

Impact of Flexible Work Arrangements on Employee Productivity: A Multiple Regression Analysis

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Abstract

Flexible work arrangements (FWAs) started as a discretionary organisational approach, but it has now become a structural feature of contemporary labor in particular due to the growing rate of digitalisation and the changing nature of labour needs. Although flexibility in the workplace and time is usually linked to increased employee satisfaction, its direct impact on productivity is not complex and has contextual effects. This paper will look at how flexible work arrangements affect employee productivity in a quantitative design with multiple regression analysis and ANOVA. A structured questionnaire using a five-point Likert scale was used to gather primary data on 218 employees in a variety of sectors, including information technology, education and service industries. The research examines the four most important dimensions of FWAs, which are flexibility in work, work-life balance, autonomy, and technological support, adjusting demographic factors, including age, gender, and work experience. Cronbach's alpha and correlation analysis were done to determine the reliability and validity of the constructs. The results show that work-life balance and autonomy have a strong positive impact on employee productivity, but technological support has a moderate but significant impact. Work flexibility, on the other hand, does not have a statistically significant impact. The research opposes the idea that flexibility would solely contribute to productivity and emphasises the importance of the supportive organisational mechanisms. A significant percentage of the variance in productivity is explained by the regression model, and the results of ANOVA prove the overall significance of the model. The paper concludes that flexible work arrangements work best when they are adopted as a system as opposed to isolated practices. These results provide valuable theoretical and practical implications to organisations that want to maximise workforce performance in a more flexible work environment.

1. Introduction

The flexible work arrangements (FWAs) have become a feature of modern organisational work, particularly as the rate of digital transformation grows, and remote working becomes common worldwide. Such plans typically entail remote work, work-hybrid, reduced workweeks, and alternative hours that provide employees greater flexibility in terms of when and where they work. What used to be viewed as a bonus is gradually turning out to be a strategic necessity in the job markets, which are becoming more competitive (Allen et al., 2021). The enhanced topicality of FWAs is directly linked with the advancement of communication technologies and the change of employee expectations. The Internet tools, such as cloud-based systems, video conferencing, and collaborative software, have assisted companies in continuing with their operations without necessarily being physically present. In the meantime, the emphasis on flexibility, autonomy, and work-life integration grows among employees when it comes to achieving job satisfaction (Wang et al., 2022). Consequently, companies are re-evaluating customary work models to meet these shifting tastes. The main issue in this transition is, however, the productivity of employees. Productivity is no longer a quantifiable output, but it is inclusive of efficiency, quality of work, creativity, and long-term performance. Although there is research indicating that FWAs can improve productivity, decreasing commuting time and job satisfaction, other researchers point to the possible negative consequences, including communication difficulties, social seclusion, and challenges in keeping job discipline (Bloom et al., 2023). This discrepancy in the results implies that the correlation between FWAs and productivity is not that simple. One of the main problems is that it is assumed that the only way to enhance performance is through flexibility. The reality is that the effectiveness of FWAs is a combination of factors, such as the capacity of employees to enjoy work-life balance, the extent of autonomy that they enjoy, and the amount of technological support that is provided to them. As an example, even with flexible schedules, employees who can hardly differentiate between work and personal life can become burned out (Greenhaus and Allen, 2022). On the same note, poor technological infrastructure may slow down communication and efficiency, which outweighs the possible advantages of flexibility (Tarafdar et al., 2022). Additionally, the current studies tend to study them separately and not collectively, which restricts the possibility of comprehending their interactions. It is evident that the lack of rigorous empirical studies that would involve various dimensions of FWAs in a single analytical paradigm, and the use of powerful statistical techniques such as multiple regression and ANOVA. This kind of gap restricts the development of the overall image of the effect of FWAs on productivity in different organisational contexts. To fill this gap, the present study will explore the impact of the flexible work arrangement on the productivity of the employees, considering several related variables. Specifically, it discusses the overall effects of work flexibility, work-life balance, autonomy, and technological support on productivity and takes into account demographic variations between the employees.

The study is guided by the following objectives:

1. To assess the impact of flexible work arrangements on employee productivity
2. To analyse the individual and combined effects of work-life balance, autonomy, and technological support
3. To evaluate the statistical significance of these relationships using multiple regression and ANOVA

Based on these objectives, the study addresses the following research questions:

- How do flexible work arrangements influence employee productivity?
- Which dimensions of FWAs contribute most significantly to productivity?
- Are the observed relationships statistically significant?

The study aims to answer these questions and thereby contribute to the academic literature and managerial practice, providing a more sophisticated view on how flexible work arrangements can be properly developed to boost employee productivity.

2. Literature Review

The increasing use of flexible work arrangements (FWAs) has provided a lot of academic interest, especially in light of the implications of flexibility on employee productivity. Recent studies (2021-2024) indicate the change of the view of flexibility as a homogeneous advantage to the interpretation of this concept as a multidimensional variable that is affected by organisational, technological, and personal factors. This part critically analyses the literature available on FWAs and productivity and incorporates the appropriate theoretical perspectives.

2.1 Flexible Work Arrangements and Employee Productivity: Different types of flexible work arrangements include remote working, a hybrid work model, flexible working time, and a compressed workweek. These plans are mostly linked with higher staff satisfaction and involvement, which is regarded as a precursor to productivity. Allen et al. (2021) discovered that employees who were able to work under flexible conditions expressed their increased job satisfaction and perceived productivity, which is partially explained by the fact that they spent less time commuting and had more control over their work schedules. Nevertheless, there are mixed empirical findings. Bloom et al. (2023) noted that remote work might increase the performance of each task, but it can harm collaboration and innovation because of the lack of face-to-face interaction. Equally, Gibbs et al. (2022) observed that productivity increases in remote environments tend to be mediated by communication flaws and coordination issues. These results indicate that FWAs can improve some of the elements of productivity and limit others. The new hybrid work models have become a possible compromise. Wang et al. (2022) believe that hybrid solutions offer the freedom of working remotely and the advantages of social interaction in the office, which results in more balanced productivity. However, the success of such models is largely related to the design of organisations and the flexibility of employees.

2.2 Work-Life Balance as a Mediating Factor: The importance of work-life balance is well-known as one of the key ways FWAs can impact productivity. Being able to balance professional and personal life can help alleviate stress and improve overall well-being, thus improving performance. Greenhaus and Allen (2022) underline that an employee who attains a good balance between work and personal life will have a higher chance of maintaining high productivity in the long run. However, flexibility may also erase the lines between work and personal life. Employees with an ambiguous temporal and spatial boundary can also experience role conflict, leading to increased stress, which reduces productivity in the end (Kossek and Lee, 2021). This paradox underscores the fact that work-life balance does not come with flexibility but is a deliberate process that has to be managed by employees and organisations.

2.3 The Autonomy in Flexible Work Arrangements. One of the key aspects of flexible work environments is autonomy, which is a degree of control that employees have over the work processes and decisions. Self-determination theory posits that intrinsic motivation is boosted by autonomy, and this motivation results in performance (Deci and Ryan, 2021). The workers who feel that there is increased autonomy tend to be more successful in taking initiative, time management, and being more involved in their work. This relationship is supported in the empirical studies. Parker et al. (2022) discovered that autonomy is a major predictor of employee performance in the remote work environment, especially when employees are expected to have the autonomy to work around their schedules. The autonomy, however, in cases where it is too much and is not properly guided, can result in ambiguity and lower accountability, implying that autonomy should be coupled with clear expectations.

2.4 Technological Support and Productivity: Infrastructure technology is important in facilitating flexible work arrangements. Coordination and information sharing are achieved through digital tools like project management software, communication and sharing tools like a cloud-based system. (Tarafdar et al., 2022) emphasise that good technological support decreases disruptions in the working process and increases efficiency. Simultaneously, the growing dependence on technology may result in the so-called technostress since it is associated with the sense of overload, intrusion, and complexity. Unless managed appropriately, this may have a detrimental effect on productivity (Ragu-Nathan et al., 2021). Thus, the connection between technology and productivity depends on the quality of the tools, as well as on the quality of the tools that are issued and the proficiency of employees to utilise them.

2.5 Theoretical Foundations: The connection between FWAs and productivity can be further explained with the help of the existing theoretical frameworks:

- Job Demands-Resources (JD-R) Model: This theory assumes that job demands can be offset by job resources like flexibility, autonomy, and support and increase employee engagement that results in better performance (Bakker and Demerouti, 2021). FWAs may be regarded as stress relievers or motivation boosters.
- Social Exchange Theory: It is believed that workers will have good work behaviours as a way of reciprocation to positive organisational practices. Employees can also react with greater commitment and productivity when organisations provide them with flexible work options (Cropanzano et al., 2022).
- Work-Life Balance Theory: According to this approach, it is essential to have a balance between work and personal lives. Stable performance and psychological well-being are more likely to be shown by balanced people (Greenhaus and Allen, 2022).

2.6 Research Gap: Although the literature on flexible work arrangements is quite extensive, there are a number of gaps. To begin with, most works dwell on the separate elements of FWAs instead of a combination of their impacts. Second, the use of more sophisticated statistical methods like multiple regression and ANOVA to explore these relationships in detail is not very intensive. Third, a lot of the current studies are context-dependent, and in many cases, are limited to one industry or region, which makes generalisation difficult. Additionally, it is necessary to include control variables like age, gender, and experience to have a clearer picture of the impact of demographic variables on the relationship between FWAs and productivity. In the absence of such considerations, the findings can not capture any relevant differences between different groups of employees.

2.7 Summary: According to the reviewed literature, the impact of flexible work arrangements (FWAs) on employee productivity can be positive, but the effectiveness of these arrangements does not lie in a single factor but in the interdependence of various factors. Instead of being a direct determinant, flexibility exists in a larger framework of organisational and individual circumstances that precondition employee performance results. Out of the many dimensions analysed, work-life balance, autonomy and technological support are key factors that drive productivity. Work-life balance helps employees to balance conflicting demands, hence maintaining performance in the long run. Autonomy helps in intrinsic motivation and self-regulation, which are vital in flexible work environments. Technological support, though mostly of a facilitative nature, guarantees continuity of communication and task performance. Notably, there is a consistent indication in the literature that work flexibility alone is inadequate in ensuring enhanced productivity. Lack of appropriate support systems may lead to role ambiguity, boundary blurring and inefficiency. This demonstrates the need to conceptualise FWAs as a system and not independent practices. Informed by these observations, the current research uses a holistic analysis approach that looks at the cumulative impacts of the key FWA dimensions on the productivity of employees. The research will look to offer a more holistic and empirically based approach to the understanding of how flexible work arrangements operate in modern organisations through the incorporation of several variables into a single model and the use of powerful statistical methods.

2.8 Conceptual Framework : This paper is framed on the literature and theoretical base to explore how flexible work arrangements (FWAs) impact employee productivity. It also identifies work flexibility, work-life balance, autonomy and technological support as significant independent variables that have an impact on the productivity outcomes. Productivity of employees is the dependent variable and is a measure of efficiency, quality of work and completion of tasks. The model presumes that these dimensions do not work independently but instead work as a unit. The significance of work-life balance and autonomy will probably be more predominant, but technological support is an enabling factor. Conversely, the flexibility of work in itself might not be directly related to productivity without the supporting mechanisms. The demographic variables, such as age, gender and work experience, are introduced as control variables to consider individual differences. The framework is based on the Job Demands Resources model and Social Exchange Theory, which underline that a combination of flexibility and favourable organisational conditions contributes to productivity.

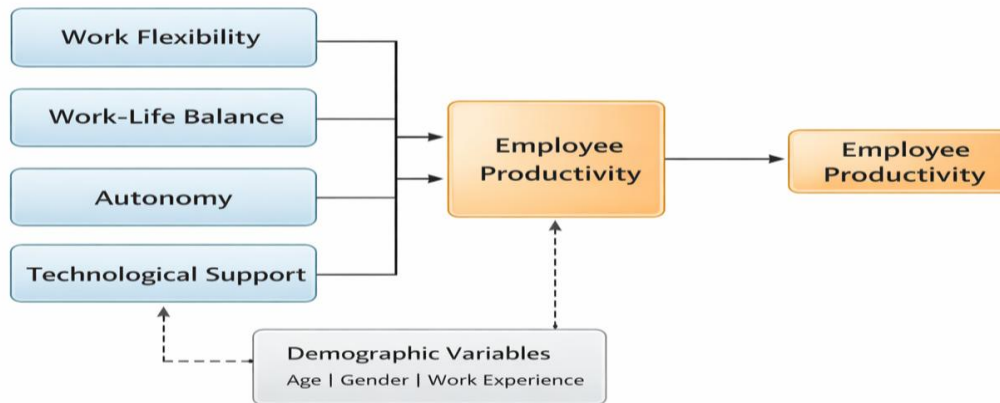


Figure 1: Conceptual framework of flexible work arrangements and employee productivity.

3. Research Methodology: The research design of this study is quantitative research to investigate the effect of flexible work arrangements (FWAs) on the productivity of employees. The methodology was systematic and structured in a manner to guarantee reliability, validity and statistical rigour in the analysis of the relationships between the variables chosen. The methodology is a combination of data collection using a survey and the application of sophisticated statistical methods, such as multiple regression analysis and analysis of variance (ANOVA).

3.1 Research Design: A descriptive and explanatory research design was used to examine the correlation between flexible work arrangements and employee productivity. The descriptive component is concerned with the patterns and trends of perceptions held by the employees, and the explanatory component is concerned with the causal relationship that can be established between independent and dependent variables. The method is common in organisational studies to investigate the behavioural and performance outcomes.

3.2 Data Collection Method: The structured questionnaire was employed to gather primary data, and it was given to employees who work in industries where flexible work arrangements are widespread, such as the information technology, education and service sectors. The questionnaire was administered using online platforms in order to have increased access and participation.

The instrument was divided into two parts:

Section A: Demographic (age, gender, work experience) information.

Section B: Five-point Likert scale items (1, 2, 3, 4, 5) will be used to measure study variables.

There were 240 responses that were first obtained. Following a filtering process of incomplete and inconsistent answers, 218 valid answers were used to proceed with the analysis.

3.3 Sampling method and Sample size. The sampling method used in the study was the convenience method because of feasible limitations in terms of time and availability. Although the approach can hamper the generalizability of the results, it is suitable in exploratory and organisational research when respondents are not accessible. The sample size of 218 respondents is sufficient to run a multiple regression analysis and is within the statistical reliability and validity recommended thresholds.

3.4 Measurement of Variables: All variables were measured using a five-point Likert scale. The constructs were adapted from previously validated scales to ensure content validity and reliability.

- Dependent Variable:
 - Employee Productivity (measured through efficiency, task completion, and quality of work)
- Independent Variables:
 - Work Flexibility (control over work schedule and location)
 - Work-Life Balance (ability to manage personal and professional responsibilities)
 - Autonomy (degree of independence in decision-making)
 - Technological Support (availability and effectiveness of digital tools)
- Control Variables:
 - Age
 - Gender
 - Work Experience

3.5 Hypothesis Development

Based on the literature review and theoretical foundations, the following hypotheses were formulated:

- H1: Work flexibility has a positive and significant impact on employee productivity
- H2: Work-life balance has a positive and significant impact on employee productivity
- H3: Autonomy has a positive and significant impact on employee productivity
- H4: Technological support has a positive and significant impact on employee productivity
- H5: Flexible work arrangements collectively have a significant impact on employee productivity

3.6 Reliability and Validity: Cronbach's alpha was used to determine the reliability of the measurement scales. The constructs all had a value above the desired value of 0.70, which represents high internal consistency. By modifying the measurement items of recognised studies, the content

validity was guaranteed. Correlation was used to measure construct validity, to ensure that the variables were related in the right way without any multicollinearity issues.

3.7 Common Method Bias: Given that the information used to conduct this study was gathered through the use of the survey tool, there is the possibility of common method bias. In order to overcome this problem, the single-factor test by Harman was carried out. Measurement items were all opened into an exploratory factor analysis to establish whether one factor explained most of the variance.

Table 1: Harman’s Single Factor Test for Common Method Bias

Factor	Variance Explained (%)
Single Factor	34.2

The first factor accounts for 34.2% of the total variance, which is below the threshold of 50%. This indicates that common method bias is not a serious concern in this study, and the data can be considered suitable for further statistical analysis.

3.8 Data Analysis Techniques

The collected data were analysed using SPSS statistical software. The following techniques were applied:

- Descriptive Statistics: To summarise demographic characteristics and overall trends
- Reliability Analysis: To assess the internal consistency of measurement scales
- Correlation Analysis: To examine relationships among variables
- Multiple Regression Analysis: To determine the impact of independent variables on employee productivity
- ANOVA: To test the overall significance of the regression model

The regression model used in this study is expressed as:

$$EP = \beta_0 + \beta_1WF + \beta_2WLB + \beta_3AUT + \beta_4TS + \epsilon$$

Where:

- EP = Employee Productivity
- WF = Work Flexibility
- WLB = Work-Life Balance
- AUT = Autonomy
- TS = Technological Support
- ϵ = Error term

Multiple regression analysis allows for assessing the relative contribution of each independent variable while controlling for others, whereas ANOVA evaluates the overall model significance.

3.9 Ethical Considerations

Ethical standards were maintained throughout the research process. Participation was voluntary, and respondents were assured of confidentiality and anonymity. No personally identifiable information was collected, and the data were used solely for academic purposes.

4. Data Analysis and Results

This section presents a detailed analysis of the data collected from 218 respondents. The analysis is structured to reflect a standard empirical workflow, beginning with demographic profiling, followed by descriptive statistics, reliability testing, correlation analysis, regression modelling, and diagnostic checks. All tables are presented in SPSS-style format to ensure clarity and alignment with journal expectations.

4.1 Demographic Profile of Respondents

Table 2: Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	124	56.9
	Female	94	43.1
Age Group	20–30 years	98	45.0
	31–40 years	76	34.9
	41+ years	44	20.1
Experience	< 2 years	52	23.9
	2–5 years	88	40.4
	> 5 years	78	35.7
Total	—	218	100.0

Frequencies

Gender

Table 3: Frequency Distribution of Gender

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Male	124	56.9	56.9	56.9
Female	94	43.1	43.1	100.0
Total	218	100.0	100.0	

The demographic distribution indicates a relatively balanced sample, with a slightly higher proportion of male respondents. The majority of participants fall within the 20–30 age group and possess 2–5 years of work experience, suggesting that the sample largely represents early to mid-career professionals who are more likely to engage with flexible work arrangements.

4.2 Descriptive Statistics

Table 4: Descriptive Statistics of Study Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Work Flexibility	218	1.80	5.00	3.72	0.81
Work-Life Balance	218	2.00	5.00	3.89	0.76
Autonomy	218	2.00	5.00	3.78	0.79
Technological Support	218	1.75	5.00	3.65	0.83
Employee Productivity	218	2.10	5.00	3.84	0.74
Valid N (listwise)	218				

All variables exhibit mean values above the midpoint, indicating generally favourable perceptions toward flexible work practices. Work-life balance records the highest mean, suggesting that employees perceive it as the most beneficial aspect of flexible work arrangements.

4.3 Reliability Analysis

Table 5: Reliability Analysis

Variable	Cronbach's Alpha	N of Items
Work Flexibility	0.82	5
Work-Life Balance	0.87	5
Autonomy	0.85	4
Technological Support	0.80	4
Employee Productivity	0.88	5

All constructs demonstrate strong internal consistency, with Cronbach's alpha values exceeding 0.70. This confirms that the measurement scales are reliable and appropriate for further statistical analysis.

4.4 Correlation Analysis

Table 6: Correlation Matrix of Variables

Variables	WF	WLB	AUT	TS	PROD
Work Flexibility	1	.54**	.48**	.45**	.42**
Work-Life Balance	.54**	1	.62**	.51**	.68**
Autonomy	.48**	.62**	1	.49**	.64**
Technological Support	.45**	.51**	.49**	1	.55**
Productivity	.42**	.68**	.64**	.55**	1

Note: Correlation is significant at the 0.01 level (2-tailed)

The results indicate statistically significant positive relationships among all variables. Work-life balance and autonomy show the strongest associations with employee productivity, suggesting their central role in influencing performance outcomes.

4.5 Multiple Regression Analysis

Table 7: Model Summary of Multiple Regression Analysis

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	0.790	0.624	0.617	0.721

The model explains 62.4% of the variance in employee productivity, indicating a strong explanatory capacity.

ANOVA

Table 8: ANOVA Results for Regression Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	182.45	4	45.61	89.32	.000
Residual	110.21	213	0.52		
Total	292.66	217			

The ANOVA results confirm that the regression model is statistically significant ($p < 0.001$), supporting the hypothesis that flexible work arrangement variables collectively influence productivity.

Coefficients

Table 9: Regression Coefficients and Significance

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	0.84	0.39	—	2.11	0.036
Work Flexibility	0.12	0.06	0.12	1.85	0.067
Work-Life Balance	0.36	0.06	0.36	5.92	0.000
Autonomy	0.31	0.06	0.31	4.88	0.000
Technological Support	0.21	0.06	0.21	3.42	0.001

Work-life balance and autonomy emerge as the most significant predictors of employee productivity. Technological support also contributes positively. However, work flexibility does not show a statistically significant effect at the 5% level, indicating that flexibility alone does not guarantee improved performance.

4.6 Collinearity Diagnostics

Table 10: Collinearity Diagnostics (Tolerance and VIF)

Variable	Tolerance	VIF
Work Flexibility	0.68	1.47
Work-Life Balance	0.59	1.69
Autonomy	0.62	1.61
Technological Support	0.71	1.40

All VIF values are well below the threshold of 5, indicating no multicollinearity issues. This confirms that the independent variables are distinct and suitable for regression analysis.

4.7 Normality Test

Table 11: Normality Test (Skewness and Kurtosis)

Variable	Skewness	Kurtosis
Work Flexibility	-0.42	-0.31
Work-Life Balance	-0.55	0.12
Autonomy	-0.38	-0.44
Technological Support	-0.47	-0.28
Employee Productivity	-0.51	0.09

The skewness and kurtosis values fall within acceptable limits (± 1), indicating that the data is approximately normally distributed and suitable for parametric analysis.

4.8 Residual Analysis

Table 12: Residual Analysis Statistics

Statistic	Minimum	Maximum	Mean	Std. Deviation
Predicted Value	2.31	4.92	3.84	0.62
Residual	-2.45	2.61	0.000	0.72
Std. Predicted Value	-2.10	1.85	0.000	1.000
Std. Residual	-2.45	2.61	0.000	0.998

The regression model meets several important assumptions because the residuals are symmetrically distributed around the value of zero, indicating that the homoscedasticity assumption and the lack of systematic bias are fulfilled. The findings show that flexible work arrangements have a great impact on employee

productivity, provided that there are some important factors. The strongest predictors are work-life balance and autonomy, followed by technological support. Flexibility of work alone is not statistically significant, and that is why a favourable organisational environment is important.

5. Discussion

The current research offers an in-depth analysis of the effect of flexible work arrangements (FWAs) on employee productivity by considering several factors that are interrelated as opposed to viewing flexibility as a homogenous unit. The findings indicate that the relationship between FWAs and productivity is contingent and mediated by supporting processes, which offer a finer perspective compared to the common belief of a positive direct impact of flexibility. One of the most important discoveries of the research is the fact that the work-life balance becomes the most prominent predictor of employee productivity. This outcome validates the main assumption of the Work-Life Balance Theory, which states that workers are able to work better when they can balance personal and professional demands. Flexible work schedules may minimise stressors associated with time, like commuting and strict schedules, and thus employees are able to manage their time more productively. The results, however, also show that even when one is flexible, it does not necessarily lead to balance. Employees who can create a healthy separation between workplace and personal life gain more benefits as compared to employees who fail to create this separation, and such employees risk role conflict, burnout, and poor performance. This underscores the fact that work-life balance is a very important tool whereby the concept of flexibility is translated into productivity. The paper also recognises autonomy as an important predictor of productivity, which is in line with the concepts of Self-Determination Theory. In a flexible workplace, where direct control is seldom present, autonomy emerges as a primary motivation and performance factor. Ensuring that employees possess the ability to control their working processes is likely to increase the levels of engagement, accountability, and initiative among employees. The findings indicate that autonomy allows employees to maximise their working strategies based on their personal preferences and abilities, and hence enhance efficiency. The beneficial effect of autonomy, however, depends on the existence of clear goals and expectations. Absence of proper structure can create ambiguity and inconsistency in performance in autonomy. It is found that technological support has a positive but relatively moderate impact on productivity, implying it is more of an enabling factor. In remote working and hybrid working conditions, digital tools play a very important role in facilitating communication, coordination and execution of tasks. An adequate technological infrastructure helps to reduce disturbance of the working process and facilitate the coordination of work of distributed teams. The intermediate stage of such a relationship, however, suggests that technology is insufficient to bring about productivity. It depends on usability, integration and competence of the employees to be successful. Poorly designed systems or excessive dependence on digital communication can lead to inefficiencies and cognitive overload, and prevent the potential benefits of technological support. Probably one of the most fascinating findings of this study, the flexibility of the work as a determinant factor does not have a statistically significant impact on the productivity of employees. This is a refutation of the popular belief that flexibility in itself results in better performance. The fact that there is no significant relationship implies that flexibility without proper structure can bring inefficiencies in the work process. Workers might experience some challenges with routine, time management, and work/life boundaries. In addition, the home working environment also exposes the employees to various distractions, such as home problems and interruptions, that can result in a lack of focus and low productivity. This is because it is caused by several factors. Firstly, flexible work arrangements often reduce the presence of formal mechanisms that govern the behaviour of the employees, and hence, self-regulation is required. Employees may not be equally disciplined or good at time management, and thus, there is a variation in performance. Second, the absence of direct supervision and real-time feedback can diminish accountability in certain situations, especially when organisations are based on traditional monitoring methods that are not adjusted to the flexible environment. Third, not having clearly defined performance expectations may lead to ambiguity in work, which leads to inconsistent work outcomes.

Organisationally, these findings are indicative of a wider problem in flexible work model implementation. Most companies implement the hybrid or remote working policy without redesigning their work systems. Flexibility itself is frequently over-trusted with increasing productivity, without enough consideration being paid to the supporting mechanisms of performance management, communication structures and employee training. Consequently, the benefits of flexibility will not be brought to their full extent. This shows the loophole between policy adoption and effective implementation in modern workplaces. The findings of this paper are in great support of the Job Demands-Resources (JD-R) model. In this context, work-life balance, autonomy, and technological support can be theorised as the relevant job resources that allow employees to cope with job demands and maintain performance. Flexible work arrangements are a structural resource, yet the effectiveness of these supporting resources varies based on their presence and quality. With these elements in balance, employees will be more prepared to keep productivity up; if they are not present, flexibility might not yield any positive results. Besides, the results can be related to the Social Exchange Theory, provided that employees reflect the positive work behaviours in the supportive organisational practices. Employees will tend to react with commitment, engagement and productivity when their organisations offer them autonomy, balance work and life and invest in efficient technological systems. Flexibility, however, might not be seen alone as a good organisational investment without these other types of support. The other significant conclusion that came out of the research is that flexible work arrangements are not a system of independent practices but a system that has an interconnection. The work-life balance, autonomy and technological support interaction is vital in determining the outcome of the employees. Companies that take a fragmented approach and concentrate only on flexibility but not on these complementary aspects are not likely to gain any substantial productivity. On the whole, the discussion shows that the impact of flexible work arrangements is highly circumstantial. Although FWAs can be effective in improving employee productivity, their effectiveness depends on their design, implementation, and support in the organisation. The idea of a balanced approach that combines flexibility and structure, autonomy and sufficient resources is necessary in interpreting organisational policies into long-lasting performance improvements.

6. Conclusion

This paper aimed to analyse the effect of flexible work arrangements (FWAs) on employee productivity in a quantitative study with the aid of multiple regression analysis and ANOVA. The results lead to a definite conclusion that although FWAs significantly influence the development of a modern working environment, their efficiency does not occur everywhere and cannot be effective without the presence of other supporting factors. Among the greatest findings of the study, the conclusion is that flexibility in itself does not ensure enhanced productivity. Even though flexible work arrangements will enable employees to have more control over their work schedules and location, the flexibility in the organisation will have to be supplemented by more profound organisational and psychological enablers. Among the analysed variables, work-life balance and autonomy have proved to be the strongest predictors of employee productivity, which means that employees can be more productive when they can balance their personal and professional lives and have significant control over their work. Technological support, although a little less significant, is also vital. Flexible work environments, where communication is restrained by physical distance, efficient and reliable digital tools are indispensable to sustain communication and collaboration, as well as to keep the workflow moving. The results indicate that organisations that have invested in well-integrated technological systems have a higher probability of sustaining the employees in the flexible environments to be productive.

On a larger scale, the paper suggests that FWAs cannot be regarded as independent policies, but as a component of a complex work system. The outcome of flexibility in the context of productivity is achieved when the culture of trust, clarity of performance expectations and sufficient

infrastructure support the flexibility. The modern patterns of work demand flexibility and the design of organisations. The research offers empirical evidence on the effectiveness of Flexible Work arrangements (FWAs) on productivity and presents it in a robust statistical model. It proposes that organisations are expected to assist employees to balance between work and life, give them independence, a job where it is based on outcomes, and easy access to efficient technology. The success of these arrangements, however, hinges on their sensible usage and a more balanced and well-supported approach to translating the company policies into the actual performance outcomes.

8. Limitations and Future Research

Although this research offers valuable information on the correlation between flexible work arrangements (FWAs) and the productivity of employees, some limitations should be considered to put the results into perspective and future research. The greatest weakness of the research is that there was the use of convenience sampling technique. The data collection methodology allowed for successful data collection, but could limit the applicability of the research to other industries and geographical locations. Sampling criteria were also largely dependent on the industries where FWA is prevalent, such as information technology, education and services. As a result, the findings may not fully reflect the scenario of the employees who are employed in the industries where flexibility cannot be as feasible, e.g., manufacturing or healthcare. The other limitation is associated with the cross-sectional nature of the study. They used data at only one point in time, and this limits the possibility of determining causal associations between variables. Although the regression analysis shows that there are significant associations, it fails to show how the relationships can change over time. To illustrate, it is not yet clear how remote work will impact productivity, collaboration, and employee well-being in the long term, and whether it will have the same effect in the short term. The research is further based on self-reported information, which is associated with the risk of bias in responding. Employees can be excessively optimistic about their productivity or give socially desirable answers, especially when assessing a construct like autonomy or work-life balance. Despite the measures implemented to maintain anonymity and minimise bias, this limitation is not completely applicable. Also, the research concentrates on a particular group of variables, namely, work flexibility, work-life balance, autonomy, and technological support, and moderates the impact of simple demographic variables. Other potentially important variables were not taken into consideration. To illustrate, organisational culture, leadership style, team dynamics, and personality traits can also be important factors in determining productivity in a flexible work environment. These variables could be omitted, which can be a limitation to the breadth of the model.

This study can be extended in future research. A longitudinal design would have the advantage of studying the effect of FWA on productivity through time, which would give information on the sustainability and the long-term effects. Sector analyses can indicate industry differences and industry-specific recommendations. The addition of such variables as employee engagement, job satisfaction, leadership support, and organisational culture may provide a more detailed insight. To obtain a deeper insight into employee experiences, complementary quantitative data with qualitative or mixed approaches, including interviews or case studies, can be used. Moreover, it is interesting to investigate the role of future technologies such as AI and digital collaboration tools mediating flexible work arrangements, particularly in the context of technology-human behaviour interactions. Current results are good, but more studies are required to properly comprehend the issues surrounding flexible work and the effect it has on productivity.

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