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THE INFLUENCE OF REMOTE WORK CONDITIONS, COMMUNICATION PLATFORMS, AND TEAM COMPOSITION FACTORS TOWARDS EMPLOYEES' PRODUCTIVITY IN OUTSOURCING SERVICE PROVIDERS IN BANGKOK

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Abstract

This study examined how remote work conditions, communication platforms, and team composition factors influence employee productivity in Bangkok. The research investigated sub-variables including remote work frequency, home office setup, and employment form for remote work conditions; ease of use, reliability, and security for communication platforms; and team size, diversity, and roles for team composition factors. Using a quantitative approach, data was collected through online questionnaires from 400 respondents (204 females, 151 males, 45 undisclosed). The survey included demographic multiple-choice questions and five-point Likert scale items measuring both independent and dependent variables. Analysis through descriptive statistics and multiple linear regression supported all hypotheses, revealing positive relationships between the three independent variables and employees' productivity. The findings suggest that organizations should carefully consider remote work conditions, communication platforms, and team composition when aiming to enhance productivity. These results provide practical implications for HR practices and management decisions in Bangkok-based organizations.

Keywords: Employees' Productivity, Remote Work Conditions, Communication Platforms, Team Composition, Information Technology, Outsourcing Service Providers

Introduction

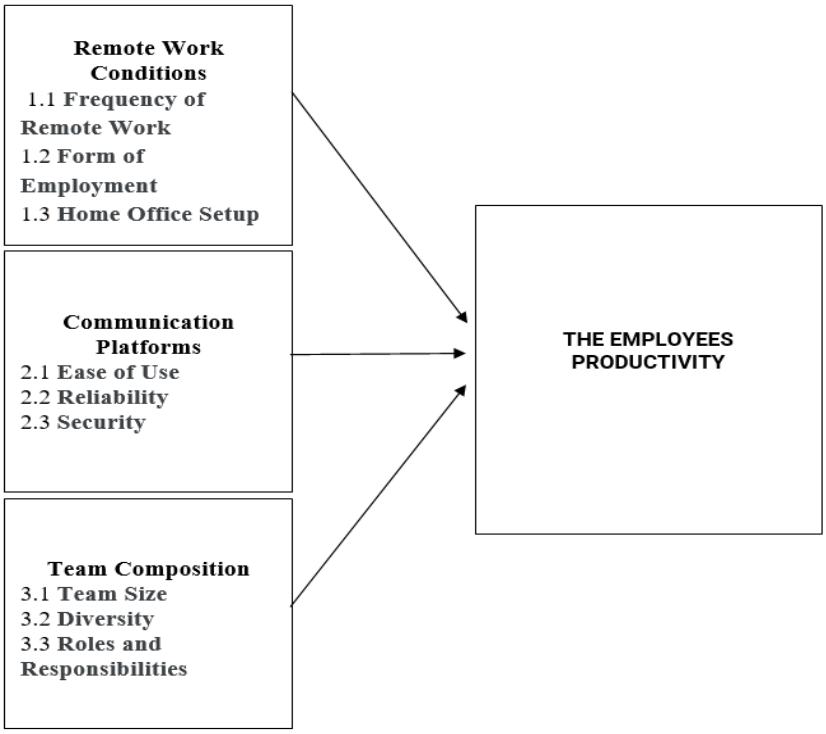
This research examines how remote work affects employee productivity among outsourcing service providers in Bangkok, Thailand, focusing on three main areas: remote work conditions, communication platforms, and team composition. The significance of remote work's impact on productivity has been established through several studies, with Andruškevičius et al. (2023) providing meta-analytic evidence and Wang et al. (2023) emphasizing the importance of occupational factors. Angelici & Profeta (2020) demonstrated that flexible work arrangements can enhance both work-life balance and productivity. The research addresses crucial gaps in understanding how home office conditions affect productivity. Xiao et al. (2021) highlighted the physical and mental impacts of working from home, while Fostervold et al. (2023) specifically examined lighting conditions' effects. In terms of communication platforms, Vega-Barbas et al. (2023) emphasized platform learnability's importance for productivity. Team dynamics in remote settings remain understudied, particularly in outsourcing contexts. Li et al. (2023) explored team size effects, while Lisak et al. (2022) examined cultural diversity in virtual teams. The research aims to contribute to the evolving understanding of remote work, building on comprehensive studies by Bloom et al. (2022) and Teevan et al. (2022) on the future of work.

Objective of the study

1. To study the impact of remote work conditions (frequency of remote work, form of employment & home office setup) on employees' productivity.
2. To study the impact of communication platforms (ease of use, reliability & security) on employees' productivity.
3. To study the impact of team composition (team size, diversity & roles and responsibilities) on employees' productivity.

Scope of the study

Conceptual Framework



Hypotheses Test

H1 is the impact of remote work conditions (consisting of frequency of remote work, form of employment, and home office setup) on employees' productivity.

H2 is the impact of communication platforms (consisting of ease of use, reliability and security) on employees' productivity.

H3 is the impact of team composition factors (consisting of team size, diversity, and roles and responsibilities) on employees' productivity.

Literature Review

Item no.	Authors (Year)	Finding	Variables
1	Markovitz (2022)	Productivity stems from organizational systems rather than individual effort. The article recommends four key strategies: implementing tiered huddles, using visual	Employees' Productivity

Item no.	Authors (Year)	Finding	Variables
		progress tracking, establishing clear communication protocols, and aligning decision-making authority with task responsibility to enhance overall performance.	
2	Angelici and Profeta (2020)	Smart working arrangements, featuring one work-from-home day weekly, increased productivity. This flexible approach, which emphasized results over fixed hours and allowed location choice, also improved work-life balance while reducing organizational costs and environmental impact.	Remote Work Conditions
3	Schmidtner et al. (2021)	User-friendly communication tools significantly improved adoption rates and productivity. Intuitive interfaces reduced training time and support needs while increasing user satisfaction. The study found that tools requiring minimal cognitive effort led to better team collaboration and communication efficiency.	Communication Platforms
4	Lee and Paunova (2022)	Smaller virtual teams are more effective due to better communication, easier coordination, and stronger team cohesion. Smaller teams can quickly adapt to changes and make decisions more efficiently, which is crucial in a remote work setting.	Team Composition
5	Chung et al. (2020)	Cultural diversity enhances creativity by introducing varied perspectives. However, it poses challenges in communication and coordination due to differences in language and cultural norms, potentially leading to misunderstandings and conflicts that require effective management.	Team Composition – Opposite result
6	Johnson et al. (2022)	The finding posits that no significant correlation between team diversity (education, experience, gender, ethnicity) and productivity metrics (task completion, code quality, client satisfaction). Despite controlling for various factors, diverse teams showed similar performance to homogeneous ones.	Team Composition – Opposite result

Methodology

Population and Sample

The population of the study are employees (part-time, full-time, freelancers, and temporary) working in outsourcing service providers in Bangkok, Thailand. Assuming the total number of such employees is large (more than 100,000), and follow Yamane's (1967) table for sample size determination, which suggests a sample size of 400 for a precision level of ±5%.

Type of Research and Tool

The study employs a 48-question survey examining remote work productivity factors among Bangkok outsourcing providers. The questionnaire includes 5 parts. Part 1 - Demographic data (12 questions): Covers gender, age, education, experience, job role, company size, team characteristics, and remote work background. Part 2 - Remote work conditions (9 questions): Measures work scheduling patterns, break frequency, overtime tendencies, job suitability, resource availability, workspace setup, and internet reliability. Part 3 - Communication platforms (9 questions): Evaluates platform user-friendliness, feature accessibility, system uptime, communication effectiveness, audio/video quality, and data security measures. Part 4 - Team composition (9 questions): Assesses team size effectiveness, diversity impact on creativity and learning, role clarity, and workload distribution. Part 5 - Productivity metrics (9 questions): Analyzes work quality standards, task completion rates, efficiency levels, creative innovation, idea contribution, and professional development opportunities in remote settings. Each section uses closed-ended questions to gather quantifiable data about the relationship between these variables and remote work productivity.

Validity Test

The online questionnaire was checked for validity and approved by the advisor.

Reliability Test

A pilot test with 40 volunteers evaluated the survey's reliability using Cronbach's Alpha analysis. The test yielded a reliability coefficient of 0.978, well within the acceptable range of 0.7 to 1.00, indicating strong internal consistency of the questionnaire.

Statistics

1. Descriptive statistics consisted of frequency, mean, and standard deviation.
2. Inferential statistics consisted of multiple regression analysis tests.

Result

Demographic Data

Among 400 respondents, females (51%) outnumbered males (37.75%). Most were 20-30 years old (49.5%) with bachelor's degrees (67.5%). Respondents typically had 1-3 years' experience (28.5%), worked in small companies (40.75%), and small teams (41.5%). Teams tended to be homogeneous (64%) rather than diverse (36%).

Mean and Standard Deviation

- Remote Work Conditions Factors: ($\overline{x}$ = 3.24, SD = 0.702), NEUTRAL
- Communication Platforms Factors: ($\overline{x}$ = 3.30, SD = 0.701), NEUTRAL
- Team Composition Factors: ($\overline{x}$ = 3.23, SD = 0.722), NEUTRAL
- Employees' Productivity: ($\overline{x}$ = 3.36, SD = 0.966), NEUTRAL

Multiple Linear Regression

1. Remote Work Conditions vs. Employees' Productivity: Accepted with Adjusted R-square = 0.362, F = 76.417, *P≤0.05 (Frequency of remote work = .001*, supported, Form of employment = .001*, supported, and Home office setup = .001*, supported)
2. Communication Platforms vs. Employees' Productivity: Accepted with Adjusted R-square = 0.356, F = 74.499, *P≤0.05 (Ease of use = .001*, supported, Reliability = .026, supported, and Security = .001*, supported)
3. Team Composition vs. Employees' Productivity: Accepted with Adjusted R-square = 0.305, F = 59.502, *P≤0.05 (Team size = .001*, supported, Diversity = .445, usupported, and Roles and responsibilities = .001*, supported)

Conclusion

Demographic Data

The study primarily involved female participants aged 20-30 with bachelor's degrees and 1-3 years of professional experience. Most were business analysts in small companies (<50 employees) with 1-2 years of remote work experience. They typically worked in small teams (1-10 members) with balanced gender representation and members under 30. Social media was their main communication tool, and teams were culturally homogeneous.

Attitudes towards variables

- **Independent Variable 1: Remote Work Conditions Factors** - The survey participants exhibited a neutral stance concerning the frequency of remote work, their form of employment, and the home office setup in their respective workplaces. Overall, the respondents are neutral with the remote work conditions factors.
- **Independent Variable 2: Communication Platforms Factors** - Regarding the factors associated with communication platforms, including ease of use, reliability, and security, the respondents demonstrated a neutral perspective. Overall, the respondents are neutral with the communication platforms factors.
- **Independent Variable 3: Team Composition Factors -** In terms of team composition, encompassing aspects such as team size, diversity, and roles and responsibilities, the respondents also maintained a neutral position. In summary, the overall sentiment of the respondents towards the factors related to team composition was neutral.

Hypotheses

H1: Remote work conditions factors (consisting of frequency of remote work, form of employment, and home office setup) have a significance on employees' productivity.

H2: Communication platforms factors (consisting of ease of use, reliability, and security) have a significance on employees' productivity.

H3: Two out of three of team composition factors (consisting of team size and roles and responsibilities) have a significance on employees' productivity. While only diversity has an insignificance on employees' productivity.

Recommendation

The research examined three key variables affecting employee productivity in Bangkok's outsourcing service providers, finding significant support for all factors through the lens of Socio-technical Systems theory and Media Richness theory. The first hypothesis confirmed that remote work conditions impact productivity. While Gibbs et al. (2021) and Barrero et al. (2021) found mixed effects of remote work on productivity, Choudhury et al. (2021) demonstrated increased productivity in remote settings. Xiao et al. (2021) specifically highlighted the importance of ergonomic home office setups. Communication platforms, the second hypothesis, showed significant influence on productivity. Kato & Fujimura (2022) emphasized the importance of user-friendly platforms, while Chen et al. (2020) demonstrated how platform reliability affects workflow. Kostic & Hrvatin (2022) confirmed that robust data protection measures positively impact productivity by allowing employees to focus on core tasks. The third hypothesis on team composition was partially supported, with team size and roles showing significant impact while diversity did not. Li et al. (2023) and Keum & See (2023) found that smaller teams maintain higher productivity levels, and Li & Zhang (2021) emphasized the importance of well-defined roles. Interestingly, Lisak et al. (2022) found diversity beneficial for specific tasks, while Johnson et al. (2022) found no significant impact on general productivity metrics. The findings, marked by high statistical significance ($p = 0.001$) across remote work conditions, suggest organizations should revise workplace policies to better accommodate remote work while maintaining clear team structures.

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