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The Relationship between Architects' Quality of Work Life and Their Productivity: A Case Study

Elnaz Shirvanisaadatabadi[1] & Ayda Gharaei[1]

[1] Shahid Bahonar University of Kerman, Kerman, Iran

Correspondence: Elnaz Shirvanisaadatabadi, Bachelor of Architectural Engineering, Shahid Bahonar University of Kerman, Kerman, Iran. Tel: 98-913-493-7396. E-mail: elanzshirvanisaadatabadi@gmail.com

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Abstract

The goal of quality of work life is to evaluate how employees perceive their lives inside a company. Lack of quality of work life is linked to greater levels of occupational stress, anxiety, and burnout, leading to poorer job performance and substantial expenses for organizations. Bearing this in mind, the current study was formulated to address the gap in the literature and examine the relationship between architects' Quality of Work Life and their productivity throughout a case study in Kerman, eastern Iran. To fulfil the objectives of this study, 130 architects working actively and officially in Kerman agreed to participate in the study, who were reached out using the Krejcie, and Morgan's (1970) table. Two questionnaires in Persian Version were distributed among them, including Quality of work life questionnaire based on Walton model (1973) and the Productivity questionnaire based on the ACHIEVE model, both adopted from Chalabiei (2017). The data was transferred to SPSS Version 27 for further statistical analyses. The results of the Spearman's correlation coefficient test showed that there was a positive correlation between the quality of work life and the architects' productivity. Also, all the eight components of quality of work life had a positive relationship with the architects' productivity. Further implications of the study results and suggestions are discussed, accordingly.

Keywords: quality of working life, Productivity, architects, architectural offices

1. Introduction

The goal of the research field known as quality of work life (QWL), which has developed over time, is to evaluate how employees perceive their lives inside a company (Ballard et al. 2019). Since investing in human resources typically enables the achievement of a high level of productivity and job satisfaction for employees, QWL is now regarded as essential to the success of enterprises (Sabonete, Lopes, Rosado & Reis, 2021). According to several authors, QWL is a collection of practices that a company uses to boost the number of innovations and improvements in management and to enhance the way that people and work are thought of by taking into account elements like equitable rewards, pay structures, benefit sharing, employee development, working relationships, and chances for greater participation (Sabonete, Lopes, Rosado & Reis, 2021). Kim, Im, and Shin (2021) pinpoint that since workers are rendered vulnerable by the drastic changes in their working conditions, the quality of their work-life balance is a major concern during a crisis.

As research on the topic improves, QWL is increasing in percentage (Fernandes, Martins, Caixeta, Da Costa Filho, et al., 2017). One of the most crucial factors that a business must take into account in order to accomplish predetermined goals is the quality of life at work (Sabonete, Lopes, Rosado & Reis, 2021). The management of human resources in businesses is still fraught with difficulties in the modern era. The most crucial organizational resource that enables determining an organization's longevity and prosperity is its human capital (Kwahar & Akuraun 2018). Humans have traditionally been thought to be constantly concerned with their quality of work life (QWL) (Rodrigues 1999). People view life and work differently when they are looking at the world from a global perspective, which leads them to compare cultures, workplace innovation, and the flow of ideas and values (Ibrahim 2013). Given the significance of human resources, it is therefore thought that businesses should recruit and retain top performers by offering them improved working circumstances (Abe et al. 2017). Employee QWL evaluation is viewed as an alternative people management tool at the management level. In order to accomplish their objectives and meet the demands of their workforce, organizations must implement measures that support QWL (Sabonete, Lopes, Rosado & Reis, 2021).

According to Andreas (2022), every business in the current globalization era needs to be very effective and efficient since doing so can help it survive in the face of fiercely competitive markets. Businesses that can manufacture high-quality goods and services are able to compete in the global market. Due to this pressure, the establishment of a highly competitive business requires the company to meet a number of requirements in order to stay up with the external changes that are happening at a quick pace in the current globalization era. In addition, the impact of QWL on staff performance and productivity is among the most pertinent factors. Andreas (2022) emphasizes that performance is a means of self-preservation and well-being for workers. In terms of the business, performance is a measure of goal attainment. As a result, the corporation has always placed a high priority on performance. Performance has a big influence on the company's survival because it is a standardized work procedure and high-quality work.

According to Leitão, Pereira, and Gonçalves (2021), a lack of quality of work life (QWL) is linked to greater levels of occupational stress, anxiety, and burnout. These factors result in poorer job performance and substantial expenses for organizations. In light of the need to increase worker productivity, the QWL needs to be further reinforced in order to boost employee motivation, which is crucial given the digital transition seen in highly skilled and technologically advanced economies (Leitão, Pereira, & Gonçalves, 2021). Furthermore, Yardimci (2024) points out that there aren't many research looking at architects' physical comfort levels at work, and the same is true for their quality of life at work. The profession of architecture actually creates challenging working conditions for architects, who must remain in the office for long hours. For this reason, it's critical to make the workspace more comfortable so that architects can feel better both physically and mentally (Yardimci, 2024). Furthermore, Yardımcı and Erbil (2024) point out that there aren't many research looking at productivity in the setting of architectural workplaces. The majority of an architect's day is spent in the office. As a result, it is critical that they are content with their work in order to be effective and efficient (Yardımcı & Erbil, 2024). The active use of inputs in the creation of various goods and services is known as productivity. Therefore, it explains aiming to save money due to active use of resources and goods. The most important factor in the success of an organization is the reduction of the input volume required for the unit output and the importance of productivity measurement for the organization is the benefits it provides to the organization's management (Yardımcı & Erbil, 2024).

Baleshzar and Tabbodi (2019) underscore that productivity expresses how much an organization converts the input resources into goods and services. Employee's productivity is affected by several factors including health, comfort and security, motivation, job satisfaction, and quality of working life. Although the importance of both variables, i.e. the quality of working life, and productivity, and the relationship between the two has been focused and highlighted in the previous literature, there is scarcity of knowledge about this relationship in architectural offices in Iran, and there is a dire need to shed light on this. Having considered all theses, the current study was formulated to address this gap in the literature and examine the relationship between architects' Quality of Work Life and their productivity throughout a case study in Kerman, eastern Iran.

2. Research Hypotheses

The main null hypothesis of this research is as follows:

$N_0 1$: There is no positive relationship between quality of working life and the participant's productivity.

Keeping the main hypothesis in mind, the following sub-hypotheses were formulated.

1) There is no significant relationship between Adequate and fair compensation and the participant's productivity.

2) There is no significant relationship between safe and healthy working conditions and the participant's productivity.

3) There is no significant relationship between opportunity to growth and security and the participant's productivity.

4) There is no significant relationship between constitution in the work organization and the participant's productivity.

5) There is no significant relationship between social relevance of work life and the participant's productivity.

6) There is no significant relationship between work and total life span and the participant's productivity.

7) There is no significant relationship between social integration in the work organization and the participant's productivity.

8) There is no significant relationship between opportunity to use and develop human capacities and the participant's productivity.

3. Theoretical Background and Literature Review

3.1 Quality of Working Life

The term QWL refers to how an employee perceives their sense of security and job satisfaction, as well as their perspective of their own personal development. According to Hermanto, Srimulyani, and Pitoyo (2024), QWL is an organizational endeavor to achieve organizational goals through democratic oversight, promotion policies, employee participation, and safe working conditions. Walton (1973), Hackman and Oldham (1975), Westley (1979), and Nadler and Lawler (1983) conducted the first studies on the topic, developing measurement models of QWL. According to Fernandes et al. (2017), Walton's model (1973) in particular contains a greater number of factors based on compensation, surroundings, possibilities, and personal life versus work. Eight categories are proposed by Walton (1973) to evaluate QWL: 1) Adequate and fair compensation; 2) safe and healthy working conditions; 3) opportunity to use and develop human capacities; 4) opportunity to growth and security; 5) social integration in the work organisation; 6) constitution in the work organisation 7) work and total life span; and 8) social relevance of work life.

According to Hermanto, Srimulyani, and Pitoyo (2024), QWL refers to the organization's endeavors to enhance an organizational culture that fosters employee growth and development, which is connected to job satisfaction and employee motivation. It encompasses various aspects of work-related life, including pay and working hours, work environment, career prospects, benefits and services, and human relations. In addition to influencing job happiness, the quality of one's working life also has an impact on social and familial connections (Javanmardnejad et al., 2021). Positive outcomes for employees and the organization are anticipated from a high QWL, including increased job satisfaction and performance, increased organizational commitment and OCB, improved job performance, and a positive relationship between the impression of contribution to productivity, as reported by Hermanto, Srimulyani, and Pitoyo (2024).

Organizational culture and climate, relationships and cooperatives, training and development, compensation and rewards, facilities, job satisfaction and job security, job autonomy, and resource availability are all indicators of the quality of work life (Javanmardnejad et al., 2021; Zurahmi, Masdupi, & Patrisia, 2019). Fair and sufficient compensation and benefits, safety and health protection, career advancement and security opportunities, acceptance of one's existence by the workplace, social and professional reliance on society and personal life, an orderly workplace, and integration of people whose social integrity is strengthened are all components of a quality work-life balance (Javanmardnejad et al.,2021).

3.2 Productivity

According to Salju, Junaidi, and Goso (2023), employee performance is defined as an individual's effectiveness and efficiency in completing tasks and fulfilling obligations at work. Effectiveness is the extent to which workers are able to fulfill their obligations without wasting resources and by the deadline. Both organizational and individual characteristics have a major impact on workers' productivity (Afrianty et al., 2022).The link between a system's output and the inputs needed to generate it is the focus of productivity (Schifano et al., 2021). Numerous studies highlight the input and total factor productivity of specific people and business areas (Salju, Junaidi, & Goso, 2023).

3.3 Quality of Work Life and Productivity

The fulfillment of a set of employee needs in connection to the tools, actions, and results related to their involvement at work can be used to convey QWL. Depending on personal interpretations, it might mean different things depending on age, industry position, and stage of career. It should be mentioned that a safe work environment, occupational health care, acceptable working hours, and an appropriate salary are the four primary components of good QWL, which also improves wellbeing and pleasure at work. Poor working conditions (such as inadequate health and safety, stress, and pressure at work) can also have an adverse effect on QWL. Indeed, it has been repeatedly stated that the most significant determinant of QWL is the workplace (Leitão, Pereira, & Gonçalves, 2021).

It is suggested that in order for employees to perform at their highest level, firms should give them a more secure work environment. The main goal of QWL in an organization is to increase employee productivity and well-being. Without QWL, an organization cannot acquire effective and efficient results from its employees, as the latter is crucial for workers and essential for the organization to grow. Employees that work for a company with effective QWL management are healthier, more dedicated, and do more and better work. QWL and productivity have been found to positively correlate in several research (Leitão, Pereira, & Gonçalves, 2021).

3.4 Previous Studies

The comfort levels of architects' workspaces in Bursa were assessed by Yardimci (2024). In order to gather data, 203 architects were contacted and given a questionnaire. There are two phases to the questionnaire. The sub-factors of artificial lighting, indoor temperature and natural ventilation adequacy, indoor air quality, lack of unpleasant odors in the workspace, seat ergonomics, and equipment adequacy were found to be satisfactory by the architects when their comfort levels were assessed. The many auditory comfort settings in the workplace, however, make them uneasy. When looking at the relationship between comfort levels in the workplace and demographic traits, the correlation values fall between 0-0.20, demonstrating that that demographic characteristics have a very weak or no relationship with comfort conditions.

In order to ascertain whether there is a correlation between the demographic characteristics, job satisfactions, and productivity levels of architects employed in Bursa architectural offices, Yardımcı and Erbil (2024) looked at these factors. The significance of job satisfaction and productivity for both businesses and people is demonstrated by their discovery that the correlation coefficient value between job contentment and productivity in the workplace ranges from 0 to 0.50. They came to the conclusion that architects' job satisfaction levels had an impact on output. Additionally, workers that are happy in their jobs are more productive.

Sabonete, Lopes, Rosado, and Reis (2021) used Walton's model to examine how satisfied the staff members of the Higher Institute of Defense Studies "Lieutenant-General Armando Emílio Guebuza" (ISEDEF) were with their quality of work life (QWL). A review of the literature and bibliography was used to create a conceptual framework. A questionnaire administered to 97 military and civilian persons served as the data gathering tool. The findings indicated that overall satisfaction with QWL is moderate, necessitating both the creation of models that allow benefits to be realized in accordance with the nation's social and economic level and an improvement in living conditions to support military education and training.

The consistency of an instrument for evaluating the quality of work-life that Walton (1973) proposed was examined by Fernandes, Martins, Caixeta, and Antonialli (2017). The instrument was based on the following factors: working conditions, social integration and constitutionalism at work, the amount of space that work occupies in one's life, social relevance and importance of work dimensions, and adequate and fair compensation. Therefore, a survey of 518 employees of higher education institutions in a town in the state of Minas Gerais was used to perform field study. Thus, the partial least squares approach (PLS) was used to analyze structural equations. The findings demonstrated that working conditions, constitutionalism, and the amount of space filled by work in the life dimensions are all appropriate for the analysis that was given.

According to a model put forth by Kim, Im, and Shin (2021), transformational leadership is a social resource that enhances employees' commitment to change and their quality of work-life balance, while employees' commitment to change is presented as a personal coping resource during a crisis. Employees of full-service restaurants in the US participated in an online poll. The findings showed that transformational leadership improves work-life balance and commitment to change. Furthermore, the relationship between transformational leadership and workers' quality of work life is mediated by workers' willingness to change. The study's conclusions offered suggestions on how restaurant managers might improve workers' quality of life at work in times of crisis.

Quality of work-life (QWL) and organizational commitment (OC) were used as mediators in Hermanto, Srimulyani, and Pitoyo's (2024) analysis of the direct and indirect relationships between transformational leadership (TL) and organizational citizenship behavior (OCB). They also looked at QWL's function as a mediator in the TL-OC interaction. 165 regular instructors from several Madiun City high schools made up the research sample. The findings demonstrated a strong and favorable direct correlation between TL, QWL, and OC with OCB.1) QWL partially mediates the association between TL and OC, as well as the relationship between TL and OCB; 2) OC partially mediates the relationship between TL and OCB. These findings from assessing the role of mediating variables add to the originality of this study. The findings suggested that programs to enhance work-life balance, transformational leadership approaches, and teacher organizational commitment are all effective ways to raise teacher OCB.

By investigating the mediating role of QWL in the relationship between work-related social capital and life satisfaction in the healthcare industry, Rashid and Amin (2024) addressed a significant knowledge gap and the importance of promoting social capital and enhancing QWL for the wellbeing of healthcare workers. A sample of 330 people who worked full-time in the healthcare industry in the North Indian Region were included in this study, which employed a cross-sectional research technique. The findings demonstrated that social capital enhances work life and supported all research hypotheses. As a result, life pleasure is greatly increased by work-life balance. This study's bootstrapping mediation analysis demonstrated that the relationship between social capital and life

happiness is mediated by work-life quality.

By using organizational commitment as a mediator, Sumarsi and Rizal (2021) examined the impact of competence and work-life quality on organizational citizenship behavior. The 106 employees of Jaken and Jakenan Health Center who had ASN status made up the study's population. Organizational commitment to employees is positively impacted by competence, and organizational commitment to employees is positively impacted by quality of work life. Additionally, competence has a positive impact on organizational citizenship behavior, and organizational commitment has no effect on organizational citizenship behavior, according to the data analysis results.

In the context of COVID-19, Campo, Avolio, and Carlier (2021) investigated the connections between telework, job performance, work-life balance (WLB), and family supportive supervisor behavior (FSSB). During the COVID-19 pandemic, 519 data points were gathered from major private service providers in Colombia and analyzed. The findings showed no relationship between telework and WLB or job performance during the pandemic. Nonetheless, there are favorable correlations between FSSB and WLB as well as between work performance and both.

Andreas (2022) looked at psychological aspects of employees that are believed to be related to performance. Regression analysis, a statistical analytic tool, was used to conduct this study quantitatively. Employees of Candika Wastu Pramathana served as the research subjects. This survey was carried out with a purpose and had 35 respondents in total. According to the study's findings, motivation is the internal component of an employee that best explains performance. The motivation at work in question is self-motivated to complete tasks and enjoyment of various aspects of the company. Achieving optimal performance is significantly aided by this mindset.

By incorporating the QWL factors into the trichotomy of (de)motivators of productivity in the workplace, Leitão, Pereira, and Gonçalves (2021) evaluated the effects of burnout as a moderator of the relationship between employees' quality of work life (QWL) and their perceptions of their contribution to the organization's productivity. The results demonstrated that burnout de-motivator factors considerably attenuated the link between QWL and the contribution to productivity, while QWL hygiene elements (such as a safe workplace and occupational healthcare) positively and significantly influence the contribution to productivity.

Rodríguez-Modroño and López-Igual (2021) investigated the effects of specific telework models on several aspects of job quality. Their results demonstrated the importance of gender, workplace-specific telework kinds, and the level of ICT use in influencing working conditions and job quality. While extremely mobile teleworkers have the worst work-life balance and job quality, occasional teleworkers have the best job quality. Despite having fewer skills and discretion, lower salary, and fewer career opportunities, home-based teleworkers—especially women—perform better than highly mobile workers in terms of the quality and intensity of their working hours.

Salju, Junaidi, and Goso (2023) looked into the potential effects of organizational elements on university staff in Indonesia, including work-family conflict, digital infrastructure, managerial support, and IT training. It also looked at how employee performance is affected by the mediators. 596 workers were enlisted to participate in a survey. The findings demonstrated that work-family conflict, digital infrastructure, and IT training all have a positive and significant impact on employees' digital literacy. On the other hand, management support has less of an impact on workers' digital literacy. Additionally, the relationship between organizational and individual characteristics impacting employee performance is highly moderated by digital literacy as a mediator variable.

Weitzer et al. (2021) investigated how working from home affected quality of life and perceived productivity during Austria's first COVID-19 50-day mitigation phase. According to their findings, during the COVID-19 mitigation period, 17.5% of Austrians reported an improvement in their quality of life, while 20.7% reported a deterioration; similarly, 12.7% reported an increase in their perceived productivity at work, while 30.2% reported a decline. A higher quality of life was linked to working from home during the mitigation period. On the other hand, persons who worked from home appeared to be less productive overall. Benefits associated with working from home were not distributed equally by age, gender, or level of education. They came to the conclusion that a shift to greater workplace and work-hour flexibility for workers may have significant benefits for stakeholders, public health, family and professional lives, and eventually the environment.

Javanmardnejad et al. (2021) investigated the connection between nursing staff members' job satisfaction, happiness, and the quality of their working lives. The Oxford Happiness Inventory (OHI), the Job Satisfaction Questionnaire (JSQ), and the Quality of Work Life Questionnaire (QWL) were among the tools used to collect the data. The findings showed a substantial relationship between happiness and both closure satisfaction and economic status.

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and work-life quality on organizational citizenship behavior. The 106 employees of Jaken and Jakenan Health Center who had ASN status made up the study's population. Organizational commitment to employees is positively impacted by competence, and organizational commitment to employees is positively impacted by quality of work life. Additionally, competence has a positive impact on organizational citizenship behavior, and organizational commitment has no effect on organizational citizenship behavior, according to the data analysis results.

Lestari and Margaretha (2021) investigated how work-life balance affected Y generation employees' job engagement and intention to leave Bandung, West Java, Indonesia. This survey used 190 employees from a variety of professions as respondents. The findings indicated that while work-life balance had no effect on job engagement, it does have an impact on the intention to leave their employment.

Baleshzar and Tabbodi (2019) looked into how job happiness and environmental architecture related to productivity among Azad University employees. The findings showed a direct and substantial relationship between the overall productivity score and the quality of environmental architecture index. There was a significant direct correlation between job satisfaction and the environmental architecture index. It was determined that there was only a relationship between the internal component of work satisfaction and the environmental architecture index, which included the productivity dimensions of ability, perception, support, and feedback.

4. Methodology

4.1 Research Method, Population and Sampling Method

The present study is a descriptive correlational study, and the population of this study included all the architects working in diverse architectural fields in Kerman City, Iran. Based on the statistics, there were around 170 architects working actively and officially in the city, of which based on the Krejcie, and Morgan's (1970) table, 130 were reached out, and finally a total number of 120 agreed to participate in the study. The participants' demographic information included their gender, age, work experience, and education.

4.2 Research Instruments

4.2.1 Quality of Work Life Questionnaire

To measure the independent variable of this study, quality of work life, a questionnaire was adopted from Chalabiei (2017), which was based on the Richard Walton model (1973). The questionnaire had been reported to valid and reliable, and the original version used in this study was in Persian, the mother tongue language of the respondents. The mentioned model has eight components, and for each component, at least two items and a maximum of five items are presented separately using a five-point Likert scale, which measures quality of work life (Chalabiei, 2017). Walton's (1973) model was chosen because it has been proven to combine the possible dimensions of QWL, as well as because of its application in different sociocultural contexts and because it is valid in terms of its applicability (Sabonete, et al., 2021).

4.2.2 Productivity Questionnaire

To measure the dependent variable, Productivity, a questionnaire was adopted from Chalabiei (2017), which was originally made in Persian Language based on the Hersey and Goldsmith model (ACHIEVE questionnaire). This questionnaire consists of 20 items (questions) (Chalabiei (2017). The ACHIEVE model maintains a helpful employee-oriented focus while acknowledging their perceptions about, and experiences of, environmental and leadership factors. The ACHIEVE model, which looks at seven variables – Ability, Clarity, Help, Incentive, Evaluation, Validity, and Environment – "is designed to help managers determine why performance problems may have occurred and then to develop change strategies aimed at solving these problems" (Hersey & Goldsmith, 1980, p. 40).

5. Results and Findings

Prior to analyzing the data to test the research hypotheses, descriptive statistics, namely demographic information related to the study respondents were compiled, as illustrated in Table 1. It is discerned that 70.8% of the respondents were men while 29.2% of the respondents were women. Regarding age, the sample was placed into four age groups, which included age groups of 20-30 years, 31-40 years, 41-50 years, 51-60 years. The largest portion belonged to the age group of 41-50 years old with 45%, followed by 25.8% were between 31- 40. Those between 20-30 years old were 16.7% while the smallest age group was 51-60 years old, having a rate of 12.5%. Regarding the work experience, 57.5% had an experience between 21-30 years, followed by the ones with 11-20 years of experience, i.e. 25.8%. Those with 1-10 years were 12.5% while only a small portion of 4.2% had a job experience for 30 years and over with a frequency of 5 out of 120. As for their education, half of them hold Associate Degree, i.e. 50.8% while 30.0% had a BA, followed by 17.5% having an MA degree. Only two held a

PhD, which is 1.7% of the sample.

Table 1. Demographic Information of the study sample

		Frequency	Percent
Gender	Male	85	70.8
	Female	35	29.2
Age	20-30 years old	20	16.7
	31-40 years old	31	25.8
	41-50 years old	54	45.0
	51-60 years old	15	12.5
Work Experience	1-10 years	15	12.5
	11-20 years	31	25.8
	21-30 years	69	57.5
	30 years and over	5	4.2
Education	Associate Degree	61	50.8
	BA	36	30.0
	MA	21	17.5
	PhD	2	1.7
Total		120	100.0

Prior to testing the hypotheses, reliability of the questionnaires which were distributed were determined. Cronbach's alpha was used to determine the reliability of the instruments, and as observed in Table 2, the value of Cronbach's alpha is greater than 0.70 for Quality of work life questionnaire (0.967) and the productivity questionnaire (0.968), which implies both questionnaires had acceptable reliability. Table 3 also reveals the reliability for each sub-section of the Quality of working life questionnaire, again showing acceptable reliability for each scale.

Table 2. Cronbach's alpha of the items of QWL and productivity

	Cronbach's Alpha	N of Items
QWL	.967	27
productivity	.968	20

Table 3. Reliability of components of QWL

	Cronbach's Alpha	N of Items
Adequate and fair compensation	0.887	4
safe and healthy working conditions	0.825	3
opportunity to growth and security	0.889	5
constitution in the work organization	0.859	4
social relevance of work life.	0.825	3
work and total life span	0.832	3
social integration in the work organization	0.927	2
opportunity to use and develop human capacities	0.905	2

In order to determine whether the data distribution was normal and to determine the appropriate method testing the hypotheses, a One-Sample Kolmogorov-Smirnov Test was conducted, as shown in Table 4.as observed, p = 0.000 suggest strong evidence of non-normality.

Table 4. One-Sample Kolmogorov-Smirnov Test

			Productivity	QWL
N			120	120
Normal Parameters[a,b]	Mean		72.5917	105.1333
	Std. Deviation		16.58363	20.49346
Most Extreme Differences	Absolute		.116	.114
	Positive		.056	.073
	Negative		-.116	-.114
Test Statistic			.116	.114
Asymp. Sig. (2-tailed)[c]			.000	.001
Monte Carlo Sig. (2-tailed)[d]	Sig.		.000	.000
	99% Confidence Interval	Lower Bound	.000	.000
		Upper Bound	.001	.001

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 624387341.

Due to the non-normality of the data distribution, non-parametric Spearman's correlation coefficient test was used to investigate the correlation between the study variables. The main null hypothesis of this study was as follows:

- There is no significant relationship between quality of working life and the participant's productivity.

To test this hypothesis, a Spearman's correlation coefficient test was conducted, as illustrated in Table 5, revealing a strong positive relationship between quality of work life and the employee productivity, and the resulting correlation coefficient is 0.776. therefore, it is concluded that there is a positive relation between the study variables.

Table 5. Correlation between QWL and the productivity

			productivity	QWL
Spearman's rho	productivity	Correlation Coefficient	1.000	.776**
		Sig. (2-tailed)	.	.000
		N	120	120
	QWL	Correlation Coefficient	.776**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

The first sub-hypothesis was as follows:

1. There is no significant relationship between Adequate and fair compensation and the participant's productivity.

To test this hypothesis, a Spearman's correlation coefficient test was conducted, as illustrated in Table 6, illuminating a positive relationship between Adequate and fair compensation and the productivity, and the resulting

correlation coefficient is .619.

Table 6. Correlation between Adequate and fair compensation and the productivity

			Productivity	Adequate and fair compensation
Spearman's rho	Productivity	Correlation Coefficient	1.000	.619**
		Sig. (2-tailed)	.	.000
		N	120	120
	Adequate and fair compensation	Correlation Coefficient	.619**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

Another Spearman's correlation coefficient test was conducted to test the correlation between safe and healthy working conditions and the participant's productivity. Table 7 shows that there is a positive relationship between the two variables, and the resulting correlation coefficient is .652.

Table 7. Correlation between healthy working conditions and the productivity

			productivity	safe and healthy working conditions
Spearman's rho	productivity	Correlation Coefficient	1.000	.652**
		Sig. (2-tailed)	.	.000
		N	120	120
	safe and healthy working conditions	Correlation Coefficient	.652**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

The third sub-hypothesis was tested via a Spearman's correlation coefficient test to test the correlation between opportunity to growth and security and the participant's productivity. Table 8 shows that there is a positive relationship between the two variables, and the resulting correlation coefficient is .718.

Table 8. Correlation between opportunity to growth and security and the productivity

			productivity	opportunity to growth and security
Spearman's rho	productivity	Correlation Coefficient	1.000	.718**
		Sig. (2-tailed)	.	.000
		N	120	120
	opportunity to growth and security	Correlation Coefficient	.718**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

The fourth sub-hypothesis was tested via a Spearman's correlation coefficient test to test the correlation between constitution in the work organization and the participant's productivity. Table 9 shows that there is a positive relationship between the two variables, and the resulting correlation coefficient is .635.

Table 9. Correlation between constitution in the work organization the productivity

			productivity	constitution in the work organization
Spearman's rho	productivity	Correlation Coefficient	1.000	.635**
		Sig. (2-tailed)	.	.000
		N	120	120
	constitution in the work organization	Correlation Coefficient	.635**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

Table 10 shows the results of Spearman's correlation coefficient test, and as seen, there is a positive relationship between social relevance of work life and the participant's productivity, and the resulting correlation coefficient is .652. Besides, it was found, as in Table 11, that there is positive relationship between work and total life span and the participant's productivity, and the coefficient is .649. The same was true for the relationship between social integration in the work organization and the participant's productivity, as in Table 12, showing a resulting correlation coefficient of .744. Finally, the final sub-hypothesis was tested, on the relationship between opportunity to use and develop human capacities and the participant's productivity, revealing a coefficient of .523.

Table 10. Correlation between social relevance of work life and the productivity

			productivity	social relevance of work life
Spearman's rho	productivity	Correlation Coefficient	1.000	.652**
		Sig. (2-tailed)	.	.000
		N	120	120
	social relevance of work life	Correlation Coefficient	.652**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

Table 11. Correlation between social relevance of work life and the productivity

			productivity	total life span
Spearman's rho	productivity	Correlation Coefficient	1.000	.649**
		Sig. (2-tailed)	.	.000
		N	120	120
	total life span	Correlation Coefficient	.649**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

Table 12. Correlation between social relevance of work life and the productivity

			productivity	social integration
Spearman's rho	productivity	Correlation Coefficient	1.000	.744**
		Sig. (2-tailed)	.	.000
		N	120	120
	social integration	Correlation Coefficient	.744**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

Table 13. Correlation between social relevance of work life and the productivity

			productivity	opportunity to use and develop human capacities
Spearman's rho	productivity	Correlation Coefficient	1.000	.523**
		Sig. (2-tailed)	.	.000
		N	120	120
	opportunity to use and develop human capacities integration	Correlation Coefficient	.523**	1.000
		Sig. (2-tailed)	.000	.
		N	120	120

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

6. Conclusion and Discussion

The first and the most significant finding in this study is that there was a positive correlation between the quality of work life and the architects productivity with correlation coefficient of 0.776. This finding is congruent with a considerable quantity of research studies conducted earlier. Besides, it was established that all eight components of quality of work life had a positive relationship with the employee's productivity. Firstly, it was found that there was a positive relationship between Adequate and fair compensation and the productivity with the correlation coefficient of .619. Pay and factors including work conditions, accountability, and training are all connected to adequate and fair compensation. Factors like the population's average salary, the link between supply and demand, and the percentage of profits and results indicate whether or not there is fairness in compensation. Therefore, it must satisfy the needs of the workers while also avoiding a large disparity in his pay when compared to the same function in other organizations. (Fernandes, et al., 2017).

Moreover, there was a positive relationship between safe and healthy working conditions and the participant's productivity (correlation coefficient = .652). Physical conditions, working hours, payment for overtime, and circumstances that lower the likelihood of accidents and health issues are all included in safe and healthy working conditions. Reducing elements that can interfere with workers' ability to perform their jobs, like noise, smells, and visual pollution, is essential to improving working conditions. Among these are fair working hours, a physical setting that is safe and healthy, and the lack of illness. (Fernandes, 1996; Fernandes, et al., 2017). Furthermore, there was a positive relationship between opportunity to growth and security and the participant's productivity with correlation coefficient of .718. in fact, professional development, employment stability, and security are all correlated with opportunity to growth. Capacity and knowledge growth, employee advancement opportunities, and the ability to use newly acquired information and skills are the related elements (Walton, 1973; Fernandes, et al., 2017).

Besides, there was a positive relationship between constitution in the work organization and the participant's productivity, and the resulting correlation coefficient was .635. The purpose of constitutionalism in the workplace is to shield employees against mistreatment. It also contains rules and regulations that outline the rights and responsibilities of employees. It stands for the rights of workers to be protected, freedom of speech, labor rights,

equitable treatment, and privacy (Fernandes, et al., 2017). In addition, there was a positive relationship between social relevance of work life and the participant's productivity (coefficient = .652). The company's endeavor to enhance social responsibility is implied by the social relevance of work life, while the employee tends to boost his self-esteem. The worker's view of the significance of the work he performs is another aspect of the social relevance of work life. It is revealed through employment practices, product liability, corporate social responsibility, and corporate image (Fernandes, et al., 2017). Another finding in this study was a positive relationship between work and total life span and the participant's productivity. Work and overall life span suggest that if an employee's job offers a more flexible path that allows them to enjoy their family life more, this will be positively reflected; conversely, if the opposite occurs, it will have negative effects. It is closely related to maintaining a healthy work-life balance, having some geographic flexibility, having time for family leisure, and having stability in one's schedule (Fernandes, et al., 2017).

It was also found that there was a positive relationship between social integration in the work organization and the participant's productivity. A sense of community, camaraderie, social equality, social mobility, prejudice, and information sharing are all components of social integration in the workplace, which correlates to aspects of self-esteem and interpersonal relationships. It has to do with getting to know one another within the company, equal opportunities, and the lack of discrimination, equality, mobility, relationships, and a feeling of community. (Fernandes, et al., 2017). Finally, there was a positive relationship between opportunity to use and develop human capacities and the participant's productivity. This variable is a crucial component of pertinent elements that contribute to the development of capabilities, such as granting a certain amount of autonomy, utilizing the worker's abilities, having process knowledge, performing the task, and having planned ahead. In specifics, it refers to the task's representativeness, the weight assigned to it, and the independence with which it is carried out (Fernandes, et al., 2017).

Overall, the results of this study showed that there is a positive relationship between quality of work life and the architect's productivity, especially in architectural organizations. Further studies on the causal relationship between the two variables are recommended. Furthermore, conducting the study among workers of other fields, such as engineers, is highly suggested.

7. Limitations and Future Research Directions

It should be noted that the first limitation in this study might be in relation to the two questionnaires used in the study, i.e. the Quality of Work Life and Productivity questionnaires as they rely on self-reported data, which can be subjective and influenced by the participants' mood, perception, or willingness to provide accurate responses. To mitigate such effects, the participants were informed that they could leave the research any time they wished and the scope and objectives of the study were explained to them in details. Moreover, the findings of this research might not be generalized to all the architects since the sample was limited to architects from a specific location and thus the findings might not be applicable to architects in other regions or industries.

It is of note that in this research study, to address potential biases, some steps were taken into account. Prior to conducting the research, anonymity and confidentiality were stressed. The participants were told clearly that their responses will remain anonymous and confidential, and all the questionnaires were coded to avoid names and identities during analyses to ensure privacy.

For future studies, it is recommended to consider expanding the sample to include architects from different regions or countries to improve the generalizability of the findings. Also, it is highly recommended to explore how changes in quality of work life over time impact productivity by conducting a longitudinal study. This would help capture trends and causal relationships. Besides, future studies could investigate how cultural differences influence the relationship between quality of work life and productivity. For example, comparing architects in different countries or regions. Industry Comparisons would be also favorable by expanding the research to include professionals from other industries to determine whether the findings for architects are similar to or different from other professions. Using mixed methods approach would also be recommended by incorporating qualitative methods (e.g., interviews or focus groups) alongside quantitative surveys in order to provide deeper insights into the experiences and perceptions of architects regarding QWL and productivity. By addressing these areas, future research could build upon the foundation laid by this study to offer even more comprehensive insights into the relationship between QWL and productivity among architects.

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Authors contributions

Ms. Elnaz Shirvanisaadatabadi undertook the study conception and design, supervised the data analysis, and drafted the manuscript. She also performed the statistical analysis, contributed to the methodological framework, and assisted with manuscript revisions, and served as the corresponding author. Ms. Ayda Gharaei collected the data and she also contributed to data interpretation and provided critical revisions to the manuscript. Both authors read and approved the final manuscript.

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