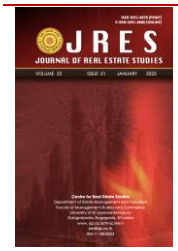


Available online at https://journals.sjp.ac.lk

JOURNAL OF REAL ESTATE STUDIES

ISSN 3051-4878 [PRINT] | E-ISSN 3051-4886 [ONLINE]

Evaluating the influence of Employee Productivity on Performance with a focus on Satisfaction in Co – working spaces: Insights from Sri Lanka

B. M. Ranjana S. Basnayaka [a*], Prathap Kaluthanthri[b]

[a,b] *Department of Estate Management and Valuation, University of Sri Jayewardenepura, Sri Lanka*

ABSTRACT

The office market, a key component of the broader commercial real estate sector, plays a significant role in Sri Lanka's economy. Despite economic challenges, Colombo's commercial real estate market has shown resilience, with strong demand for high-end office spaces in the central business district driving a sustained growth. With limited Grade A office space and increasing demand for flexibility, co-working spaces have emerged as an attractive, cost-effective alternative for businesses seeking adaptable office solutions. These spaces promote collaboration, productivity, and employee satisfaction, driving the exploration of their impact on these factors to uncover insights that contribute to organizational success in this context. The study implemented a quantitative research methodology to gather data from employees working in co-working spaces across different sectors in Colombo city through a self-administered questionnaire, resulting in 100 complete responses. The survey measured essential variables, including employee productivity, satisfaction, and performance, using established scales. To investigate the effects between these variables, Partial Least Squares Structural Equation Modeling (PLS-SEM) was utilized with the aid of SmartPLS 4.1 software. The findings indicated that employee satisfaction serves as a positive mediator between employee productivity and performance, also revealing a significant positive effect on the other three direct effects examined. The Smart PLS SEM analysis confirmed that both employee satisfaction and productivity significantly influence employee performance in co-working spaces. This paper enhances knowledge on employee productivity and performance in co-working spaces, emphasizing the mediating role of employee satisfaction in Sri Lanka withing emerging economies. By investigating these factors, the study aims to provide valuable insights for key stakeholders including policymakers and business leaders on strategies to optimize coworking space designs, implement flexible Human Resources policies, foster collaboration, and enhance employee well-being, ultimately improving organizational success through employee engagement.

ARTICLE INFO

Article History:

Received: 7th March 2025
Revised: 14th March 2025
Accepted: 10th June 2025

Keywords:

Co-Working Spaces,
Employee Productivity,
Employee Satisfaction,
Employee Work Performance

* Corresponding author. Tel: *+94769261232*; Email: bmranjana@sjp.ac.lk; *https://orcid.org/0009-0001-7325-0444*
Institution: Department of Estate Management and Valuation, University of Sri Jayewardenepura, Sri Lanka
Co-authors: [b] *https://orcid.org/0000-0002-0204-1143*
Doi: **10.31357/jres.v22i2.8204**

1. INTRODUCTION

Over the past decade, the office market in Sri Lanka's Western Province has undergone a significant transformation, driven by a global shift towards more flexible work models. As businesses adapt to these changes, co-working spaces have become an increasingly popular alternative to traditional office setups, reflecting broader global trends in workplace preferences. Colombo, as Sri Lanka's commercial hub, experiences high demand for office space, particularly in sectors like banking, finance, IT/ITES, and tourism. With limited Grade A office space and growing demand for flexibility, co-working spaces have gained traction as a cost-effective and adaptable solution, offering businesses the opportunity to foster collaboration while accommodating varying team sizes.

With the rapid evolution of workplace dynamics, has redefined how employees interact with their physical environments and colleagues, emphasizing the strategic role of real estate management in fostering productivity and employee engagement through well-designed, human-centric spaces including coworking (Miscovich, 2022). Coworking spaces, commonly known as shared workspaces, have emerged as a contemporary solution to address the dynamic needs of modern workforces, providing flexibility, collaboration opportunities, and cost efficiency (Jasmine, 2024). Globally, the coworking industry has grown at an annual rate of 23%, with over 35,000 spaces available as of 2023 (Statista, 2024). Coworking spaces are rapidly gaining popularity in Sri Lanka, driven by a growing number of startups, freelancers, and professionals seeking affordable, flexible, and collaborative work environments (Mister T Real Estate, 2020). These environments are particularly relevant in urban settings, such as the Western Province of Sri Lanka, where traditional office spaces may not align with the demands of freelancers, startups, and small businesses. In Sri Lanka, coworking spaces have expanded by 15% annually since 2019, reflecting their increasing popularity in the region (*The Future of Work Survey*, 2022). The intersection of employee productivity, satisfaction, and employee performance in such spaces offers fertile ground for research, as these factors collectively shape organizational and individual success.

Sri Lanka's Western Province, as the economic hub of the country, offers a unique setting to explore the dynamics of employee productivity, performance, and satisfaction within co-working spaces. While existing research has extensively explored the effects of workplace design and organizational culture on employee outcomes in traditional office settings (Kegel, 2017; Zerella et al., 2017), there is a noticeable lack of empirical studies focused on co-working spaces, particularly within developing countries such as Sri Lanka. Most available studies are concentrated in Western or urban Asian contexts, which may not reflect the socio-economic and cultural dynamics of Sri Lankan work environments. This gap limits the generalizability of current findings and highlights the need for localized research on how co-working environments influence employee satisfaction, productivity, and performance. To fill this gap, the study analyzes the impact of employee productivity on performance, with employee satisfaction as a mediator. Adopting a quantitative approach, the research aims to provide actionable insights for workspace providers, employers, and policymakers, while contributing to the limited literature on co-working spaces in South Asia. The findings will offer evidence-based recommendations for optimizing workspace design and management, ultimately enhancing both productivity and employee satisfaction.

The aim of this study is to analyze the

direct and mediated effects of employee productivity and satisfaction on employee performance in shared workspaces in the Western Province, Sri Lanka. To achieve this aim, the study is guided by the following specific objectives 1) assess the direct impact of employee productivity on performance, (2) evaluate the impact of employee productivity on satisfaction, (3) examine the impact of employee satisfaction on performance, and (4) investigate the mediating effect of employee satisfaction on the impact of employee productivity on performance.

2. LITERATURE REVIEW

2.1. Co-working spaces

Co-working spaces have emerged as a flexible and collaborative alternative to conventional office environments, particularly catering to freelancers, entrepreneurs, and remote employees (Spinuzzi, 2012). Since their inception in the early 2000s, these spaces have evolved beyond cost-efficiency to emphasize community engagement, knowledge exchange, and creativity (Gandini, 2015). Unlike traditional offices, co-working environments typically feature open-plan layouts, shared resources, and hot-desking arrangements, facilitating both independent work and spontaneous collaboration among diverse users (Bouncken & Reuschl, 2018). This shift has significantly influenced modern work culture by accommodating fluid workstyles and supporting digital economies across the globe (Spinuzzi, 2012). In Sri Lanka, the concept is gradually gaining traction in urban centers (Janathanan, 2023), particularly within the startup and digital sectors, although scholarly research on its implications for employee satisfaction, productivity, and performance remains minimal. This limited local literature underscores a critical gap that necessitates further empirical exploration within the Sri Lankan context.

2.2. Impact of Employee Productivity on Employee Performance

Employee productivity is crucial for both organizational and individual performance, reflecting how efficiently individuals use resources to achieve goals. However, performance is a broader concept, encompassing goal attainment, problem-solving, and teamwork. The literature reveals distinct patterns in how productivity, satisfaction, and performance are shaped within different work environments.

In traditional workspaces, Dlamini et al., (2022) highlighted the vital influence of manager-employee relationships on motivation and performance, noting that positive interactions enhance outcomes, while negative ones hinder performance. They recommended communication, team building, and training strategies, though other studies argue the effectiveness of such interventions depends on organizational culture and employee expectations (Dlamini et al., 2022). Arimie & Oronsaye, (2020) emphasized that mutual trust, communication, and participative leadership strengthen employee relations, enhancing motivation and performance; however, other scholars contend that broader organizational policies and external economic conditions may, in some contexts, outweigh their influence.

According to Inuwa & Sabo, (2022), they examined the role of self-efficacy as a mediator between employee motivation and productivity enhancing creativity while some studies indicated that external motivators, such as incentives or rewards, could sometimes outweigh the intrinsic influence of self-efficacy, especially in task-oriented roles. Matui, (2017) explored the impact of training and development on employee productivity in the Kenyan banking sector, concluding that effective training programs significantly enhance

employee skills, knowledge, and attitudes. The study underscored the need for continuous training initiatives to equip employees for better performance and reduce absenteeism (Matui, 2017).

Almaamari and Alaswad (2021) also highlighted the substantial influence of workplace environment on employee performance and productivity. Their study demonstrated that physical conditions such as lighting, noise, and temperature significantly impact employees' efficiency and satisfaction. Further, authors concluded that a positive workplace environment directly correlates with higher productivity. However, contrasting findings suggest that individual adaptability to workplace conditions might moderate this relationship, indicating that a universally optimal environment may not exist.

In the context of Coworking spaces in Sri Lanka, particularly in urban centers like Colombo, have been increasingly recognized for their potential to enhance employee productivity and performance. The adaptability of shared workspace concepts in Sri Lankan office buildings has been explored (Perera et al., 2021), highlighting how effective space management can create functional environments that boost staff productivity. Furthermore, environmental psychological considerations, such as the interior layout of coworking spaces, play a crucial role in influencing human behavior and productivity (Thilakarathne & Hettiarachchi, 2022). A study examining coworking environments in Colombo found that both the physical arrangement and the attitudes of coworkers need improvement to align with core working values, suggesting that thoughtful design can positively impact performance (Thilakarathne & Hettiarachchi, 2022). Additionally, exposure to green spaces within the workplace has been linked to reduced stress levels and increased job satisfaction among employees in Colombo's software companies, indicating that natural elements in coworking spaces can contribute to enhanced work efficiency (Galappaththi & Hettiarachchi, 2022). These findings underscore the importance of considering both physical and psychological factors in the design and management of coworking spaces to foster employee productivity and performance in the Sri Lankan context.

2.3. Impact of Employee Satisfaction on Employee Performance

Employee satisfaction plays a pivotal role in shaping individual performance, particularly within co-working spaces where flexible arrangements and shared resources influence work dynamics. Studies have consistently shown a positive correlation between job satisfaction levels and employee performance metrics (Matui, 2017).

Prior studies have emphasized that a positive work environment, characterized by autonomy, community support, and ergonomic design, significantly enhances employee satisfaction, which in turn boosts productivity and task performance (Bouncken & Reuschl, 2018). In co-working environments, the sense of belonging and opportunities for social interaction often compensate for the absence of traditional organizational structures, thereby fostering higher satisfaction levels among users (Spinuzzi, 2012). Moreover, job satisfaction in these spaces is closely tied to environmental factors such as noise control, accessibility to collaborative tools, and overall design quality (Appel-Meulenbroek et al., 2011). Research also highlights those satisfied employees demonstrate greater motivation and adaptability in flexible workspaces, contributing positively to both individual and collective outcomes (Kojo & Nenonen, 2017). Therefore, understanding and enhancing satisfaction determinants in co-

working spaces is essential for maximizing employee performance and organizational effectiveness.

A substantial body of research confirms a strong positive relationship between employee satisfaction and performance across various sectors and contexts. Pushpakumari (2008) found that both intrinsic and extrinsic rewards contribute to increased effort and commitment among employees in Sri Lanka. Milou (2019) and Aziri (2011) emphasized that intrinsic motivation and job satisfaction lead to higher engagement and reduced absenteeism. Memon et al. (2023) and others highlighted that aligning job roles with employee expectations and ensuring job security and growth opportunities improve performance outcomes. Studies by Wasaf & Khan, (2021) added that satisfied employees not only perform better but also foster safer and more productive workplaces.

2.4. Impact of Employee Productivity on Employee Satisfaction

Employee satisfaction has emerged as a critical factor influencing productivity within organizations particularly within co-working spaces where flexible arrangements and shared resources influence work dynamics. As workplaces evolve, understanding the drivers of satisfaction has become increasingly important. This is especially relevant in non-traditional settings like co-working spaces, where employee experiences may differ significantly from those in traditional offices.

The relationship between employee satisfaction and productivity is anchored in motivational theories such as Maslow's Hierarchy of Needs and Herzberg's Two-Factor Theory. Maslow (1943) suggests that when employees' physiological, safety, social, esteem, and self-actualization needs are met, they are more likely to exhibit higher performance (Maslow, 1943). Herzberg (1966) further distinguishes between hygiene factors, which prevent dissatisfaction, and motivators, which enhance satisfaction and productivity (Herzberg, 1966). These theories underscore that addressing employees' needs and creating a motivating environment are prerequisites for improved productivity. The Social Exchange Theory (Blau, 2017) provides another lens, positing that satisfied employees reciprocate positive treatment with enhanced performance and commitment. This reciprocal relationship fosters an environment where employee satisfaction directly translates into higher productivity and organizational loyalty.

Numerous studies corroborate the theoretical link between employee satisfaction and productivity. For instance, a meta-analysis by Judge et al. (2001) revealed a robust positive correlation between job satisfaction and job performance, emphasizing that satisfied employees are more likely to exhibit discretionary effort and innovation (Judge et al., 2001). Similarly, Bakotic (2016) observed that satisfied employees in Croatian firms demonstrated higher productivity levels, suggesting that fostering satisfaction is crucial for maintaining competitiveness (Bakotić, 2016).

In the context of service industries, Harter et al. (2002) found that employee satisfaction significantly influences customer satisfaction and financial performance (Harter et al., 2002a). The study underscored that satisfied employees are more engaged, leading to enhanced service delivery and customer retention. Moreover, some researchers highlighted that in manufacturing settings, employee satisfaction positively impacted productivity through improved teamwork and reduced turnover (Paul & Anantharaman, 2003). Moreover, a recent article highlighted that remote worker can

be 35-40% more productive than their in-office counterparts when they experience higher job satisfaction (ActivTrak, 2024). This finding underscores the importance of flexible work arrangements as a means to enhance employee satisfaction and, consequently, productivity.

Several factors mediate the relationship between employee satisfaction and productivity. Work environment, leadership style, and organizational culture are pivotal. Chan, (2019) found that participative leadership fosters satisfaction and enhances productivity by empowering employees. Similarly, a positive organizational culture characterized by trust and respect creates an enabling environment for high performance (Cameron & Quinn, 2011). However, intrinsic motivators such as recognition, autonomy, and opportunities for personal growth often outweigh monetary rewards in sustaining productivity (Ryan, 1985).

While the positive relationship between satisfaction and productivity is well-documented, some studies present nuanced perspectives. For instance, Wright and Cropanzano (2000) argue that the relationship may not always be linear, suggesting that excessive focus on satisfaction could lead to complacency (Wright & Cropanzano, 2000). Furthermore, the "happy-productive worker hypothesis" has faced criticism for oversimplifying the complex dynamics between satisfaction and productivity (Wright & Cropanzano, 2007).

In addition, cultural and contextual factors can influence the relationship. Studies in collectivist cultures, such as those by Hofstede (1980), indicate that team cohesion and collective satisfaction often take precedence over individual satisfaction in driving productivity. This highlights the importance of considering cultural nuances in organizational strategies.

2.5. Mediation of Employee Satisfaction Between Employee Productivity and Employee Performance

Employee satisfaction, productivity, and performance are crucial determinants of organizational success. A growing body of literature suggests that employee satisfaction acts as a mediator between employee productivity and employee performance, enhancing our understanding of how these variables impact organizational outcomes.

Employee satisfaction is a key determinant of organizational performance. Several studies indicate that when employees are satisfied with their work environment, their performance improves. According to Judge et al. (2001), employee satisfaction is strongly correlated with performance, as satisfied employees are more likely to exhibit organizational citizenship behaviours, such as higher engagement, commitment, and willingness to go beyond the minimum requirements of their job (Judge & Bono, 2001). In line with this, Wright and Cropanzano, (2000) found that job satisfaction positively influences job performance, particularly in roles requiring creativity and autonomy.

Furthermore, an employee's intrinsic satisfaction, such as achieving personal goals and recognition, significantly contributes to their job performance (Bakker & Demerouti, 2007). Theories like Herzberg's Two-Factor Theory (1959) emphasize that factors such as recognition, career development, and personal growth can lead to higher job satisfaction, which in turn enhances performance.

Employee productivity, typically defined as the output per unit of input, is closely tied to employee performance. Productivity can be influenced by various organizational factors, such as training, leadership, and resources. Harter et al. (2002) argue that productive employees are those who are

deeply engaged in their work, which directly translates into higher levels of performance. This connection suggests that while productivity is an essential driver of performance, it is not the only factor. The role of satisfaction becomes critical when examining how productivity leads to performance (Harter et al., 2002b).

While productivity is necessary for high performance, the link between the two is complex and often mediated by employee satisfaction. Employee satisfaction, in this context, serves as a mechanism that translates productivity into performance outcomes. Several studies have examined this mediating effect. For instance, Riketta (2008) concluded that satisfied employees who are productive are more likely to exhibit high performance, as satisfaction provides the emotional and psychological resources necessary to channel productivity into positive performance outcomes (Riketta, 2008).

Similarly, a study by Lu et al. (2002) highlighted that employee satisfaction is a key mediator in the relationship between employee motivation (a precursor to productivity) and job performance (Lu et al., 2002). This suggests that even if an employee is productive, without a certain level of satisfaction, their performance may not reach its potential. Satisfaction fosters a positive work attitude, which enables employees to apply their productivity effectively to meet organizational goals (Gagné & Deci, 2005).

In a study by Liao et al. (2004), the authors demonstrated that high job satisfaction mediated the relationship between organizational resources and individual performance. This suggests that when employees are content with their work environment and feel valued, they are more likely to convert their productive efforts into higher-quality performance (Liao et al., 2009).

Understanding the mediating role of employee satisfaction is crucial for organizations aiming to enhance performance outcomes. By focusing on improving employee satisfaction, organizations can maximize the benefits of productivity. This can be achieved through providing a positive work environment, offering adequate training, and recognizing employees' efforts (Locke, 1976). When employees feel supported and valued, their satisfaction increases, leading to enhanced productivity and, ultimately, higher performance.

Moreover, this relationship suggests that organizations should focus not only on increasing productivity through external incentives but also on fostering an environment that promotes employee well-being and job satisfaction. According to a study by Bakker and Demerouti (2007), a supportive work environment that promotes job satisfaction contributes significantly to employee well-being, which mediates the relationship between productivity and performance (Bakker & Demerouti, 2007).

Hence, the hypotheses were formulated accordingly including,

Hypothesis 1: Employee productivity has a significant positive impact on employee performance in co-working spaces.

Hypothesis 2: Employee Productivity has a significant positive impact on Employee Satisfaction in co-working spaces.

Hypothesis 3: Employee Satisfaction has a significant positive impact on Employee Performance in co-working spaces.

Hypothesis 4: Employee satisfaction mediates the relationship between Employee Productivity and Employee Performance in co-working spaces.

3. RESEARCH METHODS

This study adopts an explanatory research design, employing a quantitative methodology grounded in the hypothesis-

deductive approach. The research strategy is centred around survey research, with a cross-sectional design capturing information at a specific point in time to address the research inquiries. The units of analysis consist of respondents currently employed in co-working spaces within the Western Province, Sri Lanka. The study employs a non-probability sampling method, specifically convenience sampling, to select participants for the survey.

The study adopted a quantitative research methodology, utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) with reflective constructs for analytical purposes. This approach is particularly effective for evaluating complex models with multiple constructs and structural relationships, as it does not rely on strict assumptions about data distribution. PLS-SEM calculates partial regression paths within both measurement and structural models using iterative simple least squares regressions (Hair et al., 2014).

PLS-SEM is widely regarded for its capacity to manage intricate models and is recognized as a causal-predictive tool in SEM, balancing statistical prediction with causal interpretation. For this research, SmartPLS version 4.1 was employed to construct and evaluate measurement and structural models.

3.1 Study Area

As depicted in Figure 01, the study was conducted in Colombo, the commercial capital of Sri Lanka, a dynamic metropolis located in the Western Province. Serving as the island's economic, administrative, and financial hub, Colombo plays a pivotal role in shaping Sri Lanka's real estate market. With its diverse population, vibrant culture, and strategic position as one of South Asia's busiest ports, the city has become a focal point for real estate development, attracting both local and international investors (Elegant Real Estate, 2024). The real estate industry in Colombo is characterized by rapid urbanization, evolving infrastructure, and rising demand for residential, commercial, and mixed-use developments. The city's skyline has transformed significantly in recent years, with high-rise buildings, luxury apartments, co-working spaces, and retail complexes becoming prominent features. Colombo's Central Business District (CBD), home to major corporate offices, banks, and government institutions, remains a hotspot for commercial real estate, driving demand for premium office spaces.

Furthermore, the growth of emerging sectors such as coworking spaces and sustainable housing has reshaped the real estate landscape in Colombo, reflecting global trends in flexible work environments and eco-friendly developments. This ongoing transformation positions Colombo as a key player in Sri Lanka's real estate sector, with opportunities for innovation, investment, and sustainable urban growth (Elegant Real Estate, 2024).

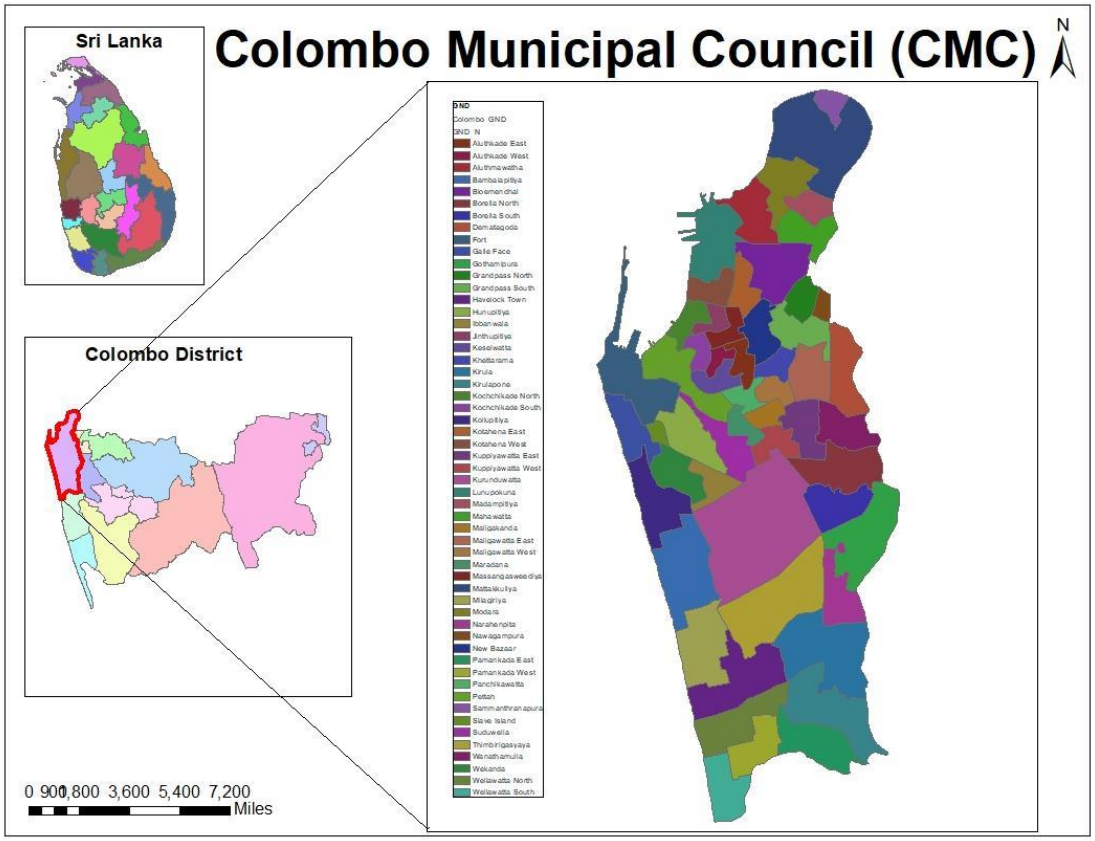
3.2 Data Collection Process

The study focused on co-working spaces within the private office sector in the Colombo Municipal Council (MC) area. The identification of coworking spaces began with a review of coworking directories available across various online platforms. Data collection utilized a convenience sampling method, targeting a sample size of 120 respondents. A self-administered questionnaire was distributed both physically and virtually, including through platforms such as email, Facebook, and WhatsApp, to employees working in shared spaces in the Colombo MC area. A total of 100 valid responses were obtained.

Each co-working space followed its internal protocols to facilitate the distribution of the survey among its employees. This approach ensured diverse participation and comprehensive insights from individuals

utilizing shared workspaces within the specified area.

Figure 01: Study Area



Source: Compiled by the author (2024)

3.3 Questionnaire Design

The questionnaire for this study was structured with reflective statements designed to measure the latent variables: Employee Satisfaction (STF), Employee Productivity (PROD) and Employee Performance (PEFO). It comprised 15 items organized into four distinct sections.

The initial section gathered general demographic and professional information about the respondents to provide a comprehensive overview of the research sample. The subsequent sections focused on evaluating the independent, dependent, and mediating constructs, incorporating reflective statements tailored to each variable. These statements were crafted in alignment with the methodological standards of Partial Least Squares Structural Equation Modeling (PLS-SEM). Participants were asked to rate their level of agreement with each statement using a five-point Likert scale, where responses ranged from "strongly disagree" (1) to "strongly agree" (5). This structured approach ensured a robust assessment of the constructs central to the study.

3.4 Research Model

Figure 02 displays the research model for this study, incorporating three key constructs; Employee Productivity, Employee Satisfaction and Employee Performance. The primary objective is to evaluate how the first two constructs influence Employee Performance within a framework where Employee satisfaction functions as a mediating variable. As illustrated in Figure 1, the model has been expanded to include Employee Satisfaction (STF) as a mediator. Through this lens, the study aims to explore the relationships between Employee Productivity and Employee Performance, with the mediating role of Employee Satisfaction being a focal point.

Figure 02: Conceptual Framework of the study

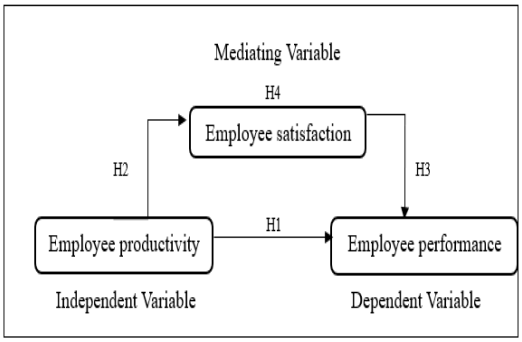


Table 1: Operationalization of the study's variable

Variable	Indicator	Source
Employee satisfaction	Engagement and Fulfilment, Overall Satisfaction, Compensation and Benefits, Autonomy and Decision-Making, Career Growth and Development	(Matui, 2017)
Employee Productivity	Quality of Work, Task Accomplishment, Time Management, Adaptability and Flexibility, Collaboration and Teamwork	(Bueno et al., 2018)
Employee Performance	Goal Achievement, Quality of Work, Initiative and Innovation, Communication Skills, Adaptability and Flexibility	(Campbell, 1990) (Purtzova, 2024) (Rachmawati et al., 2021)

Source: Compiled by the author (2024)

The integration of these constructs has led to the development of the above-mentioned hypotheses with the support of the literature, each designed to investigate the dynamics among these variables systematically. Table 01 presents the operationalization of key variables, outlining corresponding measurement indicators used in the study.

4. RESULTS

4.1 Profile of the respondents

The demographic profile of the study provides insights into the characteristics of the respondents, with a total of 100 participants. Among them, 40% were male, and 60% were female, indicating a higher representation of female respondents. The majority of the participants (68%) were aged between 18-25 years, followed by 24% aged 26-30 years, 6% aged 31-40 years, and only 2% above 40 years. Regarding educational qualifications, 56% of respondents were graduates, while 24% had completed their GCE Advanced Level, 14% had finished professional courses, and 6% were postgraduates.

In terms of specialization, the largest group of respondents (52%) was involved in finance, followed by 15% in technology, 27% in other fields, and 2% in startups and innovation ventures. Additionally, 4% of the participants reported working remotely, though their professional specializations varied. Experience in the working environment revealed that 92% of respondents had less than six years of experience, while small proportions reported 7-13 years (2%), 14-20 years (4%), and 21-25 years (2%) of experience. This profile reflects a predominantly young and academically qualified respondent base, with a significant focus on finance and limited professional experience.

The research process was carried out in two main stages. The first stage emphasized presenting the findings of the measurement model. After ensuring the reliability and validity of the measurement model, the study moved to the second stage, which focused on assessing the structural model as outlined in figure 04.

4.2 Results of the Measurement Model

In this study, a comprehensive assessment was conducted using Structural Equation Modeling (SEM) through the Partial Least Squares (PLS) approach with Smart PLS software. The assessment was based on both the reliability and validity of the constructs, as well as model fitness, following well-established criteria and rules of thumb. Below, the findings are presented according to these criteria as outlined in the details of Table 02.

4.3 Reliability Assessment

The reliability of the study constructs was assessed using three measures: Cronbach's Alpha (α), Rho-A, and Composite Reliability (Table 2).

The minimum acceptable value for Cronbach's Alpha is 0.60 (Hair et al., 2019), and the results in this study indicate that all constructs exhibit good reliability, with values significantly exceeding this threshold. Specifically: Employee Productivity-0.780, Employee performance-0.862, Employee Satisfaction-0.825. These values confirm that all constructs possess strong internal consistency.

The Rho-A values were also within the acceptable range (>0.60) (Hultt et al., 2021), ensuring the robustness of the reliability measures. The Rho-A values for the constructs were as follows: Employee Productivity-0.800, Employee performance-0.874, Employee Satisfaction-0.842. These values further reinforce the reliability of the study constructs.

The composite reliability values ranged from 0.857 to 0.919, all of which are within the acceptable range, indicating good composite reliability across all constructs (Hultt et al., 2021).

Convergent validity was evaluated using Average Variance Extracted (AVE) and Outer Loadings. Convergent validity was confirmed as the AVE values for all constructs were greater than the threshold of 0.50 (Hultt et al., 2021), with the values ranging between 0.599 and 0.850. These results indicate that the constructs explain

a sufficient proportion of variance in their respective indicators. Each indicator's outer loading was examined to ensure it exceeded the threshold value of 0.708. Indicators with poor loadings were removed from the analysis. Specifically, one item from the "Employee Productivity" construct Task Accomplishment (PROD2) was dropped and three items from the "Employee Satisfaction" construct Engagement and Fulfilment (STF1), Compensation and Benefits (STF3), Autonomy and Decision-Making (STF4), were removed due to low outer loadings. These adjustments ensured that all indicators met the convergent validity criteria.

Discriminant validity was assessed using two well-established criteria: Fornell and Larcker's criterion and the Heterotrait-Monotrait (HTMT) ratio as shown in Table 03 & 04. Fornell and Larcker Criterion was the square root of the AVE for each construct compared with the correlations between constructs. It was found that the square root of the AVE for each construct was higher than the correlations among constructs, confirming that discriminant validity was established. For instance, the square root of AVE for Employee Performance is 0.804, which is greater than the correlations in its column. Similarly, the square root of AVE for Employee Productivity is 0.774, which also exceeded the correlations with other constructs.

The HTMT ratios were calculated for both the liberal and conservative criteria. Both criteria were satisfied as all HTMT values were below the thresholds of 0.90 (liberal) and 0.85 (conservative), confirming discriminant validity. For example, the HTMT ratios for all constructs were found to be <0.90, meeting both the liberal and conservative criteria.

Then fitness of the SEM model was evaluated using two main indicators including Coefficient of Determination (R^2) and Effect Size (f^2) according to Table 05 & 06. The R^2 value represents the proportion of variance explained by the model. In this study, Employee Performance was explained by Employee Satisfaction and Employee Productivity, accounting for 38% and 29.4% of the variance, respectively. These values indicate that the model has good explanatory power and can reliably predict employee performance based on Employee satisfaction.

The effect sizes for all relationships in the model were found to be satisfactory, confirming that the model exhibits good explanatory quality. The values of f^2 were calculated and found to fall within acceptable ranges (Hultt et al., 2021), indicating medium to large effects for the relationships between constructs.

4.4 Results of the Structural Model

After confirming the validity and reliability of the measurement model, the study proceeded to analyze the structural model (Figure 4). This phase involved assessing the model's predictive accuracy and examining the relationships between the different constructs. Bootstrapping is used to calculate t and p-values for all constructed route coefficients. In a two-tailed test, the critical value is 1.96 at significance level of 5%, with the threshold for the p-value expected to be less than 0.05. The results of the structural model analysis are shown in Figure 04 with T-values.

Table 2: Results of the Measurement Model (Validity and Reliability)

Factor	Indicator	Indicator Reliability	Internal Consistency			Convergent Validity
		Outer Loadings	Cronbach's Alpha_a	Rho_A	Composite Reliability	Average variance extracted (AVE)
Employee Productivity	PROD1	0.752	0.780	0.800	0.857	0.599
	PROD3	0.755				
	PROD4	0.777				
	PROD5	0.811	0.862	0.874	0.901	0.646
Employee Performance	PEFO1	0.866				
	PEFO2	0.863				
	PEFO3	0.726				
	PEFO4	0.822				
	PEFO5	0.728	0.825	0.842	0.919	0.850
Employee Satisfaction	STF2	0.936				
	STF5	0.908				

Source: Compiled by the author, (2024)

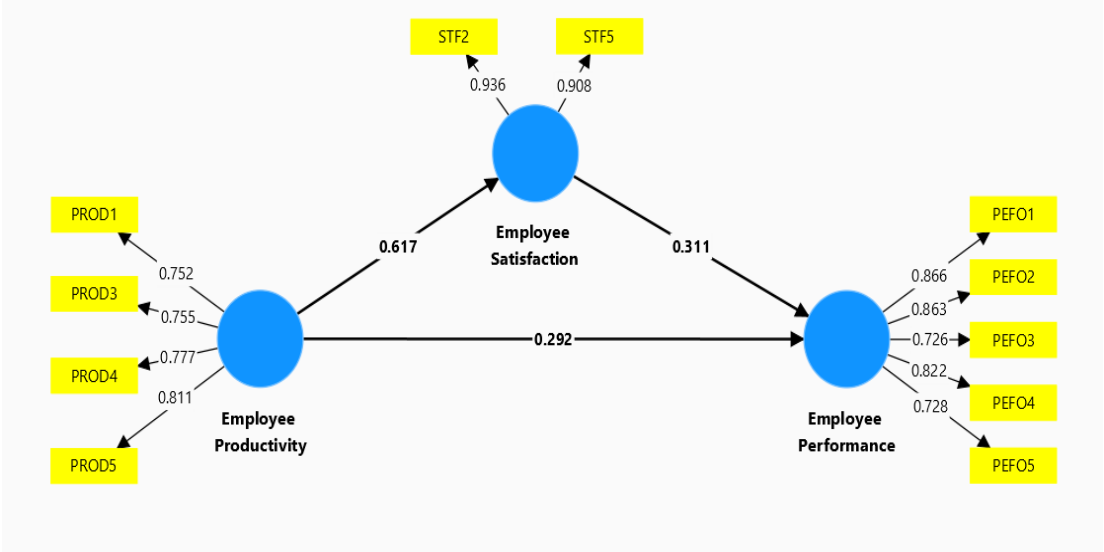
Table 3: Discriminant validity (Fornell–Larker-1981 criteria)

Construct	Employee Performance	Employee Productivity	Employee satisfaction
Employee Performance	**0.804**		
Employee Productivity	0.484	**0.774**	
Employee Satisfaction	0.492	0.617	**0.922**

Note: Values in the diagonal and bold are square root of AVEs.

Source: Compiled by the author, (2024)

Figure 03: Path estimates of the model



Source: Compiled by the author, (2024)

Table 4: Discriminant validity (HTMT)

Construct	Employee Performance	Employee Productivity	Employee satisfaction
Employee Performance	-		-
Employee Productivity	0.564	-	-
Employee Satisfaction	0.570	0.743	-

Source: Compiled by the author, (2024)

Table 5: Coefficient of determination

Endogenous construct	R-square	R-square adjusted
Employee Performance	0.294	0.280
Employee satisfaction	0.380	0.374

Source: Compiled by the author, (2024)

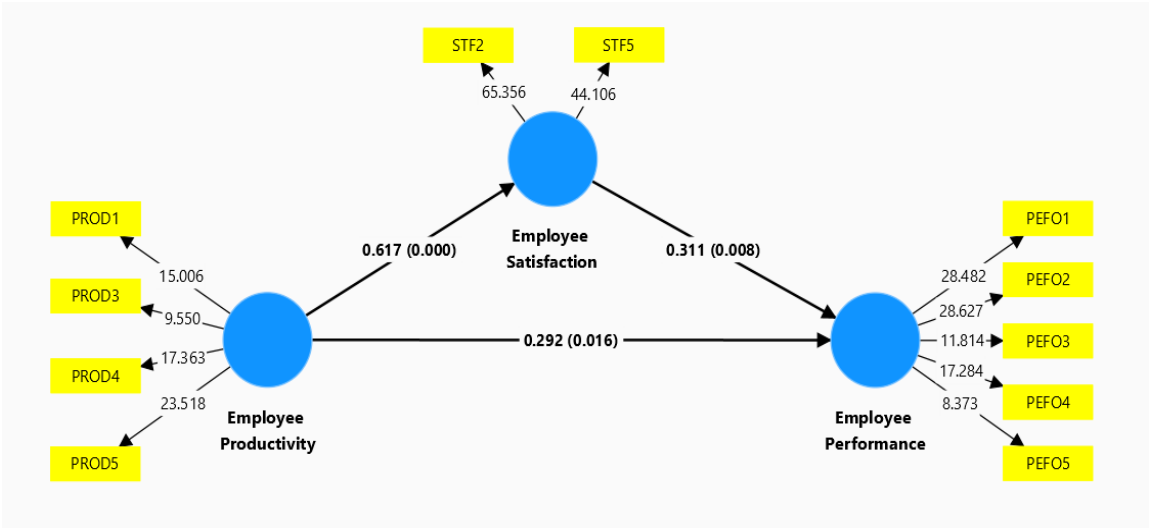
Table 6: Effect size

Construct	Employee Performance	Employee Productivity	Employee satisfaction
Employee Performance	-	-	-
Employee Productivity	0.075	-	0.613
Employee Satisfaction	0.085	-	-

Source: Compiled by the author, (2024)

Figure 04: Results of the Bootstrapping of the Model

Source: Compiled by the author, (2024)



4.5 Hypothesis Testing

At the final stage, hypotheses were tested using t- and p-statistics (See Figures 1 and 3). Direct hypotheses were tested based on direct paths, while hypotheses related to mediation were tested using indirect paths (indirect effects). Table 07 confirms that all direct hypotheses are supported, while Table 08 further validates the positive relationships observed in the indirect effects.

Table 7: Hypothesis Results – Direct Effects

Hypothesis	Relationship	Path Coefficient (Beta Value)	SD	T value	Confidence Interval		P value	Decision @ 0.05 (Alpha)
					2.5	97.5		
H1	Employee productivity has a significant positive impact on employee performance in co-working spaces.	0.292	0.122	2.399	0.252	0.730	0.016	Supported
H2	Employee Productivity has a significant positive impact on Employee Satisfaction in co-working spaces.	0.617	0.055	11.256	0.523	0.737	0.000	Supported
H3	Employee Satisfaction has a significant positive impact on Employee	0.311	0.117	2.652	0.068	0.530	0.008	Supported

	Performance in co-working spaces.							

Source: Compiled by the author, (2024)

Table 8: Hypothesis Results – Indirect Effects

Hypothesis	Relationship	Path Coefficient (Beta Value)	SD	T value	Confidence Interval		P value	Decision @ 0.05 (Alpha)
					2.5	97.5		
H4	Employee satisfaction mediates the relationship between Employee Productivity and Employee Performance in co-working spaces.	0.192	0.07	2.748	0.046	0.32	0.006	Supported

Source: Compiled by the author, (2024)

5. DISCUSSION

Impact of Employee productivity on employee performance in co-working spaces

The results indicated that employee productivity has a significant impact on employee performance (ρ = 0.016). This aligns with the literature, as highlighted by a study by Perera et al. (2021), which demonstrates that effective space management can create functional environments that boost staff productivity, showing that productive employees tend to perform better. Key performance indicators like work quality, task accomplishment, time management, adaptability, and teamwork contribute to this improvement. To boost productivity in shared workspaces, it is essential to set clear performance metrics, promote time management, encourage flexibility, and foster teamwork through regular team-building activities. Additionally, providing the necessary resources and tools can further enhance task efficiency.

Impact of Employee productivity on employee satisfaction in co-working spaces

Employee productivity was found to significantly affect employee satisfaction (ρ = 0.000). This finding aligns with motivational theories, including Maslow's Hierarchy of Needs and Herzberg's Two-Factor Theory, which emphasize the strong link between employee satisfaction and productivity. These theories suggest that when employees' fundamental needs are met and they experience job satisfaction, their motivation and overall performance tend to improve, reinforcing the critical role of workplace satisfaction in enhancing productivity.

Impact of Employee satisfaction on employee performance in co-working spaces

Employee satisfaction had a significant impact on employee performance (ρ = 0.008). This finding is consistent with studies that highlight the relationship between job satisfaction and performance, finding that satisfied employees tend to exert more effort and commitment, enhancing organizational performance

(Kojo & Nenonen, 2017).

The Mediating Role of Employee Satisfaction in the link Between Productivity and Performance in co-working spaces

The indirect effect was found to be statistically significant (ρ = 0.006), indicating that productive employees experience greater satisfaction, which, in turn, motivates them to demonstrate higher levels of Employee Performance. The model depicted suggests the presence of complementary mediation, also referred to as partial mediation, in this context. Research by Harter et al. (2002) also supports this, indicating that satisfied employees are more engaged and committed, leading to higher productivity.

6. CONCLUSION

This study provides valuable insights on the impact of employee productivity on individual performance, with a particular emphasis on the mediating role of employee satisfaction within co-working spaces in Sri Lanka's Western Province. The findings of this study indicate that employee productivity has a statistically significant positive impact on both employee performance (ρ = 0.016) and employee satisfaction (ρ = 0.000) within co-working spaces. Furthermore, employee satisfaction was found to significantly influence performance outcomes (ρ = 0.008), highlighting the role of affective workplace experiences in enhancing individual output. Notably, the analysis revealed a significant indirect effect (ρ = 0.006), demonstrating that employee satisfaction partially mediates the relationship between productivity and performance, consistent with the model of complementary mediation. These results are supported by existing theoretical and empirical literature, underscoring the critical interdependence between productivity, satisfaction, and performance in the context of shared work environments. These findings highlight the importance of improving workspace design, enhancing employee well-being, and fostering supportive organizational practices to optimize outcomes in co-working settings.

6.1 FUTURE RESEARCH DIRECTIONS

Future research is expected to explore other mediators such as job engagement and increase the geographic region for deeper insights, further enriching the understanding of co-working spaces and guiding the development of best practices in this emerging field. These findings offer a framework for optimizing workspace design to align with employee needs, thus fostering greater organizational success.

6.2 RECOMMENDATIONS

Based on the study findings, the following recommendations are proposed to enhance the employee productivity, satisfaction and performance in the co-working spaces in Sri Lanka.

1. Optimize Workspace Design - Prioritize ergonomically designed, flexible, and collaborative environments to enhance employee satisfaction, productivity, and performance.

2. Adopt Strategic Co-Working Models - Encourage companies and policymakers to adopt shared workspaces thoughtfully, aligning workspace features with organizational goals and employee needs.

3. Promote Employee Well-being - Implement supportive policies that foster job satisfaction, work-life balance, and mental well-being in co-working spaces.

4. Focus on Community Building - Develop initiatives within co-working spaces to foster a sense of community, facilitate networking opportunities, and enhance professional collaboration.

5. Leverage Technology for Performance

Tracking - Implement productivity tracking tools that measure performance outcomes in co-working environments while maintaining transparency and accountability.

7. REFERENCES

ActivTrak. (2024, May 31). *Employee satisfaction and how it's connected to productivity*. https://www.activtrak.com/blog/employee-satisfaction-and-productivity/

Appel-Meulenbroek, R., Janssen, I., & Groenen, P. (2011). An end-user's perspective on activity-based office concepts. *Journal of Corporate Real Estate, 13*(2), 122–135. https://doi.org/10.1108/14630011111136830

Arimie, J. C., & Oronsaye, A. O. (2020). Assessing employee relations and organizational performance: A literature review. *International Journal of Applied Research in Business and Management, 1*(1), 1–17. https://doi.org/10.51137/IJARBM.2020.1.1.1

Aziri, B. (2011). Job satisfaction: A literature review. *Management Research and Practice, 3*(4), 77–86.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328. https://doi.org/10.1108/02683940710733115

Bakotić, D. (2016). Relationship between job satisfaction and organisational performance. *Economic Research-Ekonomska Istraživanja, 29*(1), 118–130. https://doi.org/10.1080/1331677X.2016.1163946

Blau, P. M. (2017). *Exchange and power in social life*. https://doi.org/10.4324/9780203792643

Bouncken, R. B., & Reuschl, A. J. (2018). Coworking-spaces: How a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. *Review of Managerial Science, 12*(1), 317–334. https://doi.org/10.1007/s11846-016-0215-y

Bueno, S., Rodríguez-Baltanás, G., & Gallego, M. D. (2018). Coworking spaces: A new way of achieving productivity. *Journal of Facilities Management, 16*(4), 452–466. https://doi.org/10.1108/JFM-01-2018-0006

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (Rev. ed.). https://www.wiley.com/en-us/Diagnosing+and+Changing+Organizational+Culture%3A+Based+on+the+Competing+Values+Framework%2C+Revised+Edition-p-9781118047057

Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. *Handbook of Industrial and Organizational Psychology*, 1, 687–732.

Chan, S. C. H. (2019). Participative leadership and job satisfaction. *Leadership & Organization Development Journal, 40*(3), 319–333. https://doi.org/10.1108/LODJ-06-2018-0215

Dlamini, N. P., Suknunan, S., & Bhana, A. (2022). Influence of employee-manager relationship on employee performance and productivity. *Problems and Perspectives in Management, 20*(3), 28–42. https://doi.org/10.21511/ppm.20(3).2022.03

Elegant Real Estate. (2024). *Why Colombo is a hotspot for real estate investment*. https://www.elegantrealestate.lk/why-colombo-is-a-hotspot-for-real-estate-investment/?utm_source=chatgpt.com

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review, 26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior, 26*(4), 331–362. https://doi.org/10.1002/job.322

Galappaththi, G. S. S. H., & Hettiarachchi, A. A. (2022). Impact of green spaces on

workplace stress: Insights from software companies in Colombo, Sri Lanka. *An International Journal on Urban Environments, 6*, 2448–9247. https://doi.org/10.4038/cpp.v6i1.02

Gandini, A. (2015). The rise of coworking spaces: A literature review. *Ephemera: Theory & Politics in Organization, 15*(1), 193–205. http://www.ephemerajournal.org

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*(2), 268–279. https://doi.org/10.1037/0021-9010.87.2.268

Herzberg, F. (1966). *Work and the nature of man*. Mentor Books.

Hultt, T., Ringle, C. M., Sarstedt, M., Ramaswamy, S., Hair Jr, J. F., & Danks, N. P. (2021). *Business partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. https://www.smartpls.com/documentation

Inuwa, H., & Sabo, B. (2022). Self-efficacy and employee productivity: A literature review. *Gusau Journal of Economics and Development Studies (GUJEDS)*.

Janathanan, C. (2023). Determinants of successful coworking spaces by a study of Google reviews: A case study of Sri Lankan coworking spaces. *International Journal of Contemporary Business Research, 2*. https://doi.org/10.13140/RG.2.2.24976.58889

Birtles, J. (2024, December 11). What are coworking spaces and how are they revolutionising business? *MoneyMagpie*. https://www.moneymagpie.com/manage-your-money/what-are-coworking-spaces-and-how-are-they-revolutionising-business?utm_source=chatgpt.com

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—Self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92. https://doi.org/10.1037/0021-9010.86.1.80

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin, 127*(3), 376–407. https://doi.org/10.1037/0033-2909.127.3.376

Kegel, P. (2017). Effects of workplace design and organizational culture on employee outcomes in traditional office settings. *Journal of Facility Management Education and Research, 1*(1), 19–29. https://doi.org/10.22361/jfmer/76637

Kojo, I., & Nenonen, S. (2017). Evolution of co-working places: Drivers and possibilities. *Intelligent Buildings International, 9*(3), 164–175. https://doi.org/10.1080/17508975.2014.987640

Liao, H., Hong, Y., Lepak, D. P., & Toya, K. (2009). Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality. *Journal of Applied Psychology, 94*(2), 371–391. https://doi.org/10.1037/a0013504

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 1297–1349). Rand McNally.

Lu, K. Y., Lin, P. L., Wu, C. M., Hsieh, Y. L., & Chang, Y. Y. (2002). The relationships among turnover intentions, professional commitment, and job satisfaction of hospital nurses. *Journal of Professional Nursing, 18*(4), 214–219. https://doi.org/10.1053/jpnu.2002.127573

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370–396. https://doi.org/10.1037/h0054346

Matui, J. K. (2017a). *Employee productivity on organizational performance in the Kenyan banking sector: A case of Kenya Commercial Bank* [Master's thesis, Kenyatta University].

Matui, J. K. (2017b). *Employee productivity on organizational performance in the Kenyan banking sector: A case of Kenya Commercial Bank* [Unpublished master's thesis]. Kenyatta University.

Memon, A. H., Khahro, S. H., Memon, N. A., Memon, Z. A., & Mustafa, A. (2023). Relationship between job satisfaction and employee performance in the construction industry of Pakistan. *Sustainability, 15*(11). https://doi.org/10.3390/su15118699

Milou, S. (2019). *The effect of employee satisfaction on employee engagement in Asia* [Bachelor's thesis, Unpublished].

Miscovich, P. (2022, November 2). Power to the people: The human-centric workplace. *Work Design Magazine*. https://www.workdesign.com/2022/11/power-to-the-people-the-human-centric-workplace/?utm_source=chatgpt.com

Mister T Real Estate. (2020). *The rise of coworking spaces in Sri Lanka's real estate market*. http://blog.mistert.lk/the-rise-of-coworking-spaces-in-sri-lankas-real-estate-market/

Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: Analysis of a causal model. *International Journal of Human Resource Management, 14*(7), 1246–1266. https://doi.org/10.1080/0958519032000145648

Perera, W. Y., Perera, B. A. K. S., & Jayasena, N. S. (2021). Adaptability of the shared workspace concept for office buildings in Sri Lanka. *Intelligent Buildings International, 13*(4), 327–341. https://doi.org/10.1080/17508975.2019.1588701

Purtzova, K. (2024, April 5). What is employee performance and how to measure it? *Staffino*. https://blog.staffino.com/what-is-employee-performance-and-how-to-measure-it/

Pushpakumari, M. D. (2008). The impact of job satisfaction on job performance: An empirical analysis.

Rachmawati, S., Lumbanraja, P., & Siahaan, E. (2021). The effect of adaptive ability, communication skills, and work environment on performance of Medan mayor's office with teamwork as intervening variables. *Journal Research of Social Science, Economics, and Management, 1*, 406–417. https://doi.org/10.36418/jrssem.v1i4.37

Riketta, M. (2008). The causal relation between job attitudes and performance: A meta-analysis of panel studies. *Journal of Applied Psychology, 93*(2), 472–481. https://doi.org/10.1037/0021-9010.93.2.472

Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Springer. https://www.academia.edu/116848922/Intrinsic_Motivation_and_Self_Determination_in_Human_Behavior

Spinuzzi, C. (2012). Working alone together: Coworking as emergent collaborative activity. *Journal of Business and Technical Communication, 26*(4), 399–441. https://doi.org/10.1177/1050651912444070

Statista. (2024, January 10). Coworking spaces - statistics & facts. *Statista Research Department*. https://www.statista.com/topics/2999/coworking-spaces/?utm_source=chatgpt.com#topicOverview

The Future of Work Survey. (2022). *JLL Sri Lanka*. https://www.jll.com.lk/en/trends-and-insights/research/jll-future-of-work-survey-2022

Thilakarathne, T. M. S. K., & Hettiarachchi, A. A. (2022). Environmental psychological considerations for people working in shared spaces: A study of co-working spaces concerning Colombo, Sri Lanka. *15th International Research Conference - FARU 2022*, 205–213. https://doi.org/10.31705/FARU.2022.23

Wasaf, I., & Khan, M. J. (2021). A study of job satisfaction and its effect on the performance of employees working in private sector organizations, Peshawar. *Education Research International, 2021*. https://doi.org/10.1155/2021/1751495

Wright, T. A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology, 5*(1), 84–94. https://doi.org/10.1037/1076-8998.5.1.84

Wright, T. A., & Cropanzano, R. (2007). The happy/productive worker thesis revisited. *Research in Personnel and Human Resources Management, 26*, 269–307. https://doi.org/10.1016/S0742-7301(07)26006-2

Zerella, S., von Treuer, K., & Albrecht, S. L. (2017). The influence of office layout features on employee perception of organizational culture. *Journal of Environmental Psychology, 54*, 1–10. https://doi.org/10.1016/j.jenvp.2017.08.004