

IMPACT OF MODERNIZATION AND TECHNOLOGICAL ADVANCEMENT ON CHANGING EMPLOYMENT PATTERNS IN POTOHAR

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ABSTRACT

This study focused on the changing employment pattern in the Potohar region due to modernization and technological advancement. Modernization is the continuous process of social change and development in society. As social change and development in infrastructure, semi-structure, and employment patterns is not new for Pakistani society. The social change is also related to the socio-economic conditions of societies. This research was conducted in the Potohar region, and data was collected from 400 respondents from Rawalpindi, Jhelum, Attock, and Chakwal. Both qualitative and quantitative techniques were used to analyse the data. The result depicts that when change is happening, transforming employment patterns in four regions builds socio-economic cohesion. It denotes the consistent efforts of modernization in the Potohar region to create a facility, skill, and knowledge-based economy. Modernization is changing the infrastructure and employment patterns in the Potohar region. It is a different social position when there is economic eccentricity, intensifying social tensions, and significant change in Potohar region.

Keywords: Modernization, Technological advancement, employment pattern

INTRODUCTION

Modernization is an idea recognised in many social science disciplines and generally it is understood as a procedure of continuous development, informing and advancement (Woźniak, 2012). A core of modernization may be defined as a modification that improves the competence of movements and delivers assistances for society (Cyrelk, 2017). A change in infra-structure, semi-structure and structure in employment patterns is not new for any society. This is also related to the socio-economic conditions of societies. However, today modernization is defined by industrialization and knowledge-based economy with development in under-developing societies (De Backer *et. al.* 2015). The existing emblem of institutional effects on demographic working patterns is feeble as compared to income differential effects (Blau and Kahn, 2002). As said by Beneria (2001) the changes have forcefully affected productive processes, transforming the functions firms and styles of process as well as employment patterns and capital relation. Thus, the changes in employment patterns are requirement of all societies. Capelli (1999) even claims that “the old employment system secures lifetime jobs with predictable advancement. Now stable pay is dead”. In results, deteriorating employment, and other types of security in Job, people are less motivated to do work due to risk in job insecurity and less salary. People are more interested to do local business. There are several indirect changes taking place in Pakistan, which gradually have had widespread impacts for the Pakistani society. There are several signs that portray development, including a rise in income of the people along with a rise in the employment of household equipment; however, poverty and inequality persist and other social indicators pertaining to education and health are still depressing.

On the other hand, it is yet apparent that the financial development has the possibility to profoundly alter the social landscape of people existing in Pakistan. A hike in the income earned by

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people is going to lead to a cost increase in the education levels, broadening of the skills held by the people, diverse businesses, enhanced social and geographical mobility, and elaboration of comprehensive tastes and pursuits. At the present time, when the Internet and media are assisting enhanced exposure to the universe, it would be wrong to presume that the opinions and conventions of the days gone by would be indisputably accepted by the youth of today.

Objectives

1. To study the role of modernization lead to social transformation in the Potohar region to change the social condition
2. To detect out the impact of technological advancement on employment practices. In this objective research has focused on the practical approach of technical progress in society and analyse the employment patterns. How regional community is perceiving the use of technology in their animation. The main topic focused on the technological advancement on employment patterns, which are changing day by day, how the technology is performing its part in religious belief. Then the technical progress in relation to work practices, at least the technology advancement influence on lifestyle of Potohar region.

Hypothesis

H1. An interaction between modernization and social transformation bears impact on the employment pattern.

H2. Technological advancement mediates between modernization and social transformation which causes a change in employment pattern.

REVIEW OF LITERATURE

Modernization is an encircling procedure of the huge community variations that, when put in gesture, inclines to infiltrate all parts of life, from financial activities to societal life to radical institutions, in a self-strengthening process. Modernization carries a penetrating realisation of alteration and revolution, connected with the impression that human societies are systematic (Ronald and Welzel, 2007).

According to Krishan (2009) modernization in social sciences as a transformation from traditional, rural agrarian society of a secular, urban and industrial society. The measurement and operationalization of modernization term is linked to the perception about the concept of modernization and using this concept in every way of life from simple to complex, agricultural towards urban life and migration. The strategies and formulation of modernization is creating flexibilities and availabilities in society for social change. This change is making, alteration in cultural elements of Potohar. The modernization theory is operationalized at Potohar region. As Modernization is primarily characterised by the technological advancement, Urbanization and cultural integration. Modernization produced a drastic effect and change the entire functioning of the society. It is a socio-economic change where less developed society becomes a modern one.

As said by Raul (2013) in his Dissertation on Rhythm of modernization “modernization is in fact a process of human development in which economic growth activates cultural change that makes individual autonomy gender equality and democracy increasingly likely. As Defined by Caliskan (2015), technological advancement can be as the whole system of information, organization, and techniques required in the production processing. According to World Bank (2008) under developing countries economic and social progress is depend on technology. technology is important idea for both economic growth and elements of social welfare. Technological advancement to speak the world’s growing demand for fresh and low-cost energy will require simultaneous advances in materials science and engineering in order to see the performance demands of the original power-generating systems (Huang, 2009). Technology advancement is gathering of information or discovery of knowledge that advance a understanding of technology, for example digital media, personal computer and nuclear powers etc. technological advancement leads to need of acquiring new studies, hence increasing web of knowledge to bring social change in society.

Employment is the effort that people do for earning to survive. With the passage of time, forms of employment change: some trades go into failure and works vanish while new forms of industries and jobs develop (Amir: 2013). Technology is especially important to stretch the trades the advantage of being good, sharper, and earlier than rivalry, but you also must think about customer prospects. In his article entitled "Technology Making It Worse", Atkinson (2003) defines technology

as the artificial increase in human ability that should create more robust and intelligent capabilities, but our irrational community shows that it now has the reverse effect.

Many modern technologies appear occasionally, but not all are new. These technologies are changes to existing technologies. Modern technologies come out from time to time, simply when they do, they are led to seek new social transformation. The type of technology chosen has a frame for its non-physical culture. This alters the thinking process of humans and changes their views on how they relate to a distinct set of people (Stromquist, 2005).

RESEARCH METHODOLOGY

Methodology is an important instrument for data collection in research. Without the methodology researcher is unable to gather substantial information from the study. As per research the different methodologies were used to collect the data, its analysis and finding the results. In the first approach, exploratory research design is used which is based on the qualitative techniques. Through this design researcher collected that information which was more knowledgeable and informative about research subject. Hence, this designed is more useful for research when a researcher wants “to clarify understanding of a problem on” to investigate a problem (Saunder et.al, 2011). The second approach was used to categories the variable into the parts of the field. It is descriptive design which speaks about the characteristic of variables through this design, research accurate better understanding of the characteristic which provide a platform for future inquiry. The third approach was used for in-depth understanding of respondent’s behaviour and posture around the concept of modernization. The case study design provided about the actual picture and matter of change in Potohar. This research focused on the combination of 1) exploratory 2) descriptive and 3) survey, which was used to questionnaire technique. The data was collected from four regions of Potohar (Rawalpindi, Jhelum, Attock and Chakwal).

RESULT AND DISCUSSION

Changing employment pat terns is not new in the Potohar region. Modernization is changing employment patterns according to new epoch and need of society. Occupations change due to the latest demands and requirements of a society. People use less energy to produce more benefits from labour. Capelli (1999) claims that the old employment system of secure, lifetime jobs with predictable advancement and stable pay does not exist anymore. The given table 1.1 shows the relationship of modernization and employment patterns in Potohar region.

Table No. 1 Modernization And Employment Patterns

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	B		
1	(Constant)	2.606	.911		2.860	.004
	Modernization	.077	.028	.124	2.784	.006

a. Dependent Variable: Employment Patterns

Modernization has positive and significant impact on Employment patterns. One unit increase in technological Advancement ($\beta=.077$, $\rho \leq 0.05$, $t \geq 2$) increases 0.070 units in employment pattern. R square ($R^2 =0.355$) explains that overall, 35.5% change in the dependent variable is due to independent variable.

$$y = \alpha + \beta X + \epsilon$$

$$\text{Employment pattern} = 2.606 + 0.077 (\text{Modernization}) + E$$

H1d: An interrelationship between modernization and social transformation influences the lifestyle of the people. So, the hypothesis H1b explains the influences of modernization on the lifestyle of the Potohar through the Table 4.5.

Technological Advancement and Employment Patterns

Employment is based on the pragmatic implementation of the work in the Potohar region. This study analyses how the people change their employment regime and how do organisations change them daily? This research describes the behaviours and attitudes of the Potohari people towards work and

enforcement. In this section, the issue has been discussed: What is the link between technological development and usage practice?

Modernization and its indicators not only affect the rest of the variables but also have accentuated a change in usage practices. After conducting a survey on the employment model in Potohar, a few rulings were carried out to briefly present the social structure:

- Economizing affects
- Self-employment opportunity
- Part-time and contract work
- Contractors
- Permanent and temporary employment
- Daily wages

The *ILO* (International labour organization) Report (2006) the procedure of innovation and diffusion of current information technologies (ITs) that took off in the 1990s constitutes a fundamental transformation of the means of production, distribution and exchange. Technological advancement and employment patterns are co-related with each other. When the technology initiated in Pakistan, the diverse changes happened, changing many things in employment practices. One approach Schumpeter (2017) writes down that technological advancement goes to procedure and produce innovation, which in turn, leads to occupational creation. It means that the technological advancement leads to many doors of employment in Potohar region. On one hand, technological change diminishes jobs in Potohar, increasing unemployment. This way, technological development negatively affects the employment trends. On other hand in practical approaches, technological progress introduces many new jobs in the Potohar region as the old writing system is replaced with machine writing, which is faster because it is electronic. It makes for a quick means of communication, professional work and takes less time and good management (Feldmann, 2013: 33). The given table 1.2 is depicting the analysis of modernization, technological advancement and employment patterns in Potohar.

Table No. 2 Modernization Technological Advancement And Employment Patterns

		Coefficients			T	Sig.
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. E	B		
1	(Constant)	.011	.026		0.321	.530
	Modernization	.437	.121	.440	19.026	.000
	Technological adv	.238	.141	.240	11.151	.000

a. Dependent Variable: Employment Patterns

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Employment pattern = .011 + .437 (Modernization) + .238 (Technological advancement) + E

Modernization has positive and significant impact on employment pattern. One unit increase in modernization ($\beta = .437$, $p \leq 0.05$, $t \geq 2$) increases 0.437 units in employment pattern. One unit increase in technological advancement ($\beta = .238$, $p \leq 0.05$, $t \geq 2$) increases 0.238 units in employment pattern. R square ($R^2 = 0.375$) explains the overall 37.5% change in the dependent variable due to independent variable. Technological advancement partially mediates the relation of Modernization and Employment pattern.

After surveying, it was found that industries have introduced new commercial initiatives in many residential areas. Technological advancement is more effective in easing changes at work without making anyone lose a job. After the surge in technology in developing countries, new jobs have become more technical and professional. It concentrates more on introducing new types of jobs such as warehouses, soft clothing and telecommunication companies. A respondent said they are more comfortable working with technological tools such as electronic mails, online degrees, SMS, mobiles apps and online banking.

Technological Advancement and Employment Opportunities

Since 1947, many social, economic, political and cultural changes have taken place in Pakistan. Pakistan is blessed with many scientists, engineers, and social skills, which are paving every step of the nation. Politicians have made various improvements in instructions and have adopted many concepts of technological advancement from globalisation and modernization. The development started after the first experience of higher education and more work has been done after 2002 when Professor Atta-ur-Rehman set up and implemented the first information technology policy.

According to the data, after the information technology revolution in Potohar, Pakistan is more influential. A considerable change of 37.7 percent occurred in employment patterns due to modernization through technological advancement. In result of in-depth interviews, jobs have increased by 35 percent and people are more interested in information technological companies. Therefore, information technology is changing and reshaping work in diverse ways. After 1970 the first phase in Pakistan was the revolution of industrialization and the second is linked with the skill-based work that also redefined human thought and content. Throughout the study, it was noted that tradition and scientific work are based on technical study. Manual labour is transformed into mechanical things, which means that Potohar has changed most of its work, which is now based on technology and skills.

In Potohar companies, schools and colleges use technological advancement for better productivity and utilisation. According to the data analysis, technology has led to the creation of many jobs in the region and the vacancy rate has increased due to modernization. In-depth interviews depict a realistic overview of job opportunities. Although information technology advertises, many jobs in the IT (Information technology) sectors, students graduate in CS (computer sciences), ES (electrical sciences), CIT (computer information technology) and EE (electrical engineering) , which are skills-based diplomas. The IT networking is about operating software part of enterprises. According to Atkinson and Wu (2017) in their collective thought, technological advancement contributed to the substantial growth in the number of unemployment. As one of the respondents said that degree in information technology is more helpful for us. We can easily get a job in any company or institution. Technology in Potohar is a branch of innovation, which brings more pathways to business opportunities.

In theoretical applications, Potohar takes advantage of the fresh wave of technical setup. According to a respondent, modern technology is beneficial to the agrarian sector in introducing new ways of cultivation. This new type of engineering is improving work in fields and cultivation. As the *DECD* (Department of Economic and Community Development) and *FAO* (Food and Agriculture Organization) (2016) Reports mention, mechanisation and artificial intelligence also play an important role in the agricultural sector, mainly as the needs for global goods and services grow. Masses are more interested in using sustainable and productive processes in agricultural land and farming. Some studies, such as by Jayne, *et. al.* (2018: 231) write down that smart farming increases productivity by using the internet for data-integrated and monitoring systems to create best conditions for sowing, watering, fertilising and harvesting.

Interviews' analyses reveal that, technological progress offers a more serious approach to grow and increase products in agricultural practices and development work in the agricultural areas of Attock, Chakwal and Jhelum. Farmers use innovative ideas to improve their crop growth and rotation. The following considerations are important for reviewing these details:

- The policy must be overstated to introduce and implement any IT policy.
- What kind of policy and technology is important for third world nations?

Technological Advancement and Joblessness

According to Thompson (2015), "If people have the talent to devise new machines that cast people out of work, then they have the talent to lay those people back to cultivate". This shows that work balance must be measured. To measure this sector, a focus group discussion was conducted among a particular age group of Potohar region. The data revealed in the Table 1.3 an increase in jobs due to technological advancement and a decrease due to the same variable in urban and rural area.

Table No. 3 Technological Advancement And Employment Patterns

Employment and Unemployment as a Result of Technological Progress		
Group 1	Group 2	
Job opportunities	Decreasing job opportunities	
Human more realistic to adopt technology	Moving from nonmaterialistic to materialistic aspect	
More use of technology in daily life	Human machine-made thought	Contradictions can give more realistic aspect to use of technology
Rational thoughts are converted into machine	No physical work	
Logical reasoning to choose things	The thought of money making in short time	

The data analysis shows that the fear of unemployment is growing daily in Potohar and that people are more aware of how to opt for youth unemployment sanctums because of technological advancement. According to one of the study respondents', unemployment is rising in different sectors of Potohar such as education, industrial areas and skills-based tasks. The computer has replaced human work, skills and abilities. Today the human are not needed much in factories, same as French Revolution in 1870 when the machine replaced human.

The concept of unemployment and technology is controversial in various areas. Technological progress has increased stress in the society as well as for individuals. Ford (2015) states that in the past, "machines have always been tools that have been used by people", but now machines are replacing humans and redesign work to be done in a few minutes, hours or days.

According to Pakistan's economic trends, the unemployment rate has risen from 1970 to 2017 it is in a 5.79 layer due to less job opportunities. The rate of unemployment or joblessness, which is increasing due to the prominent level of technological advancement in Pakistan, thus, no working is done in the same replacement for physical exertion. Postal services are replaced by email communications, libraries by digital ones, physical banking by online banking, physical practice sessions by exercise machines and human communication by telephonic ones. Although technology eases convenience for human beings, sadly, it also destroys human thoughts and social interactions.

Technology is more than a concept of diffusion and clarity for human thoughts. Cultural agility offers them the political program for enchantments and promotion. Cultural flexibility enhances technology advancement systems and creates awareness for the use of technology in business, training, and marketing. Technological progress has removed unskilled workers in Potohar. Data processing system performs tasks in minutes or hours, replacing skilled and unskilled labour who take longer time?

Caselli and John (2006) claim that, industrialized countries use skilled labour more efficiently than emerging countries because of technology adoption. Since the developed countries are skilled-labour are abundant and they choose technologies suitable for skilled labour. Developing nations are low in skilled labours and use technologies to replace inexpert labour. Karl Marx's (1968) theory of compensation economics is linked to the role of technological progress in Potohar which is based on new machines introducing lower wages and prices. These drop prices are resulting in anxiety in the society. The masses live in a case of technology, their diet, observation, games and reading are all taking place subconsciously.

According to the analysis, the present golden age of technological advancement is available for the present and the next generation. Potohar has changed significantly and cumulates unemployment across the region. As one respondent said, this mass is called modernization and westernisation in Pakistan, offering a safer future for our next generation but also bringing unemployment in community.

According to interviewees, if the fear of unemployment is not reduced in the society, the tension will increase every day. Through the key informants, the researcher got a chance to question the businessmen about the role of technology in Potohar, according to them Potohar is good for economic growth and development in Pakistan and it is also link with employment in Potohar. However, if more jobs are not created, it will be difficult to stand up for the lower and non-working classes. The government should consider all scenarios of social change and development through technology. The regime should understand a technological advancement related policy before approving it.

Ahrens (2002) states that governments play an important and dynamic role in strengthening technological advancement. Therefore, the government is solely responsible in creating a road map for the implementation of technology in both urban and rural areas. Further, Lee (2006) believed, it is difficult for governments to defend the industry due to the problems caused owing to regulatory norms. Since the governments should understand the dimension of technological advancement, it is either a diffusion-based technology or a mission-based technology for societal change and growth in the Potohar region. The Given table 1.4 shows the average of employment and unemployment in Potohar Region.

Table No. 4 Employment And Unemployment Rate In Potohar

Regions	Employment Rate	Unemployment Rate
Attock	90.4	9.6
Chakwal	87.9	12.1
Jhelum	86.6	11.4
Rawalpindi	84.3	15.7

Source: *Pakistan Bureau of Statistics: Government of Pakistan*

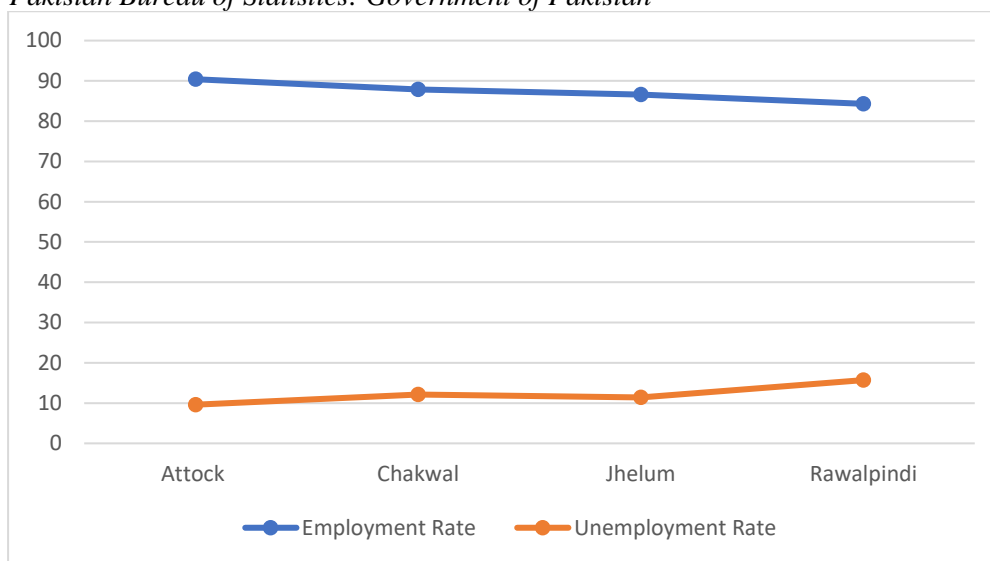


Figure 1: Percentage of Employment and Unemployment in Potohar

Men have more opportunities to study and they have more chances of getting a job in the Potohar area. However, the government has announced different job opportunities for females in Potohar, such as joining the Army, Air Force, medical field etc. As per statistics, females are now working in banks, NGOs, call centres and many other organizations. These changes have come out due to the exchange of ideas and the obligation for women to work according to rules and regulation. Population growth depends on the needs of people. Urbanization is a process of transformation which has changed the face of Potohar since 1947. The original agricultural practices are changing. Michaels *et. al.* (2012) reports, both a formal model of urbanization and structural transition change all employment structures, ranging from agricultural to non-agricultural industries. In this respect, socio-political factors are also considered to bring about a change in the employment model. According to skilled workers, their ability and the traditional way of work failed because they were replaced by computer machinery in urban areas. This discourages skilled labours and eliminates the ability of people to do decent work for others. According to the Martine, G., & Population Fund (2007) Report, Asia and Africa are the two continents expected to experience the fastest urban change; currently, they account for an increase of more than 80 percent.

CONCLUSION

This study concludes the relative competence of modernization and employment. The result shows when transforming employment in four regions into socioeconomic cohesion. It measures the reliable effects from modernization processes into a facility, skills, and knowledge-based economy in present area. Socioeconomic change consistency is researched in its two scopes: employment and unemployment patterns. Modernization is changing infrastructure of employment patterns in Potohar.

It is of different position in the social condition when economic eccentricity, intensifying social tensions as well as strong change in Potohar. The main findings support the view that modernization and social transformation in employment structures are productive for socioeconomic reliability. The study provides some arguments and negative aspects and implications of modernization. Research found that the modernization and social transformation making change in employment patterns according to the processes of technological advancement, cultural integration, and urbanization etc.

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