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Socio-Cultural Factors of Industrial Workers in Low-Middle Income Countries (LMIC): Pilot Study

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ABSTRACT

The role of industrial workers is a significant element of any society and a vital stakeholder in an industrial setup. Their roles and existence in an organization affect the organizational culture, working environment, and quality of Life (QoL). In the same way, modern organizational culture and its environment affect the employee's psychology and behaviour and bring new challenges daily. This paper is a pilot study that aims to review, confer, and analyse the organizational, social, and cultural challenges faced by industrial workers of Low-Middle Income Countries (LMIC) and how these factors affect psychology, personal, and professional Quality of Life (QoL). To ensure a better Quality of Life (QOL) among individuals, each industry should address these factors systematically to plan work-related issues that affect the industrial worker properly. In the first phase, a dedicated 25-item questionnaire on a Likert scale was used for investigating four socio-cultural factors (the individual, the relationship with their family, and social and organizational factors) among 50 industrial workers (data modelling and hypothesized) with some assumptions. Sequentially, in the second phase, the study statistically analyses how these factors influence their behaviour and psychology. Results show that family, social, individual, and organizational factors are correlated with Cronbach's alpha of 0.916.

Keywords: Industrial worker, Psychology, Ergonomics, Occupational health, Socio-cultural factors

INTRODUCTION

Industrial workers are a significant population of an industry that plays a unique role in the world's socio-economic system. Previous industrial practices do not accommodate employees and their contributions as significant stakeholders of their industry in a justified manner (Dubin, 1956; Lem and Marcus, 2017). Employees' empowerment is a critical issue for industrial growth, especially in Low-Middle Income Countries (LMIC), as socio-cultural factors affect the goals of employees' Quality of Life (QoL) (Garcia, Boix and Canosa, 2004; Yaakob and Watada, 2009). Equal opportunity in employment for both male and female genders is also a significant challenge in industries (Pinchbeck, 2013). Over the centuries, workers have struggled to secure the correct position according to their skills and qualifications. With every passing day, there have been developments in all sectors, especially in empowerment and social justice, and these developments generate opportunities that workers are keen to get their share (Nur, Dawal and Dahari, 2014). In recent years, equity in job opportunities has become a significant concern for industrial employee empowerment, specifically in LMIC (Yaakob and Watada, 2009; Akintayo, 2012). In many developing countries, during the last five years, statistics indicate massive progress in industrial workers' empowerment (Desai *et al.*, 1990; Greer, Ciupijus and Lillie, 2013). In developed countries, the progress of empowerment is measurable, but in the case of developing countries, there is a significant need for improvement (Brown, 1975; Chen, 2003). In a socio-cultural model, multiple factors and constraints influence the worker's personal and professional life. Stereotypical behaviour of management has adverse effects on employee-manager relationships (Stoker, Van der Velde and Lammers, 2012). It refers to identity work whereby managers enact stereotypical conceptions of other employees to bolster their self-image and diminish others. The managers aim to renegotiate the proposed social arrangement for their benefit and attempt to go beyond the social arrangement generated through stereotypical behaviour, thereby distancing it from essentialist cultural conceptions (Koveshnikov, Vaara and Ehrnrooth, 2016). These constraints are based on different features characterized by four major contributing socio-cultural factors, as shown in Figure 1 (Kossek, Noe and DeMarr, 1999a; Lee and Kartika, 2014).

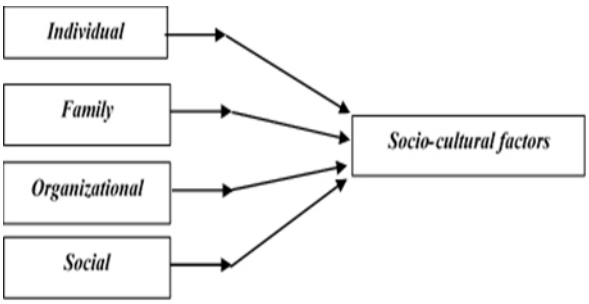

Figure 1: Socio-cultural factors related to industrial workers.

Individual Factor

At the individual level, industrial employees face massive challenges like health, self-development, power distance, mental workload, overload, and work-related stress. Various scales are designed to measure purpose orientation among working adults (Yukhymenko-Lescroart and Sharma, 2022). Employee health is noteworthy, including both mental and physical health. Their jobs demand different practices, and sometimes they have exposure to physical health challenges like heat, chemical, and biological hazards (Animashaun and Odeku, 2014). Most of the time, there are psychological and mental workload issues. Their health not only affects their professional obligations but also spoils their QoL. Hypertension, asthma, and diabetes are common ailments caused by unhealthy environments that can affect their well-being (Costa, 2010; Prüss-Ustün *et al.*, 2017).

Family Factor

Second-generation industrialization is famous for converting the family into a consumption unit from a production unit (Petit, 1959; Yang *et al.*, 2015). When an employee tries to perform multiple roles along with family responsibilities, the family-life balance can negatively impact job performance (Koch and Fox, 1978; Gonzalo, 2016). Families of industrial workers with infants and young children also face significant health challenges resulting in physical and mental depression due to the stress of balancing work hours and private life (De Vries, 1994; Chopra, 2009a; Lagomarsino *et al.*, 2012; Susanty and Miradipta, 2013; Kronfol, Saleh and Al-Ghafry, 2014). This is of particular concern in rural to urban migrant workers of LMIC (Harter, Schmidt and Hayes, 2002a); this concern is further exponentially increasing in the case of transnational migrant workers moving from LMIC to the gulf region (Harpe, 2015a). Remedial measures to prevent work-family conflicts have been suggested by various experts that are necessary to provide flexible working hours. Reasonable mediatory recreational or compensation leaves, child support programs, and work-life balance policies are missing elements in developing countries' organizations. Some researchers point out that a flexible working hours routine benefits employee retention and addresses family issues amicably (Kelliher and Anderson, 2008; Koldijk, Neerincx and Kraaij, 2018). These studies also show that rigid and inflexible routines can bring depression and anxiety in individuals, their families, and QoL (Van der Klink *et al.*, 2001; Joyce *et al.*, 2010; Susanty and Miradipta, 2013), (Wechsler *et al.*, 2022). Therefore an excellent industrial policy should provide flexible working hours to balance work-home equilibrium (Kossek, Noe and DeMarr, 1999b; Allen *et al.*, 2000; Greenhaus, Collins and Shaw, 2003; Joyce *et al.*, 2010). Such policies can improve productivity and create a conducive working environment in organizations.

Organizational Factor

The main objective of any industry is to enhance its performance, efficiency, and productivity. Employees would contribute to the best of their abilities if comfortable with the organization's culture (Costa, 2010; Galy, Cariou

and Mélan, 2012). Research shows that work stress, whether positive or negative, will certainly affect the efficiency of an individual, which in turn impacts the organization's overall productivity (Van der Klink *et al.*, 2001; Nakao, 2010). Individual employees and the overall organization's performance are interlinked as they are directly proportional (Anderzén and Arnetz, 2005). Numerous factors in the workplace harm job performance and an individual's health (Lerner *et al.*, 2003). The individual attitude of colleagues, seniors, and subordinates towards the worker also matters. Therefore, to increase the efficiency and productivity of an employee heading toward the industry, it is necessary to create a friendly environment between the employee and the organization (Harter, Schmidt and Hayes, 2002b). The presence of a trade union in the workplace and union membership also affects the workers' overall satisfaction (Lee, 2022). A highly demanding job decreases employee happiness, affecting the Quality of Life (QoL) (Thompson and Bruk-Lee, 2021). A prevalent practice in the workplace is the negative assumptions related to any employee without any solid proof or information that negatively affects the well-being and self-esteem of an employee (Bagozzi and Burnkrant, 1979; Sarode and Shirsath, 2014). Therefore, this research evaluates the attitude of co-workers via questionnaires.

Social Factor

Every region has its own traditional, social, and cultural values affecting workers' daily social life and cultural norms. Various cultural barriers may affect their occupational safety during work (Cunningham *et al.*, 2002). Equity in decision-making, management behaviour, equal opportunities in education, and an appropriate working environment can affect the employee's family, work-life balance, and employee-employee relationship, with more appreciation and recognition developing because of job satisfaction (Aguenza and Som, 2012). Starting from the previous assumption and constraints that affected the industrial workers, this paper presents an analytical study to highlight the social and cultural challenges being faced by the 50 industrial workers (30 males and 20 females) in Pakistan's manufacturing organization are hypothesized using data modelling, looking to:

a) Determine employees' struggles in industry and society.
b) Assessing the attitude of colleagues, seniors, and subordinates towards the worker.
c) Analyzing the adverse effects on employees' personal and professional life.
d) Identifying stereotype approach of management.
e) Reducing employees' social and organizational constraints.

METHODS

Socio-cultural factors (familial, social, individual, and organizational) were investigated among 50 industrial Pakistan workers (30 males and 20 females) aged between 25 to 50 years from automotive, energy, and textile sectors with

low to middle income are hypothesized. The industrial experience of employees is diverse, ranging from 5 years to 18 years. There data modelling is also applied and assumptions in modelling participant's data. The socio-economic status of most employees is middle class, with average salaries ranging from 40–80 USD per week. Experts reviewed a dedicated 25-item questionnaire for relevance and validity to comprehensively capture the topic under investigation. The organizational aspect of the questionnaire covered the topics of job satisfaction, wages/salaries, working environment, etc., while the individual aspects included self-perception, financial problems, health, and well-being relating to quality of life (QOL). The questionnaire also inquired about social and familial aspects, including marital life, domestic responsibilities, and community. The questionnaire was based on a Likert scale (Chopra, 2009b), (Cooper and Essex, 1977a)for investigating their socio-cultural issues and factors, establishing the following four hypotheses that were successively analysed using IBM SPSS software:

H1 = The four socio-cultural factors (family, social, individual, and organizational) are established in developing countries.

H2 = The challenges industrial workers face significantly correlates to the four factors.

H3 = The social and organizational factors are significant compared to other factors.

H0 = The four factors are negatively correlated, and their results do not impact industrial workers.

RESULTS

A total of 1200 responses were collected during the study attributing a score based on four levels (strongly agree, agree, disagree, strongly disagree) of the Likert scale in the questionnaire (Beglar and Nemoto, 2014; Harpe, 2015b). Data were processed using Cronbach's approach with Cronbach's alpha for internal consistency of 0.916, suggesting a high degree of relevance of the four factors, as shown in Table 1 (Ho Yu, 2001; Gliem and Gliem, 2003; Ercan *et al.*, 2007).

The links between the four factors were investigated, showing a positive correlation that confirmed hypothesis H-1, as shown in Table 2. The mean value of the four factors "family, individual, organizational, and social" are 2.98, 3.00, 2.32, and 2.10, respectively. The numerical statistics are shown below in Table 3. The statistical data shows that the organizational and social factors are below 3.00 compared to the other two factors.

The mean value of a family factor is 2.98, and the individual factor is precisely 3.00, which indicates that the individual factor is less challenging

Table 1. Cronbach's alpha for internal consistency.

Reliability Statistics	
Cronbach's alpha	No. of Items
.916	4

Table 2. Correlation between the four factors.

		Family	Individual	Organizational	Social
Family	Pearson Correlation	1	.948**	.649**	.550**
	Sig. (2-tailed)		.000	.000	.000
	N	50	50	50	50
Individual	Pearson Correlation	.948**	1	.725**	.600**
	Sig. (2-tailed)	.000		.000	.000
	N	50	50	50	50
Organizational	Pearson Correlation	.649**	.725**	1	.922**
	Sig. (2-tailed)	.000	.000		.000
	N	50	50	50	50
Social	Pear son Correlation	.550**	.600**	.922**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	50	50	50	50

**. Correlation is significant at the 0.01 level (2-tailed)

Table 3. Statistical data of the four factors.

	Family	Individual	Organizational	Social
N	50	50	50	50
Mean	2.98	3.00	2.32	2.10
Median	4.00	4.00	2.00	1.00
Std. Deviation	1.597	1.578	1.463	1.488
Variance	2.551	2.490	2.140	2.214
Minimum	1	1	1	1
Maximum	5	5	5	5

for industrial workers than the other factors, as shown in Table 3. Table 4 and Figure 2 describe the individual factor and the distribution of responses for the questionaries. 14 out of 50 workers strongly agreed with the contribution of individual factors, and the cumulative percentage effect of workers having strongly agreed opinion was 46%. Hence most industrial workers disagree with the contribution of individual factors.

Table 5 and Figure 2 describe the family factor showing that 14 industrial employee workers out of 50 strongly agreed, and with the addition of agreeing, the cumulative percentage increased to 48%, which shows the contribution of this factor is slightly more significant than the individual factor.

An individual employee's performance must be judged based on the organizational environment and its culture, as shown in Table 6 and Table 7. While Table 6, Table 6 and Figure 3 highlight the importance of organizational factors, with 42% of industrial workers strongly agreeing. This cumulative percentage of agree with strongly agree is raised to 68%. The bimodal

Table 4. Frequency distribution of individual factor.

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	14	28.0	28.0	28.0
Agree	9	18.0	18.0	46.0
Disagree	17	34.0	34.0	80.0
Strongly Disagree	10	20.0	20.0	100.0
Total	50	100.0	100.0	

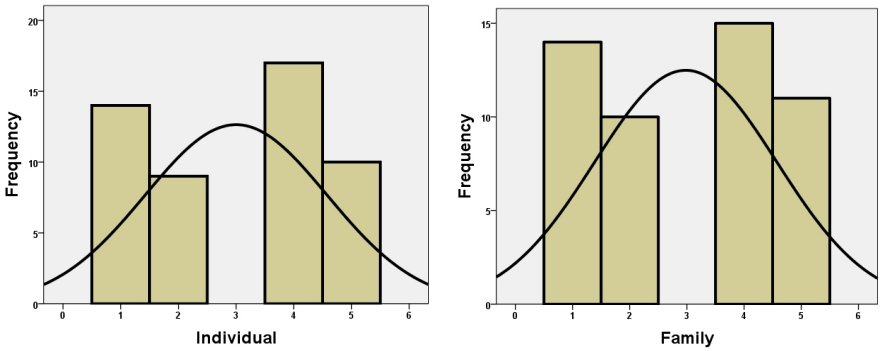

Figure 2: Frequency distribution of individual factor (left) and Family factor (right).

Table 5. Frequency distribution of family factor.

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	14	28.0	28.0	28.0
Agree	10	20.0	20.0	48.0
Disagree	15	30.0	30.0	78.0
Strongly Disagree	11	22.0	22.0	100.0
Total	50	100.0	100.0	

Table 6. Frequency distribution of organizational factor.

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	21	42.0	42.0	42.0
Agree	13	26.0	26.0	68.0
Disagree	11	22.0	22.0	90.0
Strongly Disagree	5	10.0	10.0	100.0
Total	50	100.0	100.0	

distribution is because the middle point (neutral) of the Likert scale was not considered as it was the 4-point Likert scale filled by the participant. Table 7 and Figure 3 express the social factor, which is a significant aspect among all the challenges or factors for industrial employees, as it shows that 27 out of 50 workers strongly agree. In addition, considering agree and strongly agree, the cumulative percentage rises to 74%, the highest among all the factors.

Table 7. Frequency distribution of social factor.

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	27	54.0	54.0	54.0
Agree	10	20.0	20.0	74.0
Disagree	7	14.0	14.0	88.0
Strongly Disagree	6	12.0	12.0	100.0
Total	50	100.0	100.0	

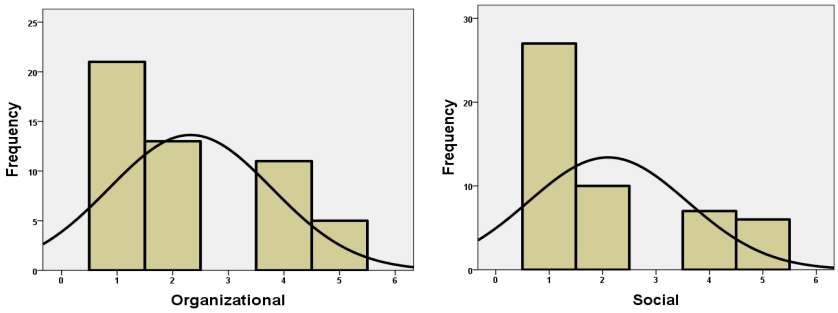

Figure 3: Frequency distribution of organizational factor (left) and social factor (right).

DISCUSSION

A significant challenge in the professional life of industrial employees in developing countries (LMIC) is adjusting to their organizational environment and culture (Tharp, 2009; Belias and Koustelios, 2014). As a result of the impact of the organizational environment, the career progression and growth of workers are decided. This pilot study is based on a survey carried out via a questionnaire that includes a sample size of 50 participants. By collecting information from the questionnaire, we tried to predict participants' response patterns to assess the hypothesis's validity based on an analysis of workers' feedback. The main objective of a pilot survey was to test the research tools, including the questionnaire, their structure, and distribution channels with the primary data collection process. From the results and analysis, it has emerged that all four factors (family, social, individual, and organizational) are correlated, demonstrating Cronbach's alpha of 0.916. In particular, the challenges faced by industrial workers are significantly correlated to the four factors, as shown in Table 2, where social and organizational factors exhibit more challenges than other factors. Consequently, the null H0 hypothesis is not valid. The results from Table 3, Table 4, and Figure 2 in our study and the review survey determine that family and individual challenges inflate the worker's professional responsibilities and often pressurize them to leave or change their job because of economic and professional dichotomy.

Another important aspect of this study is highlighting the importance of social and organizational factors, as evident in Table 5, Table 6, and Figure 3. The study reveals that the organizational factor has a significant impact on individual performance, such as some studies showing that the ability to contribute towards decision-making directly or indirectly impacts employees'

social life (Cooper and Essex, 1977b; Lam, Chen and Schaubroeck, 2002). These studies reflect the concept of encouraging the industrial employee to participate and contribute to the process of decision-making that can subsequently improve the results (Leana, Ahlbrandt and Murrell, 1992). Coupling the parameters of social and organizational factors, these are proportional to employees' decision-making in an organization or society (Shikdar and Das, 2003; Joseph and Dai, 2009). Among many dimensions of organizational factors, one of them is the enablement of decision-making and the involvement of employees in significant decisions. Various studies (Doucouliagos, 1995; Baas and Boons, 2004) reveal that industrial workers' participation in decision-making is essential for employees' empowerment and dynamic enabling.

CONCLUSION

This research study analyses four essential factors, i.e., family, social, individual, and organizational creating different challenges for industrial workers of LMIC. Data showed that the four factors (family, social, individual, and organizational) were correlated, demonstrating Cronbach's alpha of 0.916. Cope with these challenges, each industrial organization should address these factors systematically and properly plan work-related issues that affect the industrial worker. There is a need for new proposed organizational standards which may cater to some flexibilities like flexible job timings for workers, stress management workshops, and child support programs at the organizational level that may increase their efficiency to cope with the challenges at the organizational level in a better way. Social networking and social communities are also essential to handling social issues in the industrial working environment. Organizations can arrange workshops and social awareness seminars to address the social aspects of employees and resolve their social issues through two-way communication.

Conflict of interest: The authors declare no conflict of interest, and the study is carried out without any commercial or financial relationships.

Data availability statement: The data and analysis supporting this study's findings are available in the manuscript.

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