

## The Impact of Remote Work on Faculty Members' Creativity; The Serial Mediating Role of Work-Life Balance and Psychological Well-Being

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### Abstract

*The current study aims to thoroughly investigate the relationship between the implementation of remote work and the creativity of faculty members, while also exploring the serially mediating role of work-life balance and psychological well-being within this relationship. Design/methodology/approach –The quantitative data approach of conducting an online survey was utilized, and the survey was distributed via emails and social media platforms. Through convenience sampling there were a total of 378 participants consisting of faculty members working in Jordan. The IBM SPSS Statistics software (version 29) was used to analyze and process the collected data. In, to test the hypothesized directed relationships and facilitate the conduction of the mediation and serial mediation analyses, Hayes Process 4.1 (model 6) was also utilized. The study concluded that both work-life balance and psychological well-being have mediating roles in the relationship between remote work and creativity. Additionally, work-life balance and psychological well-being serially mediate the relationship between remote work and creativity. Originality/value –The current study contributes to the literature by investigating both the direct and indirect impacts of remote work on the creativity of faculty members, addressing the immature link and limited research on this relationship, as well as the lack of focus on the higher education sector.*

**Keywords:** Remote Work, Psychological Well-Being, Work-Life Balance, Creativity, Faculty Members  
*Paper Type Research Paper.*

### Introduction

In recent years, there has been a marked shift towards digital learning environments. Advances in technology and the demand for flexible education solutions have driven institutions to adopt online platforms, transforming the way education is delivered. As an example The COVID-19 pandemic is one of the most evident illustrations of how environmental forces can trigger massive changes and alter the nature of work done in various sectors. Such changes have been clearly demonstrated in the higher education sector. From chalkboards all the way to computer screens, the education system had transitioned to a virtual one, meanwhile, the role of a faculty member had completely changed. The classroom was virtualized overnight due to stay-home policies, leaving faculty members with no option but to adapt to the new norm.

Remote work during the pandemic had put faculty members in a situation where they had no choice but to abandon many of their usual teaching practices and replace them with new ones. Prior to the pandemic, engagement with students was done face to face, as it revolved around a more social aspect (McQuiggan, 2007). Moreover, remote work and its implications, has also recently raised many questions related to its impact on the creativity of faculty members (Naotunna & Zhou, 2022). In the 21<sup>st</sup> century, an increased need for creativity among the workforce has developed, as it has become the means for survival and growth within competitive environments. Moreover, a common managerial goal relates to the boosting of employee creativity. Creativity at the individual level plays an essential role in organizational innovation (Hassan & Din, 2019). In universities, creativity is both valued and desired. It relates to problem solving,

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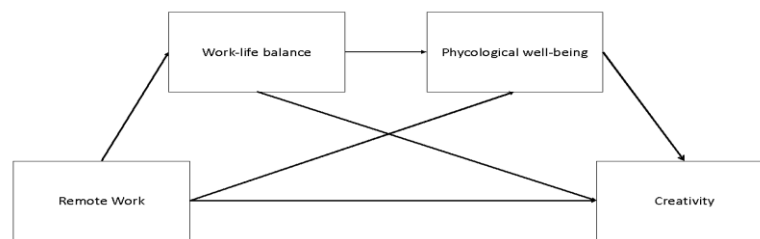
innovation and helpfulness, which are all qualities universities strive to carry in their staff (Rahimi *et al.*, 2011). Due to educational institutions being a source of the fostering of creativity in society, creativity holds great importance in the higher education sector (Hassan & Din, 2019).

Having creative faculty members is essential, along with understanding the variables that could impact such creativity (Hassan & Din, 2019). However, although research has been conducted on creativity relating to primary and secondary education, there is minimal research focused on creativity and higher education (Potter, 2013). Additionally, according to Winks *et al.* (2020), there is limited research regarding the variables that impact creativity in the higher education sector. The importance of this issue has increased in magnitude after the COVID 19 pandemic, due to the sudden switch to remote work. (Naotunna & Zhou, 2022). According to Naotunna and Zhou (2022), the relationship between remote work and creativity is yet to be thoroughly explored, and immature as there is minimal research on the topic. Although research has been conducted on the different impacts of remote work, its impact on creativity has received more attention in research only recently. These gaps motivated the undertaking of the current study, as it contributes to the literature by answering the calls of Hassan and Din (2019), Potter (2013), Winks *et al.* (2020), and Naotunna and Zhou (2022) through conducting research regarding variables that impact creativity in the higher education sector.

The Education sector faces the challenge of fulfilling the global expectations and demands of the 21st century, which is essential in ensuring the sustainability and the competitive position of a country in the long run. One of the most important factors to consider when it comes to improving the job performance of educators is a healthy work-life balance (Johari & Zulkarnain, 2018). The concept of work-life balance is rapidly increasing in importance to workers in different sectors, including the higher education sector (Kanagasabapathy & Arunkumar, 2019). Furthermore, various advancements in information and communication technologies have emerged in the last decade that have also contributed to the problem of work-life imbalance, including the emergence of the internet, the use of emails, and remote work. These emergent technologies have made disengagement from work increasingly challenging by facilitating the transfer of workloads seamlessly into an individuals' personal life (Reddick *et al.*, 2012; Nam, 2014). Moreover, work-life balance is essential for employees to work efficiently (Dhas, 2015), hence, it is important and timely that its relationship with remote work, as well as creativity is understood. Furthermore, the current study will add to the literature by investigating this link.

The pandemic sparked many social changes, with one of the greatest being the reduced amount of face-to-face interaction due to the implementation of remote work. The effect that social change has on psychological well-being is debated in the literature of many researchers, with some supporting the argument that it positively impacts psychological well-being, while others supporting the opposite (Kim, 2008). With, understanding the impact that remote work has on the psychological well-being of faculty members is a timely and essential question, as a lack in psychological need fulfillment negatively affects a worker's ability to work adequately, along with other potential consequences (Troughakos *et al.*, 2020). With creativity being an essential factor relating to the role of a faculty member (Hassan & Din, 2019; Rahimi *et al.*, 2011), the current study will also contribute to the literature by investigating the link between remote work, psychological well-being, and creativity. This answers the call of GS and Sangeetha (2020), as they suggested that future researchers investigating remote work incorporate creativity and psychological well-being in their study as factors of interest.

To address the gaps in the literature, the current study aims to thoroughly investigate the relationship between the implementation of remote work and the creativity of faculty members, while also exploring the serially mediating role of work-life balance and psychological well-being within this relationship, as demonstrated by the research model in Figure 1.

**Figure 1:** Research Model

### *Theoretical Framework and Hypotheses*

#### *Remote Work*

Working remotely, also referred to as teleworking, working from home, and telecommuting, is an arrangement that enables employees to work from anyplace outside the office while completing the required tasks. Remote work is not a new concept; however, it has been applied more than ever throughout the COVID-19 pandemic. (Olson & Primps, 1984).

#### *Work-life Balance*

Many researchers have defined work-life balance in different ways as it differs based on varying perspectives and beliefs. Its concept has arisen from the fact that many employees' work and life duties may be in conflict, as both are evenly important. Work-life balance involves maintaining the equilibrium between job and home activities (Sutha, 2019). Delecta (2011) defined work-life balance as an individual's capability to meet personal commitments along with their work duties and other responsibilities. According to Dhas (2015), work-life balance is all about generating and preserving a healthy and supportive work environment to enable employees to work in a comfortable setting and perform their jobs in a highly manner through balance in their life activities. Recently, because of the pressure work-life imbalance has on employees, it is considered a serious issue.

#### *Remote Work and Work-Life Balance*

Switching to remote work during the COVID 19 pandemic left educators facing the most difficult challenge in the history of education systems (Daniel, 2020). Educators have always benefited from using technology to support their everyday tasks, but when they are forced to use it as the only and primary teaching method, things become more difficult and the challenge of maintaining a healthy work-life balance becomes tougher (Grant *et al.*, 2013). A recent study found that the immediate change to online learning made teachers spend more time doing extra work, which made it more difficult to manage their personal lives (Ahmady *et al.*, 2020; Sintema, 2020). Similarly, Parham and Rauf (2020) found that teachers perceive many challenges towards balancing their work and life, finding a space in their house with no distractions, and working overtime including weekends. Remote teaching resulted in more stress, anxiety, poor well-being, headaches, and back pain as consequences of facing computer screens for long periods of time.

According to McKim and Sorensen (2020) there was a 42.20% drop in teachers' weekday work hours and a 45.29% drop in their weekend work hours during the pandemic.. However, another study states that 55.5% of the teachers who participated in the survey were not having quality time with their families (Kanagasabapathy & Arunkumar, 2019). Sundari *et al.* (2020) found that female teachers are not able to find

an equilibrium between their personal life and professional career, nor are they able to tend to their families' demands. This was due to increased stress at home, decreased productivity, and the lack of quality communication between colleagues. Having both professional life and personal life at the same place was found to be a major contributing factor to such an imbalance. According to Parham and Rauf (2020), university faculty members displayed both positive and negative perspectives relating to the impact of remote work on their work-life balance. Most of the participants experienced a negative impact on their work-life balance after switching to online teaching, while the rest felt that online teaching positively impacted their work-life balance. One of the participants explained that the online teaching experience resulted in more work throughout the day.

After reviewing the available literature relating to the link between remote work and work-life balance, the current study hypothesizes the following:

*H1. Remote work impacts faculty members' work-life balance.*

### *Psychological well-being*

Psychological well-being as defined by Wright and Cropanzano (2000), refers to the ability of an individual to psychologically function well. Likewise, Huppert (2009) described psychological well-being as the ability to psychologically and physically function well. In addition to feeling good, having a sense of engagement, curiosity, self-assurance, and affinity are all considered part of psychological well-being. On the other hand, functioning effectively entails having future success desires, self-control, goals to be achieved, and having healthy social relationships. According to Robertson and Cooper (2010), individuals who experience high levels of psychological well-being are more successful, satisfied, and better performers than those with low levels of psychological well-being. Robertson and Cooper (2010) explained two approaches to psychological well-being. The first approach relates psychological well-being to favourable feelings and emotions including satisfaction with one's life, while the other relates to purpose. An activity that brings joy becomes less satisfying as it's being repeated, which highlights the importance of having a purpose. The current study adopts the definition of psychological well-being from the study of (Clarke *et al.*, 2011), in which it is stated that well-being is both a sustainable and positive mental state that enables people to flourish and thrive. Instead of relating solely to not having a mental illness, the concept goes further in coverage, including general health and stress response.

### *Work-Life Balance and Psychological Well-Being*

Many researchers view the academic profession to be of the most stressful and challenging professions, as it contains heavy workloads that mostly requires working for extra hours, in addition to the pressure of dealing with versatile academic demands, which makes it hard on faculty members to achieve an efficiently balanced personal and work life (Eagan *et al.*, 2014). Many educators are concerned with their health due to the pressure caused from the imbalance between work duties and their personal lives (Marafi, 2013). According to Kinman and Jones (2008), maintaining a balanced work-life is vital for an individual's welfare, physical and psychological well-being. Individuals' tendency to achieve work-life balance has been addressed and explained by Maslow's theory of hierarchical needs. Hence, reaching absolute satisfaction with all life domains requires fulfilment of personal and social needs as well as self-actualization through the means of career fulfilment (Smith *et al.*, 2011; Oktosatrio, 2018). As for the academic profession, multiple studies have stated that a healthy balanced personal and professional life enables faculty members to be more efficient and effective in their personal and professional responsibilities, which in turn improves their well-being (Punia & Kamboj, 2013; Lakshmi & Gopinath, 2013). Over the past two decades, the academic profession has witnessed changes regarding increased productivity demands and work

responsibilities. These changes can be justified by the increased number of higher education students, the growth of the academic sector accompanied with the limited available resources, and the increased demands on academic researchers by governments and private sectors (Kinman, 2014; Vardi, 2009). Consequently, faculty members' leisure time got dimensioned which negatively affected their psychological well-being by increasing their distress and stress levels (Kinman & Wray, 2016).

On average, faculty members work more than 56 hours per week (Owens *et al.*, 2018). Based on Kinman's study, the more hours faculty work during non-working hours and off- days, the more psychological and physical problems they suffer (Kinman & Jones, 2008). Moreover, faculty members devote nearly 17.6 hours weekly on research projects alone (Bentley & Kyvik, 2013). According to (Tipping *et al.*, (2012), non-standard and lengthy working hours negatively affect individuals' work-life balance and consequently leads to job dissatisfaction, high stress levels, and burn out. Due to this, the following hypothesis has been formulated:

H2. Work-life balance impacts faculty members' psychological well-being.

### *Creativity*

Creativity is useful to have across the organization and in all departments (Amabile, 1998). Creativity is generally thought of as coming up with new ideas that are unusual and original, but this is not what creativity is all about. Being creative requires not only the production of novel ideas but also making sure that these ideas are useful and valuable (Kharkhurin, 2014). Being creative entails coming up with multiple new ideas and then combining these ideas to come up with a unique outcome (You, 2010).

### *Psychological Well-Being and Creativity*

In the literature, multiple researchers have found that happiness has an impact on creative thinking (Myers, 2002; Argyle, 2001; Pannells & Claxton, 2008; Gasper, 2004). They suggested that when people are happy, they are found to be more relaxed. This allows them to also be more open and accepting of new experiences. Moreover, due to their thoughts flowing more freely, more ideas are generated as restraint is minimized (Pannells & Claxton, 2008). According to (Acar *et al.*, 2021), from a positive psychology and humanistic perspective, psychological well-being and creativity are involved in a positive relationship. This is aligned with the findings of Jalali and Heidari (2016), in which it was also found that a relationship is existent between the happiness and creativity of teachers. However, Bilgin (2017) contradicted these findings, and found that there is no significant relationship between creativity and happiness.

Many researchers have asserted that people who are associated with positive well-being and happiness can formulate multiple divergent solutions for various problems, which makes it apparent that there is a connection between one's psychological well-being and creativity (Runco, 1994; Hennessey, 1999; Csikszentmihalyi, 1997). The concepts, findings and evidence of previous researchers relating to the relationships between psychological well-being and creativity have led the researchers of the current study to formulate the following hypotheses:

H3. Psychological well-being impacts faculty members' creativity.

### *Work-Life Balance and Creativity*

Multiple studies have stated that a healthy balanced personal and professional life enables faculty members to be more efficient and effective in their personal and professional responsibilities, which in turn improves their job performance and motivation (Punia & Kamboj, 2013; Lakshmi & Gopinath, 2013). According to Munro (2011), motivation is a major component of creativity. Amabile (1998) asserts that for one to

enhance his or her creativity, time must be managed properly. Allocating too much or too little time on a given task can reduce creativity levels, therefore work-life balance is essential. Moreover, Kofarbai (2021) found that separation between work and personal life leads to increased creativity skills. Additionally, Lazar (2010) displayed multiple significant consequences resulting from work-life conflict, also emphasizing reduced creativity. These concepts, findings and evidence presented by previous researchers relating to the relationships between work-life balance and creativity have led the researchers of the current study to formulate the following hypotheses:

*H4. Work-life Balance impacts faculty members' creativity.*

#### *Remote Work and Psychological Well-Being*

Past studies have found the implementation of remote work to impact employees' psychological well-being both positively and negatively. According to the findings of Mostafa (2021), an employee's perception of working remotely has a positive and significant effect on their psychological well-being. (Charalampous *et al.*, 2019) expands on this, as they found that remote work has a more positive impact on different dimensions of psychological well-being. Kurland and Bailey (1999) stated that individuals perceive working from as an opportunity to be less stressed, and to work in flexible, relaxed work atmospheres. However, Kaushik and Guleria (2020) found that remote work results in a lack of communication, decreased motivation, and a reduced fulfilment of social needs, which in turn reduces their psychological well-being. Furthermore, Hidalgo *et al.* (2010) describe a six factor, multidimensional psychological well-being model. According to this model, maintaining a good psychological well-being requires considering multiple factors, including free will, positive interpersonal relationships, and environmental understanding, all of which could be compromised through the implementation of remote work.

After reviewing the literature related to the impact of remote work on psychological well-being, this research hypothesizes the following:

*H5. Remote work impacts the psychological well-being of faculty members.*

#### *Remote Work and Creativity*

According to Naotunna and Zhou (2022), the relationship between remote work and creativity is yet to be thoroughly explored, and immature as there is minimal research on the topic. Although research has been conducted on the different impacts of remote work, its impact on creativity has received more attention in research in recent years. The findings of scholars relating to the link between remote work and creativity are mixed, including both positive and negative impacts. Thompson (2021) suggests that remote work can potentially improve creativity in groups. Meanwhile, (Katrahmani *et al.*, 2022) asserts that remote work imposes a threat to employee creativity, and the understanding of its impact is essential for telework performance. This is similar to the findings of (Backström *et al.*, 2022), in which it was found that managers perceive negative effects on creativity when meetings are conducted online. This was linked to a lack of happiness due to the remote setting. According to Brumma (2016), the impact of remote work on creativity can vary depending on the organization and setting. Moreover, the current study hypothesizes the following:

*H6. Remote work impacts the creativity of faculty members.*

Naotunna and Zhou (2022) call for further research to be conducted on the immature link between remote work and creativity. The current study contributes to the literature by answering this call, investigating both the direct and indirect impacts of remote work on the creativity of faculty members. Furthermore, based

on the reviewed literature relating to the relationships between remote work, work-life balance, psychological well-being, and creativity, the researchers of the current study hypothesize the following mediation relationships between remote work and creativity:

*H7.* Work-life balance mediates the relationship between remote work and creativity.

*H8.* Psychological well-being mediates the relationship between remote work and creativity

*H9.* Work-life balance and psychological well-being serially mediate the relationship between remote work and Creativity

## Method

### *Population And Sample of Study*

The population of the current study is faculty members working in universities in Jordan, both public and private. Hence, the research focused on collecting data from a diversified and wide array of faculty members, as it was not limited to a specific age group nor years of experience. The convenience sampling, was used as the sample was selected based on the availability of contacts on the websites of the universities. The study consisted of a total of 378 participants. The following table shows the demographical characteristics of the 378 faculty members, considering the age, gender, marital status, number of working hours per week, and years of experience as a faculty member.

**Table I: Sample Demographical Characteristics**

		<b>Frequency</b>	<b>Percent</b>
<b>Age</b>	25-34	56	14.8%
	35-44	140	37.0%
	45-54	101	26.7%
	55-64	62	16.4%
	65+	11	2.9%
<b>Gender</b>	Female	129	34.1%
	Male	249	65.9%
<b>Marital Status</b>	Married	305	80.7%
	Single	73	19.3%
<b>Working Hours per week</b>	40 hours or less	209	55.3%
	More than 40 hours	169	44.7%
<b>Years of Experience as a Faculty member</b>	1 –5	99	26.2%
	6 –10	97	25.7%
	11 –15	66	17.5%
	16+	116	30.7%
<b>Total</b>		<b>378</b>	<b>100</b>

shown in Table I, the sample contains (378) faculty members working in the majority of the universities in Jordan, both private and public. Starting with the age of participants, the most dominant age group is the 35-44 category with 37.0% and then the other age groups (45-54, 55-64, 25-34, and 65+) come consecutively carrying the percentages of (26.7%, 16.4%, 14.8%, and 2.9%) respectively. Noticeably, the number of males who participated in the survey exceeds the number of females by almost double, in which males represent 65.9%, and Females represent 34.1% of the sample. As for the marital status, the percentage

of married participants which is (80.7%), considerably exceeds the percentage of single participants (19.3%). Moreover, the percentage of participants who regularly work 40 hours or less per week exceeds the percentage of participants who work more than 40 hours per week by 10.6%. Furthermore, the sample included faculty members with varying years of experience, in which the percentages of participants samples (based on years of experience) were distributed almost evenly with the highest percentage (30.7%) in the (16+) years of experience category, and then the other years of experience groups (1-5, 6-10, 11-15) come consecutively carrying the percentages of (26.2%, 25.7%, and 17.5%) respectively.

#### *Data Collection Methods*

This research is classified as an empirical study, where it aims to examine the status quo of faculty members working remotely and explore the nature of the relationships between the afore-mentioned variables: Remote work, psychological well-being, work-life balance, and creativity. The method that was used to reach faculty members is the quantitative data approach of conducting an online survey. One of the main goals is to represent accurate data measurements that allows for statistical inferences. The survey was sent to a selected group of faculty members' whose contact information were found on the online directories of universities in Jordan. As the research intended to assess faculty members working remotely, the survey was distributed exclusively to faculty members via emails.

Online survey is considered one of the vital resources for collecting data from respondents. The survey includes a set of questions that is sent to the targeted sample via online methods, An additional motive behind the adoption of this data collection method was the speed, as online survey conduction is considered one of the fastest methods for reaching members and acquiring responses (Saleh & Bista, 2017). After collection, the data from the responses of the faculty members had been analyzed and processed to reach the findings of this research.

#### *Survey Design and Measurement of Scale*

The survey itself was constructed using a web-based survey software (Google forms). The survey was divided into four main sections, as the research measures four key variables, each section focuses on measuring a single variable, besides of the demographics assessment section, which consists of the age, gender, marital status, years of experience in the academic sector, and the number of working hours.

The work-life balance scale was used to assess how faculty members feel, think, their satisfaction and adaptability with the current personal and professional life situation (Bradley, 1994). The scale of psychological well-being was used to measure faculty members' mental and psychological wellness during the pandemic (Clarke *et al.*, 2011). As for the remote work scale, the items combined the first three variables: remote work, psychological well-being, and work-life balance, to assess the impact of remote work on both the work-life balance and psychological well-being of faculty members and the relationships between those variables (Grant *et al.*, 2018). Lastly the creativity scale, which was used to measure faculty members creativity in different personal and professional aspects (Zhang *et al.*, 2010). The survey in total included 21 items, additionally a five-point Likert scale was used and ranges for each variable varied. The work-life balance scale ranged from "Strongly agree" to "Strongly disagree", the psychological well-being scale ranged from "All of the time" to "None of the time", the remote work scale ranged also from "Strongly agree" to "Strongly disagree", and the creativity scale ranged from "Always" to "Never".

#### *Data Analysis Methods*

The IBM SPSS Statistics software was used in this research to compute the descriptive statistical measures, as well as conduct the reliability and validity analyses. SPSS stands for "Statistical Package for Social Sciences". It is a user-friendly statistical analytics software, which researchers can easily use and draw



interpretations on the analyzed data (Masood et al., 2016). In terms of the hypotheses testing, SPSS (Version 29) was also used, enabling the conduction of the correlation analysis, along with testing of the effects related to each relationship. Moreover, it provides various options and statistics that can be used in different ways for versatile purposes and kinds of data (Leech et al. 2014). The analysis of data had a smooth and efficient conduction, as SPSS enabled a clear understanding of the data collected in a numerical means from large populations (Rahman, 2017). In addition to SPSS, to test the hypothesized directed relationships and facilitate the conduction of the mediation and serial mediation analyses, Hayse Process 4.1 (model 6) was utilized.

## Results

### *Descriptive Statistics*

In this section, the research constructs were evaluated using the central tendency which includes the mean, as well as the most commonly used measure of dispersion, the standard deviation. The 5-point Likert scale was used to calculate the responses of faculty members, with 1 being strongly agree and 5 being strongly disagree. The midpoint was 3, the mean indicates a positive rating when it's less than 3, and a negative rating otherwise. An overview of the descriptive statistics illustrated in Table II.

**Table II: Mean, Standard Deviation, Skewness and Kurtosis**

	Mean	Standard. Deviation	Skewness	Kurtosis
Remote work	2.365	.743	.392	-.154
Work-life balance	1.9979	0.631	.829	1.919
Psychological well-being	1.968	0.574	0.714	.969
Creativity	2.007	0.630	0.403	.205

### *Validity And Reliability*

For the purpose of content validity, a pilot test of the developed questionnaire was distributed in the preliminary stages of the current study to a number of experts to ensure the relevancy and legitimacy of the variables' items. Before sending out the survey questionnaire to the respondents, the questionnaire was translated from English to Arabic using the translation and back-translation methods to ensure construct equivalence (Brislin, 1980).

The Exploratory of Factorial Analysis (EFA) was partially utilized in this research to test the validity of the research's scale. The Kaiser-Meyer-Olkin test and Bartlett's Test of Sphericity, "The Measurements of sampling adequacy", are also used to measure the usability of the generated data from respondents, and the variance of the research's key variables, which are: work-life balance, psychological well-being, remote work, and creativity. Furthermore, the Principal Component Analysis (PCA) is used (by default) to extrapolate preliminary findings. Additionally, the PCA is recommended when the research model is unprecedented, which is the case in this research (Williams *et al.*, 2010; Yong & Pearce, 2013)

**Table III: Kaiser-Mayor-Olkin Test and Bartlett's Test**

As shown in Table III, the value of KMO, which represents the coherence of data was (KMO= 0.909, df = 210,  $P < 0.05 = 0.000$ ), which is above the recommended threshold of 70% (Tabachnik & Fidell, 2013). And likewise, the Bartlett test for Sphericity ( $\chi^2 = 4021.378$ , df = 210,  $P < 0.05 = 0.000$ ), which meets the sampling adequacy requirements. The above-mentioned analysis results demonstrate and prove the high significance and absolute validity of this research's devised scale.

After testing and ensuring the validity of the research constructs, the reliability of these constructs was also tested to determine their internal consistency. The testing for this was conducted by running a Cronbach's Alpha test through the use of the "reliability" command on SPSS. As depicted on Table IV, it can be confirmed that all of the research constructs are reliable, as they have acceptable internal consistency.

**Table IV: Reliability Test**

<b>KMO and Bartlett's Test<sup>a</sup></b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.909
Bartlett's Test of Sphericity	Approx. Chi-Square	4021.378
	df	210
	Sig.	0.000

a. Based on correlations

	<b>Cronbach's Alpha</b>	<b>Number of Items</b>
Remote Work	0.863	7
Psychological Wellbeing	0.788	5
Work-life Balance	0.750	3
Creativity	0.897	6

*Hypotheses Testing*

A Pearson's correlation coefficient test was conducted to measure the statistical relationship between each of the variables of interest- work-life balance, psychological well-being, remote work, and creativity.

**Table VI: Correlations Matrix**

As displayed in Table VI, all the relationships between the variables were found to be positive, as all the correlation coefficients are greater than 0. Additionally, all the correlations between the variables were found to be strong, with the strongest correlation between work-life balance and psychological well-being, having a correlation coefficient of ( $r = 0.930$ ). All the found correlations are significant at the 0.01 level.

**Table VII: Direct Relationship Summary**

Hypothesized Direct Relationship	Beta	SE	t-value	p-value	Decision
H1: Remote Work->Work-life balance	.563	.0298	18.875	0.000	Accepted
H2: Work-life balance->Psychological well-being	.9304	.0238	39.172	0.000	Accepted
H3: Psychological well-being ->Creativity	1.454	.1116	13.030	0.000	Accepted
H4: Work-life balance ->Creativity	-.856	.1158	7.3905	0.000	Accepted
H5: Remote Work -> Psychological well-being	-.0877	.0192	4.570	0.000	Accepted
H6: Remote Work ->creativity	.2996	.0426	7.0336	0.000	Accepted

**Figure 2: Tested Research Model**

Using Hayse Process Modelling, the direct hypothesized relationships, as summarized in Table VII, have all been proven to be significant as  $P < 0.001$ . The effect of each relationship is also displayed in Figure 2. Due to this, H1, H2, H3, H4, H5, and H6 have been accepted.

**Table VIII: Mediation Analysis Summary**

Total Effect Remote work->Creativity	Direct Effect Remote work->Creativity	Relationship	Indirect Effect	Indirect Effect (SE)	Confidence Interval		t-statistics	conclusion
					Lower Bound	Upper Bound		
.452(0.000)	.299	H7: Remote work->Work-life balance ->Creativity	-0.482	.074	-0.630	-0.392	-6.79	Partial competitive mediation
		H8: Remote work -> Psychological well-being ->Creativity	-0.1275	.0359	-0.1939	-0.0543	-3.55	Partial competitive mediation

\*Note: t-statistics is calculated by dividing indirect effects by SE.

In terms of the mediation analyses, a summary of the results are displayed in Table VIII. The study assessed the serial mediation with work-life balance and psychological well-being mediating the relationship between remote work and creativity. The result revealed a significant indirect effect of remote work on creativity through work-life balance ( $b = -0.482$ ,  $t = -6.79$ ), supporting H7. The study also found a significant indirect effect of remote work on creativity through psychological well-being ( $b = -0.1275$ ,  $t = -3.55$ ), supporting H8.

**Table IX: Serial Mediation Analysis Summary**

Total Effect Remote work->Creativity	Direct Effect Remote work->Creativity	Relationship	Indirect Effect	Confidence Interval		t-statistics	conclusion
				Lower Bound	Upper Bound		
.452(0.000)	.299	H9: Remote work->Work-life balance -> Psychological well-being ->Creativity	.762	.6092	.9290	9.361	Partial serial mediation

\*Note: t-statistics is calculated by dividing indirect effects by SE.

Furthermore, the direct effect of remote work on creativity in presence of mediators was found significant ( $b=.299$ ,  $P<0.001$ ), supporting H9. Hence, there is partial serial mediation of work-life balance and psychological well-being between remote work and creativity. The serial mediation has a positive indirect effect ( $b=.762$ ,  $P<0.001$ ). Due to this, H9 is accepted, as summarized in Table IX.

## Discussion

### *Theoretical Implications*

The current study investigated the relationship between the implementation of remote work and the creativity of faculty members, while also exploring the mediating and serially mediating role of work-life balance and psychological well-being within this relationship. It was found that remote work impacts the creativity of faculty members. Additionally, both work-life balance and psychological well-being were found to each have mediating roles in the relationship between remote work and creativity. Moreover, work-life balance and psychological well-being were found to serially mediate the relationship between remote work and creativity. These findings contribute to the literature by answering the calls of Naotunna and Zhou (2022), in which it was asserted that the relationship between remote work and creativity were yet to be thoroughly explored, and immature as there is minimal research on the topic. Hence, the current study thoroughly investigated this link, uncovering both the direct and indirect relationships between the two variables. The current study also answered the calls of Potter (2013), Hassan and Din (2019), and (Winks *et al.*,2020), by conducting research regarding variables that impact creativity in the higher education sector, which prior to this study had minimal coverage. This was done by exploring the direct effects of remote work, work-life balance, and psychological well-being on faculty members, in which all three were found to have a direct impact on creativity.

According to the results of the current study, remote work impacts the work-life balance of faculty members. This is aligned with the findings of McKim and Sorensen (2020) and Kanagasabapathy & Arunkumar (2019), in which an evident difference in working hours and the amount of leisure time was found due to the implementation of remote work. The current study also found that remote work impacts the psychological well-being of faculty members. In the literature, multiple benefits and challenges relating to the implementation of remote work are outlined (Kurland & Bailey,1999; Kaushik & Guleria, 2020; Mostafa, 2021; Hidalgo, 2010), all of which support this finding. Adding a mediating variable to the model was suggested by Charalampous *et al.* (2019) as a more advanced method of conducting research. The paper also suggested having a greater variety of remote workers while investigating telework, which was achieved in this research as it was targeted towards faculty members in the majority of universities in Jordan, both private and public, with different demographics, covering a large variety of remote workers.

The current study found that the work-life balance of faculty members impacts their psychological well-being. This is aligned with the literature, as previous studies have revealed that the academic profession involves heavy workloads, increased productivity demands and work responsibilities; moreover, when not balanced effectively, can lead to pressure, stress, and lack of fulfillment of personal and social needs (Eagan *et al.*, 2014; Marafi, 2013; Kinman & Jones, 2008; Smith *et al.*, 2011; Oktosatrio, 2018; Punia & Kamboj, 2013; Lakshmi & Gopinath, 2013; Kinman, 2014; Vardi, 2009; Kinman & Wray, 2016). Based on Kinman and Jones (2008), the more hours faculty work during non-working hours and off- days, the more psychological and physical problems they suffer. Additionally, according to (Tipping *et al.* ,2012), non-standard and lengthy working hours negatively affect individuals' work-life balance and consequently leads to job dissatisfaction, high stress levels, and burn out.

### *Practical Implications*

Based on the results of the current study, it is suggested that the higher education sector shines light on the importance of both the work-life balance and the psychological well-being of faculty members, in both remote and physical working arrangements, as this will lead to having a more creative staff. Measures should be taken to ensure that employees are achieving a healthy balance between work and life, as well as feedback from employees on how they can enhance their psychological well-being. When making managerial decisions relating to the implementation of remote work, flexible working arrangements should be considered, as remote work impacts the work-life balance, psychological well-being and creativity of faculty members, therefore, facilitating more flexibility can help ensure that none of these variables are compromised based on each employees' preferences and situation.

### *Limitations And Recommendations for Future Researchers*

Although this research produced crucial findings and fulfilled its purpose, some limitations were faced throughout the research's development stages, which will be thoroughly discussed along with recommendations for future research. First of all, the research sample confined to faculty members in Jordan. Therefore, research's findings on the impact of remote work on faculty members cannot be generalized to judge faculty members in different countries or workers in other sectors. Thus, the researchers recommend subsequent researchers who are interested in this arena to adopt the model of the study and apply it in other countries and sectors.

Second, there was a gender skew towards males in the research's sample, due to the inherent nature of the Jordanian academic sector, whereby male faculty members' percentage have always been higher than the female faculty members' percentage as documented in the annual reports of the Ministry of Higher Education in Jordan, which mainly relates to cultural factors (Dandan *et al.*, 2017). Moreover, it is recommended that future researchers display a stronger focus on female faculty members.

Lastly, due to time limitations the research used only a quantitative data collection method, which provided visible demonstrations of the nature of relationships between the research's variables. Nevertheless, there was an absence of detailed information for justifying and analyzing the resultant relationships. Therefore, researchers suggest the use of combination of qualitative data collection methods as the one-on-one interview, or telephone interviews, which provides in-depth information and insights, and quantitative data collection methods.

### **Conclusion**

The current study aimed to thoroughly investigate the relationship between the implementation of remote work and the creativity of faculty members, while also exploring the mediating and serially mediating role of work-life balance and psychological well-being within this relationship. The motivation to conduct this research paper emerged during the COVID-19 Pandemic, which forced the adoption of remote work in various sectors. This shined light on the need to investigate the relationship between remote work and creativity, which was yet to be thoroughly explored, and immature as there is minimal research on the topic (Naotunna & Zhou, 2022). Additionally, research regarding variables that impact creativity in the higher education sector prior to this study had minimal coverage (Potter, 2013; Hassan & Din, 2019; Winks *et al.*, 2020), also motivating the undertaking of this study.

After collecting data using a quantitative method (online survey) and analyzing the data using SPSS and the tools of Andrew Hayes, the current study concludes that both work-life balance and psychological well-being have mediating roles in the relationship between remote work and creativity. Additionally, work-life balance and psychological well-being serially mediate the relationship between remote work and creativity. In terms of the hypothesized direct relationships, it was found that the implementation of remote work

directly impacts the work-life balance, psychological well-being, and the creativity of faculty members. Also, work-life balance was found to directly impact their psychological well-being and creativity. Finally, psychological well-being was found to also have a direct impact on the creativity of faculty members. Based on these results, it is suggested that the higher education sector shines light on the importance of both the work-life balance and the psychological well-being of faculty members, in both remote and physical working arrangements, as this will lead to having a more creative staff.

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