Information Management and Business Review (ISSN 2220-3796)
Vol. 15, No. 3 (SI), pp. 10-22, September 2023

The Relationship Between Remote Work and Job Satisfaction: The Mediating Role of Perceived Autonomy

*Nor Lelawati Jamaludin[1], Sakinah Ahmad Kamal[2]
[1]Faculty of Business and Management, Universiti Teknologi MARA, Puncak Alam, Selangor, Malaysia
[2]Faculty of Business and Management, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia
*norlelawati0019@uitm.edu.my, sakinah_ahmadkamal@yahoo.com.my
Corresponding Author: Nor Lelawati Jamaludin

Abstract: The job satisfaction of employees is one of the main keys to the success of an organization. It represents how you feel about your job and what you think about your job. Despite the continuous effort by the Malaysian government, the outcome of the implementation and occurrence of remote work practices towards job satisfaction in Malaysia is equivocal. Therefore, the main objective of this study is to investigate whether the impacts of remote work led to employee job satisfaction and performance. The respondents are from one oil and gas company in Kuala Lumpur. The data were collected using an online survey among (n = 185) employees from various departments in the organization. A Statistical Package for the Social Sciences (SPSS) was developed to examine how the variables were related. Results showed that: (1) remote work has a significant relationship with job satisfaction and (2) Perceived Autonomy mediates the relationship between Remote work and Job Satisfaction. The novelty of this research is the contribution of the present body of knowledge through the development of the adapted model of remote work-job satisfaction concerning the oil & gas industry. The findings also could guide the stakeholders and policymakers in formulating a plan and action towards the betterment of the remote work process that can elevate the job satisfaction of the organization.

Keywords: *Remote Work, Perceived Autonomy, Job Satisfaction, Oil & Gas Industry, Statistical Package for the Social Sciences (SPSS)*

1. Introduction and Background

The concept of job satisfaction has garnered significant attention in organizational psychology and management science, with several operational definitions. This fundamental employee attitude significantly impacts an individual's mental, emotional, and behavioral dimensions in both their professional and personal lives. It is a key construct of an organization's psychology to achieve goals since many working people nowadays spend much of their time at work, especially in the private sector (Paposa & Kumar, 2015; Unanue et al., 2017).

Job satisfaction of the employees is an essential component of organizational success particularly in managing the human resources of the organization (Gitoho, 2015). Several elements can influence the level of individual job satisfaction. As suggested by Gitoho (2015), these variables range from an opportunity for career advancement in terms of promotions and training, a good working environment and the management-employee relationship. Moreover, other variables that can also influence employees' job satisfaction are employee turnover, absenteeism, employee morale, workload and new challenges faced by employees (Gitoho, 2015). Despite the benefits of the findings in both academia and practice, empirical evidence on job satisfaction in different employment sectors such as oil and gas is still plausible (Mohd Suki et al., 2020).

The oil and gas industry remains a pivotal sector within Malaysia's economy, boasting a robust ecosystem that effectively supports the domestic and regional oil and gas value chain. This ecosystem encompasses a variety of entities, including international oil companies, independent organizations, and service and manufacturing enterprises (Bhattacharya & Hutchinson, 2022). Thus, the study of job satisfaction among oil and gas employees holds significant importance due to this industry's crucial nature for the country. Additionally, a comprehensive understanding of employee job satisfaction within the oil and gas sector contributes to developing a more sustainable and resilient industry, fostering a positive work environment, and contributing to the country's economic growth and energy security.

Previous research has recognized that employees within the oil and gas sector encounter a distinct working

landscape that differs significantly from the traditional nine-to-five office environment. These individuals face unique challenges such as boredom during offshore assignments, operating within a single-task work environment, coping with emotional and work-related stresses, limited opportunities for family time, and exposure to operational hazards at offshore oil and gas facilities. (Singh, 2017; Thai & Latta, 2010; Yuen et al., 2018). Nevertheless, there has been minimal progression in the theorizing of the impact of remote work on employee job satisfaction in Malaysia's oil and gas industry. Tapping into the experiences of Malaysian employees' job satisfaction by examining remote work, is considered vital in the effort to minimize the attrition rate in the high-risk and competitive oil and gas industry.

While certain industries, like software development, have transitioned smoothly to remote work, numerous oil and gas companies still need to keep a portion of their highly skilled operations and maintenance workers on-site. However, those companies that embrace innovative tools and structures to enhance remote work capabilities have the potential to enhance their future operating models. This can be achieved by attracting top talent and reducing costs. Accordingly, research by Focus Malaysia (2018) has specified that the demand for jobs in the oil and gas sector is positive. Indeed, Malaysia recorded growth in its online hiring in this sector by 13% in 2018.

The trend towards remote work is progressively gaining traction, propelled by the growing utilization of digital technologies. This shift is particularly prominent as businesses increasingly transition into the Industry 4.0 era and integrate automation into their operational workflows. The general idea of remote work centres around the agility and flexibility given to employees to control their work time, place, and method. Research has suggested that remote work fulfilled basic human needs (Hashim et al., 2020).

Following this, the report has confirmed that having flexible working arrangements such as remote work is one of the key factors for Malaysian employees' job satisfaction (Ida, 2020). In the survey by market research firm Vase, one of the overwhelming reasons why Malaysian employees are dissatisfied with their workplace is the lack of flexible working arrangements (Ida, 2020). In relation to this, the survey titled 2021 EY Work Reimagined Employee Survey showed that 9 in 10 Malaysians express a desire for flexibility regarding their work location and schedule (Global, 2021). Moreover, 7 out of 10 Malaysians responded that adopting flexible work arrangements, such as remote work, will have a positive impact on productivity and creativity (Global, 2021). Moreover, various surveys conducted by human resource agencies have revealed that factors influencing job satisfaction extend well beyond mere financial compensation. Consequently, overall job satisfaction, work-life balance, and access to remote working are closely interconnected and hold greater significance for employees.

According to Kazekami (2019), there is a positive correlation between remote work and job satisfaction. Factors such as overall satisfaction, perceived advantages of remote work, career opportunities, and self-reported productivity are identified by Nakrosiene et al. (2019) as important considerations in remote work. It is anticipated that remote work will lead to higher levels of job satisfaction and productivity, ultimately resulting in increased income levels and continued economic impact on local communities (Gallardo & Whitacre, 2018).

Therefore, the previous discussion shows that remote work plays a role that leads to job satisfaction (Kazekami, 2019). Following this, several researchers (Schall, 2019; Nakrosiene et al.,2019) also stress that remote work will positively influence job satisfaction. Despite these findings, the research on remote work and job satisfaction has been chiefly conducted in manufacturing, information technology, financial institutions, and the educational sector (Khairudin & Aziz, 2020; Munusamy, 2016; O'Keefe et al., 2016) but study related to remote work conducted in oil and gas industry is hard to be found (Khairudin & Aziz, 2020). Thus, the relationship between remote work and job satisfaction is one of the challenges that have to be looked into in the oil and gas industry in Malaysia.

However, the disagreement around remote workers' performance has acquired wide media attention. Traditionally, it has been argued that working from home helps employees be more productive due to fewer office distractions, and others argued that working from home is not the optimal setting since it allows for more home distractions (Larson et al., 2020; Schall, 2019; Fonner & Roloff, 2010). According to some researchers

(Charalampous et al., 2019; Tuzovic & Kabadayi, 2020), remote work literature is based on problematic assumptions about the impact of remote work on individuals and organizations. Numerous academics have discovered contradictory findings on employee job satisfaction when examining the consequences of remote employment (Schall, 2019; Prasad et al., 2020). Therefore, a more robust understanding of the repercussions of remote work is crucial for the future of the workplace if organizations are to stay sustainable and competitive in the age of advancing technology.

Remote work has been studied by many researchers to examine the possible benefits and disadvantages of remote work since it is transforming work dynamics (Brynjolfsson et al., 2020; Béland et al., 2020). Additionally, any institution's success is contingent upon the performance of its employees, which is contingent upon a variety of circumstances.

The existing literature primarily focuses on a simplified and direct relationship between remote work, work-life balance, and job satisfaction (Bellmann & Hübler, 2020; Prasad et al., 2020; Charalampous et al., 2019; Schall, 2019; Hafeez & Akbar, 2015). However, researchers discovered that remote work has positive effects on proximal outcomes for employees, such as increased perception of autonomy (Aziz-Ur-Rehman & Siddiqui, 2019; Gajendran & Harrison, 2007). Nevertheless, it is important to consider contextual factors that may influence these hypothesized effects.

Research indicates that remote workers perceive higher levels of autonomy compared to non-remote workers (Gajendran & Harrison, 2007). According to the job enrichment perspective, professional employees experience perceived autonomy more at remote work (Olson & Primps, 1984). Initially, Lott (2015) suggested that remote work and autonomy coexist and predict work intensity. In contrast, Ter Hoeven & Van Zoonen (2015) emphasized the link between remote work and perceived autonomy in their study, which aimed to explain the inconclusive impact of remote work.

For remote workers to prosper in terms of well-being and productivity, perceived autonomy is a fundamental psychological demand. According to the Self-Determination Theory, an organization that gives employees autonomy promotes autonomous motivation. An organization that provides autonomy increases the performance and satisfaction of employees (Forbes Coaches Council, 2018). Previous studies have reported that perceived autonomy is a favorable work condition that allows employees to choose to fulfil job responsibilities (Lin & Ping, 2016). A study by Nwoksu Chiamaka and Tochukwu (2013), as cited in Lin and Ping (2016) and Karunarathne (2021), found that employees' perceived autonomy tends to influence their psychological states of experienced meaningfulness of work, felt responsibility and knowledge of results.

Factors found to mediate remote work and job satisfaction have been explored in several studies. A study by Gajendran and Harrison (2007) found that distal outcomes, such as performance, job satisfaction, turnover intent, and role stress were partially mediated by the perception of autonomy. Further, research also suggested that remote work and work-life balance had a relationship with job satisfaction (Aziz-Ur-Rehman, & Siddiqui, 2019) and these outcomes are mediated by perceived autonomy (Schall, 2019; Allen et al., 2003). This rationale clearly emphasizes the potential influence of autonomy in nurturing the relationship between remote work and job satisfaction.

This research will focus on perceived autonomy as the mediator between remote work and job satisfaction. The focus on perceived autonomy makes sense given the nature of the job, which involves having greater freedom to work outside the norm of working in a single conventional place, such as an office, as opposed to working from home (Charalampous et al., 2019). Working outside a designated location may encourage individuals to make more autonomous and self-directed decisions regarding their employment and responsibilities (Charalampous et al., 2019, Schall, 2019; Aziz-Ur-Rehman, & Siddiqui, 2019). This is because perceived autonomy would be regarded as a valuable employment asset for remote workers (Schall, 2019). Thus, the investigations into the said relationship are also justified.

According to an analysis of major international scientific journal databases, the research focused on job satisfaction in the oil and gas sector is quite substantial (Ojeiduma, 2020; Mohd Suki et al., 2020; Al Sumaiti, 2010). In addition, most recent studies focus more on issues such as leadership styles (Ojeiduma, 2020; Alias

et al., 2018). Only a few others are reviewing previous research to identify the influence of remote work, and work-life balance on job satisfaction (Khairudin, & Aziz, 2020; Aziz-Ur-Rehman & Siddiqui, 2019; Schall, 2019) but none focuses specifically on the oil and gas industry. Thus, further investigations on the relationship between remote work and job satisfaction are defensible. In addition, to date, only a few researchers have examined the potential mediators of remote work; therefore, with the current state of knowledge on remote work in the oil and gas industry in Malaysia, this research aims to contribute to the limited literature on this topic by examining the relationship between remote work and job satisfaction. Further, the current research examines the mediating role of perceived autonomy on the relationship between remote work and job satisfaction.

2. Literature Review

A study has shown that one of the key drivers of employees' job satisfaction is having flexible working arrangements (Ida, 2020). A survey by market research firm Vase states that one reason employees feel dissatisfied with their work is due to a lack of job flexibility (Ida, 2020).

In addition, another study shows that distal outcomes, such as performance, job satisfaction, turnover intent, and role stress were partially mediated by the perception of autonomy (Gajendran & Harrison, 2007). Other researchers also suggested that remote work had a relationship with job satisfaction and these outcomes are mediated by perceived autonomy (Schall, 2019; Allen et al., 2003; Feldman and Gainey, 1997). This theory certainly accentuates the potential influence of autonomy in nurturing the relationship between remote work and job satisfaction. Thus, the investigations into the said relationship are also justified.

Remote Work and Job Satisfaction

The relationship between remote work and job satisfaction has garnered significant attention recently as organizations increasingly adopt flexible work arrangements. Remote work refers to the ability to work outside the traditional office setting, often enabled by technological advancements and communication tools. On the other hand, job satisfaction reflects an individual's subjective evaluation of their work experience and encompasses various aspects of employee well-being and engagement.

The effects of remote work on job satisfaction have been reported to have mixed conclusions whether it has positive or negative effects (Bailey & Kurland, 2002, Bellman & Hubler, 2020). For instance, some researchers emphasize the positive effect of remote work on job satisfaction (Gajendran & Harrison, 2007; Gimenez Nadal et al., 2018; Wheatley, 2017). Other researchers, however, have demonstrated that remote work affects job satisfaction or that individuals who work remotely more frequently are less happy with their employment (Cooper & Kurland, 2002; Pinsonneault & Boisvert, 2001).

In contrast, Golden (2006) discovered a correlation between telecommuting and job satisfaction. According to the data, job satisfaction increases to a limited amount when remote work increases. (Golden & Veiga, 2005) and it will lead to decreases in job satisfaction when there is a further increase in remote work (Golden, 2006). Based on these findings, job satisfaction would be subsequently affected as the quality of employee relations decreases due to managers and telecommuters not being cautious when employees telecommute substantially.

Golden (2006) claims that remote work presumably increases job satisfaction to a limited extent. In their study, Golden and Veiga (2005) hypothesized that employees will feel greater job satisfaction with less remote work and decreased job satisfaction with more remote work. However, other researchers found that remote work was positively connected with job satisfaction (Bellmann & Hübler, 2020; Allen et al., 2015). According to the study, as remote work increased, employees' levels of job satisfaction improved as well. Additionally, Schall's (2019) findings indicate that the benefits of remote work may affect employees' overall job satisfaction.

Additionally, remote work offers opportunities for reduced distractions and interruptions commonly found in the traditional office environment. It has been reported that remote workers had fewer interruptions from colleagues, resulting in increased focus and productivity and higher job satisfaction (Grant & Campbell, 2020). Furthermore, remote work gives individuals a sense of control and agency, increasing job satisfaction (Kossek et al., 2019; Morgeson & Humphrey, 2006).

It is important to note that the relationship between remote work and job satisfaction may vary depending on individual and contextual factors. For example, the nature of the job itself, the level of social interaction required, and the supportiveness of the organizational culture can all influence the extent to which remote work positively impacts job satisfaction (Gajendran & Harrison, 2007; Golden et al., 2021).
H1: There will be a positive relationship between remote work and job satisfaction.

Remote Work-Perceived Autonomy-Job Satisfaction
Previous studies have revealed that perceived autonomy completely mediates the relationship between remote work and job satisfaction (Schall, 2019; Gajendran & Harrison, 2007). This recent evidence suggests that remote work gives employees greater control over their work schedules and processes, fostering a sense of autonomy that positively influences job satisfaction.

Remote work has been found to have a positive correlation with job satisfaction, and perceived autonomy plays a mediating role in this relationship (Aziz-Ur-Rehman & Siddiqui, 2019; Gajendran et al., 2014). Moreover, a meta-analysis study by Gajendran et al. (2014) found that the more time employees spend working remotely, the greater their sense of autonomy. This increased autonomy was associated with higher levels of job satisfaction. The researchers highlighted the importance of perceived autonomy as a valuable job resource for remote employees. Additionally, Gajendran and Harrison (2007) found that remote work has small but beneficial effects on employees' proximal outcomes, including higher perceptions of autonomy. They also discovered that perceptions of autonomy were partially influenced by distal outcomes such as performance, job satisfaction, turnover intention, and role stress.

Furthermore, in a study conducted by Golden (2006), the relationship between remote work and job satisfaction was explained based on Hackman and Oldham's job characteristic model. The researcher stated that autonomy is a crucial job characteristic that leads to job satisfaction. Therefore, employees who experience remote working will have high autonomy, which positively affects their job satisfaction in accordance with the job characteristic model.
H2: Perceived autonomy will mediate the relationship between remote work and job satisfaction.

3. Research Methodology

Sample and procedure
The sample will include employees at one oil and gas company in Kuala Lumpur. Participation was optional, and all data will be collected through a survey link via Google Survey. The participants will come from a variety of departments.

The proposed data analysis technique for this examination is SPSS. As the total population is estimated to be 765. The sampling method that the researcher used is convenience sampling. According to Krejci and Morgan (1970), with an approximate total population of 340, the minimum sample size needed is 185.

Measurement of the variables

Remote work
Following Schall (2019), a single item was created to measure whether participants engaged in remote work or not. The item was, “Do you engage in remote work activities during the workweek? Note: Remote work is defined as performing regular work at a site other than the main office, supported by technological connections (e.g., working remotely, working from home, working from a coffee shop.” The responses to this item were either “yes” or “no.”

Job satisfaction
The Brayfield-Rothe Job Satisfaction Index (Brayfield & Rothe, 1955) is a five-item scale that was selected to measure the overall job satisfaction levels of all employees. Items included “I feel fairly satisfied with my present job” and “I find real enjoyment in my work.”

Perceived autonomy
The Work Design Questionnaire (Morgeson & Humphrey, 2006) is a nine-item scale that was chosen to measure the employees' perceptions of autonomy in three different areas (work-scheduling autonomy, decision-making autonomy, and work methods autonomy). Items included "The job allows me to make my own decisions about how to schedule my work" and "The job gives me a considerable opportunity for independence and freedom in how I do the work."

Data analysis strategy
The data for this analysis were evaluated in accordance with multiple regression standards and procedures.

4. Results

Data Screening
Before conducting the regression analysis, the relevant assumptions of this statistical analysis were tested. A reliability test was conducted to focus on the consistency of the measuring instrument in supplying the results for this research study. Despite the general acceptance of the value of 0.7 as the cut-off point of the reliability measure, the satisfactory level of reliability also depends on how a measure is used. 'In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of 0.60 or 0.50 will suffice (Sekaran,2003).

Next, the multivariate outliers testing was conducted using the Mahalanobis Distance. An examination of the Mahalanobis distance scores indicated two multivariate outliers, according to the Chi-square statistics table P=.001 and the 1 independent variable is 10.83. No outliers were identified in the initial data screening.

In addition, results from the Kolmogorov–Smirnov and Shapiro–Wilk and Skewness and Kurtosis test, show that the residuals are all distributed normally. Next, the Durbin-Watson value was 2.470 indicating that non-autocorrelation both positive and negative, occurs between the residuals in the regression models. Further, the VIF results prove that the multicollinearity issue does not occur in this research. Finally, the assumption of homoscedasticity is supported in this research. The higher VIF based on the result is 3.962 for the virtual workplaces.

Demographic
Demographic information is presented in Table 1. Overall, there was a total of 185 participants. The participants' ages ranged from 22 – 65 years (M = 33.44, SD = 10.87) with a median age of 29 years. The sample consisted of 60.5% females, 33.5% males, and .5% identified as "other."

About 23% of the respondents were newly employed with their organizations, with their tenure being less than a year, followed by 24.9% between 1-2 years, 21.1% between 3-4 years, 16.8% between 5-10 years, and 9.2% having been with their organizations for more than 10 years.

In terms of job tenure, 27.0% reported being in their job role for less than a year, 32.4% between 1-2 years, 16.8% between 3-4 years, 10.8% between 5-10 years, and 7.6% had been in their job role for more than 10 years.

The participants varied in organizational position within their organizations, with 8.1% as administrative, 15.1% as entry-level, 22.7% as between entry-level/mid-management, 20.7%, as middle management, 8.1% as upper management, 3.2% as executive, and 17.3% as other. The majority of respondents were full-time employees (80.0%), followed by part-time (14.6%), contract (6.5%), intern (2.7%), and casual (1.1%).

Table 1: Demographic and Characteristics of Participants (N = 185)

	Variable	n	%
Gender	Male	62	33.5%
	Female	112	60.5%
	Other	1	.5%
Org tenure	Less than a year	42	22.7%
	1 – 2 years	46	24.9%
	3 – 4 years	39	21.1%
	5 – 10 years	31	16.8%
	> 10 years	17	9.2%
Job tenure	Less than a year	50	27.0%
	1 – 2 years	60	32.4%
	3 – 4 years	31	16.8%
	5 – 10 years	20	10.8%
	> 10 years	14	7.6%
Position	Admin	15	8.1%
	Entry	28	15.1%
	Entry/mid mgmt	42	22.7%
	Mid mgmt	37	20.0%
	Upper mgmt	15	8.1%
	Executive	6	3.2%
	Other	32	17.3%

Note. Mgmt is abbreviated for management; Org is abbreviated for organizational.

Descriptive Statistics

Means and standard deviations for all the variables are presented in Table 2. The purpose of conducting this analysis was to check the central tendency and variability for each variable. Among the participants, 77% indicated that they engaged in remote work activities during the average work week, while 23% of the participants did not. The respondents' ratings of their overall job satisfaction were moderately high ($M = 5.49$, $SD = 1.05$). Ratings of participants' perceived autonomy were moderately high as well ($M = 4.04$, $SD = .77$).

Pearson Correlation

In Table 2, correlations are displayed that test the relationships among the study variables. Remote work and job satisfaction had a moderately positive, significant relationship, $r(168) = .16$, $p < .05$, indicating that those who were engaged in remote work experienced higher job satisfaction. Remote work and perceived autonomy had a moderately, positive significant relationship, $r(168) = .32$, $p < .01$, such that those who were engaged in remote work experienced higher job autonomy.

The relationship between perceived autonomy and job satisfaction was found to be strong, positive, and significant, $r(168) = .55$, $p < .01$, indicating that a higher perception of independence was related to higher satisfaction with one's job. Overall, these results indicated that employees who engaged in remote work perceived their jobs to be more autonomous and experienced higher job satisfaction levels.

Table 2: Descriptive Statistics, Pearson Correlations Among Variables

Item	M	SD	1	2	3
Remote Work	.77	.42	--		
Job Satisfaction	5.49	1.05	.16*	--	
Perceived Autonomy	4.04	.77	.32**	.55**	--

Note. *p < .05, ** p < .01, *** p < .001

Hypothesis Testing

Regression Analysis

Hypothesis 1 stated the relationship between remote work and job satisfaction would be curvilinear, such that as remote work increases job satisfaction would improve; but only to a point, beyond which further remote work would lead to a decrease in job satisfaction.

A regression analysis was conducted to test this hypothesis. In the regression analysis, remote work was entered into the analysis and was found to be significantly related to job satisfaction, accounting for 9% of the variance for job satisfaction (R^2 = .09, R^2 adj = .08, F (1,179) = 16.56, p < .01). This demonstrated that higher levels of remote work were related to higher levels of job satisfaction.

Overall, the results from these analyses provided support for a significant, positive, and linear relationship between remote work and job satisfaction; therefore Hypothesis 1 was supported.

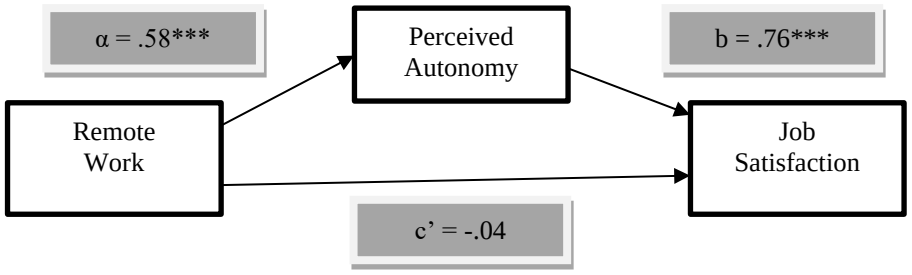
The mediating effect of perceived autonomy

Hypothesis 2 stated that perceived autonomy would mediate the relationship between remote work and job satisfaction. To test this mediation effect, multiple regression analyses were conducted using the four-step approach proposed by Baron and Kenny (1986) who ran three regression analyses to observe the significance of the unstandardized regression coefficients (b's) in each step. According to Baron and Kenny (1986), "this model assumes a three-variable system such that there are causal paths feeding into the outcome variable: the direct impact of the independent variable (Path c) and the impact of the mediator (Path b) ...independent variable to the mediator (Path a)" (p. 1176). In addition, a Sobel test was conducted to test the indirect effect of perceived autonomy on the relationship between remote and job satisfaction (path ab).

In step one of the analysis, the regression of remote work on job satisfaction, without perceived autonomy as the mediator, was significant, R2 = .03, F(1,180) = 6.06, p < .05 – path c was confirmed. In step two, the regression of remote work on the mediator's perceived autonomy was significant as well, R2 = .10, F(1,170) = 18.91, p < .001 – path a was confirmed. In step three, perceived autonomy (the mediator), was also significant and uniquely related to job satisfaction, β = .56, t = 8.20, p < .001 – path b was confirmed.

Additionally, remote work was no longer found as significant when accounting for perceived autonomy in step two, β = -.02, t = -2.23, p = .82 – path c' was confirmed. After conducting the Sobel test, full mediation was found (z = 3.95, p < .001). Overall, these analyses suggested that the relationship between remote work and job satisfaction was fully mediated by perceived autonomy. In other words, the ability to work remotely gave increased perceptions of autonomy with their work schedule, decision-making, and how their work was conducted, which in turn increased their overall job satisfaction levels. Evidence of perceived autonomy as a mediator between the remote work and job satisfaction relationship was found; therefore, Hypothesis 2 was supported (see Figure 1).

Figure 1: Mediation model for job satisfaction using perceived autonomy as the mediator and remote work as a predictor



*Note: * p < .05, ** p < .01, *** p < .001*

To sum up, Hypothesis 1 stated that a curvilinear relationship would exist between remote work and satisfaction, meaning that as remote work increased, job satisfaction would increase, but only to a point, beyond which further increases in remote work would lead to a decrease in job satisfaction. These results challenge previous findings that have found either a curvilinear relationship (Golden, 2006) or a negative relationship between remote work and job satisfaction (Cooper & Kurland, 2002; Pinsonneault & Boisvert, 2001). One possible reason for not finding a curvilinear relationship might be due to the sample.

Hypothesis 2 stated that an employee's perception of autonomy would mediate the relationship between remote work and job satisfaction, such that remote work would lead to a higher perception of autonomy, which in turn would be associated with higher job satisfaction. Consistent with past research, the results of this study showed that perceived autonomy fully mediated the relationship between remote work and job satisfaction (Gajendran & Harrison, 2007). These results suggested that employees who engaged in remote work had a perception of having more perceived autonomy, which led them to become more satisfied with their jobs. The results of this analysis supported Hypothesis 2.

Discussion

The purpose of the current study was to examine the relationship between remote work and job satisfaction among working professionals. More specifically, the purpose was to address the mediating effects of perceived autonomy on the relationship between remote work and job satisfaction. As a result, this study shines a light on current insight into employees' attitudes toward remote work, along with its outcomes.

The current study makes several theoretical contributions. The results of the current study help to explain why remote work leads to job satisfaction. In line with the literature by Golden (2006), the current study adds to the literature on remote work and job satisfaction in accordance with the JCM model (1976). The JCM model helps explain why working remotely may benefit the employee and increase their job satisfaction. The findings from the current study indicated that employees who worked remotely had higher perceptions of autonomy, which in turn led to greater satisfaction with their jobs.

Therefore, one practical implication of the study is that employers should give their personnel the option to work remotely more often, especially if they want their employees' job satisfaction levels to increase. Also, having more satisfied employees may affect retention rates, such as lower turnover. This may help replacement costs, which may ultimately improve the bottom line of the business. According to a 2017 Retention Report, conducted by Work Institute, 75% of the causes of employee turnover are preventable (Bolden-Barrett, 2017). Therefore, companies may want to create formal/informal telecommuting programs to retain employees, meet their needs, and, in return, have happier, more dedicated employees.

5. Strengths and Limitations

Strengths

One of the strengths of the study was the large sample size. With 185 participants total, the individuals varied in age, gender, job position, organizational tenure and work arrangement. This allowed the findings of the study

to increase external validity; that is, the present findings are likely to generalize to a population of working professionals.

Another strength was that the study builds upon the previous findings on remote work and its relationship to job satisfaction and provides a better understanding of why remote work leads to higher job satisfaction. More specifically, this study delivers a current perspective on who is engaging in remote work, when they are engaging in remote work, and for how long during the work week.

Limitations

One of the major limitations of the study was the use of self-report measures such as the job satisfaction and perceived autonomy scales. The issue with self-report research is that individuals may exaggerate or minimize how they feel when answering questions on a survey, which may compromise the study's validity.

Recommendations

Future research on remote work should consider examining productivity as a possible outcome of remote work or examining other potential mediating workplace variables, such as employee engagement in the relationship between remote work and job satisfaction.

It would be interesting to examine productivity as an outcome of remote work because of the ongoing debate, as some argue that working remotely allows employees to focus more on work due to fewer office distractions (more productive) (Mann, Varey, & Button, 2000), while others argue that working remotely create more home distractions (less productive) (Fonner & Roloff, 2010).

Also, future research on remote work should consider examining employee engagement as a potential mediator in the relationship between remote work and job satisfaction since there is limited research in this area. Remote work may motivate employees which may generate higher levels of engagement, which in turn may generate higher levels of job satisfaction.

Conclusion

The main goal of the study was to investigate the manner in which remote work impacts employees' job satisfaction levels. The findings suggest that engaging in remote work increases employees' job satisfaction levels. In addition, perceived autonomy was investigated as a potential mediator. The results suggest that employees who engage in remote work have greater perceptions of autonomy, which leads them to become more content with their occupations. In summary, engaging in remote work may benefit employees by providing a more autonomous work environment. In return, this may also benefit the employer by having a more satisfied workforce. Overall, the results of the study may help future organizations decide whether to invest in telecommuting programs within their businesses.

References

Alias, N. E., Nokman, F. N., Ismail, S., Koe, W.-L., & Othman, R. (2018). The Effect of Payment, Recognition, Empowerment and Work-Life Balance on Job Satisfaction in Malaysia's Oil and Gas Industry. *International Journal of Academic Research in Business and Social Sciences*, 8(9), 639–656

Allen, D. G., Renn, R. W., & Griffeth, R. W. (2003). The impact of telecommuting design on social systems, self-regulation, and role boundaries. In G. Ferris & J. Martochhio (Eds.), Research in personnel and human resources management (125–163). Boston: JAI Press.

Aziz-Ur-Rehman, M., & Siddiqui, D. A. (2019). Relationship between Flexible Working Arrangements and Job Satisfaction Mediated by Work-Life Balance: Evidence from Public Sector Universities Employees of Pakistan. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3510918

Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: findings, new directions, and lessons for the study of modern work. Journal of Organizational Behavior, 23(4), 383–400. https://doi.org/10.1002/job.144

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Béland, L. P., Brodeur, A., & Wright, T. (2020). The short-term economic consequences of COVID-19: exposure to disease, remote work, and government response.

Bellmann, L., & Hübler, O. (2020). Working from home, job satisfaction and work–life balance – robust or heterogeneous links? International Journal of Manpower, ahead-of(ahead-of-print), 1–18. https://doi.org/10.1108/ijm-10-2019-0458

Bhattacharya, P., & Hutchinson, F. E. (2022). Malaysia's Oil and Gas Sector: Constant Expectations despite Diminishing Returns. ISEAS – Yusof Ishak Institute, 21(2022), ISSN 2335-6677. https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2022-21-malaysias-oil-and-gas-sector-constant-expectations-despite-diminishing-returns-by-british-bhattacharya-and-francis-e-hutchinson/

Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.

Brynjolfsson, E., Horton, J., Ozimek, A., Rock, D., Sharma, G., & TuYe, H.-Y. (2020). COVID-19 and Remote Work: An Early Look at US Data. National Bureau of Economic Research, 1–26. https://doi.org/10.3386/w27344

Charalampous, M., Grant, C. A., Tramontano, C., & Michailidis, E. (2019). Systematically reviewing remote e-workers' well-being at work: a multidimensional approach. European Journal of Work and Organizational Psychology, 28(1), 51-73.

Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. Journal of Organizational Behavior, 23(4), 511–532. https://doi.org/10.1002/job.145

Feldman, D. C., & Gainey, T. W. (1997). Patterns of telecommuting and their consequences: Framing the research agenda. Human Resource Management Review, 7, 369–388. https://doi.org/10.1016/S1053-4822(97)90025-5

Focus Malaysia (2018). Oil & gas industry online hiring up for 19 months. Retrieved from: http://www.focusmalaysia.my/Snippets/ oil-gas-industry-online-hiring-up-for-19-months.

Fonner, K. L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial. Journal of Applied Communication Research, 38, 336-361. https://doi.org/10.1080/00909882.2010.513998

Forbes Coaches Council. (2018). Motivating millennials (and everyone else, for that matter). Forbes Magazine. Retrieved 20 January 2020 from https://www.forbes.com/sites/forbescoachescouncil /2018/03/14/motivating millennials- and-everyone-else-for-that-matter/

Gallardo, R., & Whitacre, B. E. (2018). 21st century economic development: Telework and its impact on local income. Regional Science Policy and Practice, 10(2), 103–123. https://doi.org/10.1111/rsp3.12117

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. Journal of Applied Psychology, 92, 1524-1541. https://doi.org/10.1037/0021-9010.92.6.1524

Giménez-Nadal, José & Molina, José & Velilla, Jorge. (2018). Telework, the Timing of Work, and Instantaneous Well-Being: Evidence from Time Use Data. IZA Discussion Papers.

Gitoho, S. Q. (2015). Influence of Leadership Styles on Employee Job Satisfaction: A Case Study of Firms Listed in the Nairobi Securities Exchange.

Global, E. (2021, May 12). More than half of employees globally would quit their jobs if not provided post-pandemic flexibility. Ernst & Young Global Ltd. https://www.ey.com/en_gl/news/2021/05/more-than-half-of-employees-globally-would-quit-their-jobs-if-not-provided-post-pandemic-flexibility-ey-survey-finds

Golden, T. D., Veiga, J. F., & Dino, R. N. (2021). The impact of remote work on work-family conflict, job satisfaction, and turnover intentions: A time period-based approach. Journal of Applied Psychology, 106(2), 212-225.

Golden, T. D., Veiga, J. F., & Simsek, Z. (2006). Telecommuting's differential impact on work-family conflict: Is there no place like home? Journal of Applied Psychology, 91, 1340–1350. https://doi.org/10.1037/0021-9010.91.6.1340

Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. Journal of Organizational Behavior, 27, 319-340. https://doi.org/10.1002/job.369

Golden, T. D., & Veiga, J. F. (2005). The impact of the extent of telecommuting on job satisfaction: Resolving inconsistent findings. Journal of Management, 31(2), 301–318. https://doi.org/10.1177/0149206304271768

Grant, A. M., & Campbell, E. M. (2020). Work-life integration is a balancing act that requires support from supervisors. Journal of Business and Psychology, 35(6), 689-706.

Hashim, R., Bakar, A., Noh, I., & Mahyudin, H. A. (2020). Employees' Job Satisfaction and Performance through working from Home during the Pandemic Lockdown. Environment-Behavior Proceedings Journal, 5(15), 461-467.

Harry Obi – Nwosu, Joe-Akunne Chiamaka O, & Oguegbe Tochukwu M. (2013). Job Characteristics As Predictors Of Organizational Commitment Among Private Sector Workers In Anambra State, Nigeria. International Journal of Asian Social Science, 3(2), 482–491. http://aessweb.com/pdf-files/482-491.pdf

Ida, L. (2020). For Malaysian employees, flexi hours, work-life balance top reasons for happiness; salary levels leading cause of dissatisfaction. Retrieved from https://www.malaymail.com/news/malaysia/2020 /08/13 /for-malaysian-employees-flexi-hours-work-life-balance-top-reasons-for-happi/1893469

Karunarathne, W. A. L. S. (2021). The impact of perceived autonomy on job satisfaction: A study among banking sector employees. Journal of Business and Technology, 1(1), 11-18.

Kazekami, S. (2019). Mechanisms to improve labor productivity by performing telework. Telecommunications Policy, 44(2), 101868. https://doi.org/10.1016/j.telpol.2019.101868

Khairudin, N. N. Q. M., & Aziz, N. (2020). The correlation between telecommuting and work-life balance in the oil and gas industry. Journal of Physics: Conference Series, 1529(2), 022057. https://doi.org/10.1088/1742-6596/1529/2/022057

Kossek, E. E., & Lautsch, B. A. (2018). Work–Life Flexibility for Whom? Occupational Status and Work–Life Inequality in Upper, Middle, and Lower-Level Jobs. Academy of Management Annals, 12(1), 5–36. https://doi.org/10.5465/annals.2016.0059

Larson, B. Z., Vroman, S. R., & Makarius, E. E. (2020). A guide to managing your (newly) remote workers. Harvard Business Review, 18.

Lin, J. T. P., & Ping, N. C. L. (2016). Perceived job autonomy and employee engagement as predictors of organizational commitment. The Undergraduate Journal of Psychology, 29(1), 1- to.

Mohd Suki, N., Rony, N. I., & Mohd Suki, N. (2020). Do gender and income really moderate employees' job satisfaction? Insights from Malaysia's oil and gas industry. International Journal of Management Science and Engineering Management, 15(1), 47-58.

Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. Journal of Applied Psychology, 91(6), 1321–1339. https://doi.org/10.1037/0021-9010.91.6.1321

Munusamy T. 2016. Influence of Teleworking Acceptance on Employees' Work Life in Malaysia's ICT Sector. International Journal of Accounting and Business Management,4(2),146–158. https://doi.org/10.24924/ijabm/2016.11/v4.iss2/146.158

Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: characteristics and outcomes of telework. International Journal of Manpower, 40(1), 87–101. https://doi.org/10.1108/ijm-07-2017-0172

Ojeiduma, N. (2020). The Relationship Between Leadership Style and Job Satisfaction in Multinational Oil and Gas Services (Order No. 28256114). Available from ProQuest Dissertations & Theses Global. (2468643447).https://ezaccess.library.uitm.edu.my/login?qurl=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Frelationship-between-leadership-style-job%2Fdocview%2F2468643447%2Fse-2%3Faccountid%3D42518

O'Keefe, P., Caulfield, B., Brazil, W., & White, P. (2016). The impacts of telecommuting in Dublin. Research in Transportation Economics, 57, 13–20. https://doi.org/10.1016/j.retrec.2016.06.010

Olson, M. (1983). Remote office work: changing work patterns in space and time. Commun. ACM, 26, 182-187.

Paposa, K. K., & Kumar, Y. M. (2015). Impact of performance management system on job satisfaction of faculty members: A Study on Technical Education Institutes of Nagpur. Management and Labor Studies, 40(1–2), 159–175. https://doi.org/10.1177/0258042x15601538

Pinsonneault, A., & Boisvert, M. (2001). The Impacts of Telecommuting on Organizations and Individuals. Telecommuting and Virtual Offices, 163–185. https://doi.org/10.4018/978-1-878289-79-7.ch010

Prasad, K., Vaidya, R. W., & Mangipudi, M. (2020). Effect of occupational stress and remote working on psychological well-being of employees: an empirical analysis during the COVID-19 pandemic concerning the information technology industry in Hyderabad. Indian Journal of Commerce & Management Studies, 11(2), 1–11. https://doi.org/10.18843/ijcms/v11i2/01

Schall, M. A. (2019). The Relationship Between Remote Work and Job Satisfaction: The Mediating Roles of Perceived Autonomy, Work-Family Conflict, and Telecommuting Intensity. Master's Theses. 5017. Published. https://doi.org/10.31979/etd.2x82-58pg

Sekaran, U. (2003). Research Methods for Business: A Skill-Building Approach (4th ed.). John Wiley & Sons.

Singh, B. (2017). Why are maritime jobs not preferred anymore? Maritime insight. Retrieved from: https://www.marineinsight.com/ careers-2/why-maritime-jobs-are-not-preferred-anymore/

Ter Hoeven, C. L., & Van Zoonen, W. (2015). Flexible work designs and employee well-being: examining the effects of resources and demands. New Technology, Work and Employment, 30(3), 237–255. https://doi.org/10.1111/ntwe.12052

Thai, V. V., & Latta, T. (2010). Employment brand strategy for the shortage of seafarers. International Journal of Shipping and Transport Logistics, 2(4), 411–428.

Tuzovic, S., & Kabadayi, S. (2020). The influence of social distancing on employee well-being: a conceptual framework and research agenda. Journal of Service Management, 32(2). https://doi.org/10.1108/JOSM-05-2020-0140

Unanue, W., Gómez, M. S., Cortez, D., Oyanedel, J. C., & Mendiburo-Seguel, A. (2017). Revisiting the Link between Job Satisfaction and Life Satisfaction: The Role of Basic Psychological Needs. Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.00680

Wheatley, D. (2016). Employee satisfaction and use of flexible working arrangements. Work, Employment and Society, 31(4), 567–585. https://doi.org/10.1177/0950017016631447

Yuen, K. F., Loh, H. S., Zhou, Q., & Wong, Y. D. (2018). Determinants of job satisfaction and performance of seafarers. Transportation Research Part A, 110, 1–12.