7%	8.0%	11.7%	12.1%	12.0%	11.8%
Employment Self	1.7%	1.6%	0.6%	0.9%	1.2%	1.2%	1.4%	1.4%
Paid (2)	14.0%	17.7%	8.2%	8.4%	10.1%	10.2%	9.8%	9.9%

Table 3: ODD Ratios

Socio-economic and demographic characteristics	Education Odds ratio	Employment Odds ratio	Contraceptives Odds ratio	Family size Odds ratio	Food Odds ratio	Clothing Odds ratio	Health care Odds ratio	Travel Odds ratio
KPK (1)	2.385***	3.428***	.157***	.629***	2.223***	12.435***	8.732***	8.356***
Punjab (2)	6.617***	8.461***	.266***	1.453***	10.538***	14.942***	9.588***	9.747***
Sindh (3)	2.684***	5.153***	.435***	1.201***	1.940***	7.340***	6.897***	7.326***
Region (1)	1.047***	1.124***	1.222***	1.157***	1.001	.815***	.985	1.093***
ICT-Mobile	1.189***	1.127**	.847**	.998	1.569***	1.353***	1.036	1.037
ICT-Smart phone	1.701***	1.428***	.723***	.871**	1.457***	1.484***	1.381***	1.430***
Monthly income (1)	.754*	.656*	.931	.906*	1.034*	1.096***	1.331	1.741**
Annual income (2)	1.556*	1.040	.602	1.229	1.052	1.104***	2.252**	3.518***
Income In-kind (3)	.845	.908	1.125**	1.087	.881	.838***	1.502*	2.096***
Age groups15-19 (1)	1.336*	1.115	1.701***	1.338***	1.099	1.125	1.203**	1.164*
20-24 (2)	1.010	.961	1.587***	1.245***	1.033	1.004	.978	.984
25-29 (3)	.973	.883	1.215***	.993	1.015	.897**	.963	.999
30-34 (4)	.996	.909	1.049***	.935	1.052	.897**	.915	.934
35-39 (5)	.990	.913	.976	.856**	1.029	.914*	.895**	.917
40-44 (6)	.966	.839**	.981	1.009	1.028	.980	.919	.962
Education-Primary (1)	.371***	.496***	1.319***	1.267***	.967	.802***	.819***	.864**
Middle (2)	.489***	.583***	1.029**	1.153**	1.055	.990	1.035	1.048
Higher (3)	.638***	.718***	.906	1.046	1.092	1.052	1.103*	1.114*
Employment-Self (1)	1.261*	.695*	.634*	1.740*	.977*	.846*	1.620*	1.937**
Paid (2)	.947	.750*	.740	1.238	.831	.997	1.554***	1.545***
Constant	.061	.090	-	.093	.132	.126	.031	.013

Conclusion and Policy Implication

This study used PSLM household-level survey data to examine how ICT, women's education and employment in Pakistan impacted their empowerment. Women's empowerment has been assessed by utilizing women's active participation in decision-making. In eight separate regressions, the decision to get an education, employment, use contraceptives, family size, major household food purchases, clothing, health care, travel, and recreation. The dependent variable is a categorical variable with two possible outcomes; if women engage in household decision-making, it will be classified as 1, and if not, it will be coded as 0. We have utilized binary logistic regression for our analysis because the dependent variable in our study is binary.

Our empirical analysis's findings indicate that educated women are more likely to be involved in decisions about getting education, employment, use contraceptives, family size, major household food purchases, clothing, health care, travel, and recreation. Similarly, paid-employed women are more likely to take part in intra-household decision-making when deciding to get education, employment, contraceptives, family size, major household food purchases, clothing, health care and travel and recreation. According to our research, ICT, education, and employment are essential to female empowerment. Therefore, through effective public policies, women's access to ICT should be improved. Moreover, the government of Pakistan should introduce more excellent and improved educational prospects for women. Employment opportunities should also be provided at the national level. Non-governmental organizations, civil society, and the media can all play a part in advancing gender equality in society by educating women about their rights and boosting their awareness of those rights. All these initiatives are necessary for making women more empowered. This, in turn, will lead the economy to prosper.

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Appendix 1

Table A Variable and description

Variable	Indicator	Description	Source
Dependent Variable			
Women empowerment	WE	Who in your household decides whether you can start or continue to get education? Who in your family decides whether you can use birth control methods? Who in your family decides whether you should have more children? Who in your household usually makes decisions about purchase of following consumption items? (Participation in decision concerning food (%) Participation in decision concerning clothing (%) Participation in decision concerning health care (%) Participation in decision concerning Travel (%))	PSLM
Independent Variables			
Information and Communication Technology	ICT	Do you have your Personal Mobile phone, Smart phone, None of above? Have you used Mobile phone, Smart phone, None of above? Did ----- use internet during last 3 months?	PSLM
Employment	EMPL	What was the employment status?	PSLM
EDU	Education	What was the highest grade completed?	PSLM
Control Variables			
Age	Age	Age in complete years	PSLM
Region	Region of residence	Punjab Sindh KPK Baluchistan	PSLM
Residence	Place of Residence	Rural Urban	PSLM

Source. PSLM 2018-2019