



PROCEEDINGS

Innovative Business Strategies for Turbulent Times

HUMAN RESOURCES MANAGEMENT INSTITUTE

Innovative Business Strategies for Turbulent Times

Conference Tracks

Manufacturing and Operations Management

Tourism and Hospitality Management

Human Resource Management

Accounting and Finance

Digitalization

Marketing

Organized by

Human Resources Management Institute, Colombo, Sri Lanka – 02 December 2023

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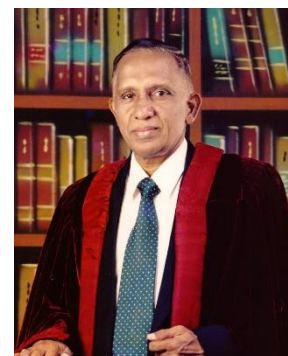
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MESSAGE FROM THE VICE CHANCELLOR

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In the 1970s and 1980s, the World University Service Conference was a major event, attracting foreign professors, especially from the UK, Europe, the US, and Japan, to Sri Lanka. During this period, Sri Lanka was seen as a hub of academic opportunities, and many international scholars were eager to visit the country. I was honoured to be selected as a student presenter at the 1976 World University Service Conference, an event that brought together a large audience of foreign academics. Though I felt confident in my research, I was worried about understanding questions from foreign professors due to language barriers. Fortunately, my professors, including V.K. Samaranayake and M.B. Aryapala, reassured me, offering their support during the presentation if needed.

The experience of presenting in front of 300-400 people was a challenge but

ultimately successful, with my professors stepping in to assist when necessary. This event marked a significant milestone in my academic journey, boosting my confidence and opening new doors for me. Since then, I have pursued my academic career internationally, completing postgraduate studies in India and earning my PhD from the Australian National University (ANU). I've also been affiliated with prestigious institutions like Harvard University and the National University of Singapore (NUS) as a research fellow.

During my studies at the International Institute for Population Sciences (IIPS) in India, I observed how closely Indian researchers, academic institutions, and government agencies collaborated to address future challenges. This partnership ensured that Indian policies were well-informed by research, preventing poor decisions. India's

success across many fields, from nuclear physics to entertainment, is built on a solid foundation of research and development.

In contrast, Sri Lanka's research funding, mostly controlled by the University Grants Commission (UGC) and the National Science Foundation, has primarily focused on medical and engineering fields. While these areas are important, Sri Lanka faces many social and economic issues that also need research. Unfortunately, the social sciences and humanities have not received adequate support, leaving these problems largely unaddressed.

I have also witnessed Singapore's impressive development over the years. When I first visited Singapore in 1980, it was a poor country, with conditions similar to Sri Lanka's. However, today, Singapore is one of the wealthiest nations, with a per capita income exceeding 50,000 Singapore dollars, thanks to its heavy investment in education and research. The National University of Singapore (NUS) is now the top university in Asia, and its researchers are among the best globally. This commitment to research allowed Singapore to handle challenges, like the COVID-19 pandemic, with resilience, whereas Sri Lanka's response

demonstrated a lack of flexibility and innovation.

Sri Lanka has struggled to develop a robust research culture like India or Singapore, despite having a promising environment in the 1970s and 1980s. Even with increased funding, Sri Lankan universities have not significantly improved in global rankings. A key issue is the lack of collaboration between senior and junior researchers, particularly in social sciences and humanities, leaving junior scholars without necessary mentorship. This has contributed to a growing "brain drain," with many talented researchers and educators leaving for better opportunities abroad. To reverse this trend, Sri Lanka must develop strategies to retain talent and foster a stronger research culture. Institutions like HRMI, focusing on business and management, play a vital role in promoting research and collaboration, helping the country address its social and economic challenges. The international conference organized by HRMI is a positive step, and further collaboration between researchers, educators, and policymakers is essential for Sri Lanka's progress.

MESSAGE FROM THE DIRECTOR / CEO

Mr Gihan Talgodapitiya
FCMA, MBA (NUS)
Corporate Trainer
Director / CEO
Human Resources Management Institute



I want to begin by expressing my gratitude for the opportunity to present today. I do appreciate the courtesy of the invitation. The theme of this conference resonates with me, particularly the words "turbulent" and "innovation," which align closely with my own experiences. HRMI's history itself is a product of turbulent times.

Professor Indralal mentioned Singapore, where I lived for nearly a decade until 2008. I was working in corporate training and managing a successful practice, but when the 2008 economic downturn hit, training budgets were cut drastically. The only client that continued to use my services was John Keells in Colombo. This taught me an important lesson: as a corporate trainer, while well-paid, I was highly vulnerable to economic shifts.

Realizing I needed a more resilient business model, I decided to pivot. That's when I returned to Colombo and founded HRMI. The concept behind

HRMI was born out of this economic turbulence, with a focus on building something that wasn't solely dependent on me or vulnerable to market fluctuations. Today, students come to HRMI because of what it represents, not just because of me personally.

Fast forward to 2022, and after dealing with the impacts of COVID-19 and a severe foreign exchange crisis, we found ourselves in debt to the University of Northampton, owing them nearly 300,000 sterling pounds. Our longstanding relationship with the university helped us navigate through that challenge, but it also made us realize we needed a sustainable solution to the foreign exchange problem. This led to the idea of establishing a non-state university, a move that again turned a crisis into an opportunity.

Reflecting on the challenges of the past few years, from the 2019 Easter bombings to the COVID-19 pandemic, I'm proud of our institution's resilience.

We adapted to online teaching, extending our reach beyond Colombo to students from all parts of Sri Lanka, and even internationally, from places like Qatar, Canada, Australia, and Japan. Turbulence has consistently signaled opportunities for us. Every five years, we've doubled our capacity, and we're now preparing to move into a new campus four times larger than the current one. This growth requires constant reimagining and innovation—a mindset we strive to instill in our students.

I believe this approach mirrors the core of research. Research starts with an open mind and a readiness to explore problems and solutions. As educators, it's our duty to cultivate a research-oriented culture in our students, encouraging them to question, explore, and innovate. Drawing from my MBA studies at the National University of Singapore, I recall my professor emphasizing the need for forward-thinking research that addresses future challenges rather than focusing solely on the past. This forward-looking mindset is essential in today's rapidly changing world.

In this volatile and complex environment, theories that once guided us, like Michael Porter's concept of

sustainable competitive advantage, may no longer be as relevant. We must continually reinvent ourselves and encourage students to do the same. At HRMI, we are embedding research at every level of our academic programs, encouraging students to view each subject with a lens of inquiry and discovery. In our new campus, we are creating spaces dedicated to research, entrepreneurship, and strategic thinking to foster an environment where innovation can thrive.

As educators, our role is not just to pass down knowledge from books and theories but to inspire the next generation to challenge them. We need to encourage students to seek new solutions, contribute their insights, and continue building on the body of knowledge that drives society forward.

In closing, I want to stress the importance of experiential learning and problem-solving in education. Whether it's rethinking how to use everyday tools like a string hopper machine or addressing global challenges, we must foster a mindset of innovation and research in our students. This is how we prepare them for the future.

KEYNOTE SPEECH

Navigation in Turbulent Times: Lessons Learnt from Thriving Organizations

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We are living in a world of unprecedented turbulence, marked by Volatility, Uncertainty, Complexity, and Ambiguity (VUCA). Businesses today operate in this unpredictable environment, as exemplified by the COVID-19 pandemic, which caused many companies to shut down. However, some organizations not only survived but also thrived, turning challenges into opportunities.

Apple Inc., for example, saw its market capitalization grow from \$1.29 trillion in 2019 to \$2.32 trillion by the end of 2020, benefiting from increased sales of Macs and iPads due to the shift to remote work and online learning. Amazon also experienced massive growth, with its market cap rising from \$920.22 billion to \$1.6 trillion. Tesla, another standout, saw a staggering 784% increase in its market cap during the pandemic. Other

successful companies included Alphabet, Tencent, Facebook, PayPal, and Meituan.

Sri Lankan businesses were similarly impacted by the pandemic, but some managed to benefit as well. Listed companies on the Colombo Stock Market recorded 189% growth in the first quarter of 2021. Expolanka, LOLC, Hayleys, Vallibel Finance, and John Keells were among the top performers, demonstrating resilience and adaptability amidst the crisis.

These success stories remind us of Oprah Winfrey's words: "Challenges are gifts that force us to search for a new centre of gravity. Do not fight them. Just find a new way to stand." Similarly, Peter Drucker emphasized that the greatest danger in turbulent times is not the turbulence itself, but acting with

outdated logic. Effective leadership plays a critical role in navigating such periods, as demonstrated by Jamie Dimon of JPMorgan Chase during the 2008 financial crisis and Jacinda Ardern of New Zealand during the COVID-19 pandemic.

Five strategies can help organizations thrive in turbulent times:

Maintain a Positive Mindset: Leaders must view challenges as opportunities for growth. By focusing on long-term goals, staying optimistic, and adapting, organizations can transform obstacles into stepping stones. Surrounding oneself with positive individuals and mentors is also crucial to maintaining a forward-thinking attitude.

Develop Employees and Focus on Their Well-being: Employees are the backbone of any organization. Investing in their development and ensuring their well-being creates a thriving workplace culture, leading to increased productivity and innovation. Providing work-life balance, fostering open communication, and offering training opportunities help retain and motivate staff.

Create and Maintain a Strong Company Culture: A strong company culture serves as an anchor during

turbulent times. Shared values, beliefs, and attitudes foster a sense of unity and resilience. By nurturing communication, support, and collaboration, businesses can overcome uncertainty and position themselves for long-term success.

Build a Resilient Business Model: Resilience is key to surviving and thriving in uncertain times. Diversifying revenue streams, strengthening relationships with suppliers and partners, and investing in technology are essential. A resilient business model allows organizations to adapt to changes and seize new opportunities as they arise.

Embrace Agility and Adaptability: Businesses must be flexible and open to change, regularly reassessing strategies and processes to stay relevant. Encouraging innovation and listening to customer feedback ensures that organizations can respond swiftly to shifts in the market and meet evolving demands.

In conclusion, Perry Holley's quote about crisis responses captures the essence of these strategies: some people let crises define them, while others define the crisis and emerge stronger. By embracing these approaches, businesses can thrive in today's VUCA world.

GUEST SPEECH 01

How to Publish a High-Quality Emerald Journal?

Professor Dewasiri N Jayantha

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Brand Ambassador, Emerald Publishing, South Asia.



Dear Participants, it's an honour to delve into the topic of "How to publish in a top-tier Emerald Journal" on behalf of Emerald Publishing. This guest speech offers insights into a winning formula for publication success, emphasizing focal points, differentiation strategies, and structuring tips. Achieving top-tier publications requires dedication and strategy, not just luck.

I draw parallels from industry strategies, advocating for Porter's generic strategies (differentiation and focus), blue ocean strategies (continuous innovation), and white ocean strategies (collaboration with competitors) in publishing for top-tier journals. Leveraging enhanced focus and differentiation amplifies competitive advantages necessary for top-tier publication. Authors can secure a first-

mover advantage by improving research originality, coupled with innovation, delivering superior value to a specific audience.

When creating research and manuscripts, early alignment with a suitable journal is crucial. Tools like Journal Finder and consideration of factors such as aims, impact factors, and indexing (Scopus, ABDC, Web of Science, ABS) help identify top-tier journals. Prioritizing manuscript quality over quantity is vital, emphasizing adherence to scientific approaches, guidelines, originality, and audience relevance.

To stand out, authors should innovate methodologically and contextualize their work. Collaborations enhance research quality and diversity, leading to

impactful outcomes. However, challenges persist, including submissions out of scope, non-compliance with guidelines, and insufficient revisions—issues observed in my editorial role. Strict adherence to guidelines, clear revisions, and responses to reviewers are crucial for a smooth review process.

In conclusion, focusing on suitable journals, high-quality manuscripts,

audience alignment, and differentiation through innovation and collaboration pave the way for top-tier journal publication. Best wishes in your academic pursuits. I extend my sincere gratitude to the Conference Organizing Committee for their dedicated efforts in orchestrating this event. To all the paper presenters, your contributions enrich the discourse in our academic community.

GUEST SPEECH 02

Technology in the Workplace - The Future of Digital Transformation.

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Academic Programme Manager.
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In recent years, digital transformation and the growing use of advanced tools, particularly in human resources (HR), have significantly impacted industries. Technologies like online meetings, networking platforms, and artificial intelligence (AI) are reshaping the HR landscape, raising concerns about replacing the human element. This echoes past predictions, such as Thorsten Veblen's 1899 forecast of automation replacing labor and the 1970s vision of a "leisure society" where robots would handle most work—concepts that have not fully materialized.

While automation has replaced certain roles, it has also created new opportunities that demand fresh skills. HR professionals have shifted from administrative duties to strategic responsibilities. Technological advancements are now driving

recruitment, talent management, and employee retention, with AI-powered systems streamlining processes like candidate searches and shortlisting. However, there are challenges, including the risk of AI-generated application materials misrepresenting candidates' qualifications, posing a new layer of complexity for HR professionals.

Younger generations' changing expectations are also reshaping the workplace. Unlike previous generations, today's employees prioritize personal fulfillment and value alignment over long-term job security. Technology plays a critical role in recruiting and managing talent, leading to more fluid career progression models where employees often switch organizations rather than climbing a traditional career ladder.

As businesses embrace automation, HR professionals must adapt, with organizations like the Society for Human Resource Management (SHRM) emphasizing the need for HR to develop skills in AI, big data, and quantum information. With administrative tasks like payroll and performance tracking increasingly automated, HR can focus more on strategic responsibilities like employee well-being and creating meaningful work experiences. The COVID-19 pandemic accelerated remote work and digital collaboration, blending physical and digital work environments into a "phygital reality." As hybrid work models become more prevalent, HR must balance the benefits of remote work with the need to foster collaboration and creativity.

Ethical concerns regarding AI's role in recruitment also require attention, especially in avoiding bias and ensuring fairness. A 2021 study involving 79 interviews found mixed opinions on whether humans or robots make better talent decisions, underscoring the complexity of integrating technology into HR processes. The Fourth Industrial Revolution highlights the need for HR professionals to navigate organizational change, monitor ethical practices, and advocate for employee rights as

technology becomes more embedded in business operations.

Research from Australia and the UK indicates that while AI can boost productivity in administrative tasks, there is scepticism about its capacity to handle higher-level decision-making. Though some headlines suggest the "death of work" or the "removal of the human" from HR, the reality is more nuanced. Technology is primarily being used to improve efficiency, not eliminate human involvement. The evolving HR profession will continue to adapt to technological advancements, but the expertise of HR professionals remains vital to ensure that technology enhances rather than replaces the human element in the workplace.

MESSAGE FROM THE CONFERENCE CHAIR

*Dr N N J Nawaratne
PhD (Keio Japan), MA (Keio Japan), B.Sc. (SJP)
Professor in Human Resource Management,
Department of Human Resource Management,
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University of Colombo.*



I am pleased to welcome you to the first International Conference on Management Studies of the Human Resource Management Institute.

Conferences such as this provide a valuable opportunity for lecturers, students, researchers, industry specialists and decision-makers to share experiences. I think, at the university level of education, teachers and students ought to be given time and opportunity for research and that this as well as teaching. Especially research is self-education for the lecturers. Then, they may be able to teach their students how to educate themselves.

As Human Resource Management Institute board on this exciting journey today, I would like to extend a warm welcome to all of our invited guests. Your presence here today is a witness to your commitment to advancing research and innovation. I am confident that the

all day you are all will be filled with stimulating discussions, insightful presentations, and valuable networking opportunities.

I am grateful to the many researchers who have come to share their knowledge on this conference on Marketing/ Tourism and Hospitality Management, Human Resources Management, Finance / Manufacturing and Operations Management and Digitalisation. I also welcome the all representatives and panel members of other universities, industry associations and who have joined from other sectors with us today.

I would also like to take a moment to thank the organizers of this event for their hard work and dedication. Without their tireless efforts, this forum would not have been possible. Let us make the most of this opportunity to learn from each other, share our expertise, and build lasting connections.

I wish you every success with this important conference and I look forward to learning about the outcome. Ladies and gentlemen, one of today's major topics of concern is innovative Business Strategies for Turbulent Times. In order to help our nation achieve overall development in all sectors of society, it becomes very important to tap the

innovative business strategies in the right way otherwise none can prevent that nation from facing a steep decline. I am sure our experts must have done their bit of studying around the topic and so did our audience. This is a topic that each one of us can relate to, particularly the management people.

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The Impact of Inventory Management on Financial Performance

P L Kavirathna¹

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Abstract

This research was conducted to determine the impacts of inventory management on the financial performance of XYZ Packaging (Cambodia) Co., Ltd and to identify strategies that can be implemented to overcome challenges in inventory management impact on financial performance. The research was designed using a quantitative approach that used correlation and regression to analyse the data. The target population was 55 employees comprised of management and staff of XYZ Packaging (Cambodia) Co., Ltd who work in the accounting, procurement, production, and inventory management departments. The primary data was collected from the close-ended questionnaire distributed to the respondents and collected data was coded and recorded into the SPSS programme for analysis. The analysis was conducted using SPSS's Pearson Correlation, and the outcomes indicate a

moderately positive relationship between material control and financial achievement with a Pearson Correlation "R" value of 0.603 (60.30%). Additionally, the "p" value is 0.000, which is lower than 0.01, indicating a 99 percent significant association between inventory management and financial performance. The financial performance of inventory management is impacted by 36.4 percent, as indicated by the R square value of 0.364. This study recommended that XYZ Packaging (Cambodia) Co., Ltd should practice techniques such as the economic order quantity (EOQ) model to order raw materials and reduce spaces for storage, reduce holding costs such as labour, insurance, damages, and spoils. Moreover, the study recommended using a computer-based inventory management system to reduce the risk of mistakes and the potential for fraud. Further, Management should continuously conduct training for employees to help

them improve their inventory management skills.

Keywords: Inventory management, financial performance, Packaging industry

Introduction

The monetary achievement of the company is vital to staying competitive in the market and achieving the goals and objectives of the organisation. The primary documents that indicate financial performance are the financial statements of the organisation. Inventory management refers to ordering, storing, using, and issuing unprocessed materials, proceeding materials, and final products. The organisation which is grounded for this report is referred to as XYZ Packaging (Cambodia) Co., Ltd due to confidentiality measures of disclosing sensitive information about the organisation. The organisation was established in Cambodia in early 2014 to provide all kinds of carton boxes, and corrugated sheets for customers' packaging needs. The organisation specialised in producing cartons and corrugated boxes and the key objective of the organisation is to provide high-quality products that meet customers' expectations.

Research problem

The latest financial statements of XYZ Packaging company demonstrate that the company is having a financial loss. If the company makes financial losses continuously it may force the company into bankruptcy. Following are some of the financial statistics of XYZ Packaging.

Description	2021	2020
Gross Profit Margin	3%	11%
Net Profit Margin	-30%	6%

Table 1-Financial statistics of XYZ Packaging FY 2020/2021

Following are horizontal analysis by comparing FY 2020 figures with FY 2021

Description	%	Impact
Sales (Increased)	1%	Positive
GP (Decreased)	-73%	Negative
NP (Decreased)	-653%	Negative
Material Cost (Increased)	30%	Negative
Labour Cost (Decreased)	-6%	Positive
Manufacturing Cost (Decreased)	-22%	Positive

Table 2-Horizontal analysis by comparing FY 2020 figures with FY 2021

The GP margin is derived by calculating direct material, direct labour, and factory overheads. The above statistics indicate that the impact of direct labour and factory overheads is positive while direct material has a negative impact. Inventory management is significant to the financial performance of the organisation

due to the various types of costs involved. Failure to manage inventory negatively affects productivity, profitability, and effectiveness.

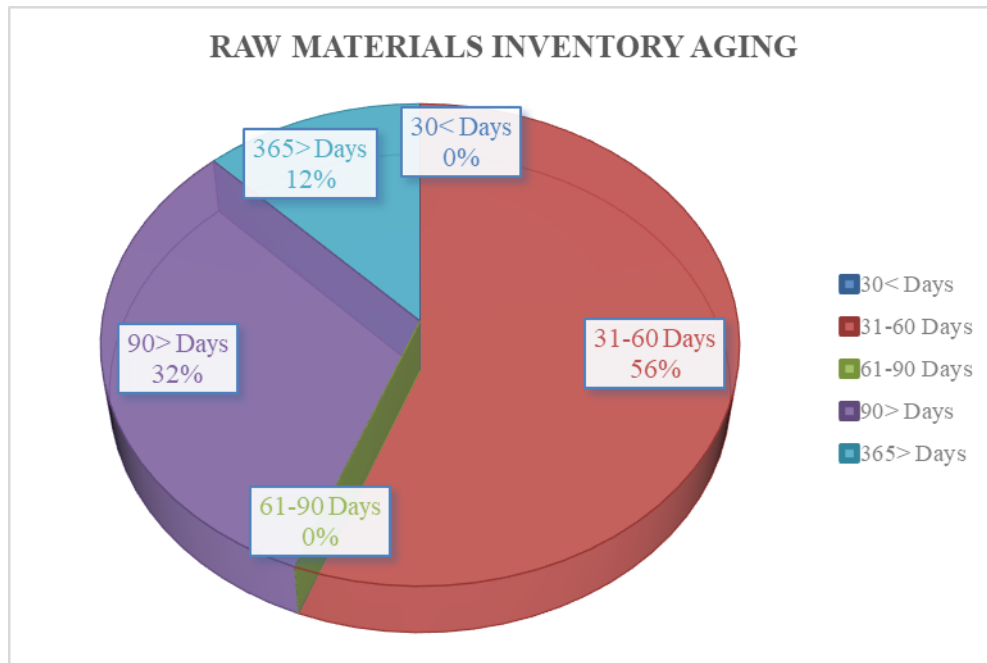


Figure 1-Raw Materials Inventory Aging

According to Figure 1, 44 % of the inventory is more than 90 days, indicating the cost of the inventory storage facility, finance stuck in the unprocessed material, and the possibility of damage, spoil, and loss of raw materials.

Research Objectives

1. To determine the impacts of inventory management on the financial performance of XYZ Packaging (Cambodia) Co., Ltd.

2. To identify strategies that can be implemented to overcome challenges in inventory management.

Research Questions

1. What are the impacts of inventory management on the financial performance of XYZ Packaging (Cambodia) Co., Ltd.?
2. What are the strategies that can be implemented to overcome

challenges in inventory management impact on financial performance?

Literature Review

Several studies show a significant positive relationship between inventory performance and financial performance (Afrifa et al., 2020). Manufacturing companies with fewer inventories reduce the risk of inventory write-offs and reversals (Ak and Patatoukas, 2016). Etale and Sawyerr (2020) analyse, the link between inventory control and financial success. Althaqafi (2020) study results show that managing Inventory and profitability have a strong relationship and suggest that if inventory is handled well, it guarantees more profitability, whereas inadequate inventory management results in poor financial results.

Some studies demonstrate the negative relationship between inventory and finance. Some find it unclear or do not confirm the relationship (Steinker et al., 2016). The majority of them discovered that increasing inventory ratios' days-in-stock negatively affects financial performance (Shin et al., 2015). Conversely, very few studies concentrate

exclusively on the relationship between inventory management and financial performance (Karim et al., 2018). Many studies concentrate on the effectiveness of working capital management and analyse the effect of other working capital components in addition to looking at how inventory performance affects profitability (Gołaś, 2020). Therefore, this paper aims to study the impact of inventory management on financial performance.

Methodology

The positivism approach is more appropriate for the study as the research used structured questionnaires and official statistics. The impact of the independent variables on the dependent variables needs to be identified. Therefore, this research follows the deductive approach to analyse the data. The research was designed under a quantitative method to analyse data using correlation and regression of XYZ Packaging (Cambodia) Co., Ltd. The population is comprised of management and staff of XYZ Packaging (Cambodia)

Co., Ltd who work in the accounting, procurement, production, and inventory management departments.

The target population is 55 employees from the above-mentioned department. The research used the probability sampling technique to define the sample

The data was analysed using a quantitative method. The primary data was obtained from the questionnaire categorised, coded, and entered SPSS software for analysis. The study finding

size. The sample size is 55 as the total population is manageable and helps to develop accurate information. The study used data from primary sources. The primary data was collected from the close-ended questionnaire distributed to the management and staff working in the above departments.

was depicted in tables, charts, and graphs to simplify description and explanation. The technique used to identify the strength of the variables is a correlation.

Conceptual Framework

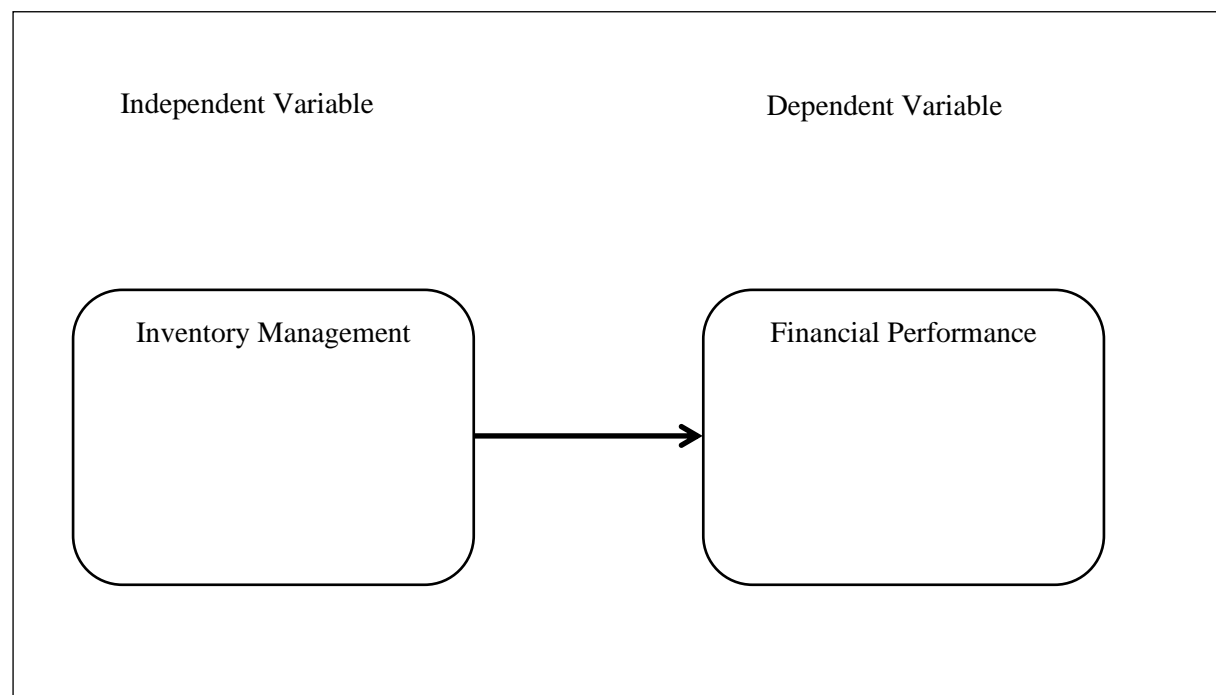


Figure 2-Conceptual Framework

Source: Author developed, 2022

To evaluate the association between inventory management and financial

performance, the researcher devised the following hypothesis.

Hypothesis

H01: Inventory management does not have an impact on financial performance.

H11: Inventory management has an impact on financial performance.

Using SPSS (Statistical Package for Social Science), the gathered data were analysed. At first, reliability analysis between variables was performed using Cronbach's Alpha and verified the reliability. Secondly, demographic data

was analysed and presented using charts. Further, analysed the impact of demographic data on variables. Finally, correlation and regression analysis were performed and tested the hypothesis.

Research Findings and Conclusion

Research Findings

	Freq.	Percent (%)	Valid %	Cumulative %
Gender				
Male	24	43.6	43.6	43.6
Female	31	56.4	56.4	100.0
Total	55	100.0	100.0	
Age				
<25	12	21.8	21.8	21.8
25-35	32	58.2	58.2	80.0
36-45	11	20.0	20.0	100.0
Total	55	100.0	100.0	
Education				
Primary	22	40.0	40.0	40.0
Secondary	28	50.9	50.9	90.9
University	5	9.1	9.1	100.0
Total	55	100.0	100.0	
Experience				
<1	3	5.5	5.5	5.5
1-2	19	34.5	34.5	40.0
2-3	15	27.3	27.3	67.3
>4	18	32.7	32.7	100.0

Total	55	100.0	100.0	
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Table 3- Demographic Data Analysis

The composition of the respondents is 43.6% male and 56.4% female, the highest respondents 58.2% are between the ages of 25 to 35 in the study, 50.9% have a secondary level of education, and 32.7% have more than 4 years of experience.

Correlation Analysis and Hypothesis Testing

H11: Inventory management has an impact on financial performance.

Association between Inventory Management and Financial Performance.

Correlations			
		Finance Performance	Inventory Management
Finance Performance	Pearson Correlation	1	.603**
	Sig. (2-tailed)		.000
	N	55	55
Inventory Management	Pearson Correlation	.603**	1
	Sig. (2-tailed)	.000	
	N	55	55
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4-Pearson Correlation of Inventory Management and Financial Performance

Based on the analysis done using Pearson Correlation of SPSS, the "R" value was received as 0.603 and indicates a moderately positive association between inventory management and financial performance. The result of 60.3% shows that inventory performance increased by 60.3% financial performance also increased by the same percentage (Ahmed et al., 2015). Moreover, the "p" value is 0.000 which is lower than 0.01 indicating the association between inventory management and financial performance is 99% significant. According to Mulindabigwi and Mulyungi (2015), inventory management positively impacts financial performance.

Regression Analysis

Impact of Inventory Management on Financial Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Stan. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.603 ^a	.364	.352	.66147	.364	30.282	1	53	.000
a. Predictors: (Constant), Inventory Management									

Table 5-Model Summary of Inventory Management

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.250	1	13.250	30.282	.000 ^b
	Residual	23.190	53	.438		
	Total	36.439	54			
a. Dependent Variable: Finance Performance						
b. Predictors: (Constant), Inventory Management						

Table 6-ANOVA Test of Inventory Management

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.783	.520		1.504	.138	-.261	1.826
	Inventory Management	.842	.153	.603	5.503	.000	.535	1.149
a. Dependent Variable: Finance Performance								

Table 7-Coefficients of Inventory Management

According to the above analysis data, the R square value of 0.364 represents there is an impact of 36.4% of inventory management on financial performance.

Moreover, the P-value indicates that 0.000 means influence is 99% significant (Mulindabigwi and Mulyungi, 2015).

Summary

No	Hypothesis	'R' Value	'P' Value	Result	Conclusion
H11	Inventory management has an impact on financial performance.	0.603	0.000	Moderately Positive	Accepted

Table 8-Summary of Analysis Data

Conclusion

The researcher used Pearson Correlation of SPSS to analyse the data and found that financial performance and inventory management are correlated with a correlation $R = 0.603$ (60.3%) indicating that inventory management positively impacts financial performance in XYZ Packaging (Cambodia) Co., Ltd. This implies that effective inventory management will increase XYZ Packaging's financial performance and vice versa. Further, the "p" value is 0.000, which is lower than 0.01, and shows that there is a 99 percent statistically significant relationship between inventory management and financial performance. Based on the above finding, this study concludes that a moderate and positive association exists between inventory management and financial performance in XYZ Packaging (Cambodia) Co., Ltd. In conclusion, this research discovered that streamlining inventory management can positively increase the financial performance of XYZ Packaging (Cambodia) Co., Ltd.

The researcher found out that there is no computerised system to monitor inventory at XYZ Packaging (Cambodia) Co., Ltd. As a result, there may be a significant risk of mistakes and the potential for fraud. The researcher would

like to recommend implementing a recognised computer-based system to manage the inventory. The researcher is recommended to provide training on how to use and practice the economic order quantity (EOQ) model.

References

Afrifa, G.A., Alshehabi, A., Tingbani, I. and Halabi, H. (2020). Abnormal inventory and performance in manufacturing companies: evidence from the trade credit channel. *Review of Quantitative Finance and Accounting*, 56(2), pp.581–617.

Ahmed, A.D., Modibbo, S.A., Modu, K.H. and Muhammad, B.S. (2015). Effect of Inventory Management on Financial Performance: Evidence from Nigerian Conglomerate Companies. *Nigerian Journal of Accounting and Finance*, 7(2), pp.96–107.

Ak, B.K. and Patatoukas, P.N. (2016). Customer-Base Concentration and Inventory Efficiencies: Evidence from the Manufacturing Sector. *Production and Operations Management*, 25(2), pp.258–272.

Althaqafi, T. (2020). Effect of Inventory Management on Financial Performance: Evidence from The Saudi Manufacturing Company: Case Study. *European Journal of Accounting, Auditing and Finance Research*, 8(10), pp.13–26.

Etale, L.M. and Sawyerr, A.E. (2020). Inventory Management and Financial Performance of NSE Listed Glaxosmithkline Consumer Nigeria PLC. *International Journal of Economics, Commerce and Management*, 8(6), pp.48–62.

Gołaś, Z. (2020) Effect of inventory management on profitability: evidence

from the Polish food industry: Case study. *Agricultural Economics*, 66(5), pp.234–242.

Karim, N.A., Nawawi, A. and Salin, A.S.A.P. (2018) Inventory control weaknesses – a case study of lubricant manufacturing company. *Journal of Financial Crime*, 25(2), pp.436–449.

Mulindabigwi, J.N. and Mulyungi, P. (2015). Effect of Inventory Management on Financial Performance of Manufacturing Firms in Rwanda, A Case Study of Bralirwa. *International Journal of Science and Research (IJSR)*, 6(10),

pp.1366–1371.

Shin, S., Ennis, K.L. and Spurlin, W.P. (2015). Effect of Inventory Management Efficiency on Profitability: Current Evidence from The U.S. Manufacturing Industry. *Journal of Economics and Economic Education Research*, 16(1), pp.98–106.

Steinker, S., Pesch, M. and Hoberg, K. (2016). Inventory management under financial distress: an empirical analysis. *International Journal of Production Research*, 54(17), pp.5182–5207.

Exploring the Potentials of Developing and Introducing Smart Baby Cradle to Sri Lankan Context

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Abstract

Due to the busy life schedule of mothers in this modern era, taking care of infants has become a substantial challenge. Moreover, findings housekeepers have become more challenging in Sri Lanka due to financial constraints and trust issues. Smart baby sleepers are a common technological equipment used in many developed countries but not available in Sri Lanka. Hence, the current research was conducted to understand the perception of mothers towards such an IoT based technological solution to ease their responsibilities of taking care of infants. Related past studies were used as the foundation for this study and qualitative research method was adopted since it was needed to understand the perceptions of mothers. Accordingly, semi-structured interviews were conducted using 5 working mothers lived in Kandy, Sri Lanka. Convenient sampling was used to select the sample and thematic analysis was used to analyse data. Accordingly, it was

noticeable that working mothers liked to buy this smart cradle if it was safe enough for the baby. However, it was evident that they were concerned about the safety and reliability of this technological solution due to lack of awareness regarding technology. Hence, providing the awareness deemed to be essential when launching this product. Moreover, according to research findings, the main recommendations were to add a wet sensor, a temperature sensor, and a cradle swing motor. The main conclusion of the research was that mothers were willing to buy the cradle if it is safe for the baby.

Keywords: IoT, Smart cradle, Arduino, Automation

Extended Abstract

Introduction

In the initial stages of an infant, it is necessary that they get proper rest and sleep for their growth and development (Anders and Taylor, 1994). This responsibility completely falls on the

parents' shoulders especially on mothers in countries like Sri Lanka. When there is a newborn child, given the scenario it is obvious that the parents tend to have a nanny/caretaker to look after their child. Yet, this is not an option for all the parents out there due to financial issues and trust issues they might develop as they will be leaving their child with a stranger. Hence, childcare has become a considerable challenge to parents, especially to mothers.

Research Problem

Sri Lanka is an industrializing country, given that in all families, both partners have jobs. In a situation like this, balancing the substantial work stress alongside childcare responsibilities becomes a complex task. Studies conducted in Sri Lanka have claimed that working mothers struggle balancing their work and family responsibilities especially child caring due to lack of facilities and demanding work commitments (Kodagoda, 2018; De Ravindranath et al., 2021). Hence, this research was conducted to understand the perceptions of working mothers on smart baby sleeper/cradles which would ease their child caring routines.

Research Aim

This research aim is to understand the perceptions of working mothers towards a smart baby sleeper and accordingly implement a practical development.

Research questions

- What are the challenges faced by working mothers in terms of child caring?
- What are the perceptions of working mothers towards a smart baby sleeper?
- How can a smart baby sleeper be developed based on research findings and recommendations?

Literature Review

Due to the ability to take automatic actions, smart technologies empowered by the Internet of Things (IoT) have become extensive in day-to-day activities (Qian and Wang, 2012). IoT is defined as a system of internet-connected objects that collect and transfer data over a wireless network without human intervention. There are current trends in IoT such as 5G networks, AI (Artificial Intelligence), smart homes, and smart factories (Abomhara and Koien, 2016). Baby care service is a field that could also employ these technologies through embedded systems. There are several studies that have been done on this subject. Shahadi et al. (2020), proposed

that automatic cradle rocking with oscillatory actions is like that achieved by an adult rocking a crib with an infant in it. Sathasivam, et al. (2022) created a swing cradle powered by a motor to swing as a response to a baby's cry. Moreover, Prusty et al. (2019) have conducted a study, where this cradle system automatically rocks the baby cradle, detects wetness, and detects temperature in the cradle. Tursunov (2021); designed a smart cradle that alarms the parents by the baby's activities.

These kinds of smart baby sleepers are used in developed countries, but in Sri Lanka, smart cradles are not popular due to their being expensive. Therefore, this research is conducted to understand the different perceptions and preferences of Sri Lankan's mothers who have infants, and which will also be affordable for them. In addition to providing valuable insights into the sleep environment and safety of babies, this research contributes uniquely to the field of baby care technology in Sri Lanka by offering a comprehensive understanding of the practical implementation and challenges associated with IoT-based smart baby cradle systems.

Methodology

Saunders's research onion was employed to design the research methodology, grounded in an interpretivism philosophy and qualitative method followed by semi-structured interviews. Qualitative research, through interview is suitable in exploring the nuanced and subjective perceptions of working mothers toward a smart baby cradle as it allows for a deeper understanding of individuals' attitudes beliefs related to the technology, Convenience sampling, with a sample size of 5 (from Kandy city), was selected for this qualitative studies, as it allows for the in-depth exploration of each participant's perspective within the scope of the research question (Creswell & Creswell, 2017). According to scholars determining a minimum sample size is challenging whereas, based on the depth of the information required and the nature of the inquiry (Creswell & Creswell, 2017) whereas, the researcher is able to choose from 1 to 20 participants as the sample (Subedi, 2021). Each interview conducted for around 30-45 minutes to gather rich data. Thematic analysis was conducted engaging with coding and identifying patterns to extract meaningful insights. However, the subjective nature of qualitative studies, inability to generalize and limited sample size posed limitations to the study.

Research findings opinions of taking care of a baby

Working mothers face challenges in balancing career and baby care. Finding trustworthy caregivers and managing feeding hours are key concerns. Maternal leave is insufficient, and additional leaves affect performance. Hiring housekeepers is a common solution, but it comes with challenges like finding trustworthy individuals and excessive costs.

Traditional baby cradles

Traditional cradles, made of wood or plastic, receive positive reviews from mothers. They help with babysitting and household tasks, providing a secure environment. Preferences vary; some prefer wooden cradles for safety reasons. Overall, traditional cradles contribute to making mothers' lives easier.

Opinions on smart baby cradles

Mothers desire smart cradles for comfort and protection, with features like voice recorders, temperature control, and remote operation. Concerns include safety with electricity and waves, but research supports the safety of these devices. Mothers express positive opinions about the potential benefits of smart cradles, especially for working mothers.

Willingness to buy a smart baby cradle

Mothers express a willingness to buy smart cradles if they ensure the baby's safety. Expectations for the price range from 10,000 to 20,000 rupees, reflecting a significant demand for these devices. The investment in a feature-rich smart cradle is seen as beneficial for working mothers, fulfilling their needs in terms of babysitting.

The research suggests that working mothers face challenges in managing both work and baby care. Traditional cradles are valued, but there is a growing interest in smart cradles, with a focus on features enhancing comfort and security. Concerns about safety and reliability are present but can be addressed through technological advancements. The willingness to invest in smart cradles indicates a potential market for these devices, particularly among working mothers in Sri Lanka.

Conclusion and Implications

The study focuses on the development of a smart baby cradle, reducing the manual effort required from mothers. The key innovation lies in the cradle's ability to automatically swing in response to the baby's cries. Additionally, the smart cradle incorporates environmental

temperature detection, enabling it to regulate fan usage for uninterrupted baby sleep. Developed using Arduino and IoT technologies, the cradle features a sound sensor linked to Arduino Uno, activating the cradle's semi-circular motion via a stepper motor when the baby cries. A wet sensor with a blue LED indicates wetness, allowing parents to promptly clean the cradle. Future enhancements include toy attachments for soothing the baby, servo motors for rocking the cradle, a camera for monitoring, and GSM modules for communication. The synchronization of all components with messaging capabilities enhances the smart cradle's interaction, highlighting its potential in providing convenience and comfort for both parents and infants.

List of References

- Abomhara, M. & Koien, G. (2016). 'Cyber Security and the Internet of Things: Vulnerabilities, Threats, Intruders and Attacks.' *Journal of Cyber Security and Mobility*, pp. 65-88
- Anders, T.F., & Taylor, T.R. (1994). *Babies and their sleep environment*. Children's Environments, pp. 123-134.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.
- De Ravindranath, H., Singh, J., Arumugam, T., & Kularajasingam, J. (2021). "Exploring the Challenges Faced by Working Mothers and the Perceived Factors to Retain them in the Private Education Sector." *International Journal of Human Resource Studies*, 11, 17. <https://doi.org/10.5296/ijhrs.v11i2.18457>
- Kodagoda, T., 2014. Working mothers' gender ideologies on childcare and perception on existing childcare centres: Life stories from Sri Lanka. *Gender in Management: An International Journal*, 29(7), pp.402-418.
- Kodagoda, T. (2018). Working Long Hours and Its Impact on Family Life: Experiences of Women Professionals and Managers in Sri Lanka. *Indian Journal of Gender Studies*, 25(1), 108-126. <https://doi.org/10.1177/0971521517738432>
- Prusty, V., et al. (2019). 'Internet of Things Based Smart Baby Cradle.' *In Innovative Data Communication Technologies and Application: ICIDCA*, pp. 793-799.
- Qian, Z.H. & Wang, Y.J. (2012). 'IoT Technology and Application.' *Acta Electronica Sinica*, pp. 1023.
- Shahadi, H., et al. (2017). 'Smart Cradle Gear to Ensure Safety of Baby in Cradle.' *International Journal of Informative and Futuristic Research*.
- Sathasivam, T., et al. (2022). 'IoT-Based Smart Baby Cradle: A Review.' *In ICT with Intelligent Applications: Proceedings of ICTIS 2022*, Volume 1, pp. 589-603.
- Tursunov, J. (2021). 'A Smart Baby Cradle System Based On IoT.' *Qo'qon Universiteti Xabarnomasi*, pp. 1231-1233.
- Vithanage, V., & Hewapattu Arachchige, B.J. (2017). "A Study on the Work-Family Balance and Job Performance of Academics in Sri Lanka." *IUP Journal of Management Research*.

Subedi, K. R. (2021). “Determining the Sample in Qualitative Research”. *Scholars' Journal*, Retrieved from

<https://files.eric.ed.gov/fulltext/ED618228.p>

Proposal to Decrease the Operational Cost of ABC Paint Manufacturing Company in Sri Lanka

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Abstract

Cost assumes paramount importance in determining a company's performance and efficacy, serving as a pivotal criterion for pricing products. The escalating operational costs faced by ABC Company prompted an investigation into this issue. The research objective aimed to identify the primary areas affected by these costs and explore novel methodologies and applications for their reduction. Employing a pragmatic approach, both quantitative and qualitative data were collected via Google Forms and employee interviews within the company. The convenience sampling method was chosen for its accessibility and convenience compared

to random or systematic approaches. The findings revealed that administrative overhead, energy consumption costs, warehouse operational expenses, and supply chain costs were the most significant factors contributing to operational expenses. In conclusion, several strategies were proposed to mitigate ABC Company's operational costs, including transitioning to cloud-based data systems, implementing CMB (Cubic Meter) calculation approaches, and exploring outsourcing options.

Keywords: Operational Cost, Administrative overhead expenses, Energy conception cost, Warehouse and Supply chain related cost

Introduction

The operational cost (OC) of a company serves as a critical determinant affecting various facets of its performance, including profitability, resource efficiency, and overall stability (Dalwai & Salehi, 2021). Within the paint industry, characterized by intense competition, manufacturing firms endeavor to minimize costs to offer

products at competitive prices (Pande & Adil, 2023). However, it is imperative for companies to maintain a balance in OC management without compromising product quality, necessitating the adoption of prudent decisions and strategies (Simons, 1991).

Established in 1990, ABC Company specializes in the manufacturing and

distribution of high-quality paint, related products, and interior design services (ABC PLC, 2022). Notably, in the past five financial reports, there has been a

significant increase in OC observed in 2022, adversely impacting the company's profitability (ABC Plc, 2022).

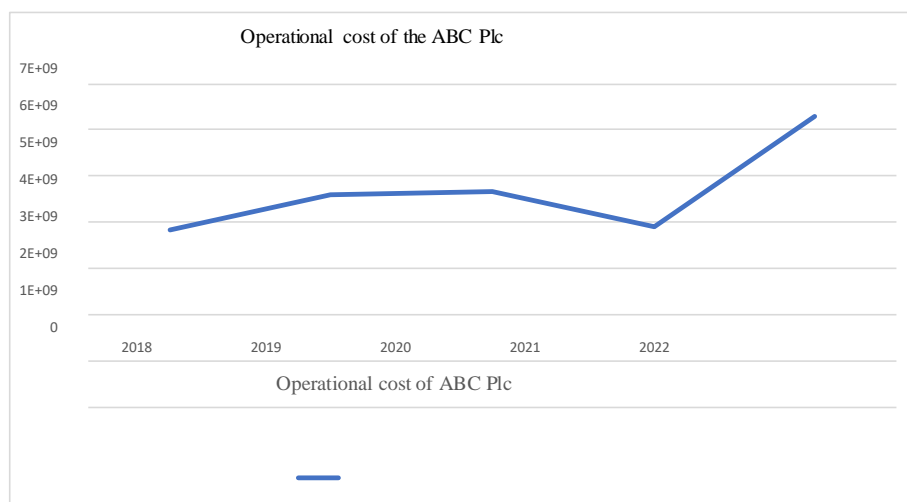


Figure 1-Changes of the operational cost of the ABC Plc. from 2018 to2022

According to ABC Company, the primary focus of this research is the increase in operational costs (OC). The key areas identified for high operational costs include Administrative Expenses, Energy Consumption Costs, Warehouse Operational Costs, and Supply Chain Management Costs. The primary research question guiding this investigation is: What strategies and recommendations could be implemented to mitigate OC? A subsidiary inquiry within this study pertains to how a company can enhance warehouse capabilities to decrease operational costs determinant within the total cost structure (Machesa, Tartibu, & Okwu,

and explore alternative options and solutions for reducing the operational costs of ABC Plc. Within this aim, the following

objectives are specified for achievement.

1. To figure out the importance of OC reduction to increase the profitability of ABC company.
2. To find cost reduction areas, processes, and frameworks.
3. To identify alternative options that can be recommended as suitable solutions to influence operational efficiency for future advantages.

Literature Review

As a paint manufacturing company, operational cost (OC) stands as a pivotal

2020). Sustaining market stability necessitates painting industry firms to

allocate substantial resources towards product differentiation and non-price competition strategies, particularly within oligopolistic market frameworks (Bronnenberg & Dubé, 2017). The rapidity with which customers shift loyalty to competitors underscores the significance of managing operational costs efficiently within the paint manufacturing sector (Minkes, 1955). Operational costs encompass both manufacturing and ancillary expenses (Gonzalez et al., 2020), with administrative tasks associated with production further contributing to overall operational expenses. Modern industrial

manufacturing entities face heightened energy consumption demands amidst evolving business landscapes (Owusu & Sarkodie, 2016). Effective management of warehouse operations is imperative for any production-oriented enterprise (Mahajan et al., 2023), as the quality of stored products is contingent upon the efficiency of warehousing processes. In light of this, paint companies must undertake strategic restructuring of their supply chain management processes, leveraging modern warehouse and supply chain strategies such as Kanban, Gemba Kaizen, IoT, automation, and machine learning (Sun, 2023).

Methodology

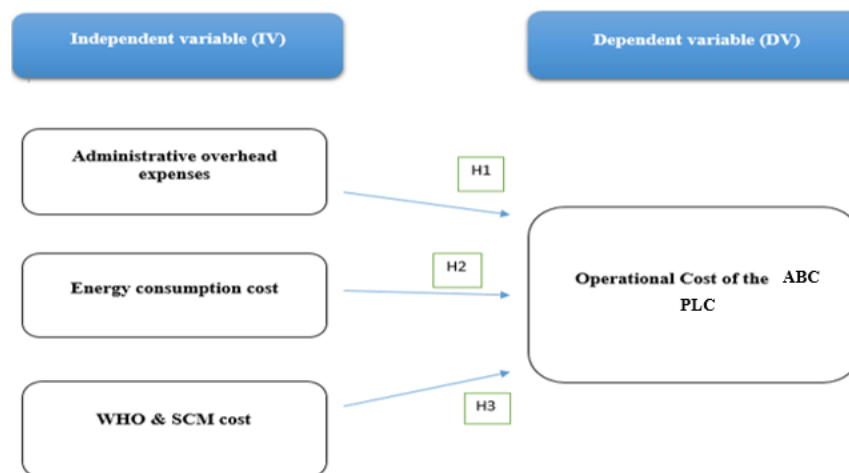


Figure 2 -
Conceptual framework of the research

The research

predominantly adhered to a pragmatist philosophy and employed a mixed research methodology. Quantitative data were acquired through a Google questionnaire, the data from which were subsequently utilized. A pilot survey

involving 20 employees was conducted to validate the questionnaire. Qualitative data, serving as the primary data source for the project, were obtained through employee interviews. Additionally, secondary data were gathered from various sources including the company's annual reports, journal articles, research papers, and reputable websites. The collected quantitative data were analyzed using the regression analysis method. Multiple linear regression analysis was conducted utilizing the SPSS software. Additionally, correlation analysis was performed to ascertain the strength of the relationships between two or more variables. Reliability analysis was undertaken to assess the consistency and repeatability of the outcomes, thereby validating the hypotheses

developed for the study. Furthermore, content analysis was employed to extract pertinent information from employee interviews, and the resultant findings were corroborated with the statistical analyses.

The population for this project comprises employees of ABC Company. Of the total 386 company employees, a sample of 200 individuals was selected to participate in the study. Convenience sampling was employed as the sampling method, with a margin of error of 5% and a confidence level of 95%. Reliability analysis was conducted using SPSS software to ensure the accuracy and consistency of the indicators for each dimension of both the independent and dependent variables.

Research Findings

Correlation Analysis

		Correlations^b			
		Operationalcost t	Administrative operationalcost t	Energyconsumption cost	warehousecost t
Operationalcost	Pearson Correlation	1	.600**	.509**	.823**
	Sig. (2-tailed)		<.001	0.056	.078
Administrativeoperational cost	Pearson Correlation	.600**	1	.400**	.572**
	Sig. (2-tailed)	<.001		<.001	<.001
Energyconsumptioncost	Pearson Correlation	.509**	.400**	1	.517**
	Sig. (2-tailed)	<.001	<.001		<.001
warehousecost	Pearson Correlation	.623**	.572**	.517**	1
	Sig. (2-tailed)	<.001	<.001	<.001	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=154

The correlation between operational cost (OC) and the administrative cost of the company yielded a significant value of < 0.001 , indicating a correlation coefficient of 0.600. This suggests a moderate positive relationship between the two variables. Consequently, based on this analysis, the null hypothesis is deemed acceptable, while the alternative hypothesis is rejected.

Regarding the correlation between operational cost and the energy consumption cost (ECC) of the company, the significant value of ECC is 0.056, exceeding the standard significance value of 0.05. The correlation coefficient between ECC and

OC is 0.509, indicating a moderate positive relationship. Thus, the alternative hypothesis can be accepted, and the null hypothesis can be rejected.

Similarly, the correlation between operational cost and warehouse operational cost (WOC) revealed a significant value exceeding 0.078, surpassing the fixed value of 0.05. With a correlation coefficient of 0.823, indicating a strong positive relationship between WOC and OC. Consequently, the null hypothesis can be rejected, while the alternative hypothesis is accepted based on the values obtained from the SPSS analysis.

Tested hypothesis

Ho	There is no relationship between AOE and OC of the company.	< 0.001	0.600	Accept
Ha	There is a relationship between AOE and OC of the company.	< 0.001	0.600	Reject
Ho	There is no relationship between ECC and the OC	0.056	0.509	Reject
Ha	There is a relationship between ECC and the OC	0.056	0.509	Accept
Ho	H0 -There is no relationship between WOC & SCM cost and OC of the company.	0.078	0.823	Reject
Ha	There is a relationship between WOC & SCM cost and OC the company.	0.078	0.823	Accept

Figure 5- Tested hypothesis table

Based on the findings derived from various analytical techniques including Reliability Analysis, Cross-tabulation Analysis, Regression Analysis, ANOVA, Coefficients, and Correlation Analysis, the objectives of the project have been satisfactorily achieved. Specifically, the research highlights the significance of warehouse costs and energy consumption costs in mitigating the operational expenses of the company.

Conclusion and Implications

In conclusion, the research successfully accomplished its two primary objectives. Firstly, it identified the areas of highest expenditure within the operational framework of ABC Company. Notably, administrative costs emerged as a prominent factor, alongside the significant impact of energy consumption costs. Additionally, the study underscored the critical role of warehouse and supply chain costs in driving overall operational expenses.

Secondly, the research aimed to propose alternative methods, approaches, and frameworks for cost reduction within the company. The following recommendations are put forth:

1. Implementation of a cloud-based data storage and exchange system to eliminate paper-based

documentation, thereby streamlining processes and reducing administrative costs.

2. Optimization of warehouse space through careful CBM (Cubic Meter) calculations, leading to cost savings and enhanced utilization efficiency.
3. Consideration of outsourcing options for warehouse and supply chain management to leverage specialized expertise and reduce operational costs.
4. Strategic warehouse arrangement based on forecasted demand patterns to minimize delays and damages, thus improving operational efficiency.
5. Evaluation and adjustment of environmental conditions within factory and warehouse settings to optimize machinery performance and mitigate material-related risks.
6. Deployment of solar panel electricity generators to reduce reliance on conventional power sources and lower electricity expenses over the long term.
7. Investment in energy-efficient manufacturing machinery to capitalize on technological advancements and drive cost savings.

8. Establishment of a comprehensive waste management system capable of generating bio-electricity from waste materials, thereby addressing environmental concerns while reducing operational costs.

These proposed interventions have the potential to significantly impact cost reduction within ABC Company and can be extrapolated to benefit other paint manufacturing firms in Sri Lanka. Hence, the research has effectively fulfilled its objectives in a robust manner.

References

- Afrifa, G.A., Alshehabi, A., Tingbani, I. and Halabi, H. (2020). Abnormal inventory and performance in manufacturing companies: evidence from the trade credit channel. *Review of Quantitative Finance and Accounting*, 56(2), pp.581–617.
- Ahmed, A.D., Modibbo, S.A., Modu, K.H. and Muhammad, B.S. (2015). Effect of Inventory Management on Financial Performance: Evidence from Nigerian Conglomerate Companies. *Nigerian Journal of Accounting and Finance*, 7(2), pp.96–107.
- Ak, B.K. and Patatoukas, P.N. (2016). Customer-Base Concentration and Inventory Efficiencies: Evidence from the Manufacturing Sector. *Production and Operations Management*, 25(2), pp.258–272.
- Althaqafi, T. (2020). Effect of Inventory Management on Financial Performance: Evidence from The Saudi Manufacturing Company: Case Study. *European Journal of Accounting, Auditing and Finance Research*, 8(10), pp.13–26.
- Etale, L.M. and Sawyerr, A.E. (2020). Inventory Management and Financial Performance of NSE Listed Glaxosmithkline Consumer Nigeria PLC. *International Journal of Economics, Commerce and Management*, 8(6), pp.48–62.
- Gołaś, Z. (2020) Effect of inventory management on profitability: evidence from the Polish food industry: Case study. *Agricultural Economics*, 66(5), pp.234–242.
- Karim, N.A., Nawawi, A. and Salin, A.S.A.P. (2018) Inventory control weaknesses – a case study of lubricant manufacturing company. *Journal of Financial Crime*, 25(2), pp.436–449.
- Mulindabigwi, J.N. and Mulyungi, P. (2015). Effect of Inventory Management on Financial Performance of Manufacturing Firms in Rwanda, A Case Study of Bralirwa. *International Journal of Science and Research (IJSR)*, 6(10), pp.1366–1371.
- Shin, S., Ennis, K.L. and Spurlin, W.P. (2015). Effect of Inventory Management Efficiency on Profitability: Current Evidence from The U.S. Manufacturing Industry. *Journal of Economics and Economic Education Research*, 16(1), pp.98–106.
- Steinker, S., Pesch, M. and Hoberg, K. (2016). Inventory management under financial distress: an empirical analysis. *International Journal of Production Research*, 54(17), pp.5182–520

Redesigning Customer Experience During the Time of COVID-19: A Case Study of Mangala Textiles

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Abstract

The textile industry plays a pivotal role in the global economy, with organizations worldwide contributing to economic stability through the design, manufacturing, and distribution of clothing items. Fashion, an integral part of this industry, garners significant interest across gender and age groups, including the fashion-conscious people of Sri Lanka (Mazoz et al., 2020). This study focuses on "Mangala Textiles," a clothing store located in Kandy, Sri Lanka, which aims to emphasize the significance of fashion concepts to enhance sales and meet customer expectations, even in the challenging era of the COVID-19 pandemic (Mazoz et al., 2020). "Mangala Textiles" aspires to provide uninterrupted service to its customers, introducing the innovative concept of fashion consultancy. This personalized service entails offering guidance and recommendations to clients based on their thematic preferences. The organization aims to achieve this by recruiting highly experienced

professionals, notably a fashion consultant, and facilitating remote work options for employees. Simultaneously, it seeks to enable customers to shop remotely, ensuring a seamless shopping experience. The research topic, "Redesigning Customer Experience During the Time of COVID-19: A Case Study of Mangala Textiles," explores the strategies employed by the organization to adapt and thrive in the face of pandemic-related challenges while elevating customer satisfaction through the infusion of fashion expertise. This case study delves into the evolving landscape of the textile industry and the innovative measures adopted by "Mangala Textiles" to redefine the customer experience in a dynamic and ever-changing environment. [OB]

Keywords: Remote Working, Fashion Industry, Customer satisfaction, Customer experience, Fashion consultancy.

Introduction

The global textile industry, encompassing design, manufacturing, and clothing import-export, is influenced by fashion and has garnered attention in Sri Lanka. "Mangala Textiles" in Kandy, Sri Lanka, is adapting to the COVID-19 pandemic by offering remote fashion consultancy. This service provides personalized guidance based on customer preferences through experienced consultants working remotely, addressing the challenges of online fashion shopping. The pandemic accelerated the adoption of remote work, impacting productivity concerns. The textile industry shifted to online sales due to safety concerns, with fashion consultancy emerging as a solution to assist customers virtually. Implementing this service can boost sales, improve customer satisfaction, and aid the industry's recovery (Sabirov., 2021).

The main aim of the current research is "To address the concept of fashion consultancy through remote working during the period of the Covid 19 pandemic and proposing a technological solution".

Research questions

1. What are the trends of remote working in the textile industry?

2. What are the challenges faced by Mangala Textiles in terms of meeting customer expectations during Covid-19 pandemic?
3. How have customers' clothing expectations changed during pandemic time?
4. How a technological solution can be provided to redesign customer experience during the time of Covid-19?

The integration of established concepts pertaining to the textile and fashion industry, remote working, and the repercussions of the COVID-19 pandemic plays a pivotal role. The incorporation of theoretical evidence serves as the scaffolding upon which the research problem is built, providing a robust theoretical framework to comprehend the intricacies of the chosen topic. Notably, the inclusion of key concepts such as remote working, emerging trends in online sales, and the transformative impact of fashion consultancy elucidates the deliberate effort to infuse theoretical perspectives into the research, thereby enriching the understanding of the research problem and aligning the study with established principles in the relevant domains.

Literature Review

Overview of Remote Working and Technology:

Remote work, driven by the COVID-19 pandemic, is gaining prominence across various industries, including the fashion industry (Gupta, 2020). It is crucial for successful remote work, but challenges like personal distractions and technostress arise (Gupta, 2020). Technology is essential, but the digital divide can hinder remote work. Different sectors, such as IT, banking, and education, have embraced remote work, but feasibility varies, with limitations in manufacturing.

Remote Working in the Fashion Industry:

Remote work in the fashion industry enables online sales and fashion consultancy, focusing on customer satisfaction and expectations (Portela et al., 2021). Understanding and addressing customer expectations is vital for brand reputation. Big data analytics is used to measure customer satisfaction (Portela et al., 2021). A technological solution involves graphic editing and 3D visualization to assist fashion consultants, bridging the gap between

physical and remote shopping, enhancing convenience and satisfaction.

Customer Satisfaction and Expectations in the Fashion Industry:

Customer satisfaction in the fashion industry is influenced by factors like desire, expectation, perceived value, and service quality (Pasqualicchio, 2021). Organizations can improve satisfaction through active listening to customer feedback, open communication, and issue resolution (Pasqualicchio, 2021). Big data analytics can measure and enhance customer satisfaction online. A technological solution provides 3D clothing item visualization for remote consultations, bridging the gap between physical and online shopping, increasing convenience and customer satisfaction.

Methodology

The research focuses on the textile and fashion industry, aiming to introduce a technological solution for remote fashion customers. To conduct this research, the researcher followed the methodology outlined by Saunders et al. (2009), represented as the "research onion model". A mixed research approach combines qualitative and quantitative methods, gathering opinions from stakeholders. Snowball sampling was used to select 50 employees and 88

customers. Snowball sampling is suitable to foster trust through existing connections and allow researchers to access participants (Saunders et al., 2009). Quantitative data from Google Forms were analyzed with charts and graphs, while thematic analysis uncovered experiences and behaviors.

Research Findings

Tzeng et al. (2021) emphasized the importance of understanding customer expectations in the retail industry. Hence, the researcher has used “mixed research methodology” where questionnaires are being distributed among the employees and the customers. Furthermore, the researcher has conducted semi-structured interviews where the Retail managers, CEOs, and employees are being interviewed, it was observable that, all share a common interest in comprehending customer preferences. The questionnaire results showed that most employees (60%) consistently interact with customers to build mutual relationships and identify customer desires, which the retail manager emphasizes. Singh (2017) suggested that such interactions help employees gain knowledge and enhance customer-employee relationships. Employees and customers support a

technological solution for "Mangala Textile," acknowledging its potential to enhance productivity during the pandemic. Customers appreciate online shopping experiences, while employees' diverse skills contribute to effective customer interactions. Implementing a remote fashion consultant could further aid customers in selecting the ideal outfits.

Customers' open-ended responses regarding "Mangala Textile" were positive, praising customer service, though noting occasional lapses. The retail manager's active listening, politeness, and guidance in outfit selection are appreciated. The CEO's commitment to meeting customer demands fosters a positive impression. Customers trust employees' expertise in understanding their needs. Flexible working hours and weekly performance reports have been introduced by the CEO, who is considering employing a fashion consultant to further improve customer interactions. Online shopping at "Mangala Textile" is lauded for its user-friendly interface, secure transactions, and efficient customer support, demonstrating the company's dedication to customer satisfaction and trust.

When determining the precise estimated cost for developing a 3D clothing and visualization system is a nuanced process, contingent on various project-specific factors. While an estimate of around \$500 has been mentioned, it is crucial to recognize that this is a generalized approximation and may not accurately represent the actual expenses. Costs can vary significantly based on elements such as desired features, project complexity, and development time. To obtain a more accurate estimate, it is highly recommended to engage in discussions with experienced software development professionals or firms who can provide tailored assessments based on the unique requirements of the project. This approach ensures a more realistic understanding of the financial considerations involved in bringing the envisioned system to fruition.

Conclusion and Implications

The study faced limitations in data collection complexity and ethical concerns. Challenges were encountered in developing the proposed technological solution due to limited tech familiarity among customers and employees. Implementation might be costly and time-consuming. The sample size was constrained by the pandemic,

emphasizing the need for careful planning and communication. Hence, some of the limitations of the mixed research methodology with pragmatism include data sustainability challenges, customer technology opposition, time constraints in interviews, and language barriers in data analysis. This study evaluates the effectiveness of a remote working software system aimed at enhancing the fashion concept at "Mangala Textile." Hence has analysed the achieved objectives using primary data, synthesizes findings with literature, and offers recommendations.

References

- M. A. Mazoz and Vadim. N. Gureyey., (2020), "*The Methodological basis of defining research trends and fronts*". Volume: 47, P.P: 221-231. From: [The Methodological Basis of Defining Research Trends and Fronts | SpringerLink]. Accessed on: [12th April 2022].
- C. Portela, N. Kalbaska and L. Cantoni., (2021), "*Omni- channel retailing in the fashion industry, its definition and the implementation*". P.P: 3-15. From: [Omni-channel Retailing in the Fashion Industry: Its Definition and Implementation | SpringerLink]. Accessed on: [12th April 2022].
- O. S Sabirov., (2021), "*Improvement of ways to develop the textile industry on the basis of resource, technology*". Volume: 10. From: [Improvement of Ways to Develop the Textile Industry on the Basis of Resource-Technology | International Journal of Modern

Agriculture (modern-journals.com)]. Accessed on: [12th April 2022].

A. Gupta, (2020), “*Accelerating Remote Work after COVID 19*”. From: [Accelerating Remote Work After COVID-19 - The CGO]. Accessed on: [15th April 2022].

C. Pasqualicchio, (2021), “*Driving Sustainable Change in Fashion Industry*”. From: ["Driving Sustainable Change in the Fashion Industry" by Christina Pasqualicchio (liu.edu)]. Accessed on: [15th April 2022].

R. Smith, (2012), “*Fashion Consultant / Executive*”. From: [Resume Template (qwikresume.com)]. Accessed on: [15th April 2022].

The Baltic Times, (2018), “*The Covid 19 Pandemic effect on the Textile Industry*”. From: [THE COVID 19 PANDEMIC'S EFFECT ON THE TEXTILE INDUSTRY (baltictimes.com)]. Accessed on: [15th April 2022].

B. Wang, Y. Lui, J. Qian and S. K. Parker, (2020), “*Achieving effective remote working during the Covid 19 pandemic a work design perspective*”. Volume: 70, Issue: 1, P.P: 16-59. From: [Achieving Effective Remote Working During the COVID-19 Pandemic: A Work Design Perspective - Wang - 2021 - Applied Psychology - Wiley Online Library]. Accessed on: [26th April 2022].

I. M. Gurova, (2020), “*Remote Work as a Trend of Time: Results of Mass Testing*”. Volume: 10, P.P: 128-147. From: [Remote Work as a Trend of Time: Results of Mass Testing | Gurova | MIR (Modernization. Innovation. Research) (mir-nayka.com)]. Accessed on: [26th April 2022].

T. Bowen and A. Pennaforte, (2018), “*The impact of Digital Communication Technologies and how remote working cultures on the socialization and work readiness of individual in WIL*

programs” Published by:[Emerald publishing limited], volume: 32, P.P: 99-112. From: [The Impact of Digital Communication Technologies and New Remote-Working Cultures on the Socialization and Work-Readiness of Individuals in WIL Programs | Emerald Insight]. Accessed on: [27th April 2022].

S. Phillips, (2020), “*Working through the Pandemic Accelerating the transition to Remote Working*”. Volume: 37, Issue: 3. From: [Working through the pandemic: Accelerating the transition to remote working - Stephen Phillips, 2020 (sagepub.com)]. Accessed on: [27th April 2022].

S. G. S. Shah, (2020), “*The COVID-19 Pandemic: A Pandemic of Lockdown Loneliness and the Role of Digital Technology*”. Volume: 22. From: [Journal of Medical Internet Research - The COVID-19 Pandemic: A Pandemic of Lockdown Loneliness and the Role of Digital Technology (jmir.org)]. Accessed on: [27th April 2022].

Understanding the Need for IoT-based NFT Hydroponic Systems

A Case Study in Colombo, Sri Lanka

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Abstract

In urban Sri Lanka, challenges related to personal cultivation of fruits and vegetables persist due to limited space and time constraints, leading to reliance on store-bought produce laden with harmful chemicals. This paper explores the potential of Internet of Things (IoT) technology to address these challenges. IoT-based smart farming, particularly in the context of hydroponics using the Nutrient Film Technique (NFT), offers an innovative solution. While international studies have explored IoT-based hydroponics, this research focuses

on Sri Lanka, particularly Colombo. The findings reveal positive perceptions of self-cultivation, interest in IoT technology, and a willingness to adopt IoT-based hydroponic NFT systems if they are affordable. This study highlights the potential for IoT to revolutionize urban agriculture in Sri Lanka and improve food security, sustainability, and overall quality of life.

Keywords: Internet of Things (IoT), Automation, Hydroponics, Self-cultivation, Sri Lanka

Extended Abstract

Introduction

In Sri Lanka, a pressing issue is the challenge of cultivating fruits and vegetables for personal consumption. With a substantial urban population, limited space and time constraints hinder

traditional gardening practices, leading many to rely on store-bought produce. Research reveals that much of this produce contains harmful chemicals, contributing to long-term health concerns. Consequently, there is a growing urban trend toward seeking

organic alternatives, driven by the desire for pesticide-free food and bolstered by the popularity of restaurants like "GAMI GEDARA" and "HELA BOJUN," which serve their own organically grown produce. The COVID-19 pandemic further fueled interest in home gardening. However, challenges persist, including space limitations and plant diseases. To address these challenges, this study is focused on developing an IoT-based hydroponic NFT system. Hence, the development of an IoT-based Smart NFT system in Sri Lanka will enable people to grow their own fruits and vegetables in a limited area with minimal human intervention.

This research explores the potential of the Internet of Things (IoT) to address these challenges. IoT is a network that empowers individuals and organizations to understand and control environments beyond the internet's reach. IoT-based smart farming, with sensors tracking crop conditions, offers a highly effective alternative to traditional methods, including smart greenhouses, cultivation fields, and hydroponics. The Nutrient Film Technique (NFT), a hydroponic method, has gained prominence, with IoT-based NFT automating procedures using sensors like temperature and pH sensors.

While international studies have explored IoT-based hydroponics, none have focused on Sri Lanka. This research aims to identify the requirements for an IoT-based NFT system in Sri Lanka, particularly in Colombo, the country's most urbanized city. Accordingly, the research question of this study was identified as Why is it necessary for urban people living in Colombo City to have an IoT-based hydroponic NFT system.

Literature Review

Home growing, often characterized by small-scale cultivation near or within households, plays a pivotal role in local food systems, especially in developing nations (Odebo, 2006). Numerous studies have explored home gardens in Asia, Africa, and Latin America, highlighting their benefits, including improved food security, access to fresh and healthy foods, and the cultivation of medicinal plants (Eyzaguirre, 2010). Home gardening enhances food availability and serves as a form of physical activity promoting physical and mental well-being.

However, home growing has limitations. Low productivity and restricted crop selection are common challenges, often attributed to growers'

lack of knowledge (Thorup-Kristensen and Kirkegaard, 2020). Issues related to soil preparation further hinder success (Eyzaguirre, 2010).

Hydroponics, a soil-less cultivation method, offers a more efficient approach (Singh, 2020). NFT is one such hydroponic system where a thin film of nutrient solution flows past plant roots (Savvas, et al., 2013). IoT integration in hydroponics NFT systems brings numerous benefits, including improved crop quality, real-time environmental data collection, and resource optimization (Lakshmi, et al., 2020; Maldonado, et al., 2019). However, it demands expertise, investment, and precise sensor accuracy (Bird, et al., 2020; Sethi and Sarangi, 2017).

In conclusion, home growing and hydroponic NFT systems represent distinct approaches to agriculture, each with its advantages and challenges, and IoT technology enhances the efficiency and productivity of hydroponics while demanding specialized skills and resources.

Methodology

This research aims to investigate the challenges faced by urban residents in growing their own fruits and vegetables while exploring their preferences and

thoughts on IoT-based hydroponic NFT systems. To address these research questions, an in-depth investigation is necessary to gain insightful insights into participants' attitudes, perceptions, and feelings. Given the need to interpret subjective matters, an interpretivist philosophy is adopted, allowing for a comprehensive study of participants' views.

The study utilized a qualitative research approach, focusing on understanding how participants perceive and make sense of self-cultivating fruits and vegetables, the requirements of IoT-based hydroponic NFT systems, and their opinions on such technological devices. Semi-structured interviews, conducted via telephone due to COVID-19 travel restrictions, serve as the primary data collection strategy, enabling in-depth exploration of participants' opinions and perceptions.

Convenient sampling was used to select the sample and the sample size consists of six residents living within the city limits of Colombo, providing rich data based on their responses.

Moreover, the current study collects qualitative data, thematic analysis is used to understand and discover common patterns among

participants based on the data obtained via semi-structured interviews, such as growers' perspectives, knowledge, expectations, goals, and expertise.

Research Findings

Theme 01: Perceptions of Growing

Participants expressed positive perceptions of self-cultivating fruits and vegetables. They highlighted the benefits of growing, including access to fresh, chemical-free produce, stress relief, and personal satisfaction. However, challenges in traditional cultivation methods were evident, such as limited space and knowledge.

Theme 02: Ideas and Expectations of IoT-Based System for Growing

Participants had varying levels of awareness about IoT technology. Some expressed basic knowledge, while others lacked technical understanding. Despite the lack of awareness, all participants showed interest in using IoT for growing. They expected an IoT-based system to facilitate communication, monitor plant statistics, automate watering and fertilization, and provide guidance. The findings align with previous research highlighting the importance of irrigation and nutrient management in IoT-based farming.

Theme 03: Ideas and Expectations of IoT-Based Hydroponics NFT System

Participants had mixed knowledge and perceptions of hydroponic systems. Those with knowledge appreciated the environmental benefits and efficiency of hydroponics. However, challenges like lack of time and knowledge hindered their adoption. Participants without prior knowledge expressed willingness to try hydroponics. Integration of IoT technology with hydroponic NFT systems was seen as a solution to overcome challenges and improve effectiveness.

Theme 04: Buying Intentions for IoT-Based Hydroponic NFT Systems

All participants expressed a willingness to buy an IoT-based hydroponic NFT system if it were affordable. They saw the system as a solution to their busy lives, enabling them to cultivate in limited spaces. Participants believed such a system would find a favourable market in Sri Lanka's urban areas, provided it was cost-effective and offered value for money.

Overall, the findings suggest a growing interest in self-cultivation and the potential for IoT-based systems to address challenges in traditional growing methods. The key to successful adoption

in the market will be affordability and proper implementation.

Conclusion and Implications

Conclusion

This research embarked on a journey to explore the challenges faced by urban residents in Sri Lanka, particularly in Colombo, when attempting to cultivate their own fruits and vegetables for personal consumption. It identified a growing trend among urban populations towards seeking organic alternatives to store-bought produce, driven by concerns about chemical residues and the popularity of restaurants serving organically grown produce. The COVID-19 pandemic further accelerated interest in home gardening.

Recognizing the limitations of traditional gardening methods, including space constraints and lack of knowledge, this study delved into the potential of the Internet of Things (IoT) to revolutionize urban agriculture in Sri Lanka. IoT-based smart farming, encompassing technologies like smart greenhouses, cultivation fields, and hydroponics, offers a promising alternative. The Nutrient Film Technique (NFT), a hydroponic system, combined with IoT,

emerged as a potential solution for urban residents looking to grow their own produce.

The findings reveal a strong interest among participants in self-cultivation and a willingness to embrace IoT-based solutions if they are affordable. Participants perceived IoT as a means to automate and optimize their cultivation efforts, particularly in limited urban spaces. This research highlights the potential for IoT-based hydroponic NFT systems to improve food security, environmental sustainability, and overall quality of life in urban Sri Lanka.

Implications

The implications of this research are twofold. Firstly, it underscores the need for accessible and affordable IoT-based hydroponic NFT systems in urban Sri Lanka. To capitalize on the growing interest in self-cultivation, manufacturers and policymakers should collaborate to develop and market such systems. Ensuring affordability and ease of use will be crucial to widespread adoption.

Secondly, this research emphasizes the importance of promoting IoT awareness and education in urban populations. As participants expressed a desire to

embrace IoT technology but lacked technical knowledge, educational initiatives should be developed to bridge this knowledge gap. This will not only facilitate the adoption of IoT-based agricultural systems but also enhance digital literacy in urban communities.

In conclusion, this study unveils the potential for IoT to transform urban agriculture in Sri Lanka, addressing the challenges faced by residents in cultivating their own fruits and vegetables. With the right strategies in place, IoT-based hydroponic NFT systems can empower urban Sri Lankans to cultivate fresh, pesticide-free produce in limited spaces, ultimately improving food security and promoting healthier, sustainable living.

References

- Bird, E., Fox-Skelly, J., Jenner, N., Larbey, R., Weitkamp, E., and Winfield, A (2020) The ethics of artificial intelligence: *Issues and initiatives*. European Parliament.
- Eyzaguirre, P., (2010) Home gardens: neglected hotspots of agro-biodiversity and cultural diversity. *Biodivers Conserv*, pp. 3635–3654.
- Lakshmi, V., Avarna, K., Bhawani, N. and Spandana, S., (2020) Hydroponic Farm Monitoring System Using IoT. *Iconic Research and Engineering Journal*, 3(10), pp. 257-261.
- Maldonado, A. et al., (2019) *Automation and Robotics Used in Hydroponic System*. [Online] Available at: <https://www.intechopen.com/books/urban-horticulture-necessity-of-the-future/automation-and-robotics-used-in-hydroponic-system> [Accessed 02 2021].
- Odebode, S. O., (2006) Assessment of home gardening as a potential source of household income in Adinyele local government area of Oyo state. *Nigerian Journal of Horticultural Science*, 11(1), pp. 47-55.
- Savvas, D., Gianquinto, G., Tuzel, Y. and Gruda, N., (2013) ‘Soilless culture.’ In: *Good Agricultural Practices for greenhouse vegetable crops*. Rome: Food and Agriculture Organization of the United Nations, pp. 309-314.
- Sethi, P., and Sarangi, S. R., (2017) Internet of Things: Architectures, Protocols, and Applications. *Journal of Electrical and Computer Engineering*, Volume 2017.
- Singh, A., (2020) *Achyranthes aspera* (prickly chaff flower) leaves- and seeds-supplemented diets regulate growth, innate immunity, and oxidative stress in *Aeromonas hydrophila*-challenged *Labeo rohita*. *J. Appl. Aquacult.*, 32 (3), 250-267.
- Thorup-Kristensen, K. and Kirkegaard, J., (2016) Root system-based limits to agricultural productivity and efficiency: the farming systems context. *Annals of botany*, 118(4), pp. 573–592.

The Impacts and Potentials of Digital Transformation Towards Business Recovery During the Global Pandemic

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Abstract

The scope of this research paper is to identify the impacts of global pandemic in fabricating the need for digital transformation, to explain the effects of being inattentive about digital transformation and to analyze the strategies to overcome the ignorance and lack of knowledge in using digital platforms. Due to the increased impacts of global pandemic, there's a need for diversified working platforms or frameworks to support the business continuity. Even though the digital practices are already in existence, it is obvious that there is lack of awareness while utilizing digital tools and a need to

adopt the appropriate actions to foster organization in the modern technology environment. Author, on the other side also faced challenges as, there is a dearth of historical literature in the studied field and It is unclear whether the study's findings will apply to other regions of Sri Lanka because the study's respondents will only be allowed to come from Colombo. In order to further enhance the potential and implications of digitalization, additional potential will be sought after in this study.

Key Words - Digitalization, Globalization, Covid-19, Work from home, Knowledge and competencies.

Introduction

Consumers have rapidly shifted towards online channels during the pandemic, and businesses and sectors have responded. Businesses are altering how they run their operations, and the majority of them are shifting their

attention to digitization. There are several benefits to adopting digital techniques by organizations. Improved client involvement, contentment, and experience are just a few advantages. Given the noticeable progress of digitalization, the question is whether the organizations have knowledge and

competencies to employ digitalization in their businesses and do they really aware about the potentials that digitalization has (Fonseca and Picoto, 2020). Due to the increased impacts of global pandemic, there's a need for diversified working platforms or frameworks to support the business continuity. Despite the fact that digital practices currently exist, it is clear that awareness is lacking when using digital tools, and that the right steps must be taken to promote organization in the contemporary technological world. On the other hand, it is evident that further study is needed to address this particular issue. Despite the fact that digitalization has been studied extensively, the impact of being unaware about the digitalization and the importance of diversified working platforms or frameworks to support the business continuity are not yet fully understood. To put it another way, there is a respectable amount of literature on the effects of digitalization, but insufficient amount of study has been done on the need for diverse working platforms or frameworks to ensure business continuity. Therefore, the purpose of this study was to investigate the necessity of diverse working platforms as well as the potential benefits that digitalization may have for the sector in the future. Sri Lankan

organizations may benefit from the study's findings in terms of increased digitalization resistance. The author first examined the current state of digitalization before offering suggestions to fill the gaps and providing solutions. Second, the study assessed how several factors, such as Knowledge and competencies on digital technology, work-from-home opportunities, and globalization, affected digitalization. The factors that contribute to effective digital technology deployment will also be examined in this study. The research also aims to promote the field and fill up gaps in the corpus of current knowledge.

Hypotheses

Alternative Hypotheses

H1) There is a significant relationship between globalization and digital transformation.

H2) There is a significant relationship between work from home opportunities and digital transformation.

H3) There is a significant relationship between knowledge on digital technology and digitalization.

Null Hypotheses

H01) There is no significant relationship between globalization and digital transformation.

H02) There is no significant relationship between work from home opportunities and digital transformation.

H03) There is no significant relationship between knowledge on digital technology and digitalization.

Literature Review

It is clear that the Covid-19 is the great accelerator for advancing the current worldwide trend toward embracing cutting-edge developing technologies, which is bringing about changes in lifestyle, work habits, and company strategies (Amankwah-Amoah et al., 2021). The Covid-19 epidemic, which is characterized by disastrous effects on livelihoods and economic performance, also draws attention to the significant digital gap that exists between the wealthy and the poor, between rural and urban regions, and between advanced and developing economies (Beaunoyer, Dupéré and Guitton, 2020). The faster trend towards the digitization of business models and the transition of commercial operations from mostly offline and brick-and-mortar outlets to online outlets are two potential effects of Covid-19

(Wang et al., 2020). But now the issue is whether this will help many businesses or just a select few (Miele and Tirabeni, 2020). To put it another way, this refers to the question of whether conventional businesses will be able to regain lost ground by incorporating more digitalization into their business models, (Rosalsky, 2020) or if doing so would only increase the influence of the current internet-enabled platform oligopolies (Faragher, 2020). Regardless of the amount of managerial resistance, the pandemic has compelled many businesses to use emerging technology in order to transition to remote working and remote skill development activities (Sostero et al., 2020). In response to travel bans and quarantine measures implemented all around the world, multinational corporations that had previously been committed to industrial-scale business travel have come to accept remote working (Hodder, 2020). And as the cost of communications, information storage, and computers/devices has decreased while their capabilities have dramatically expanded, businesses have acquired new prospects for digitalization (Autio, Mudambi and Yoo, 2021).

Conceptual Framework

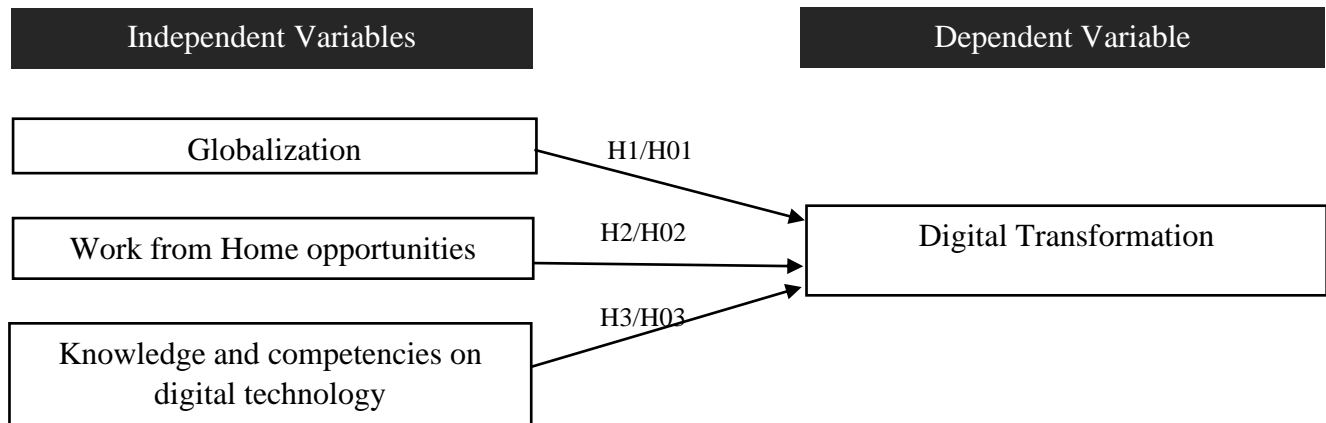


Figure 1. Conceptual Framework

Methodology

For the research methodology, the author of this study employed the Research Onion Model. The researcher has approached the positivism research philosophy where scientific, evidence-based findings are attempted to be given. The deductive approach was chosen to support the study which was based on a theoretical framework and was concerned with developing hypotheses based on existing theory, and then designing a research strategy to test the hypotheses. The survey method was utilized for data collection, which made the design a quantitative research. The selected time duration was three months, making it fall onto the cross-sectional

time-horizon. Descriptive and inferential analysis were used to analyze the data. Using a variety of statistical approaches, the variables being studied in this study are quantitatively quantified and analyzed to determine their relationships. The population of this study consists of individuals working in firms in Sri Lanka's western province who have observed the impact of Covid-19 and digitalization in the workplace. The study's target group was persons who work in large enterprises that employ technology in Colombo, Sri Lanka. To guarantee generalizability, the researcher employed the simply random sampling under probability sampling approach. This reduced bias and increased sample

representativeness, allowing for more accurate generalizations regarding employee responses. Google form was used to develop an online structured questionnaire with closed-ended questions to collect data from the 92 respondents in this study. This was distributed via a link to respondents, and their comments were recorded. It made it easy for the study's researcher to obtain data straight from the source. It also allowed the author to enter the acquired data without having to manually transfer it back to the computer. The acquired or real time data is then translated into algorithmic values for usage in SPSS program using Microsoft Excel. This aided the author in maintaining a strong data structure, which is the core of the study endeavor, and enabled the author to comprehend acquired data using plain language queries rather than writing sophisticated formulae. SPSS software, commonly known as the Statistical Package for the Social Sciences, was used to evaluate acquired data, after which it assembled the data set and generated appropriate output. The dependability of the research was evaluated using Cronbach's alpha. furthermore, the coefficient and relationship between the independent and dependent variables of the study was determined using inferential statistics

such as Pearson correlation and regression analysis. The author has chosen digitalization as the dependent variable as it was the source of problem statement. Technology adoption is a complicated social and developmental process that depends on individual constructs (Straub, 2009). Through the flow of foreign knowledge, globalization facilitates better adoption of technologies and increases worldwide rivalry. There is a lack of worldwide empirical data and an unsolved question about the influence of globalization in the adoption of digitalization and the connections between globalization and digitalization. The purpose of this study is to determine how important globalization is for digitalization. Digitalization and consequently, remote working have increased since the start of covid-19 pandemic. In an effort to maintain the operational effectiveness of service business organizations, the pandemic's spread has led to a number of changes, one of which is the implementation of work from home policy (Faeni, 2022). But there hasn't been much study done on the use of work-from-home policies and their effects (Thordsen, Murawski, and Bick, 2020). Unfortunately, the authors of existing studies only rarely revealed their motivation behind the procedures and results of their

measurement (Becker, Knackstedt and Poppelbuß, 2009). Therefore, this study aims to investigate the effect of work from home opportunities on digitalization which makes it a rationale behind selecting it as an independent variable of the study. To argue that digital skills are important, would be an understatement, given how quickly technology has advanced and evolved throughout the pandemic. The future is highly technical, ranging from contactless payments to automated bookkeeping, from data analysis to becoming paperless. However, employees won't know the true productivity improvements unless they are trained to utilize them appropriately (AAT Comment, 2019). Businesses risk losing out on future business prospects if they don't improve the digital skills of their workforce since they won't be able to keep up with the changes that come with digitalization. Since this was the main issue this study found, the author made it an independent variable to highlight the potential benefits of understanding digital technology in the future and this was the rationale behind selecting it as an independent variable.

Findings

The sample of the study consisted of 58.7% male, 39.1% Female respondents and 2.2% of respondents decided not to disclose their gender. Drawing the results of this research through SPSS, the alpha coefficient for the four items is .896, suggesting that the items have relatively high internal consistency. Note that a reliability coefficient of .70 or higher is considered acceptable and high reliable (van Griethuijsen et al., 2014). The sample of the study consisted of 59.8% of 18-24 age group, 16.3% of 25-34 age people, 10.9% of 35-44 age people, 8.7% of 45-54 age people and 4.3% people are above 55. 88% of the sample is employed while 12% of the sample is unemployed.

According to correlations, there was an .814 Pearson correlation between globalization and digital transformation, which shows that the two variables have a strong correlation, are positively related and have a considerable influence on one another. Generally, a value of r greater than 0.7 is considered a strong correlation (Thomas, 2023). According to this, there was an .761 Pearson correlation between work from home and digital transformation, which shows that the two variables have a strong correlation, are positively related and

have a considerable influence on one another. The correlation between knowledge on digital technology and digital transformation was .639, indicating that the two variables have a moderate connection, are favourably associated, and have a significant impact on one another. The R square value and adjusted R square values are .662 and .659 when examining the linear regression of Digital transformation and globalization, respectively, which shows that there was a modest degree of cause and effect relationship between the dependent and independent variable. Additionally, it implied that this independent variable may account for more than 60% of the variance in the dependent variable. The R square value and the adjusted R square value when assessing digital transformation and work from home are .579 and .574 respectively, which demonstrates the modest influence of variables on each other. Additionally, it says that this independent variable can account for more than 50% of the variance in the dependent variable. When analyzing the final independent variable which is knowledge and competencies on digital technology and the dependent variable digital transformation shows that there is a moderate impact of the independent variable on the dependent variable since

the R square value and the adjusted R square values are .409 and .402 respectively. Since this indicating a moderate relationship with the dependent variable there can be other unknown variables which can contribute more to the potentials of digitalization. Data yielding a significant value less than 0.05 ($p < 0.05$) or 0.01 ($p < 0.01$) is considered statistically significant. The significant value for all the variables of this study is at $< .001$ level. $0.001 < 0.01$, which means there is a statistically significant relationship between the independent variables and the dependent variable. And it's accepting the alternative hypothesis and rejecting the null hypothesis.

Conclusion and Implications

As discussed throughout the study, this research contributes to the digitalization literature by providing a significant understanding of the foundations which relates to the advancement achieved by using digitalization. Research findings, although based on Sri Lankan data, it can be useful for policy makers in other industrialized countries to rethink about digital transformation with a more intensive and stable use of globalization, remote work, knowledge on digital technologies. The potentials provided by

digital technologies and the pandemic for firms to re-invent their business models have been limited by impediments like as organizational inflexibility, the digital divide, and the unequal effects on employee welfare. However, the crucial forces driving towards digitalization include, globalization, work from home and knowledge on digital technologies. Since all of these factors have strong relationships, it is clear from the study that digital transformation has significant potential and impacts. Great correlation highlights great influence, which leads to stronger potentials. Further robust empirical testing of the identified associations is needed to progress the research. Pandemics are unpleasant, but further study on how businesses build resilience to cope with them might add value to the body of knowledge. It is recommended that scholars in the future examine the challenges associated with resilience and firm regeneration after a tragedy. Investigating the effects of slow digital transformation in top firms might be a valuable issue for future research. This study was limited to 92 participants. Thus, it would be advantageous if someone else conducted research on this topic in the future and explored further, with a focus on greater detail and a

larger sample size of respondent replies. The greater the sample size, the more accurate the study. It will also assist academics in identifying outliers in data and providing narrower margins of error. In order to overcome the ignorance and lack of knowledge in using digital platforms, organizations can implement comprehensive training programs to educate individuals about digital platforms, covering basic to advanced skills, offer workshops, webinar and online courses tailored to different user levels. They can also design digital platforms with a user-friendly interface, intuitive navigation and clear instructions to minimize the complexity to make it easier for users. Organizations can establish community forums where users can share tips, troubleshoot issues and learn from each other. In practice, these findings strengthened the premise that the crisis provides chances for firms to adopt at least some parts of digitalization. These findings further support the necessity for firms to reinvent themselves or risk becoming a victim of market competition. It's not just about adopting the latest technologies but leveraging them in a way that aligns with the company's goals and enhances its competitive edge. Furthermore, the research shows that organizations should embrace cutting-

edge technology such as digital platforms, cloud computing, mobile applications, and other communication tools as vital to their organizational design. This would significantly improve corporate operations and production, as well as promote better cooperation among coworkers in remote locations.

References

AAT Comment. (2019). *Why digital skills are important for you and your workforce*. [online] Available at: <https://www.aatcomment.org.uk/aatpower/why-digital-skills-are-important-for-you-and-your-workforce/> [Accessed 8 Dec. 2020].

Amankwah-Amoah, J., Khan, Z. and Wood, G. (2020). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *European Management Journal*, [online] 39(2), pp.179-184. doi: <https://doi.org/10.1016/j.emj.2020.09.002>.

Amankwah-Amoah, J., Khan, Z. and Wood, G. and Knight, G. (2021). COVID-19 and digitalization: The great acceleration. *Journal of Business Research*, 136(136), pp.602-611. doi: <https://doi.org/10.1016/j.jbusres.2021.08.011>.

Autio, E., Mudambi, R. and Yoo, Y. (2020). Digitalization and globalization in a turbulent world: Centrifugal and centripetal forces. *Global Strategy Journal*, 11(1), pp.3-16. doi: <https://doi.org/10.1002/gsj.1396>.

Beaunoyer, E., Dupere, S. and Guitton, M.J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigations strategies. *Computers in Human Behaviour*, [online] 111(111), p.106424. doi: <https://doi.org/10.1016/j.chb.2020.106424>.

Becker, J., Knackstedt, R. and Poppelbuß, J. (2009). Developing Maturity Models for IT Management. *Business & Information Systems Engineering*, 1(3), pp.213-222. doi: <https://doi.org/10.1007/s12599-009-0044-5>.

Faragher, J. (2020). *Government 'back to work' campaign is stepped up*. [online] Personnel Today. Available at: <https://www.personneltoday.com/hr/government-back-to-work-campaign-is-stepped-up> [Accessed 19 Sep. 2023].

Fonseca, P. and Picoto, W.N. (2020). The competencies needed for digital transformation. *Online Journal of Applied Knowledge Management*, 8(2), pp.53-70. doi: [https://doi.org/10.36965/ojakm.2020.8\(2\)53-70](https://doi.org/10.36965/ojakm.2020.8(2)53-70).

Hodder, A. (2020). New Technology, Work and Employment in the era of COVID-19: reflecting on legacies of research. *New Technology, Work and Employment*, 35(3), pp.262-275. doi: <https://doi.org/10.1111/ntwe.12173>.

Miele, F. and Tirabeni, L. (2020). Digital technologies and power dynamics in the organization: A conceptual review of remote working and wearable technologies at work. *Sociology Compass*, 14(6), p.e12795. doi: <https://doi.org/10.1111/soc4.12795>.

Puspaningtyas Faeni, D.,
Puspitaningtyas Faeni, R., Safitra

Hidayat, R., Fuji Oktaviani, R. and Meidiyustiani, R. (2021). Analisis Pengaruh Social Distancing, Work from Home dan Aplikasi Video Call terhadap Produktivitas Organisasi: Studi Kasus pada Permukiman di DKI Jakarta. *Studi Ilmu Manajemen dan Organisasi*, 2(1), pp.11–18. doi: <https://doi.org/10.35912/simo.v2i1.92>.

Rosalsky, G. (2020). Is Remote Work Here to Stay? *NPR*. [online] 30 Jun. Available at: <https://www.npr.org/sections/money/2020/06/30/882834590/is-remote-work-here-to-stay>. [Accessed 5 Aug. 2022].

Sostero, M., Milasi, S., Hurley, J., Fernandez-Macias, E. and Bisello, M. (2020). *Teleworkability and the COVID-19 crisis: a new digital divide?* [online] www.econstor.eu. Available at: <https://www.econstor.eu/handle/10419/231337>.

Thordsen, T., Murawski, M. and Bick, M. (2020). How to Measure Digitalization? A Critical Evaluation of Digital Maturity Models. *Responsible Design, Implementation and Use of Information and Communication Technology*, [online] 12066, pp.358–369. doi: https://doi.org/10.1007/978-3-030-44999-5_30.

van Griethuijsen, R.A.L.F., van Eijck, M.W., Haste, H., den Brok, P.J., Skinner, N.C., Mansour, N., Savran Gencer, A. and BouJaoude, S. (2014). Global Patterns in Students' Views of Science and Interest in Science. *Research in Science Education*, 45(4), pp.581–603. doi: <https://doi.org/10.1007/s11165-014-9438-6>.

Wang, B., Liu, Y., Quan, J. and Parker, S.K. (2020). Achieving Effective Remote Working during the COVID-19 pandemic: A Work Design Perspective. *Applied Psychology*, 70(1), pp.16-59.

Innovative Digitalization as a Strategy to Overcome Challenges Faced by Sri Lankan Marginalized and Vulnerable Women-led SMEs During Turbulent Business Environment.

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Abstract.

This research examines the factors contributing to the business growth and challenges of Small and Medium-sized Enterprises (SMEs) led by marginalized and vulnerable women, effectively navigating turbulent environments through the adoption of innovative digitalization strategies. The three research objectives focused upon are identifying factors, identifying challenges influencing growth strategy implementation, and identifying innovative digitalization strategies on SMEs' resilience and growth amid economic recessions and market volatility. Employing a rigorous mixed-methods research approach, the study incorporates surveys, interviews, and observations to collect a comprehensive dataset comprising both quantitative and qualitative data.

The study's findings highlight the transformative potential of digitalization for SMEs, revealing strategies like data-driven decision-making, AI integration,

and cross-industry collaborations that improve performance during turbulent periods. It also highlights common challenges faced by SMEs, such as resource constraints and cybersecurity threats, and emphasizes SMEs' role as agents of positive change in the evolving business landscape.

In conclusion, this research underscores the pivotal role of digitalization in Sri Lanka as implementation strategies in fortifying SMEs' resilience and competitiveness during turbulent times. Its comprehensive methodology yields actionable insights poised to guide policymakers in crafting supportive policies for broader digitalization adoption in Sri Lanka. Future research can focus on exploring emerging technologies, assessing the long-term impact of digitalization, or investigating the role of innovation ecosystems. Ultimately, this study illuminates the path towards SME success in a

digitalized and turbulent business environment.

Keywords: Digitalization, Innovative strategies, Small and medium-sized

enterprises, cybersecurity, organizational digital readiness

Extended Abstract

1. Introduction

In today's business world marked by swift tech advancements and economic fluctuations, small and medium-sized enterprises (SMEs) face distinct challenges and opportunities. Turbulent times underscore the need for innovative strategies, with digitalization at the core. Digitalization, integrating digital technologies into business operations, offers SMEs significant transformative potential (Adomako et al., 2022). Amid industry shifts and changing consumer behavior, SMEs have a unique chance to use technology for agility, efficiency, and improved customer experiences during turbulent times (Adomako et al., 2022). Although there is a growing body of literature on digital transformation and its impact on businesses, there is still a research gap in understanding the factors that influence digital business growth strategy implementation and the challenges that hinder it. Furthermore, there is limited research on innovative digitalization strategies that enhance SMEs' resilience, growth, and navigation

during turbulent times (Rêgo et al., 2021).

The research problem addressed in this study revolves around three objectives,

namely, first identifying factors and secondly identifying challenges influencing growth strategy implementation, and thirdly identifying innovative digitalization strategies that are specifically tailored to SMEs operating within turbulent conditions. Turbulence, characterized by economic instability and market uncertainties, poses a formidable challenge to SMEs, necessitating a nuanced understanding of how digitalization can be effectively leveraged to enhance their resilience and foster growth (UNDP, 2020).

This research seeks to address the following research questions and objectives:

RQ1: What are the factors influencing business growth strategy implementation?

RQ2: What are the challenges hindering business growth strategy implementation?

RQ3: What are the innovative digitalization strategies that enhance

SMEs' resilience, growth, and navigation during turbulent times?

2. Literature Review

In research, Benitez-Amado et al. (2019) highlighted the importance of data-driven decision-making and artificial intelligence in SMEs for market adaptation and operational efficiency. Sultan et al. (2020) advocate for cross-industry collaborations on digital platforms, while Baltacı et al. (2020) highlighted resource constraints affecting digital transformation adoption, which are some of the findings of the study. Choi and Chung (2017) emphasize cybersecurity threats in digitalization. Boohene et al. (2020) highlighted the importance of judicious resource allocation for SMEs to effectively implement digital transformation initiatives and ensure the success of their digital transformation efforts. Tan et al. (2020) highlight the importance of digital marketing strategies for SMEs' competitiveness in turbulent markets. Chien et al. (2018) criticize organizational readiness and change management, highlighting their benefits in knowledge exchange and

collaboration. In conclusion, the literature underscores the multifaceted nature of digitalization for SMEs, crucial in turbulent times, encompassing data-driven decision-making, operational efficiency, cybersecurity, resource allocation, policy support, digital marketing, organizational digital readiness, and innovation ecosystem.

Methodology

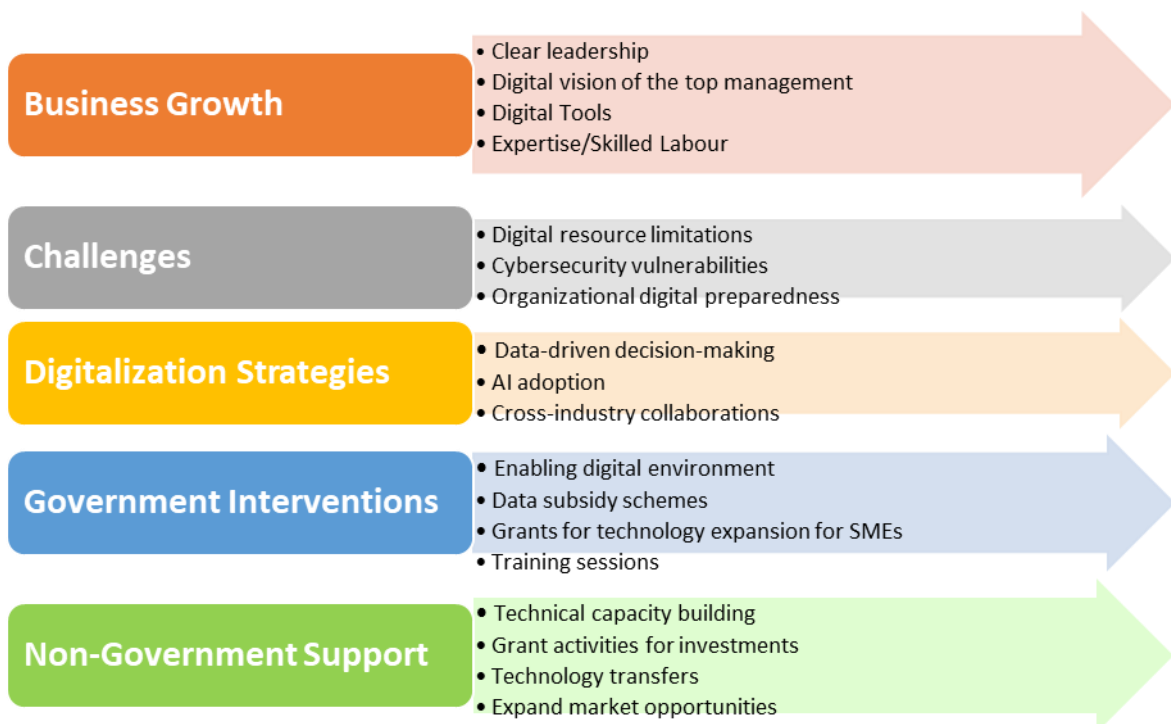
The study employed a mixed-methods research design that combined qualitative and quantitative research methods to comprehensively understand the problem. The sample comprised marginalized and vulnerable women-led SMEs from five selected districts in Sri Lanka: Jaffna, Kilinochchi, Mullaitivu, Galle, and Hambantota. Marginalized women were defined as those facing barriers to full participation in societal, economic, and political spheres due to factors like caste, disability, LGBTQI identity, gender inequality, and discrimination (Kohout and Singh, 2018). Vulnerable women lacked

economic security and were highly susceptible to systemic shocks, particularly economic ones, including victims of war, widows, female-headed households, those with numerous dependents, and survivors of sexual and gender-based violence (Brownridge, 2009).

Data collection methods included questionnaires and semi-structured interviews. Surveys and questionnaires were distributed among 100 marginalized and vulnerable women-led SMEs to gather quantitative data on their digitalization strategies, challenges, and outcomes during turbulent times, with Likert scales and closed-ended questions used to measure strategy effectiveness.

structured interviews with SME owners and digitalization experts and industry association personnel to explore their experiences, perceptions, and insights regarding digitalization in turbulent times. Ethical considerations, informed consent, and data confidentiality were ensured. Findings from surveys, interviews, and case studies were cross-verified to enhance result validity and reliability, with a sample size of 100 marginalized and vulnerable women-led SMEs. Stratified random sampling ensured representation from different industries and geographical locations for improved generalizability.

The conceptual framework of the study



Additionally, qualitative data were collected through 15 in-depth semi-

is as follows.

Figure 1: Conceptual Framework created by the Researcher

Research Findings

According to RQ1, there are 4 major factors, namely, resource availability and investment, digital skill sets, leadership, and vision, market research influencing business growth. Digitalization is contingent on resource availability, particularly financial and human resources. It is evident that SMEs need to invest in digital tools and technologies to foster growth. Additionally, a skilled workforce with digital expertise is essential for leveraging these tools successfully. Clear leadership and a digital vision from top management are also vital to ensure that digitalization efforts are strategically aligned and coordinated.

Furthermore, reference to RQ2, the study elucidates three major challenges encompassing digital resource limitations, cybersecurity vulnerabilities, and issues pertaining to organizational digital preparedness. Qualitative insights derived from interviews provide nuanced perspectives from SME proprietors and subject matter experts concerning the intricacies of digitalization within turbulent scenarios.

According to RQ3, the study explains specific digitalization strategies such as data-driven decision-making, AI adoption, and cross-industry collaborations as potential.

Analyzing the three research questions, it is prominent that government support is required to uplift SMEs through providing an enabling digital environment, training sessions, data subsidy schemes, and grants for technology expansion for SMEs. Non-Governmental organizations could also provide relevant support through technical capacity building, grant activities for investments and technology transfers and by opening new market opportunities through virtual platforms for the SMEs.

Conclusion and Implications

The study holds significant implications for various stakeholders such as Industry Associations, local authorities, and government officers, investors, and policymakers. By uncovering effective digitalization strategies and addressing common challenges identified through this study such as resource constraints and cybersecurity threats, SMEs can make informed decisions that enable them to understand economic turbulence and market disruptions. Moreover, the study's insights into resource allocation and digital preparedness can bridge the digital divide, empowering a broader spectrum of SMEs to embark on their digital transformation journey.

The research objectives were fulfilled by the findings of this research and will impact beyond the individual SME level. It carries the potential to drive economic growth by empowering SMEs, which are often the backbone of economies worldwide. Job creation, innovation, and increased competitiveness are among the potential outcomes, benefiting not only SMEs themselves but also contributing to industry-wide transformation and the Sri Lankan economy at large. Policymakers can leverage these findings to develop supportive policies that foster digitalization among SMEs, amplifying the study's impacts on economic development, market expansion, digital divide reduction, industry transformation, and entrepreneurship. Further, future research can focus on exploring emerging technologies, assessing the long-term impact of digitalization, or investigating the role of innovation ecosystems.

Ultimately, the study highlights the transformative power of digitalization and its capacity to shape the future landscape of Sri Lankan SMEs in turbulent times.

One limitation of this study is that it is executed generally rather than industry-specific study. It limits the generalizability of the findings and applicability for all the industries.

Additionally, the research focuses on a specific geographic context, potentially limiting the generalizability of the findings to SMEs in different regions or economic environments.

Further, future research opportunities may involve exploring the long-term impacts of emerging digital technologies, such as blockchain and the Internet of Things (IoT), on SMEs' resilience and growth in turbulent times. It is also suggested to narrow down the geographical or industry context to obtain more specific findings.

References

- Benitez-Amado, J., Llorens-Montes, F. J., & Pérez-Arostegui, M. N. (2019). How digitalization is changing the way we understand SMEs: The case of Spanish innovative SMEs. *Sustainability*, 11(24), 7145.
- Cui, L., Zhang, H., & Qian, C. (2018). Enhancing customer engagement of SMEs in turbulent environments: The role of social media. *Journal of Business Research*, 82, 163-172.
- Sultan, P., Marandi, E., & Romani, L. (2020). Digital platforms and ecosystem-based innovation in entrepreneurial SMEs: Facilitating and inhibiting factors. *Journal of Business Research*, 112, 30-42.
- Baltacı, A., Işıklı, C., & Ege, M. Ş. (2020). The impact of SMEs' resource constraints on their adoption of digital transformation practices. *International Journal of Information Management*, 50, 437-448.

Choi, B., & Chung, S. (2017). An empirical study of factors affecting the use of digital technology among SMEs in South Korea. *Technological Forecasting and Social Change*, 123, 17-24.

Boohene, R., Brem, A., & Mensah, I. (2020). Resource allocation strategies for digital transformation in SMEs. *Journal of Small Business Management*, 58 (1), 175-206.

Tan, Q., Yang, X., & Cao, W. (2020). The effects of digital marketing on SMEs in a turbulent market: The mediating role of dynamic capabilities. *Journal of Business Research*, 120, 502-513.

Chien, S. W., Lin, B., & Chen, H. (2018). Digital readiness, dynamic capabilities, and firm performance: A study of digital transformation in SMEs. *Information Systems Frontiers*, 22(5), 1135-1152.

Rêgo, B.S., Jayantilal, S., Ferreira, J.J. and Carayannis, E.G. (2021). Digital

Transformation and Strategic Management: a Systematic Review of the Literature. *Journal of the Knowledge Economy*.
doi:<https://doi.org/10.1007/s13132-021-00853-3>.

Kohout, R. and Singh, P. (2018). Pay equity and marginalized women. *Gender in Management: An International Journal*, 33(2), pp.123–137.
doi:<https://doi.org/10.1108/gm-06-2017-0073>.

Brownridge, D.A. (2009). *Violence Against Women: Vulnerable Populations*. [online] Google Books. New York: Routledge. Available at: https://books.google.lk/books?hl=en&lr=&id=IwmRAgAAQBAJ&oi=fnd&pg=PP1&dq=vulnerable++women+definition&ots=TSLwGTnmkB&sig=I66mM0tcYbg6NQnjkZ5lnhTyafk&redir_esc=y#v=onepage&q=vulnerable%20%20women%20definition&f=false [Accessed 12 Oct. 2023].

A Bird's Eye View on Financial Inclusion and Fintech Literacy: Special Reference to Financial Sector Sri Lanka

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Abstract

This study examines the challenges faced by the Sri Lankan financial industries due to technological advancements and the digitization process. It particularly emphasizes the hurdles encountered by the banking sector, which stem from insufficient Fintech Literacy, digital infrastructure, and financial literacy initiatives. The primary objectives of this research endeavor are to quantitatively evaluate the level of Fintech Literacy, comprehensively examine the extent of Financial Inclusion, and establish a correlation between Fintech Literacy and Financial Inclusion. The research conducted in the Sri Lankan financial sector involved the collection of data from 393 customers. This study employed a positivist mindset, deductive approach, and cross-sectional study design. The study employed a questionnaire that included 24 constructs

developed from the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). The study results show a robust and positive correlation between the components of Fintech Literacy (namely, knowledge, attitudes, and behavior towards Fintech) and the level of Financial Inclusion. The study acknowledges its limitations and emphasizes the consequences it has for Fintech service providers and policymakers. It aims to promote informed decision-making and contribute to public awareness. The novelty of the study is rooted in its examination of the influence of Fintech Literacy on Financial Inclusion within the financial sector of Sri Lanka. This positioning renders it a significant resource for subsequent research endeavors and practical implementations.

Keywords: Fintech Literacy, Financial Inclusion, Financial sector, Fintech

Introduction

In the current era of digitalization, individuals are expected to possess comprehensive proficiency in utilizing digital machinery, equipment, and other electronic gadgets inside urban centers and across nations. According to Gautam et al. (2022), extensive research has been conducted on the disparate patterns of Fintech adoption across most countries. Sri Lanka, being a developing nation, is now in the nascent phase of incorporating financial technology (Fintech) into its financial services sector. Nevertheless, due to limited knowledge and understanding of Financial Technology (Fintech), a significant portion of individuals residing in rural areas are excluded from the established financial system. Furthermore, the banking sector in Sri Lanka faces challenges in promoting and providing digital financial solutions due to a dearth of awareness and comprehension of Fintech goods and services among the general populace. The limited digital infrastructure in specific areas poses challenges for the banking industry in expanding its services and fostering Financial Inclusion. Additionally, the absence of

products and services, Sri Lanka, Banking Sector

comprehensive financial education programmes that address the complexities of Fintech leaves individuals ill-equipped to effectively navigate and capitalize on these technological advancements. To promote the utilization of these facilities, it is imperative to enhance individuals' awareness and comprehension of Fintech products and services (Piyananda & Aluthge, 2022; Al-Smadi, 2012).

Literature Review

Fintech is a prominent player in the financial markets, employing technological technologies to facilitate access to financial products and services. Fintech Literacy is therefore thought to be crucial to the advancement of Financial Inclusion. Financial Inclusion can be defined as the systematic effort to ensure that all individuals, particularly those who are economically disadvantaged, have equal access to essential financial services within the established financial sector (Ozili, 2020). Hence, by prior scholarly works, Financial Inclusion is predicated upon the fundamental aspects of accessibility, capability, and affordability. Financial accessibility pertains to the level of

simplicity and ease with which customers can access the various services offered by banks. According to the study conducted by Pakurár et al. (2019), financial competence refers to an individual's capacity to protect themselves from present and future financial risks, thus facilitating the achievement of financial independence and security. According to the study conducted by Çera et al. (2021), financial affordability is the term used to describe the costs incurred in maintaining a minimum balance and paying fees for the utilization of financial services (Nandru et al., 2021). All things considered, research has shown that Financial Inclusion is associated with reduced account fees, being nearer financial intermediaries, having stronger legal safeguards, and being in politically stable environments. However, depending on the characteristics of the people considered, inclusionary policies have varying degrees of success. (Allen et al. 2016) Consequently, Financial Inclusion is predicated on the aspects of affordability, capability, and accessibility, per earlier research.

In a recent study, Widyastuti and Hermanto (2022) identified Fintech Literacy as a component of financial

literacy, which comprises the comprehension of Fintech products and services, the cultivation of favorable attitudes towards Fintech, and the adoption of suitable financial behaviours. Academic understanding of Fintech goods and services entails a comprehensive grasp of the technological components, operational protocols, procedural intricacies, and underlying principles inherent in Fintech services (Hu et al., 2019). Attitude can be defined as an individual's capacity to evaluate and ascertain the degree of partiality or inclination they possess towards a specific object or behaviour (Al-Smadi, 2012). Behavioural intentions can be defined as an individual's conscious and deliberate plan or propensity to partake in a particular behaviour (Allen Institute for Artificial Intelligence, 2015). Moreover, the acquisition of Fintech Literacy enables individuals to possess the essential knowledge and cognitive abilities required to make educated financial choices, hence playing a significant role in enhancing their Financial Inclusion (Hasan et al., 2021). However, a sizable section of Sri Lanka's population still lacks internet access, mostly due to a lack of digital infrastructure and financial knowledge. This makes consumers wary about

embracing technologically driven financial products. (Piyanda and Aluthge, 2022) However, the present study examines how well individuals in the financial sector, in Sri Lanka would have achieved Financial Inclusion through their Fintech Literacy and engagement with Fintech products and services.

Research Methodology

This study adopts a positivist mindset and employs a deductive technique. The population for this study consists of customers within the finance industry of Sri Lanka encompassing various financial institutions and banking institutions. The determination of sample size in situations when the population size is unknown is accomplished by utilizing the maximum value provided by the Morgan Tables. Based on the findings of Krejcie and Morgan (1960),

it has been determined that the highest recorded figure inside the Morgan table is 384. Thereby a questionnaire has been distributed among participants, that includes 24 constructs derived from the Technology Acceptance Model (TAM) and each item in the questionnaire was validated and verified by the industry experts and professionals. Accordingly, the summary of the conceptual model is presented in Figure 1. The Questionnaire has become increasingly popular through Google Forms to reach 384 individuals. Profoundly, through convenience sampling techniques, the study gathered 393 responses. When faced with situations where the size and characteristics of a population cannot be determined or quantified, researchers may opt to use convenience sampling as a research methodology to address inherent difficulties and explore pertinent topics (Etikan et al., 2016).

Fintech Literacy

Knowledge of fintech products and services (KFPS)
Attitudes towards fintech products and services (AFPS)
Behavioural approach towards fintech products and services (BFPS)



Financial Inclusion

Financial Accessibility
Financial Capability
Financial Affordability

Figure 1- Conceptual Framework

Data Analysis and Findings

To evaluate the degree of correlation between two variables, utilize Pearson Correlation.

Results describe how the correlation between these variables varies.

Dependent Variable	Independent Variable	Correlation (r)	P- Value
Financial Inclusion	Fintech Literacy	0.798	0.000
	Knowledge of Fintech Products and Services	0.756	0.000
	Attitudes towards Fintech Products and Services	0.739	0.000
	Behavior towards Fintech Products and Services	0.771	0.000

Table 1- Correlation Analysis

This study investigates the relationship between Fintech Literacy and Financial Inclusion, revealing compelling statistical evidence. The knowledge, attitudes, and behavior toward Fintech products all exhibit a significant and positive correlation with Financial Inclusion. Specifically, knowledge ($r = +0.756$), attitudes ($r = +0.739$), and behavior ($r = +0.771$) all demonstrate strong positive relationships at the 0.000 significance level. Cumulatively, the overall correlation between Financial Inclusion and Fintech Literacy is robust ($r = 0.798$, $p = 0.000$), emphasizing the

crucial role of Fintech Literacy in fostering Financial Inclusion.

The regression analysis utilizes gathered data pertaining to Financial Inclusion, as well as knowledge, attitudes, and behaviour towards fintech products and services, in order to ascertain the coefficients. The model's R^2 value is 0.641, suggesting that approximately 64.1% of the variability in the dependent variable, Financial Inclusion, can be accounted for by the independent variables, namely KFPS, AFPS, and BFPS. Moreover, the behaviour exhibited towards fintech products and services can be categorized as one of the

most influential elements, as indicated by the highest coefficient of 0.306. The level of influence exerted by individuals' attitudes about fintech products and

services on Financial Inclusion and value was found to be minimal, with a coefficient of 0.123.

Figure	R	R Square	Adjusted R Square	Std. Error of the Estimate
Value	0.800	0.641	0.638	0.43399

Table 2 - Model Summary

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.231	0.092		13.365	0.000
KFPS	0.267	0.050	0.322	5.379	0.000
AFPS	0.123	0.056	0.146	2.204	0.028
BFPS	0.306	0.055	0.375	5.545	0.000

Table 3 - Multiple Linear Regression

Dependent Variable: Financial Inclusion

$$\text{Financial Inclusion} = 1.231 + 0.267(KFPS) + 0.123(AFPS) + 0.306(BFPS)$$

Discussion

The key independent variable in this study is Fintech Literacy, which is assessed using three factors: knowledge of fintech products and services, attitudes towards fintech products and

services, and behavioural approach towards fintech products and services. The findings of this study are consistent with other seminal work, which has also indicated a lack of knowledge among participants regarding fintech products

and services. The findings presented align with the studies conducted by Hu et al. (2019), Lim et al. (2018), and Piyananda and Aluthge (2022), which propose that possessing knowledge plays a crucial role in individuals' adoption and utilization of fintech products and services. Subsequently, the study proceeds to examine the prevailing dispositions towards fintech products and services, wherein many respondents have expressed a moderate stance. The parameters considered were the perceived utility and ease of use, risk, and web security. Similarly, previous studies conducted by Al-Smadi (2012) and Hu et al. (2019) have provided empirical evidence supporting the notion that the perceived usefulness and perceived ease of use of fintech products and services have a substantial and positive influence on individuals' attitudes towards such offerings. These attitudes, in turn, serve as indicators of individuals' level of Fintech Literacy. In addition, previous studies conducted by Al-Smadi (2012) and Cheng et al. (2006) have revealed that perceived risk and perceived web security exert a negative and statistically significant influence on individuals' attitudes towards fintech products and services. In general, the findings of the study confirm that individuals' views towards Fintech

products and services serve as an indicator of their level of Fintech Literacy.

The aforementioned studies conducted by Chan et al. (2022) and Piyananda and Aluthge (2022) have identified performance expectancy, effort expectancy, and social influence as influential factors in shaping behavioural changes towards fintech products and services. These factors have been recognised as significant contributors to the measurement of Fintech Literacy. Based on the findings, it was observed that each participant expressed that their viewpoints are predominantly shaped by factors related to Financial Inclusion. Furthermore, the aforementioned findings are consistent with prior studies conducted by Allen et al. (2016), Ozili (2020), Gálvez-Sánchez et al. (2021), Mitton (2008), Pakurár et al. (2019), Çera et al. (2021), and Nandru et al. (2021). These studies have identified financial accessibility, financial capability, and financial affordability as key determinants of Financial Inclusion. The study ultimately substantiated a robust positive correlation between Fintech Literacy and Financial Inclusion. According to the results of Table 1, the study confirmed a strong positive relationship between Fintech Literacy

and Financial Inclusion ($r = 0.798$, $p = 0.000$). The study conducted by Setiawan et al. (2021) revealed a positive correlation between Fintech Literacy and Financial Inclusion. According to the findings of Nandru et al. (2021) and Hasan et al. (2021), there exists a substantial and direct relationship between Fintech Literacy and Financial Inclusion. However, this discovery contradicts the findings of Çera et al. (2020), who propose that there is an indirect impact of Fintech Literacy on Financial Inclusion, mediated by the total mediation of financial competence.

Conclusion

In brief, the research revealed that customer behaviour towards fintech products and services has a favourable effect on Financial Inclusion, whilst attitudes against fintech products and services demonstrate a modest influence. Nevertheless, customers frequently utilize fintech items, yet they exhibit a significant deficiency in understanding regarding these offerings. It is imperative for the parties involved to intensify their endeavors in delivering essential information to boost client awareness. Further, future research in Sri Lanka's financial sector should include service providers' perspectives for a holistic view of Fintech dynamics, diverse

geographical and consumer contexts, diverse methods beyond questionnaires, such as observations and interviews, and additional independent variables and exploring factors. Further, this study can serve as a guide for Fintech service provider companies, policymakers, and society by providing valuable insights into the relationship between Fintech Literacy and Financial Inclusion.

Reference

Allen, F., Kunt, A. D., Klapper, L. and Martinez Peria, M. S. (2016). The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts. *Journal of Financial Intermediation* [online], Volume 27, pp. 1-30.

Allen Institute for Artificial Intelligence. (2015). *Accessing the determinants of behavioural intention to adopt fintech services among the millennial generation* [online]. Available from: <https://www.semanticscholar.org/paper/Accessing-the-determinants-of-behavioral-intention-Ramos/bbc22583930087a8d8d237243ce2b06420374511>

Al-Smadi, D. M. O. (2012). Factors Affecting Adoption of Electronic Banking: An Analysis of the Perspectives of Banks' Customers. *International Journal of Business and Social Science* [online], 3(17), pp. 294-309.

Çera, G., Khan, K. A., Mlouk, A. and Brabenec, T. (2021). Improving Financial Capability: The Mediating Role of Financial Behaviour. *Economic Research-Ekonomska Istraživanja* [online], 34(1), pp. 1265-1282.

- Chan, R., Troshani, I., Hill, S. R. and Hoffmann, A. (2022). Towards an understanding of consumers' FinTech adoption: the case of Open Banking. *International Journal of Bank Marketing* [online], 40(4), pp. 886-917.
- Cheng, T. E., Lam, D. Y. and Yeung, A. C. (2006). Adoption of Internet Banking: An Empirical Study in Hong Kong. *Decision Support System* [online], 42(3), pp. 1558-1572.
- Etikan, I., Musa, S. A. and Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistic* [online], 5(1), pp. 1-4.
- Gálvez-Sánchez, F. J., Lara-Rubio, J., Verdú-Jóver, A. J. and Meseguer-Sánchez, V. (2021). Research Advances on Financial Inclusion: A Bibliometric Analysis. *Sustainability* [online], 13(6).
- Gautam, R. S., Rastogi, S., Rawal, A., Bhimavarapu, V. M., Kanoujiya, J. and Rastogi, S. (2022). Financial Technology and Its Impact on Digital Literacy in India: Using Poverty as a Moderating Variable. *Journal of Risk and Financial Management* [online], 15(7).
- Hasan, M., Le, T. and Hoque, A. (2021). How does financial literacy impact inclusive finance? *Financial Innovation* [online], 7(40).
- Hasan, R., Ashfaq, M. and Shao, L. (2021). Evaluating Drivers of Fintech Adoption in the Netherlands. *Global Business Review* [online].
- Hu, Z., Ding, S., Li, S., Cheng, L. and Yang, S. (2019). Adoption Intention of Fintech Services for Bank Users: An Empirical Examination with an Extended Technology Acceptance Model. *symmetry* [online], 11(3).
- KREJCIE, R. V. and MORGAN, D. W. (1960). DETERMINING SAMPLE SIZE FOR RESEARCH ACTIVITIES. *The NEA Research Bulletin* [online], Volume 38.
- Lim, S. H., Kim, D. J., Hur, Y. and Park, K. (2018). An Empirical Study of the Impacts of Perceived Security and Knowledge on Continuous Intention to Use Mobile Fintech Payment Services. *International Journal of Human-Computer Interaction* [online], 35(10), pp. 886-898.
- Mitton, L. (2008). *Financial inclusion in the UK: Review of policy and practice* Joseph Rowntree Foundation, York.
- Nandru, P., Chendragiri, M. and Velayutham, A. (2021). Examining the influence of financial inclusion well-being of marginalized street vendors: An Empirical Evidence from India. *International Journal of Social Economics* [online], 48(8), pp. 1139-1158.
- Ozili, P. K. (2020). Financial inclusion research around the world: A review. *Forum for Social Economics* [online], 50(4), pp. 457-479.
- Pakurár, M., Haddad, H., Nagy, J., Popp, J. and Olah, J. (2019). The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector. *Sustainability* [online], 11(4).
- Piyananda, D. and Aluthge, C. (2022). Factors Affecting Fintech Acceptance in Sri Lanka. *International Journal of Contemporary Business Research* [online], 1(1).
- Setiawan, B., Nugraha, B. P., Irawan, A., Nathan, R. J. and Zoltan, Z. (2021). User Innovativeness and Fintech Adoption in Indonesia. *Journal of Open Innovation:*

Technology, Market and Complexity
[online], 7(3).

Widyastuti, M. and Hermanto, Y. B.
(2022). The effect of financial literacy
and social media on micro capital
through financial technology in the
creative industry sector in East Java.
Cogent Economics & Finance [online],
10(1).

Impact of Rewarding Practices on Employee Motivation of ABC Bank in Sri Lanka

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Abstract

In this competitive business environment, organisations realize the importance of retaining talented people to achieve a competitive advantage. Hence, it is required to implement sound HR strategies to retain talented people and enhance employee performance (EP) by motivating them to achieve the organisation's goals. Accordingly, employee motivation (EM) plays a significant role when retaining talented people. Therefore, introducing competitive rewards is important to enhance EM. This study aims to identify the impact of rewarding practices on EM of ABC Bank, Sri Lanka. The research was conducted through the selected sample of 302 permanent carder employees and data was collected through a questionnaire. Correlation and regression analysis have been done in order to understand the association between the variables. The relationship between the Independent variable (IV) &

EM as the dependent variable (DV) was tested by correlation analysis and found that the correlation between Salary and EM is the highest significant variable value which is 0.840 affecting the relationship between Salary and EM strong positive. The impact between Dependent variable vs Independent variables salary has a very strong positive relationship (70.6%) with EM. However, the descriptive statistic indicates that the majority of employees responded to the disagreeable aspect of salary and personal growth opportunity, other variables resulted in neutral responses about the rewards provided by the ABC bank. Hence, Research results are very clear about the employee's expectations of financial and non-financial rewards.

Keywords: Employee Motivation, Rewarding Practice, Reward Management

Introduction

In organizations if employees are dissatisfied with the reward practices that may affect their low motivation of employees. According to Herzberg (1959) people are motivated by two factors: motivational and hygiene factors. The presence of these factors may not certainly motivate employees, but if absent, can lead to dissatisfaction. That impacts an organization's performance directly by giving a low performance when an employee becomes demotivated or dissatisfied. According to

the HR department records for the past five years back, the turnover ratio increased at ABC Bank. It is significantly important to find out why employees are dissatisfied or demotivated and increasing employee resignations and losing talented people to the organization. Because organisation invests an average of 9.4Mn for the T&D every year to develop the people (Table 1). In this scenario, employee turnover has become a significant loss to ABC Bank because of the cost invested for T&D to develop employees.(Figure 1)

Turnover ratio vs T & D Investments % between year 2017 -2021				
Year	Turnover ratio	Turnover ratio %	T&D Investment (Mn)	T&D Investment %
2017	4.16	17.99	13.4	28.45
2018	4.24	18.33	9.8	20.81
2019	4.37	18.89	9.9	21.02
2020	5.58	24.12	7.9	16.77
2021	4.78	20.67	6.1	12.95
	23.13	100.00	47.1	100.00

Table 1. Turnover ratio vs T & D Investments % between the years 2017 -2021

Data source: ABC Bank HR department records and Annual Reports

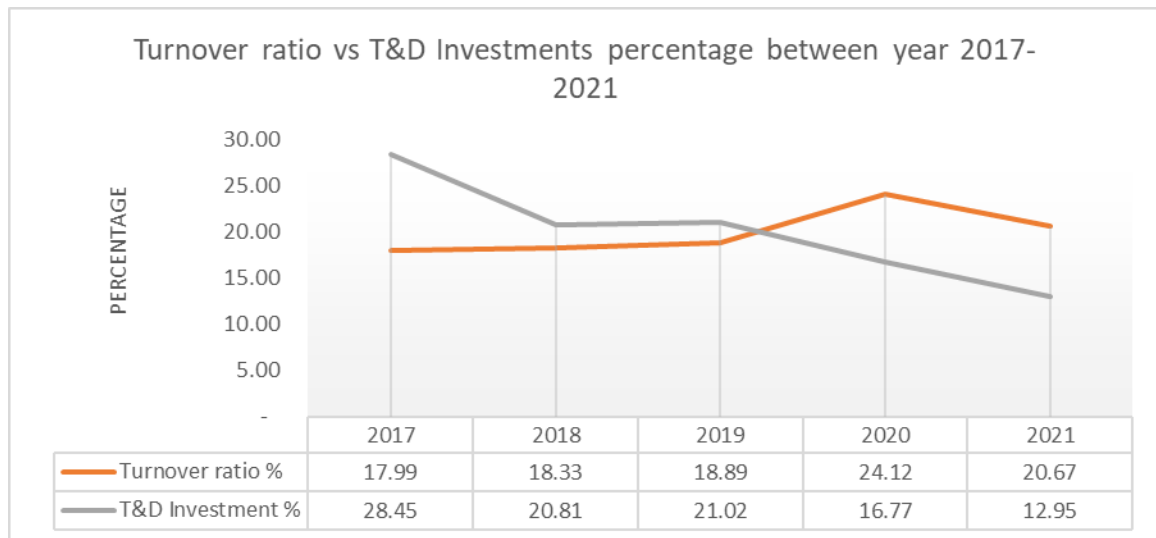


Figure 1. Turnover ratio vs T&D Investments for the past five-year back

Data source: ABC Bank HR department records and Annual Reports

ABC Bank bonus paying practice is in two ways. One-month salary pays as a first bonus and a performance-based bonus pay according to the branch performance as a secondary bonus. Human Resource department records indicate that employee's individual performance, Non-achievement rate as 75.57% in the year 2020 and 68.39% in the year 2021 (Figure 2.) for the Performance Bonus paying and that evidence indicating the lack of employee individual performance. Before the year 2021, the performance bonus was not paid in the year 2017. In the year 2019, ABC Bank changed bonus paying criteria to individual performance from the branch performance. These figures

highlighted that after the bonus criteria changed to individual performance, the achieved headcount significantly went down. (Figure 2.) This is a significant number that shows employee low performance and effectiveness of the employee "not engaged" and lack of motivation. And the other hand records indicate that the organization fails to pay bonuses consistently and firm principles, and from time to time ABC Bank changes the criteria for paying bonuses. This became more dissatisfaction among employees because without proper reward practices, employees became lack motivation and it directly affected the employee's individual performance and the organisation performance.

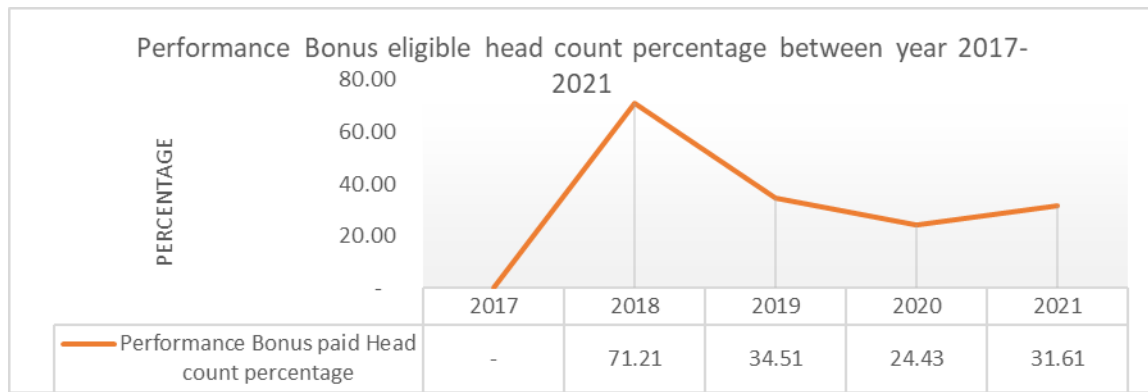


Figure 2. Performance Bonus eligible headcount for the past five years

Data source: ABC Bank HR department records

Mainly this research will contribute empirical evidence and knowledge to the organisation to drive people's effective performance by motivating them by maintaining proper rewarding practices. And the other hand identifying the gaps organisation can develop a good reward system that can enhance EP through people's satisfaction and engagement by motivating them. Therefore, this research is significantly important to identify the employee's motivation levels with the impact of rewards. Hence, research findings will be an important Intellectual capital to enhance individual performance and achieve the organisation goals through enhancing ABC Bank's performance., On another hand, this research will be and good guidance to other organisations and other researchers also.

Research Aim & Specific Objectives

1. Find out the impact of salary on EM towards the ABC Bank performance.
2. Find out the impact of Bonus on EM towards the ABC Bank performance.
3. Find out the impact of Promotion on EM towards the ABC Bank performance.
4. Find out the impact of Personnel Growth Opportunities (PGO) on EM towards the ABC Bank performance.
5. Find out the impact of Leadership Opportunities (LO) on EM towards the ABC Bank performance.
6. Find out the impact of the Work Environment (WE) on EM towards the ABC Bank performance.
7. Find out the extrinsic and intrinsic factors that highly influence on EM towards the ABC Bank's performance.

8. Evaluate the impact and suggest improvements of rewarding practices to enhance EM towards the ABC Bank performance

Research Questions

1. How is the impact of salary on EM towards the ABC Bank performance?
2. How is the impact of the Bonus on EM towards the ABC Bank performance?
3. How is the impact of Promotion on EM towards the ABC Bank performance?
4. How is the impact of Personnel Growth Opportunities(PGO) on EM towards the ABC Bank performance?
5. How is the impact of Leadership Opportunities(LO) on EM towards the ABC Bank performance?
6. How is the impact of Work Environment (WE)on EM towards the ABC Bank performance?
7. Which extrinsic and intrinsic factors are that highly influence on EM towards the ABC Bank performance?
8. What are the suggestions for improving rewarding practices to enhance employee motivation towards ABC Bank performance?

Literature Review

Motivation can be defined as the psychological process that gives

behavioral purpose and direction (Kreitner,2009, p.335) Motivation is defined as an employee's desire to do things for moving in a certain direction. When they achieve their expectations, people are motivated. A valued reward can satisfy their particular needs and motivate them to achieve their goals. (Armstrong,2007, p.122)

Employee rewards can be described in two categories. The extrinsic, or tangible reward for undertaking work in employment, and the other one is an intrinsic reward that means intangible (Stephen and Geoff, 2011, p4) According to Armstrong and Murlis (2004, online), Intrinsic or intangible rewards, do not involve any direct payments and often arise from the work itself, for example, achievement, autonomy, recognition, scope to use and develop skills, training, career development opportunities, and high-quality leadership. Non-financial rewards describe success, recognition, responsibility, influence, and the needs of many individuals, even at different levels of personal growth. In this competitive external market, employees are critically compared to their willingness to stay with the organization. The values and needs of desire from employees are influenced by reward policies and practices for their retention.

Hence, it is difficult to generalize about the causes of satisfaction or dissatisfaction. If employees feel they have received fairly pay benefits or rewards pay according to the employee's perception of their ability and contribution to the organization those factors affect satisfaction or dissatisfaction with pay and benefit. Moreover, they are satisfied with their status, promotions, opportunities, development skills, and relationships with their managers. (Armstrong, 2007, p.129)

Dewhurst, et. al (2010). State that there are other means to reward employees that do not just focus on financial compensation. Some of these include praising from their managers, the opportunity to take on important projects or tasks, and even leadership attention. Markova and Ford (2011) mentioned that the true success of a company begins with the desire to use the creativity, skills, and knowledge of its employees in the company way and that it is the organization's task to encourage and nurture these positive employees inputs through effective rewarding practices. The design of reward packages tailored to the needs and preferences of employees enhances reward satisfaction and is convinced that it enhances

employee commitment and motivation. (Verweire and Berghe , 2004, online)

Rewards are an important element to motivate employees hence pay more attention to the strategy of rewards and identify the most important rewards that enhance the EM and achieve the targeted performance. It's significantly important to identify the link between rewards on EM levels of the organisation, because talented employee retention is the most valuable asset and strategy of any organisation. If the employees demotivate and affected to leave the organisation at a higher rate or if employees perform very low, it will be a huge problem for organisation. This research study helps to recognise the correlation between rewards on EM. Because determining the most efficient and best practice rewards is to be challenging. Motivated employees are more productive, and a more productive employee is profitable. Hence, Warwick (2021) states that research has shown that cheerful, motivated employees can increase productivity by as much as 12%. There are many explanations for the theory of motivation, but it is simply identified as two factors. Extrinsic factors: Here people are motivated by external factors such as a bonus for hard work or a sanction if targets are not met. Intrinsic factors: Here people are

motivated by a desire to satisfy human needs. These might include a personal desire to achieve certain professional or personal goals. People are motivated by a combination of extrinsic and intrinsic motivation factors.

Methodology

The philosophy chosen by the author is positivism and focuses on the deductive approach. An explanatory research study focuses on the impact of rewards on EM

and investigates the relationship between IV and DV accordingly. This research followed a case study research strategy and quantitative research was conducted by the questionnaires. The sampling method is a Multi-Stage Cluster Sample sampling methodology and selected 302 permanent staff from the western region branch clusters, a total population of 1429 Correlation analysis was used to find answers to the research questions and to test the hypotheses.

Conceptual Framework

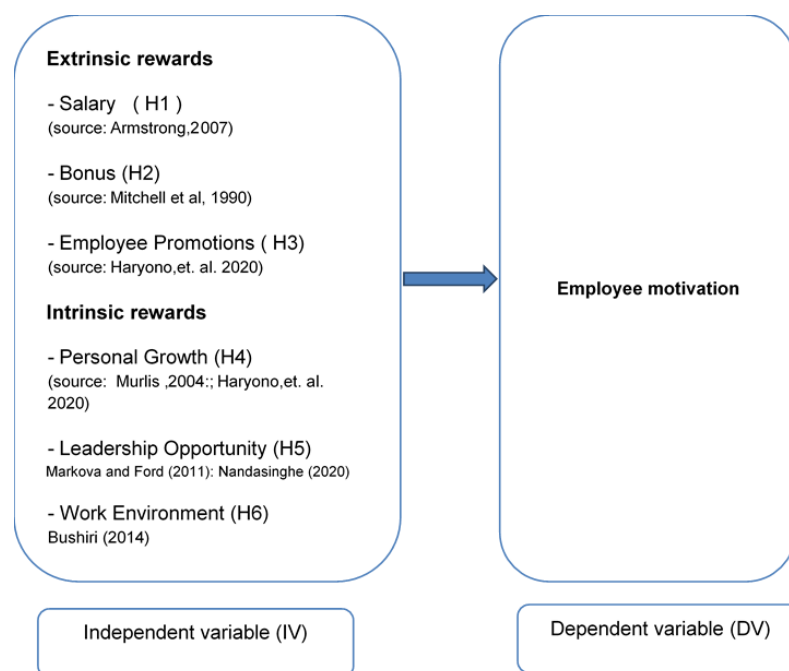


Figure 3. Conceptual framework

Data source: Developed by Author

The questionnaire was submitted a to selected small group and pre-tested, and the questionnaire was validated through SPSS Here the Cronbach alpha values

greater than 0.7 in SPSS, and the reliability contains high consistency and validity.

Reliability Statistics

	Number of Items	Cronbach's Alpha
Salary	5	0.935
Bonus	5	0.943
Promotions	5	0.945
Personal Growth Opportunity	4	0.945
Leadership Opportunity	4	0.941
Work Environment	4	0.935
Motivation	8	0.949

Table 2. Reliability Analysis

Research Findings, Conclusion, and Recommendation

Research Findings

ABC Bank's turnover ratio increased to 4.71% in the year 2021 when compared to the five years back. (Figure 1) Furthermore, records indicate that the employee's performance Non-achievement rate increased up to 68.39% in the year 2021. (Figure 2)

Demographics analysis was captured from the data using employees' Gender, Number of services, Age, Job position, and Highest education level. The questionnaire respondent results in summary are illustrated in Table 3 respondent results consist of 44% male participants and 56% from female participant's. The total respondent results are 94%

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	126	44.4	44.4	44.4
	Female	158	55.6	55.6	100.0
	Total	284	100.0	100.0	

Table 3. Respondent results in demographic

Gender wise Service Years vs Age														
Service Years	Male							Female						
	22-29	30-39	40-49	50-59	60+	Total	%	22-29	30-39	40-49	50-59	60+	Total	%
0-3	4	11	2			17	6	14	1				15	5
4-6	19	5	4	1		29	10	25	6	2			33	12
7-9	3	14	2	1		20	7	9	27	1			37	13
10+		19	37	3	1	60	21		42	26	5		73	26
Grand Total	26	49	45	5	1	126	44	48	76	29	5	0	158	56
%	9	17	16	2	0	44		17	27	10	2	0	56	

Table 4. Gender-wise, Service Years Vs Age

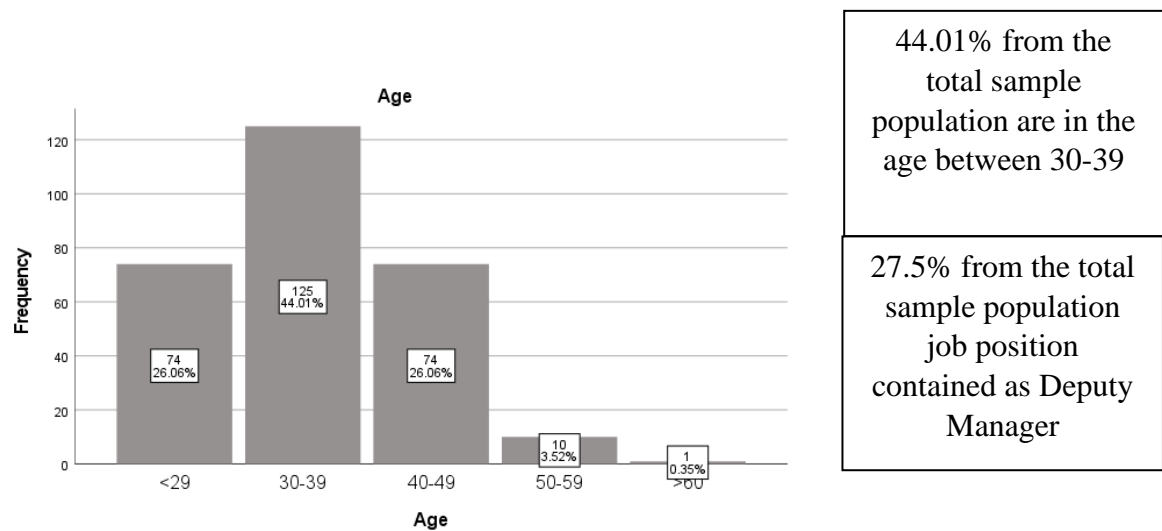


Figure 4. Percentage of employees Age-wise

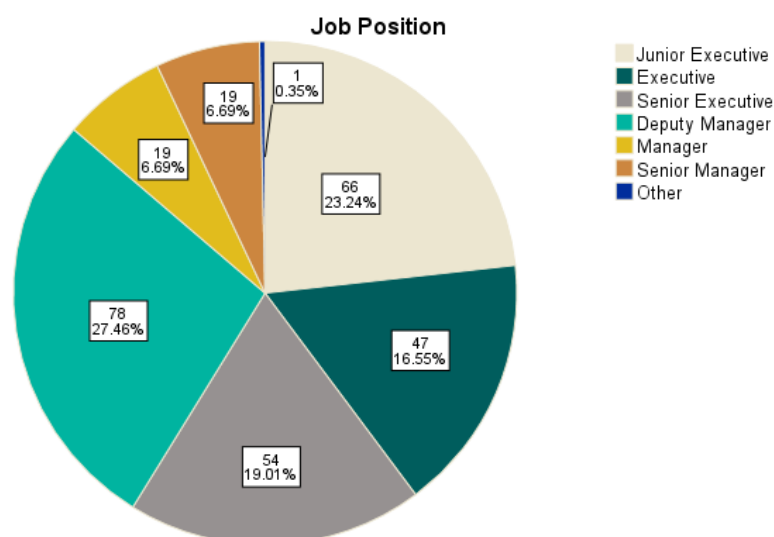


Figure 5. Percentage of Job Position

Gender wise Service Years vs Highest Education										
Service Years	Male					Female				
	A/L	Diploma	Degree	Masters	Total	A/L	Diploma	Degree	Masters	Total
0-3	8	3	5	1	17	13		1	1	15
4-6	20	3	5	1	29	26	4	2	1	33
7-9	14		6		20	24	2	10	1	37
10+	39	6	12	3	60	43	3	24	3	73
Grand Total	81	12	28	5	126	106	9	37	6	158
%	29	4	10	2	44	37	3	13	2	56

Table 5. Gender-wise Service Years vs. highest Education

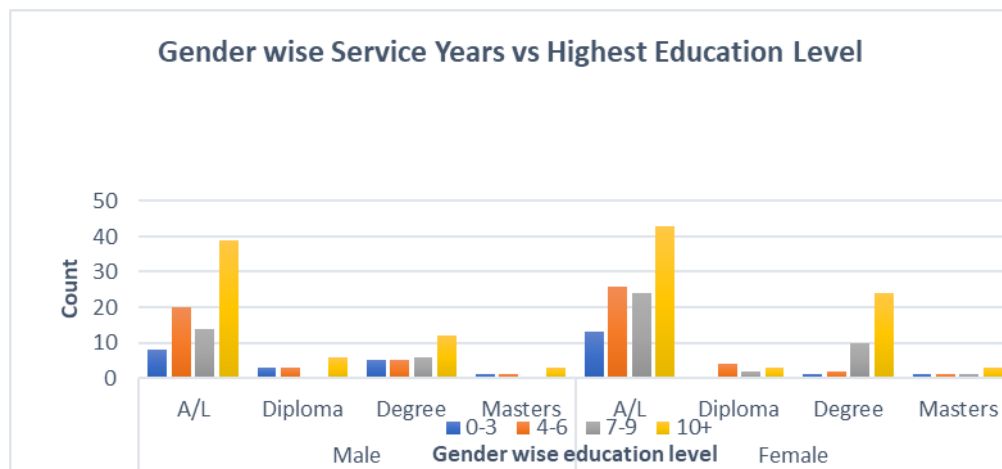


Figure 6. Gender-wise Service Years Vs Highest Education Level

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Salary	284	2.20	4.40	2.9908	.43527
Bonus	284	2.20	4.80	3.2986	.40404
Promotions	284	2.60	5.00	3.1993	.42518
Personal Growth Opportunity	284	1.75	4.50	2.9621	.48668
Leadership Opportunity	284	2.50	5.00	3.1752	.43417
Work Environment	284	2.25	4.50	3.0062	.46113

motivation	284	2.13	4.50	3.0669	.36904
Valid N (listwise)	284				

Table 6. Descriptive Statistics

The descriptive statistic mean value describes the respondent's intention for salary questions that disagreed with the average mean value of 2.9908. The personal growth opportunity scored a mean value represents 2.9621 in the same intention of Disagree with the questions of under personal growth opportunity. These values strongly describe that participants are not satisfied with the salary and personal growth opportunities received from ABC Bank.

Moreover, the mean value of the Bonus is 3.2986, the Promotion is 3.1993, the leadership opportunity is 3.1752, and the work environment is 3.0062 illustrating that the respondent's intention is neutral. Furthermore, the respondent's score mean value of 3.0669 for the motivational questions illustrates that the employee's intention was neutral with the EM provided by the ABC bank for them.

Relationship between Dependent variable vs independent variables

Correlations								
		Motivation	salary	Bonus	Promotions	Personal Growth Opportunity	Leadership Opportunity	Work Environment
Motivation	Pearson Correlation	1	.840**	.643**	.515**	.671**	.560**	.762**

	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001
	N	284	284	284	284	284	284	284

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7. Total Statistics - Correlations

correlation between Salary and EM is the highest significant variable value which is 0.840 affecting the relationship between Salary and EM strong positive, Bonus shows a strong positive correlation coefficient value which is 0.643, Promotions show a moderate positive correlation coefficient value which is

correlation coefficient value which is 0.671, LO shows a moderate positive correlation coefficient value which is 0.560. We show a strong positive correlation coefficient value which is 0.762 between WE and EM. The all variables correlation is significant at the 0.001 level.

0.515, PGO shows a strong positive

The impact between Dependent variable vs independent variables

Coefficients							
		salary	Bonus	Promotions	Personal Growth Opportunity	Leadership Opportunity	Work Environment
Motivation	R square value	0.706	0.414	0.266	0.450	0.314	0.581
	P value	0.001	0.001	0.001	0.001	0.001	0.001
	B value	0.712	0.588	0.447	0.509	0.476	0.610

Table 8. Total Statistics - Regression Analysis

Based on the result R square value of 0.706 there is an impact of 70.6% of salary on EM B value shows 0.712 indicate that when the salary is increased by one point, EM increase by 0.712, and salary has a strong positive impact on EM. Bonus result R square value of 0.414 there is an impact 41.4% of the bonus on EM. B value shows 0.588 indicate that bonus has a moderate positive impact on EM. Promotion result R square value of 0.450 there is an impact 45% of the Promotions on EM. B value shows 0.447 indicate that Promotions have a moderate positive impact on EM. PGO result in R square value of 0.266 there is an impact of 26.6% of the PGO on EM. B value shows 0.509 indicate that PGO has a

moderate positive impact on EM. LO result R square value of 0.314 there is an impact 31.4% of the LO on EM. B value shows 0.476 indicate that LO has a moderate positive impact on EM. WE result R square value of 0.581 there is an impact of 58.1% of the LO on EM. B value shows 0.610 indicate that WE have a strong positive impact on EM.

Conclusion

The purpose of the study is to recognize the main rewarding practices that motivate the existing employees of the selected company of ABC Bank. This research's key finding will help the understanding of the factors to reduce the future labour turnover and low performance of employees as those are

major concerns and matters for the bank. The reliability and validity of the questionnaire were tested and contained high consistency and validity and Table 2 is the summary of the reliability test. Moreover, the relationship between IV and DV was tested by correlation analysis and found that salary has a very strong positive relationship with EM. Bonus, personal growth opportunity, and work environment have a strong positive relationship with EM and promotion, LO has a moderate positive relationship with EM. Furthermore, regression analysis evidence that the highest impact was depicted from Salary on EM by 70.6%. Second-highest impact depicted from the work environment on EM by 58.1% and the third-highest impact depicted from personal growth opportunity on EM by 45% impact while bonus impacts 41.4% on EM. Accordingly, those results indicate that salary, work environment, personal growth opportunity, and bonus have a high impact on EM and leadership opportunities, and promotions have a moderate impact on EM. Thus, an identified salary as the highly influenced extrinsic factor, and work environment as the highly influenced intrinsic factor on EM towards the ABC Bank performance. Hence, research results were very clear about the employee's expectation of the financial and non-

financial rewards and the impact on EM, and accordingly, research objectives were achieved. Finally, those findings evidence and proved that the six IV factors investigated, have an impact on EM. (Hauser, 2014; Maslow, 2013; Prachi, 2021). Hence, research objectives were achieved accordingly.

Recommendation

When considering the reviewed literature and analysis of statistical findings, salary and PGO have disagreed responses, and those results show that there is a gap between the satisfaction of employee's salary, PGO to enhance EM. However, those two IV have a strong relationship and the highest impact on EM, significantly worth to find out the reasons for employee disagreement to avoid employee demotivation. Hence, the bank should recap the existing salary structure and identify gaps between marketing structures by conducting a survey of a competitive market. In another way, the bank should make sure to recap the salary structure considering the employee's performance, experience, qualifications, job responsibilities, and work capacity. Otherwise, the employees who perform the job, who have the best experience, support the bank with work capacity, and who take more responsibility are at the risk of the

employee demotivating and losing the talented employees to the bank by receiving unsatisfied or paying the same salaries. (Horváthová and Miklosik, 2012) Furthermore, PGO on EM indicates the gap between reliability, lack of training needs, transparency, and employee satisfaction. The bank should recap the training calendar and link it with the performance evaluation system to identify the actual training needs according to the performance gap. Bonus, Promotion, LO, WE have neutral responses and according to the analysis, and results gained, IV has neutral satisfaction levels on EM. However, those IV results have positive reliability with EM and high percentage impact results on EM. Hence, the bank should recap the strategies for those reward practices to enhance employee response intention from neutral to a more positive level to enhance EM. Hence, significantly recommended to carry out a survey among employees to find out their expectations and to find why they were responding to neutral satisfaction with those reward practices.

This study will be a direction to the guidance of future researches on the rewards of EM. Furthermore, the research study and findings are supportive to other researchers

conducting research on rewards on EM and especially the research conducted on the banking sector.

References

- Armstrong M.,(2007) *A handbook of Employee reward Management and Practice* [online], London: Kogan Page Limited. Available from: https://www.academia.edu/4142803/a_handbook_of_employee_reward_management_and_practice [Accessed 02/04/2022]
- Armstrong, M. and Murlis H. (2004).. *Hand book for remuneration strategy and practice* [online] , 5th ed., London: Kogan Page Limited. Available from: <https://vdocuments.site/reader/full/reward-management-a-handbook-of-remuneration-strategy-and-practice>[Accessed: 16/03/2022]
- Dewhurst M., Guthridge M., and Mohr E., (2010) *Motivating people: Getting beyond money*, *ResearchGate* [online], Available from: https://www.researchgate.net/publication/265678856_Motivating_people_Getting_beyond_money [Accessed: 26/03/2022]
- Horváthová,P. and Miklosik, A.(2012), ‘Contingent pay and experience with its utilization by companies in one of the Czech Republic's regions’, *World Academy of Science, Engineering and Technology International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* . [online]. 6(8) Available from: https://www.researchgate.net/publication/318727323_Contingent_pay_and_experience_with_its_utilization_by_companies_in_one_of_the_Czech_Republic's_regions [Accessed: 02/04/2022]
- Hauser, L. (2014) ‘Work motivation in organizational behavior’. *Economics*,

Management and Financial Markets, [online]. 9(4), pp.239-246 Available from: https://www.homeworkgain.com/wpcontent/uploads/edd/2019/10/20180220130321work_motivation_in_organizational_behaviour.pdf [Accessed 27/04/2022]

Herzberg, F (1959) Herzberg's Motivation-Hygiene Theory: Two-factor. *educationlibrary* [online]. Available from: <https://educationlibrary.org/herzbergs-motivation-hygiene-theory-two-factor/> [Accessed 22/11/2023]

Kreitner, R., (2009) *Management* [online], 11th ed., Boston:Houghton Mifflin Harcourt Publishing Company. Available from: https://www.academia.edu/22723452/O_K_Management_Kreitner [Accessed 26/04/2022]

Maslow, A.H. (2013) A Theory of Human Motivation. *Semantic Scholar* [online]. Available from: https://pdfs.semanticscholar.org/799e/de7676bbb166a33d61ae108436c4eb08c419.pdf?_ga=2.204252496.112451381.1625696605-1577610420.1625696605 [Accessed 27/03/2022]

Markova, G., and Ford, C. (2011). Is money the panacea? Rewards for knowledge workers. *International Journal of Productivity and Performance*

Management, [online] 60(8), pp.813–823. Available from: <https://doi.org/10.1108/17410401111182206> [Accessed 5/03/2022]

Prachi, J. (2021) Herzberg's Two-Factor Theory of Motivation. *Management Study Guide* [online] Available from: <https://www.managementstudyguide.com/herzbergs-theory-motivation.htm> [Accessed 29/03/2022]

Stephen, J. P. and Geoff, W. (2011) *Reward Management, alternatives, consequences and contexts*, 2nd edition. London: Chartered Institute of Personal and Development

Verweire K. and Berghe L.V.D. (2004) *Integrated Performance Management A Guide to Strategy Implementation* [online] London: SAGE Publications Ltd. Available from: http://untag-smd.ac.id/files/Perpustakaan_Digital_2/PERFORMANCE%20MANAGEMENT%20Integrated%20Performance%20management%20A%20Guide%20to%20Strategy%20Implementation.pdf [Accessed 26/03/2022]

Warwick (2021) New study shows we work harder when we are happy. *University of Warwick*. [online]. Available from: https://warwick.ac.uk/newsandevents/pressreleases/new_study_shows/ [Accessed 26/03/2022]

Impact Of Rewards on Employee Performance

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Abstract

One of the key resources that the company has is its human resources. Rewarding employees helps management keep knowledgeable and effective staff on board. The research study focused on understanding the relationship between rewards and employee performance. The population consists of Commercial Bank branches in the Eastern province. Based on that, 11 main branches are located in the Eastern province. A structured questionnaire was used to gather data from one hundred (100) people using the purposive sampling approach. The data has been analyzed using SPSS 23.0. To get to the conclusion, frequency analysis, regression analysis, and correlation analysis were performed. Based on the

results, rewards have a 76% strong positive impact on employee performance (reward correlation statistics are 0.874 & R-Square is 0.761). Therefore, the research study concluded that rewards and employee performance are significantly correlated with each other. Following that, suggestions were offered to the management of organizations on how to increase employee engagement in the way of rewards and accomplish both personal and organizational goals. Additionally, workers must be timely motivated by the nature of their work.

Keywords: Rewards, employee performance, human resource management

Introduction

Background of the Study

Human Resource Management (HRM) is considered the heart of every sector since it carries out several key functions of an organization from recruitment to

retirement. Every organization trying to keep their pool of qualified employees within their firm due to the high competitive advantages. So employees need to be properly motivated by their

employers. One of the key ways to motivate employees is by providing attractive rewards. If people know that their employers care about their well-being and are committed to advancing their careers and personal development, they will be more motivated to work harder. A crucial component of any organization is its reward system. It may revitalize the general sense of community and mission of an organization and actively engage the workforce in it.

Research Problem

Ayesha, (2014) in his research mentioned that job security, working conditions, autonomy, coworker relationships, autonomy, training and development opportunities, employee recognition, and the company's overall policies and procedures for rewarding employees are some of the factors that influence employee performance and act as motivators. Of all these, employee motivation which boosts outstanding contribution plays a significant role when rewards are attached to it. Incentives may be intrinsic or extrinsic. External incentives can take the form of money or salary, bonuses, promotions, job stability, or other benefits. Intangible or psychological benefits like being appreciated, taking on new challenges,

receiving a kind and supportive work environment from one's employer, and changing jobs after achieving a goal are examples of intrinsic rewards (Ayesha, 2014). The reward system also achieves other goals like ensuring legal compliance, controlling labour costs, ensuring employee fairness, and extending staff performance, all of which increase overall organizational productivity (Maire and Nick 2002). Organizations need motivated workers in ever-evolving workplaces. The only strategic asset that keeps an organization alive is its workforce. Managers must comprehend what drives workers in light of the roles they play in order to be effective. Although managers have a variety of roles to do, inspiring staff members is maybe the most difficult. This is partly because employees' sources of motivation are ever-changing (Bowen & Radhakrishna, 1991).

Organisations looking to maximise their reward programmes and, consequently, improve worker performance and overall success must comprehend this dynamic relationship. Numerous studies worldwide have focused on the effect that rewards have on workers' performance. Despite this topic's significance, not much research has been done on it in Sri Lanka, using the

banking industry as a model. This led to attention being paid to this subject. Therefore, this research study tries to study the impact of a reward system on employee performance.

Research Objectives

The major objectives of the research study are as follows,

1. Examine the impact of reward systems (intrinsic & extrinsic) on employee performance.

Literature Review

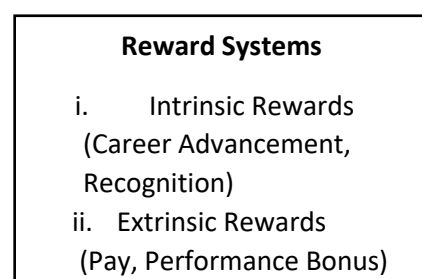
A study was conducted by Biaga and Itakpe in (2021) to look into the relationship between employee performance and the pay structure in the River State oil and gas industry. According to the findings, promotions and productivity, as well as bonuses, have a substantial association. Noko & Nwuzor (2021) Employee perceptions of intrinsic and extrinsic reward systems were examined in a study on personnel

and organizational performance at Zenith Bank in Nigeria. The results showed that both intrinsic and extrinsic reward systems have a positive and significant impact on employee performance, though extrinsic rewards appear to be more effective than intrinsic rewards. The impact of compensation on employee performance in a few banks in Nigeria's Akwa Ibom state is examined by Nnaji & Nnadozie (2015). The results show a connection between pay and productivity as well as a significant difference between the effects of internal and external rewards on productivity. According to Guest (2002), one of the most important factors in motivating workers to meet expectations is incentive. According to Rizwan and Ali (2010), rewards are crucial in defining substantial performance at work and are strongly correlated with the process of motivation. Financial incentives (pay satisfaction dimensions), according to Ojokuku and Sajuyigbe (2009), have a major impact on employees' performance.

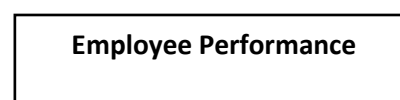
Methodology

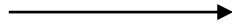
Conceptual Framework

Independent Variable



Dependent Variable





(Source: Constructed by researcher)

Hypothesis

H_1 : There is a significant positive relationship between intrinsic and extrinsic reward systems and employee performance.

H_0 : There is no significant positive relationship between intrinsic and extrinsic reward systems and employee performance.

Population and Sample

The population consists of Commercial Bank branches in the Eastern province. Based on that, 11 main branches are located in the Eastern province. Data from one hundred (100) individuals were collected using the purposive sampling method by sending the questionnaire through E-mail and direct visits to nearby branches.

Measurement Variables

Research Findings

Descriptive Statistics

Table 1: Descriptive statistics for variables

Variables	N	Mean	Std. Deviation
Rewards (Intrinsic and Extrinsic)	100	4.56	0.25
Employee Performance	100	3.78	0.17

(Source: Primary data)

A structured questionnaire was employed to gather pertinent data. A five-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," was used to collect responses. A sample of 100 workers of commercial banks were given the questionnaires, and every one of them was returned. The questionnaire is divided into two sections: one for employee performance and the other for rewards. Within the rewards section, there are two smaller subsections that are referred to as intrinsic and extrinsic rewards.

Analysis

The data has been analyzed using SPSS 23.0. The data were additionally examined using frequency analysis, correlation testing, and regression testing to test the proposed hypotheses.

Results of the descriptive statistics in terms of arithmetic mean and standard deviation show that the rewards of the employees in the sample are relatively good. The mean value and standard deviation for the independent variable of Rewards (Intrinsic and extrinsic) are 4.56 & 0.25 respectively. and the mean values and standard deviation of

dependent variables of employees performance is 3.78 and 0.17.

Reliability and Validity

Cronbach's alpha value and Factor analysis were used to examine the reliability and validity of data.

Cronbach's alpha

The following Table 2 represents Cronbach's alpha reliability coefficients.

Table 2: Cronbach's alpha reliability coefficients

<i>Variables</i>	<i>No of Items</i>	<i>Cronbach's alpha</i>	<i>Reliable if > 0.7</i>
Rewards (Intrinsic and Extrinsic)	12	.883	Yes
Employee Performance	8	.934	Yes

(Source: Primary data)

All of the measures utilized in this inquiry exceeded the reliability estimates (= 0.70) suggested by Nunnally (1967). Based on the results above, it may be concluded that respondents will consistently reply to each item in a measure. The instruments that were employed in this study to measure each variable are therefore trustworthy and all of them displayed good internal consistency ranging from 0.883 to 0.934.

Correlation Analysis

Correlation statistics of Perceived Usefulness

A correlation coefficient of 0.874 between the two variables, with a significance level of 0.000, statistically demonstrated a strong positive relationship between employee performance and rewards.

Therefore, the hypothesis 01 (H_1) is accepted.

Table 3: Correlation statistics of rewards

		<i>Employee Performance</i>	<i>Rewards</i>
<i>Employee Performance</i>	Pearson Correlation	1	.874**
	Sig. (2-tailed)		.000
	N	100	100
<i>Rewards</i>	Pearson Correlation	.874**	1
	Sig. (2-tailed)	.000	
	N	100	100

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

Multicollinearity Diagnostics

Table 4: Correlation statistics of rewards

	Intrinsic Rewards	Extrinsic Rewards	Employee Performance	Tolerance	VIF
Intrinsic Rewards	1			0.210	3.327
Extrinsic Rewards	0.728	1		0.240	4.654
Employee Performance	0.650	0.782	1	0.253	5.410

High correlation coefficients were discovered to exist between employee performance, extrinsic reward, and intrinsic reward. It was found that the tolerance values for intrinsic reward, extrinsic reward, and employee performance were, respectively, 0.210, 0.240, and 0.253. In a similar vein, the respective VIF values for employee performance, extrinsic reward, and intrinsic reward were 5.410, 4.654, and

3.327. According to the analysis, tolerance values are greater than 0.10 and all VIF values are below 10. As a result, the results imply that the independent variables do not exhibit multicollinearity. The study's conclusions and the interpretation of the relationships between the variables are more reliable when multicollinearity is absent.

Multiple Regression Analysis

Table 5: Regression Analysis

<i>Variables</i>	<i>Coefficients</i>	<i>Std.Error</i>	<i>t-statistics</i>	<i>P-value</i>
Pay	0.378	0.117	2.098	0.018
Performance bonus	0.351	0.114	2.074	0.042
Recognition	0.179	0.177	1.259	0.012
Career advancement	0.292	0.135	1.472	0.049

The findings indicate that the four components of reward—pay, performance bonus, recognition, and career advancement—were all jointly

predictive of workers' output. A combined 76% of the variance in the employees' performance was explained by the predictor variables. Employee

performance was substantially predicted by pay ($\beta = 0.378$; $t = 2.098$ $P < .05$); performance bonus ($\beta = 0.351$ $t = 2.074$ $P < .05$); recognition ($\beta = 0.179$; $t = 1.259$ $P < .05$); and career development ($\beta =$

0.292; $t = 1.472$ $P < .05$). This suggests that the four components of rewards—pay, performance bonus, recognition, and praise—have a significant positive impact on workers' output.

Table 6: Regression model summary of rewards

<i>Model</i>	<i>R</i>	<i>R-Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	.874	.761	.745	.21485

(Source: Survey data)

Table 6 shows that R Square is 0.761, indicating a 76% strong positive influence of rewards on employee performance.

Conclusion And Implications

According to Armstrong (2013), a corporation needs to develop a rewards system that incorporates more perks, allowances, participation, recognition, and recommendations if it wants its people to perform better and generate more.

This study focused specifically on Commercial Bank branches in the Eastern province to explore the relationship between employee performance and reward systems. The results support the hypothesis that reward aspects have a major impact on employees' performance. According to the findings, management can utilize rewards as one of the key motivational

tools to compel workers to work successfully and efficiently. From this study, it is clear that the employee reward system is important and should be a concern for both companies and employees.

Recommendations

Based on the research one of the crucial ways to motivate employees is rewards, therefore it needs to be designed properly which enhances employee welfare in the organization. Further, the research gives insight to employers and management that they should practice distributive justice while giving out rewards so that the employees have a sense of fairness, equity, consistency, and transparency consistent with their company. It is crucial to tie rewards to performance because workers are more likely to be motivated when they are aware of what will be expected of them

for their efforts and accomplishments and believe that the potential rewards are worthwhile.

Limitations

To make the findings more broadly applicable, study factors should be investigated in different sectors and research situations in the future.

Due to a shortage of time, the survey was done with workers of one bank. Multiple bank sets may be taken into consideration in the future.

There were not many sub-factors used as variables in this study. It can be expanded for a more thorough investigation in the future.

References

- Armstrong, M., 2013. *A Handbook on human resource management*. s.l.:London:Kogan page publisher.
- Ayesha, S., 2014. Impact of Rewards on Employee Motivation of the Telecommunication Industry of Bangladesh: An Empirical Study. *IOSR Journal of Business and Management (IOSR-JBM)*, 16(12), pp. PP 22-30.
- Bowen, B. E., & Radhakrishna, R. B., 1991. Job satisfaction of agricultural education faculty: A constant phenomena.. *Journal of Agricultural Education* , 32(2), pp. PP. 16-22..
- Guest, D. E., 2002. *Occupational Psychology*. 2nd ed ed. s.l.: International Encyclopedia of Business and Management, Thomson Learning.
- Maire, K., and Nick, O, 2002. Collective and individual improvement activities: the role of reward systems. *Personnel Review*, 31(3), pp. 320-337.
- Nnaji, S. & Nnadozie, A. , 2015. Effect of rewards on employee performance in organizations: A study of selected commercial banks in Akwa Metropolis. *European journal of Business and management*, 7(4), pp. PP.1-15..
- Noko, E. & Nwuzor, J. , 2021. Employee and Organisational Performance: Employees' Perception of Intrinsic and Extrinsic Reward System. *Applied Journal of Economics, Management and Social Science*, 2(1), pp. 26-32..
- Ojokuku, R.M and Sajuyigbe, A.S., 2009. Effect of Pay Satisfaction Dimensions on Job Performance in Selected Tertiary Institutions in Osun State, Nigeria. *African Journal Institute and Development (AJID)*, IV(Nos. I&II), pp. pp, 86-95.
- Rizwan Q.D and Ali U., 2010. Impact of reward and recognition on job satisfaction and motivation. An empirical study from Pakistan. *International journal of business and management*.

Problems Faced by The Special Interest Tourists Visiting Sri Lanka

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Abstract

Tourism, driven by individuals' unique interests, possesses a rich history shaped by the human instinct to explore and discover. This study delves into the concept of 'Special Interest Tourism' within Sri Lanka's tourism landscape. Despite the industry's focus on 'Recent Trends in Tourism,' the study aims to illuminate the less-explored realm of 'Special Interest Tourism' and its potential significance. With global travel trends shifting towards diverse interests, understanding these unique motivations could redefine Sri Lanka's role as a tourist destination. By examining

tourists' motivations and interests, this study identifies hidden opportunities and complexities within the industry. Investigating the potential for 'Special Interest Tourism' in Sri Lanka could enhance the visitor experience and sustain the country's tourism sector. The research intends to aid industry professionals and policymakers in addressing evolving tourist needs while positioning Sri Lanka as a versatile and tailored destination.

Keywords: Tourism, Special InterestsSpecial

Extended Abstract

Introduction

Special Interest Tourism (SIT) is a growing segment of the global tourism industry, with travelers seeking unique and authentic experiences. SIT is defined as travel for leisure purposes, staying for more than 24 hours but less than a year, driven by unique interests (Wearing, 2001). SIT tourists are often motivated

by a desire to learn about new cultures, experience nature, or participate in activities such as sports, ecotourism, or adventure tourism (Pizam, 2003).

Sri Lanka is a country with a rich cultural heritage and natural beauty, making it a prime destination for SIT. However, the concept of SIT is not yet well-established in Sri Lanka, with the term "Recent Trends in Tourism" more

commonly used (Gunawardena & Samarakoon, 2021).

This research aims to explore the potential of SIT in Sri Lanka and to reduce complexities in decision-making for international tourists with special interests. The research utilizes the SLTDA annual statistical report for 2018 to analyze the purposes of tourist travel to Sri Lanka, due to the reason that the tourism industry back in 2018 was undisturbed mostly by disastrous situations.

The research findings are expected to have practical implications for the tourism industry and government decision-making. This research addresses a gap in the literature on SIT in Sri Lanka. By exploring the potential of SIT in the country and reducing complexities in decision-making for international tourists with special interests, the research can help to promote SIT and contribute to the sustainable development of the Sri Lankan tourism industry.

Research Problem: This study focuses on defining the complex challenges tourists face when choosing Sri Lanka as their destination based on their specific interests. There is a notable gap in understanding how the tourism industry's predominant portrayal of Sri Lanka as a leisure and holiday spot misaligns with

the diverse interests of tourists. This misrepresentation, as evidenced by the Sri Lanka Tourism Development Authority's 2019 annual report, poses significant obstacles to the sustainable growth of the tourism sector and limits the full range of experiences the country has to offer. To bridge this research gap effectively, the study aims to explore the nuanced challenges tourists encounter in aligning their specific interests with the tourism offerings in Sri Lanka. By uncovering these challenges, the research seeks to provide valuable insights that can inform strategic interventions for the Sri Lankan tourism sector. It is crucial to articulate this research gap clearly in the introduction, seamlessly integrating it to set the stage for a comprehensive exploration of challenges and potential solutions.

Objectives:

1. To explore and analyze the challenges faced by tourists when deciding to visit Sri Lanka, with a focus on their specific interests.
2. To evaluate the effectiveness of Sri Lankan travel and tour operators in meeting the unique requirements of special interest tourists.

3. To assess Sri Lanka's capability to cater to a diverse range of special interests and preferences expressed by visitors in choosing the country as their travel destination.

Literature Review

This literature review provides insights into several aspects related to special interest tourism in Sri Lanka. It includes diverse niches, such as tea tourism, Ayurveda medical tourism, adventure tourism, and agro-tourism, among others.

Tea Tourism: Tea tourism is integral to Sri Lanka's tourism industry due to its scenic tea-growing regions. The concept of tea tourism is defined as "tourism that is motivated by an interest in the history, traditions, and consumption of the beverage, Tea" (Joliffe, 2007). It is inseparable from Ceylon Tea, as the tea-growing areas in Sri Lanka are undeniably attractive tourist destinations (Ceylon Tea Land, 2013). The popularity of tea extends beyond its cultural significance and is part of the global beverage market, with potential for growth into different tea products (Hicks, 2009). Tourists often express interest in tasting Ceylon black tea.

Ayurveda Medical Tourism: Sri Lanka is renowned for Ayurveda treatments and wellness offerings. Research indicates that enhancing service quality in Ayurveda resorts can significantly impact visitor satisfaction and the development of medical tourism (D. Elabada and I.P Kaluarachchige, 2019).

Adventure Tourism: The study of adventure tourism in Arugambay highlights the growing demand in this sector. It reveals that defining adventure tourism more clearly and targeting specific markets are essential to its development (Pathirana and Samarathunga, 2018).

Ecotourism: Sri Lanka's natural resources, including its diverse flora and fauna, provide a solid foundation for ecotourism. The country boasts rainforests like Sinharaja, which have significant biodiversity. These natural resources have been recognized as major attractions for ecotourists. (De Zoysa, M. 2022)

Conceptualizing Special Interest Tourism: B. Trauer's study conceptualizes special interest tourism, emphasizing the complexity of the subject and its connections to supply, demand, and media. It offers insights for

future research in this area (B. Trauer, 2006).

Sustainable Tourism: Special interest tourism plays a vital role in achieving sustainable tourism goals by focusing on social, cultural, and environmental aspects of the industry. The special interest tourism concept can contribute to sustainable and eco-friendly tourism (Z. Akinci and A. Kasalak, 2016).

Adventure Tourism Potential: "Tapping Sri Lanka's Adventure tourism potential, 2017", newspaper article underscores Sri Lanka's potential for adventure tourism, including activities like whale watching, bungee jumping, scuba diving, and kite surfing.

Agro-tourism: P. Malkanthi's research explores the potential of agro-tourism, considering its role in agricultural development and rural economic growth in Sri Lanka. Challenges include infrastructure, farmer training, waste management, and environmental concerns (P. Malkanthi et al, 2011).

Methodology

In this field-based study, an interpretivist philosophy guides the research, emphasizing the importance of comprehending the subjective

experiences and viewpoints within the special interest tourism industry. The chosen qualitative approach aligns with a case study design to delve deeply into the specific dynamics of special interest tourism in Sri Lanka. Employing a combination of exploratory and descriptive research strategies, the study focuses on three layers of the research onion. The data collection process involves diverse sources, including three selected hotels in Kandy catering to special interest tourism, two tour operators in Colombo, and in-depth interviews with eight foreign visitors in Kandy. The sampling technique adopts a non-probability approach, selecting hotels, tour operators, and foreign visitors based on their relevance to the study. The sample comprises General Managers from three Kandy hotels, key personnel from two Colombo tour operators, and eight foreign visitors representing various special interests. Data collection methods encompass unstructured in-depth interviews with General Managers and key personnel, along with random discussions and in-depth interviews with foreign visitors. Thematic analysis, supported by N-vivo software, aids in uncovering patterns and themes within the collected data. The study also incorporates secondary data from relevant literature on special

interest tourism and related types of tourism to enrich the overall understanding. Time management strategies focus on a limited but strategic sample size of 12 respondents, prioritizing random discussions and in-depth interviews without predetermined questions.

Interviews aim to be concise, lasting 10-15 minutes per participant to ensure valuable insights are captured efficiently. The thematic analysis serves as the primary method for data analysis, facilitating a nuanced understanding of the complexities associated with special interest tourism in Sri Lanka. Acknowledging the qualitative nature of the study, limitations include a smaller sample size and potential subjectivity in data interpretation. This methodological framework, grounded in the Research Onion Model, ensures a systematic and comprehensive exploration of the intricacies surrounding special interest tourism in Sri Lanka.

Research Findings

Thematic Network –

In this study, the following themes were used for data analysis.

- Current purpose of the tourists into the Island.

- Complexities faced by the foreign visitors to Sri Lanka
- Potentials inside the Island to support and cater the special interests of the foreign visitors
- Industry and visitors' viewpoints to define and develop the special interest tourism sector in Sri Lanka
- Current promotion of special interest tourism

Findings

Objective: Identify and Analyse Challenges Faced by Tourists Visiting Sri Lanka:

Key Finding: The analysis highlighted diverse tourism purposes. Notably, respondents emphasized that medical tourism in Sri Lanka is predominantly Ayurveda-based, presenting challenges within the industry.

Objective: Evaluate the Effectiveness of Sri Lankan Travel and Tour Operators:

Key Finding: Language barriers emerged as a significant challenge for special interest tourists during their stay. The study identified areas where tour operators struggle to meet the specific requirements of tourists with unique interests.

Objective: Assess Sri Lanka's Ability to Address a Range of Tourist Preferences:

Key Findings:

Misleading Ayurvedic Services: A noteworthy finding revealed that uncertified service providers often mislead Ayurvedic medical tourists, resulting in a loss of repeat customers.

Misinterpretation of Eco-Tourism: Tour operators commonly misrepresent eco-tourism, lacking a true understanding of its essence beyond visiting natural areas.

Guide Shortages: During peak seasons, the study found a shortage of qualified guides available to assist special interest tourists.

Inflexible Tour Packages: Tour packages struggled to adapt to the evolving interests of tourists, presenting a notable challenge.

Challenges in Sports Tourism: Limited organized sports events targeting tourists hindered the growth of the sports tourism sector.

Government's Reluctance: Government agencies often categorized special interest tourists under leisure and recreation, overlooking the true purpose of their visits.

Infrastructure Issues: Poor infrastructure, inadequate service providers, and pricing issues disrupted the experiences of special interest tourists.

Time Constraints for Dark Tourism: Time-consuming travel posed a significant challenge for dark tourism enthusiasts.

Agro-Tourism Challenges: The obstacles in agro-tourism included a lack of theme villages, visa time constraints, and seasonal crop availability.

Shortage of International Sports Events: The absence of internationally organized sports events was identified as a hindrance to sports tourism development.

Budgetary Concerns: Issues like Tuk-Tuk price mafias caused budgetary problems for walk-in clients and backpackers.

Special Interest Limits: The study acknowledged that the desires and interests of special interest tourists may sometimes exceed the legal framework of Sri Lanka's tourism industry.

Potential for Western Medical Tourism: Hospitals like Nawaloka, Lanka, and Asiri were identified as having the potential for Western medical tourism.

Environmental Pollution: Inadequate infrastructure facilities were found to result in environmental pollution, impacting the experience of special interest tourists.

Conclusion and Implications

In conclusion, Sri Lanka's tourism industry can thrive through diverse special interest tourism sectors, notably Ayurveda medical tourism. However, the research highlights critical challenges across various special interest forms. These issues encompass misleading Ayurvedic practitioners, inflexible travel schedules for dark tourism, buffet-driven food interests, rigid tour packages, eco-tourism misinterpretation, and the absence of internationally recognized sports events. The scarcity of specialized guides, infrastructure problems, and environmental concerns add to the complexities. To ensure long-term industry sustainability, government intervention is vital for policy-driven solutions. Moreover, in-depth research on various special interest tourism types is essential. Addressing these issues will unlock Sri Lanka's potential, fostering growth and prosperity.

To address the challenges faced by special interest tourists in Sri Lanka, comprehensive government intervention

and policy planning are essential. Early problem identification is crucial, necessitating university research as a driving force to demonstrate the sector's potential to the government. Recommendations include:

- Establishing a legal framework to certify Ayurvedic doctors providing services to medical tourists.

- Involving tourism-related government authorities in policy and decision-making processes.

- Incorporating special interest tourism within tourism master plans and strategic frameworks.

- Encouraging tourism professionals to align their services with the country's legal framework.

- Organizing international sports events in collaboration with private tour operators.

- Creating theme villages to support Agro-tourism and extending visas for longer stays.

- Training tourist guides to handle diverse special interests effectively.

- Encouraging tour operators to be flexible with tour packages and infrastructure enhancement.

-Promoting adventure and sports events with public-private collaboration.

-Enhancing tourist police and implementing policies to control Tuk Tuk mafia, taxi drivers, and street vendors.

-Appointing specialized personnel in government and tourism service providers to introduce global tourism trends, attracting diverse special interest tourists. These measures will contribute to a sustainable and problem-free tourism industry in Sri Lanka.

References

- Akinsi, & Kasalak. (2016). "Management of Special Interest Tourism in Terms of Sustainable Tourism." Accessed: April 14, 2022.
- Chandra de Silva. (n.d.). Ecotourism – Sri Lanka's Potential. Accessed: June 10, 2022.
- Daily News. (2017). "Tapping Sri Lanka's Adventure Tourism Potential." Accessed: October 5, 2021.
- De Zoysa, M. (2022). "Ecotourism Development and Biodiversity Conservation in Sri Lanka: Objectives, Conflicts and Resolutions." *Open Journal of Ecology*, 12(10), 638-666. Retrieved from <https://www.scirp.org/journal/paperinformation.aspx?paperid=120342>
- Fernando, P., Rajapaksha, R., & Kumari, K. (2016). "Tea Tourism as a Marketing Tool: A Strategy to Develop the Image of Sri Lanka as an Attractive Tourism Destination." Accessed: December 8, 2021.
- Gunawardena, K., & Samarakoon, L. (2021). "Special interest tourism in Sri Lanka: A review of the literature and implications for future research." *Tourism Management Perspectives*, 40, 100829.
- Hicks, A. (2001). "Review of Global Tea Production and the Impact on Industry of the Asian Economic Situation." *AU J.T.*, 5(2), October. Also in *Asian Int. Tea Conf. '98*, Singapore, 1-2 October 1998. Accessed: November 3, 2021.
- Imali N. Fernando. (n.d.). "Promote Uva as a Remarkable Tourist Destination; with Special Reference to Badulla District, Sri Lanka." Accessed: February 28, 2022.
- International Trade Centre (ITC). (2013). "Medical Tourism: Some Lessons for Emerging Countries That Seek Entrance to the Global Industry." Geneva: ITC. Accessed: May 7, 2021.
- Kaluarachchige, I. P. (2020). "Ayurveda Medical Tourism in Sri Lanka: Service Quality & Tourists' Satisfaction." Accessed: July 19, 2021.
- Malkanthi, Pushpa & Routry, J. (2011). "Potential for agritourism development: Evidence from Sri Lanka." *Journal of Agricultural Sciences*, 6. 10.4038/jas.v6i1.3812.
- Pizam, A. (2003). "Motivation and constraints in special interest tourism." *Annals of Tourism Research*, 30(2), 332-346.
- SLTDA. (2018). "Annual Statistical Report of SLTDA 2018, Purpose of Travel as a Percentage." Accessed: March 15, 2021.

Trauer, B. (2004). "Conceptualizing Special Interest Tourism—Frameworks for Analysis."

Wearing, S. (2001). "Special interest tourism: Issues and opportunities." *Annals of Tourism Research*, 28(3), 560-573

The Relationship Between the Team Engagement Barriers and Virtual Project Teams in The It Industry

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Abstract

The study focuses on the relationship between team engagement barriers and virtual project teams in the IT industry. The author has identified four major challenges that can be faced in virtual project teams such as communication barriers, limitations in social interaction, technological difficulties, and lack of recognition and feedback. The importance of this study lies in being relevant to current work environments and its unique focus on tackling team engagement issues, which hasn't been explored extensively before. The population for this study consists of all organizations operating in the IT industry in Sri Lanka. The sample includes 50 individuals currently employed in the ABC Company and the IT industry of Sri Lanka and the Snowball sampling technique was used to collect responses. A quantitative data collection method such as a questionnaire was conducted for the primary data collection and referred to relevant literature to find the secondary data. The collected data was analysed

using the SPSS data analysing tool (Correlation analysis) to find the relationship and represented using data visualisation tools such as graphs and charts. In conclusion, it was discovered that there is a strong positive relationship between team engagement barriers and virtual project teams. The lack of available research on the study area and the use of a quantitative research method may limit the ability to express unobservable factors are some of the limitations of the study. This study is expected to guide project leaders in enhancing team engagement and surmounting obstacles. As future implications mitigating the potential team engagement barriers will have a positive impact on improving performance, collaboration, employee satisfaction, and adaptability to Remote Work Trends of virtual project teams.

Keywords: Virtual project team engagement, Team Communication, Social Interaction, Technology, Recognition and Feedback.

Introduction

Throughout the years, due to the rapid progress of technology, shifts in economic landscapes, and the evolution of globalization, many industries mainly Information Technology, have embraced the concept of Virtual Project Teams (Rehman *et al.*, 2021). The scope of the study is to research the relationship between team engagement barriers and virtual teams. The importance of this research lies in its unique focus on tackling team engagement issues, which hasn't been explored extensively before. Although various research exists on challenges faced by virtual project teams, none have concentrated on team engagement.

Research Aim

This research aims to identify the relationship between team engagement barriers and Virtual Project Teams (VPTs) in the IT industry.

Research Objectives

- To assess the relationship between communication barriers and virtual project teams in the IT industry.
- To assess the relationship between barriers due to limited social interaction and virtual project teams in the IT industry.

- To assess the relationship between barriers due to technological difficulties and virtual project teams in the IT industry.
- To assess the relationship between barriers of lack of recognition and feedback and virtual project teams in the IT industry.

Literature Review

A VPT comprises individuals collaborating online from various locations to achieve a shared objective (Lopez, 2020). Borges, (2022) states that Employee engagement, customer satisfaction, and cash flow impact a company's health and success. Effective communication is one of the key areas in managing a VPT. However Abudi, (2013) explains that insufficient communication results in the inability to meet deadlines, team conflicts, challenges goal achievement, and reduces productivity due to unclear project understanding. Virtual team members are from diverse global and cultural backgrounds, and face challenges in building trust and collaboration due to limited face-to-face interactions, potentially arising from mutual unfamiliarity (Blomqvist and

Nordstrand, 2018). Kirkman *et al.*, (2002) state that Effective technology is essential for virtual project teams and outdated or inadequate tech negatively affects productivity, performance, and collaboration. Therefore it is important to use and implement technology in a people-oriented approach, which will be beneficial and value-adding for everyone (Serrat, 2009). Handke *et al.*, (2022) state that regular feedback is vital to ensure team effectiveness and team cooperation. Further, research findings show that virtual teams can gain significant advantages from feedback that includes information about team processes, psychological states, and performance.

Methodology

A deductive research approach is used for this study, where general hypotheses are made, tested, and proven through empirical evidence. The population for this study consists of all organizations operating in the IT industry in Sri Lanka. The sample includes 50 individuals currently employed in the ABC Company and the IT industry of Sri

Lanka and the Snowball sampling technique was used to collect responses. The author utilized an open-ended structured questionnaire as the primary research source, gathering responses directly from the participants. Additionally, for secondary research, the author referred to various literature sources such as reports, publications, and journal articles. The questionnaire is developed based on the independent and dependent variables of the study which includes 21 open-ended questions. A pilot survey is carried out to confirm that the questions in the questionnaire effectively correspond to the research topic. The collected data are analysed by using SPSS data analytical tool Correlation analysis and presented through data visualization tools for clarity and better understanding.

According to the below-given Conceptual Framework, the rationale behind selecting the dimensions of the independent variables was mainly guided by the research objectives, the research's theoretical framework and prior literature.

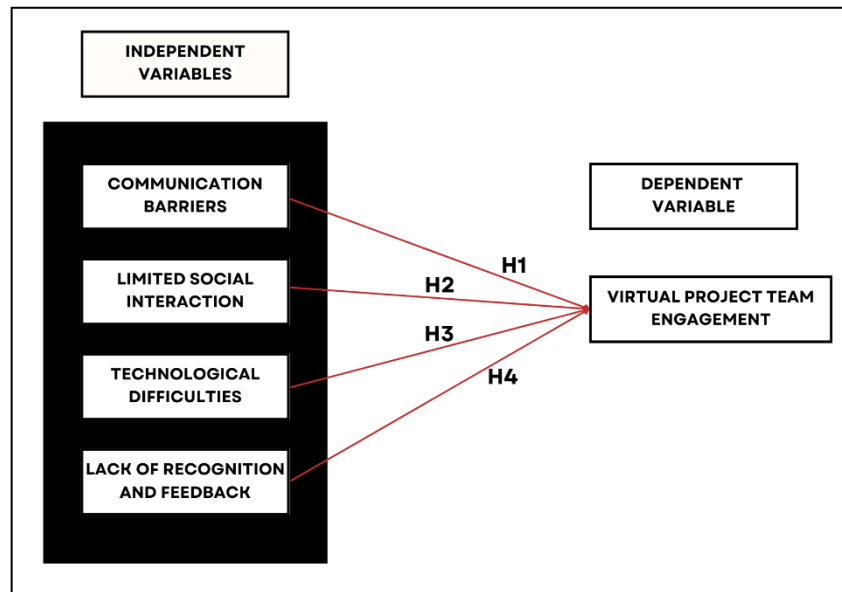


Figure 1 – Conceptual Framework
Source: (Morrison-Smith and Ruiz, 2020) and (Unal, 2023)

Description	
H ₁	There is a significant relationship between virtual project team engagement and communication barriers.
H ₀	There is no significant relationship between virtual project team engagement and communication barriers.
H ₂	There is a significant relationship between virtual project team engagement and limited social interaction.
H ₀	There is no significant relationship between virtual project team engagement and limited social interaction.
H ₃	There is a significant relationship between virtual project team engagement and technological difficulties.
H ₀	There is no significant relationship between virtual project team engagement and technological difficulties.
H ₄	There is a significant relationship between virtual project team engagement and lack of recognition and feedback.
H ₀	There is no significant relationship between virtual project team engagement and lack of recognition and feedback.

Table 1 – Hypothesis table
Source: Author created

Variable type	Variable	Dimensions	Indicators
Dependent variable	Virtual Project Team Engagement	<ul style="list-style-type: none"> Participation in Project Meetings or Discussions 	<ul style="list-style-type: none"> Level of active contribution to project meetings or discussions.
		<ul style="list-style-type: none"> Team Member Satisfaction 	<ul style="list-style-type: none"> Level of satisfaction as a team member.
		<ul style="list-style-type: none"> Task Commitment and Deadline Adherence 	<ul style="list-style-type: none"> Level of commitment to complete the assigned tasks and adhere to the project deadlines.
		<ul style="list-style-type: none"> Frequency of Team Engagement Activities 	<ul style="list-style-type: none"> The number of team engagement activities conducted during the past year.
Independent variable	Team Communication	<ul style="list-style-type: none"> Project Understanding and Clarity 	<ul style="list-style-type: none"> Team members' understanding regarding the project.
		<ul style="list-style-type: none"> Communication Technology Effectiveness 	<ul style="list-style-type: none"> Effectiveness of utilizing communication tools and technologies to overcome distance and time zone barriers.
		<ul style="list-style-type: none"> Communication Effectiveness and Conflict Resolution 	<ul style="list-style-type: none"> Effectiveness of communication and handling conflicts.
Independent variable	Social interaction	<ul style="list-style-type: none"> Employee Commitment and Motivation 	<ul style="list-style-type: none"> Level of employee commitment and motivation.
		<ul style="list-style-type: none"> Team Trust and Cohesion 	<ul style="list-style-type: none"> Level of trust among the team members.
		<ul style="list-style-type: none"> Utilization of Virtual Team-Building Activities 	<ul style="list-style-type: none"> The level of actively utilizing virtual team-building activities or events to enhance social interaction and collaboration among

			team members.
Independent variable	Impact of Technology	• Technological Issues Resolution Measures	• Measures that are taken to overcome technological-related issues.
		• Technological Infrastructure for Collaboration	• Availability of reliable and efficient technological infrastructure to support seamless collaboration and communication.
		• Technological Skills Gap Assessment	• Level of Skills gap.
Independent variable	Recognition and feedback	• Feedback Frequency and Quality	• frequency of providing feedback.
		• Employee Recognition and Appreciation	• Level of employee recognition.
		• Employee Recognition Methods	• Methods used to recognize employees.

Table 2 – Operationalisation Plan
Source: (Bakken, 2018), (Zuofa and Ochieng, 2021) and (Unal, 2023)

1. Research Findings

The relationship between Communication Barriers and Virtual Project Team Engagement

The survey indicates that approximately 90% emphasize the need for clear project understanding, 92% believe effective communication tools to overcome distance barriers, and 86% endorse open communication for conflict resolution. Further, the SPSS findings represent a strong

positive correlation (0.794) between virtual team engagement and Team communication.

The relationship between Limited Social Interaction and Virtual Project Team Engagement

According to the survey findings around 90% emphasize the need for team commitment and motivation to overcome social interaction barriers, 84% stress the importance of trust among team members for engagement,

and 86% support team-building activities for enhanced social interaction and collaboration. Further, the SPSS findings represent a strong positive correlation (0.825) between virtual team engagement and Social Interaction.

The relationship between Technological Difficulties and Virtual Project Team Engagement

The survey indicates that 92% emphasize the need for proactive measures to address technological issues in virtual project teams, highlighting the importance of reliable infrastructure and training to bridge skills gaps for seamless collaboration. Further, the SPSS findings represent a

strong positive correlation (0.826) between virtual team engagement and the impact of Technology.

The relationship between lack of recognition and feedback and Virtual Project Team Engagement

Survey results show that 94% prioritize frequent feedback for virtual project teams, while 90% stress the significance of recognizing performance, and 94% endorse mechanisms like celebrating and rewarding success for motivation and engagement. Further, the SPSS findings represent a strong positive correlation (0.822) between virtual team engagement and recognition/feedback.

		Correlations				
		Virtual Project Team Engagement	Team Communication	Social Interaction	Impact of Technology	Recognition and Feedback
Virtual Project Team Engagement	Pearson Correlation	1	.794**	.825**	.826**	.822**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	50	50	50	50	50
Team Communication	Pearson Correlation	.794**	1	.767**	.819**	.811**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	50	50	50	50	50
Social Interaction	Pearson Correlation	.825**	.767**	1	.862**	.890**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	50	50	50	50	50
Impact of Technology	Pearson Correlation	.826**	.819**	.862**	1	.850**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	50	50	50	50	50
Recognition and Feedback	Pearson Correlation	.822**	.811**	.890**	.850**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	50	50	50	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Author created

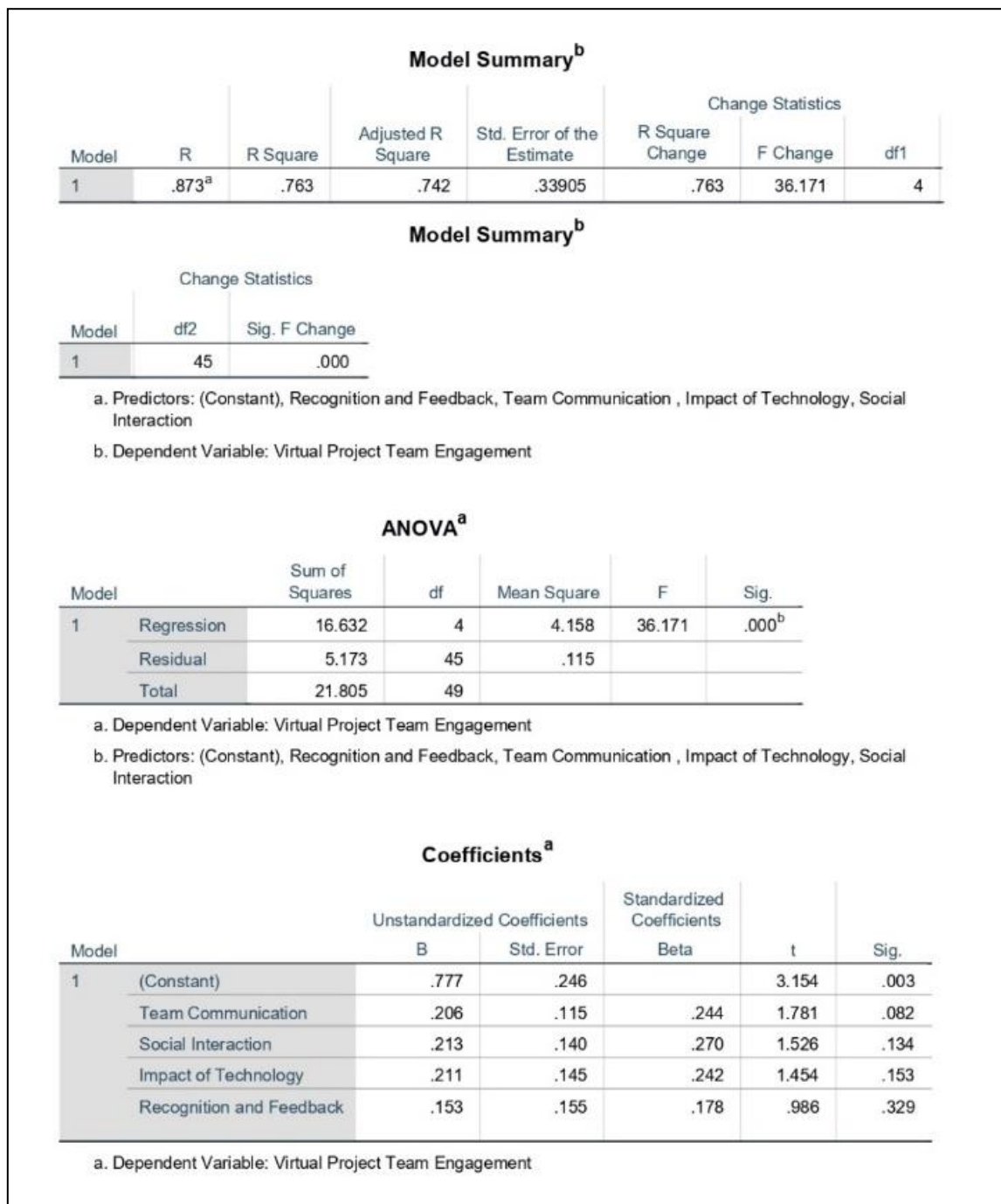


Figure 3 – Regression analysis
Source: Author created

Conclusion and Implications

In conclusion, the given research focuses on identifying the relationship between team engagement barriers and Virtual Project Teams (VPTs) in the IT industry of Sri Lanka. It addresses communication obstacles, limitations in social interaction, technological challenges, and the importance of recognition and feedback in enhancing VPT engagement. By analysing the collected data and by referring to the past literature, it has been identified that there is a strong positive relationship between team engagement barriers and Virtual Project Teams (VPTs) in the IT industry. Therefore, effective team communication, effective social interaction that ensures team motivation, trust and commitment, immediate measures to solve these technological-related issues, availability of reliable and efficient technological infrastructure, frequent provision of feedback and implementation of an employee recognition strategy will have a positive impact on Virtual Project Teams success (Bakken, 2018). It is suggested that

further to the four team engagement barriers that were discussed in the given research, factors such as cultural differences, accountability, lack of training, and effective leadership can be used in future studies (Zuofa and Ochieng, 2021).

With the increasing prevalence of remote work and virtual teams, understanding the factors that influence team engagement in a virtual setting is highly relevant. The given study guides professionals and leaders in enhancing team performance and the insights gained can be valuable to optimize their strategies for leading virtual teams and fostering a positive VPT. The project may contribute to the academic understanding of team dynamics, virtual collaboration, and organizational behaviour. Mitigating the potential team engagement barriers will have a positive impact on VPTs by improving performance, collaboration, employee satisfaction, adaptability to Remote Work Trends and gain a competitive advantage by fostering a more innovative and resilient workforce.

Reference

Abudi, G. (2013) Managing communications effectively and efficiently. In *Paper presented at PMI® Global Congress 2013—North America*.

New Orleans, LA. Newtown Square: Project Management Institute.

Bakken, R. (2018) Challenges to

Managing Virtual Teams and How to Overcome Them. *Professional Development-Harvard Division of Continuing Education*. [online]. Available from: <https://professional.dce.harvard.edu/blog/challenges-to-managing-virtual-teams-and-how-to-overcome-them/#content> [Accessed October 28, 2023].

Blomqvist, P., Nordstrand, O. (2018) *Global Virtual Team Communication - An exploratory study on what challenges teams face in a virtual setting*.

Borges, F.C.L. (2022) *Employee Engagement in Virtual Teams - The role of gamification*. Universidade Nova de Lisboa.

Handke, L., Klonek, F., O'Neill, T.A., Kerschreiter, R. (2022) Unpacking the Role of Feedback in Virtual Team Effectiveness. *Small Group Research*. **53**(1), 41–82.

Kirkman, B.L., Rosen, B., Gibson, C.B., Tesluk, P.E., McPherson, S.O. (2002) *Seven Challenges to virtual team performance: Lessons from Sabre, INC*. CEO Publication.

Lopez, A. (2020) What Is a Virtual Team? Definition & Examples. *ProjectManager*. [online]. Available from: <https://www.projectmanager.com/blog/what-is-a-virtual-team>.

Morrison-Smith, S., Ruiz, J. (2020) Challenges and barriers in virtual teams: a literature review. *SN Appl. Sci.* **2**. **1096**.

Rehman, A.U., Ali, T.M., Abbas, M. (2021) Role of Project Management in Virtual Team's Success. *iKSP Journal of Computer Science and Engineering*. **1**(2), 32–42.

Serrat, O. (2009) *Managing Virtual*

Teams. Mandaluyong City.

Unal, B.C. (2023) Influencing Factors of Team Effectiveness in Global Virtual Teams. *International Journal of Interactive Communication*. **12**(1), 1–17.

Zuofa, T., Ochieng, E.G. (2021) Investigating Barriers to Project Delivery using Virtual Teams. *Procedia Computer Science*. **181**(5), 1083–1088.

Impact of Workplace Environment on Employee Productivity in a Selected Sri Lankan Commercial Bank.

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Abstract.

The following case study was carried out to assess the potential impact of the workplace environment on employee productivity within a chosen commercial bank in Sri Lanka. The study is focused on examining the impact of supervisor support, training and development opportunities and job security (independent variables) on employee productivity (dependent variable). The research objectives encompassed examining whether the aforementioned independent variables taken individually, significantly affect the employee productivity of ABC Bank as well as to provide actionable insights to enhance the bank's employee productivity. To achieve these aims, primary data was gathered through close-ended questionnaires, from a participant pool comprising 56 employees. Upon the data

analysis, it was ascertained that all three variables have a positive influence on employee productivity within the bank. However, the key finding of this study is the favourable association between training and development opportunities and EP. The p-value of 0.007 for the correlation between training opportunities and EP signifies robust evidence against the null hypothesis, with less than a 1% chance of randomness in the outcome in which only training and development exhibited a substantial impact on employee productivity in the selected bank.

Keywords: Employee Productivity, Workplace Environment, supervisor support, training and development opportunities and job security, Sri Lankan Commercial Banks.

Introduction.

Employee productivity (EP) is crucial for organizational success which is influenced by both HR practices and external factors (Harter *et al.*, 2002). In the competitive global landscape, organizations strive for a competitive edge through engaged employees as they ensure organizational success through high productivity and quality work (Slåtten and Mehmetoglu, 2011). Regardless ABC Bank been a prominent Sri Lankan commercial bank for decades, in recent there has been a decline in performance. In 2019-2020 their revenue and profit margins were reduced by 4.7% and 18.18% respectively (K SEEDS INVESTMENTS, 2020) while competitors have successfully increased their profit margins with a lower number of employees. This study explores whether the workplace environment (WPLE) has any effect on ABC Bank's employee productivity in light of its current crisis.

This study was conducted along the question does the Work-Place Environment impact the Employee Productivity of ABC Bank? While

understanding the impact of WPLE on EP of ABC Bank was the main aim of the study, the objectives of the study was to identify the individual impact of supervisor support, training and development opportunities and job security on EP and to give recommendations. The author believes that the outcomes of this study will enhance the understanding of the connection between WPLE and EP and enhance the existing knowledge on the matter. The findings have the potential to elevate standards and offer insights spanning beyond the banking sector to various industries.

Literature Review.

Employee performance is crucial for organizational success (Borman, 2004), with its foundation being EP. EP indicates the output-input ratio at an individual level, reflecting an employee's capacity to contribute to achieving organizational goals (Yunus and Ernawati, 2018). Enhanced EP leads to improved organizational performance, fostering a sustainable competitive edge as higher EP results in reduced costs, improves output quality, organizational growth and augmented profits (Hanaysha, 2016). While various internal and external factors such as management support, training culture, leadership and

clear goals (Bapna *et al.*, 2013) influence EP, WPLE has gained recent attention for its impact (Chua and Lim, 2019). Measuring EP lacks a standardized approach (Nollman, 2013), yet the time spent on tasks, employee's perception on job quality and workload are used to measure EP (Almaamari, 2021) which were taken into account by the author when developing the questionnaire.

WPLE which includes various forces and interactions (Hafeez *et al.*, 2019) significantly impacts employees. It is defined as the interplay between factors influencing activities and productivity (Naharuddin and Sadegi, 2013). Employees' satisfaction with the WPLE results positive outcomes due to its significance in work-life (Kamarulzaman *et al.*, 2011). Studies underline the importance of a comfortable environment in improving employee performance as negative impacts of a non-engaging WPLE can decline employees' commitment towards the organization. This includes physical aspects like noise, colour and design alongside technical elements and human interactions such as peers, teams, leadership and management (Naharuddin and Sadegi, 2013). While numerous studies have examined the impact of environmental factors of WPLE on EP,

fewer studies have explored the influence of human factors within WPLE on EP.

Naharuddin and Sadegi (2013) highlighted factors like job aid, supervisor support, promotion opportunities and more influencing employee productivity. Rabey (2007) and Gunaseelan and Ollukkaran (2012) focused on the influence of supervisor support and training and development opportunities on EP. Furthermore, research within the European-Union discovered that job security, ascertainable via factors such as employment contracts, legislation, experiences and education substantially impacts EP (Sanyal, 2018). Inspired by these, the study focuses on supervisor support, training and development opportunities and job security as independent variables to measure their influence on EP at ABC Bank.

Methodology.

The research was carried out in a prominent commercial-bank in Sri-Lanka with a workforce of more than 3000 individuals. Employing a deductive approach, the study took on a quantitative research method. In order to manage the large population, a sample of 56 employees was selected through

simple random sampling method. The primary data, gathered through close-ended questionnaires, were then subjected to correlation analysis to assess the hypotheses. The research data's

reliability test yielded a Cronbach's Alpha of 0.721, indicating strong reliability as it surpasses the standard value of 0.6 (Ursachi, 2013)

Independent Variables.

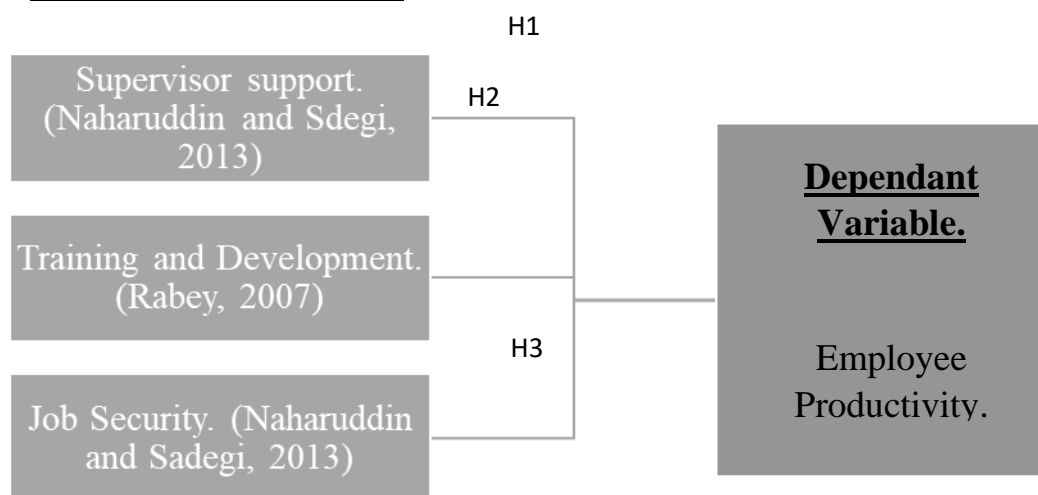


Figure: 01 – Conceptual Framework

<u>Alternative Hypothesis.</u>	
H1:	Supervisor Support has a significant impact on EP of ABC Bank.
H2:	Training and Development has a significant impact on EP of ABC Bank.
H3:	Job Security has a significant impact on EP of ABC Bank.
<u>Null Hypothesis.</u>	
H1 ₀ :	Supervisor support does not have a significant impact EP of ABC Bank.
H2 ₀ :	Training and Development does not have a significant impact EP of ABC Bank
H3 ₀ :	Job Security does not have a significant impact the EP of ABC Bank.

Research Finding and Conclusion.

The mean comparison between EP and the Independent variables showed that the data is clustered around the mean in which the independent variables have a

close relationship with the dependant variable (National-Library-of-Medicine, 2021) being the standard deviation of every independent variable compared to the dependant variable is 2.27.

Employee Productivity * Supervisor support			
Employee Productivity			
Supervisor support	Mean	N	Std. Deviation
Total	8.3036	56	2.27971
Employee Productivity * Training and Development			
Employee Productivity			
Training and Development	Mean	N	Std. Deviation
Total	8.3036	56	2.27971
Employee Productivity * Job Security			
Employee Productivity			
Job Security	Mean	N	Std. Deviation
Total	8.3036	56	2.27971

Table 01: - Mean comparison between EP and Training and independent variables.

Source: - Author Developed.

The correlation between the three independent variables and the dependent variable is outlined individually as follows.

Correlations			
Between Employee Productivity (Dependant Variable) and Supervisor Support (Independent Variable).			
		Supervisor support	Employee Productivity
Supervisor support	Pearson Correlation	1	.261
	Sig. (2-tailed)		.052
	N	56	56
Employee Productivity	Pearson Correlation	.261	1
	Sig. (2-tailed)	.052	
	N	56	56
Correlations			
Between Employee Productivity (Dependant Variable) and Training and Development (Independent Variable).			
		Employee Productivity	Training Development
Employee Productivity	Pearson Correlation	1	.359**
	Sig. (2-tailed)		.007
	N	56	56
training Development	Pearson Correlation	.359**	1
	Sig. (2-tailed)	.007	
	N	56	56
**. Correlation is significant at the 0.01 level (2-tailed).			
Correlations			
Between Employee Productivity (Dependant Variable) and Job Security (Independent Variable).			
		Employee Productivity	Job Security
Employee Productivity	Pearson Correlation	1	.215
	Sig. (2-tailed)		.112
	N	56	56
Job Security	Pearson Correlation	.215	1
	Sig. (2-tailed)	.112	
	N	56	56

Table 02: - Correlation between EP and Independent Variables.

Source: - Author Developed.

The regression analyses between the dependant variable and the independent variables can be presented as follows.

Employee Productivity and Supervisor Support.

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.261 ^a	.068	.051	2.22070		
a. Predictors: (Constant), Supervisor support						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.537	1	19.537	3.962	.052 ^b
	Residual	266.302	54	4.932		
	Total	285.839	55			
a. Dependent Variable: Employee Productivity						
b. Predictors: (Constant), Supervisor support						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.011	1.189		5.055	<.001
	Supervisor support	.437	.219	.261	1.990	.052
a. Dependent Variable: Employee Productivity						

Table 03: - Regression Analysis between EP and Supervisor Support.

Source: - Author Developed.

Employee Productivity and Training and Development.

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.359 ^a	.129	.113	2.14717		
a. Predictors: (Constant), Training Development						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.881	1	36.881	8.000	.007 ^b
	Residual	248.959	54	4.610		
	Total	285.839	55			
a. Dependent Variable: Employee Productivity						
b. Predictors: (Constant), Training Development						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.163	1.147		4.501	<.001
	Training Development	.245	.087	.359	2.828	.007
a. Dependent Variable: Employee Productivity						

Table 04: - Regression analysis between EP and Training and Development.

Source: - Author Developed.

Employee Productivity and Job Security.

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.215 ^a	.046	.028	2.24715		
a. Predictors: (Constant), Job Security						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.156	1	13.156	2.605	.112 ^b
	Residual	272.683	54	5.050		
	Total	285.839	55			
a. Dependent Variable: Employee Productivity						
b. Predictors: (Constant), Job Security						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.006	1.455		4.129	<.001
	Job Security	.341	.211	.215	1.614	.112
a. Dependent Variable: Employee Productivity						

Table 05: - Regression analysis between EP and Job Security.

Source: - Author Developed.

The analysis of SPSS data indicates that supervisor support, training and development opportunities and job security exhibit a positive correlation with EP at ABC Bank. This aligns with similar findings from prior studies conducted by Tahir *et al.* (2014) and Cuper *et al.* (2020). However, it is noteworthy that the p-value for the correlation between supervisor support and job security with EP exceeds 0.05.

Consequently the 1st and 3rd hypotheses are not statistically significant, providing substantial support for the null hypothesis. Specially, the p-value of 0.052 for the supervisor support and EP and the p-value of 0.11 for the job security and EP correlations suggests that the likelihood of the null hypotheses being accurate is over 5% and 10% respectively (Akoglu, 2018). Hence, despite the positive influence of supervisor support and job security on EP, the null hypothesis is upheld.

However, contrasting these results, the data reveals a favourable association between training and development opportunities and EP. The p-value of 0.007 for the correlation between training opportunities and EP signifies robust evidence against the null hypothesis, with less than a 1% chance of randomness in the outcome (Andrade, 2019). Hence, the null hypothesis is discarded, implying that training and development opportunities significantly impact EP.

The analysis reveals that, within the scope of this case study, the three-variables investigated exhibit a positive influence on enhancing EP at ABC Bank. Notably, the findings indicate that emphasis on Training and Development programs holds particular significance, as it emerges as the most impactful factor in boosting EP. It is crucial to underscore that while Training and Development stands out, this should not be interpreted as diminishing the importance of the other variables under consideration. Rather, it suggests that, given the observed data, prioritizing and enhancing the effectiveness of Training and Development initiatives could be a

strategic focus for the bank. By doing so, the bank is likely to experience substantial improvements in EP, addressing the specific challenges highlighted in the study. This insight does not advocate neglecting the other variables but emphasizes the potential efficacy of directing more attention and resources toward optimizing Training and Development. Such strategic has the potential to contribute to the bank's efforts in recovering and improving overall EP.

In conclusion it can be stated that among the studies factors, only training and development opportunities demonstrated a significant impact on EP at ABC Bank. Given the limited number of studies focusing on human aspects of WPLE and EP in the Sri Lankan context, the author believes that these findings could contribute to and enrich the existing knowledge on the subject.

References.

- Akoglu, H. (2018) User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*. 18(3), pp. 91-93.
- Almaari, Q. (2021) Factors influencing employees' productivity – literature

review. *Academy of Entrepreneurship Journal*. 27(3), pp 1-7.

Andrade, C. (2019) The P Value and Statistical Significance: Misunderstandings, Explanations, Challenges, and Alternatives. *Indian Journal of Psychological Medicine*. 41(3), pp. 210-215.

Bapna, R., Langer, N., Mehera, A., Gopal, R. and Gupta, A. (2013) Human Capital investments and employee performance: an analysis of IT services industry. *Management Science*. 59(3), pp. 641-658.

Borman, W. C. (2004) The concept of organizational citizenship. *Current Directions in Psychological Science*, 13(6), 238-241.

Chua, L. and Lim, M. (2019) Physical environment comfort towards Malaysian universities office employers' performance and productivity. *Facilities*. 37(11), pp. 686-703.

Cuper, N., Schreurs, B., Witte, H. and Selenko, E. (2020) Impact of job insecurity on job performance. *Career Development International*. 25(3), pp. 221-229.

Gunaseelan, R. and Ollukkaran, B (2012) A study on the impact of work environment on employee performance. *Namex International Jurnal of Management Research*. 71.

Hafeez, I., Zhu, Y., Hafeez, S., Rafiq, M. and Khaliq, R. (2019) Impact of workplace environment of employee performance: mediating role of employee health. *Business, management and education*. 17(2), pp.173-193.

Hanaysha, J. (2016) Examining the Effects of Employee Empowerment, Teamwork, and Employee Training on Organizational Commitment. *Procedia-*

Social and Behavioral Sciences. 229, pp.298-306.

Harter, J., Schmidt, F. and Hayes, T. (2002) Business-unit-level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*. 87(2), pp.268-279.

K SEEDS INVESTMENTS, 2020. *RANKING OF LICENSED BANKS IN SRI LANKA*. [Online] Available at: <http://www.kseedsinvestments.com/wp-content/uploads/2021/03/Ranking-of-Licensed-Banks-in-Sri-Lanka-by-K-Seeds-Investment-2020.pdf> [Accessed 18 09 2023]

Kamarulzaman, N., Saleh, A., Hashim, S., Hashim, H. and Abdul-Ghani, A. (2011) An overview of the influence of physical office environment towards employee. *Procedia Engineering*. 20, pp. 262-268.

Naharuddin, N. and Sdegi, M. (2013) Factors of workplace environment that affect employees' performance: A case study of Miyazu Malaysia. *International Journal of Independent Research and Studies*. 2(2), pp. 66-78.

National Library of Medicine (2021) Standard Deviation. *Nlm.nih.gov*. [online]. Available from: https://www.nlm.nih.gov/nichsr/stats_tutorial/section2/mod8_sd.html [Accessed 18 09 2023].

Nollman, M. R. (2013) Sustainability initiatives in the workplace and employee productivity (Master Thesis), Southern Illinois University Carbondale.

Rabey, G. (2007). Diagnose – then act. Some thoughts on training today. *Industrial and Commercial Training Journal*. 39(3), pp.164–169.

Sanyal, S., Hisam, W. and BaOmar, Z. (2018) Loss of job security and its impact on employee performance. *International Journal of Innovative Research and Growth*. 7(6), pp-202-212.

Slåtten, T. and Mehmetoglu, M. (2011) Antecedents and effects of engaged frontline employees: A study from the hospitality industry. *Managing Service Quality: An International Journal*. 21(1), pp.88-107.

Tahir, N., Yousafzai, I., Jan, S. and Hashim, M. (2014) The impact of training and development on employee performance and productivity. *International Journal of Academic Research in Business and Social Sciences*. 4(4), pp. 86-99.

Ursachi, G., 2013. *Science Direct*. [Online] Available at: [https://pdf.sciencedirectassets.com/282136/1-s2.0-S2212567115X00025/1-s2.0-S2212567115001239/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEJL%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJHMEUCIQDgBTqCq1FXevVWDuEtID29naXDNS%2FVD5PaYghExnNr8AIgdVzf26X3AD](https://pdf.sciencedirectassets.com/282136/1-s2.0-S2212567115X00025/1-s2.0-S2212567115001239/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEJL%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJHMEUCIQDgBTqCq1FXevVWDuEtID29naXDNS%2FVD5PaYghExnNr8AIgdVzf26X3AD) [Accessed 20 09 2023].

Yunus, E. and Ernawati, E. (2018) Productivity paradox? The impact of office redesign on employee productivity. *International Journal of Productivity and Performance Management*. 67(9), pp. 1918-193

Impacts and Potentials of Adapting to Hybrid Work Environment in Terms of Employee Performance

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Abstract

Hybrid work environment is an evolution of remote working which was introduced as a mechanism to help curb the spread of the Covid-19 pandemic. The purpose of this research was to improve the perceptions about hybrid-working environments and deepen the understanding (Iqbal et al, 2023). The researcher created a thematic map to find out the various factors impacting employee performance when working in a hybrid manner. Literature review was conducted on the different variables and the variables with the most theoretical gaps were chosen to be researched upon in order to provide solid evidence for the relationships between employee performance and those variables. These variables are flexibility, disease impact and time and cost-savings. According to the literature review, the performance of employees increases under hybrid work environment. This is because employees have more flexibility, are less impacted

by diseases and save more time and money when working in a hybrid manner. All three of these increase the performance of employees. A quantitative study was conducted for which primary data analysis using survey method with a sample size of 101 respondents was used. The SPSS software is used to analyze the data collected, and according to the findings, hybrid working, creates flexibility in the work environment, reduces disease impact, and saves time and cost, all three of which moderately increase employee performance. However, the generalizability of the findings to the entire country is limited since the sample was limited to three companies from the Western province only.

Key Words - Hybrid-working, Employee performance, Covid-19, Flexible work, Disease impact, Time and cost savings.

Introduction

The Covid-19 pandemic brought around unprecedented challenges to the world, drastically changing people's lifestyles. Undoubtedly, it brought several changes in work structures as well- this was because employees were locked-down in their residencies. Organizations introduced remote working where employees couldn't work from wherever they were. Resources such as computers and Internet connections were provided to facilitate this. When the pandemic and the lifestyle it brought with it were a norm, organizations began introducing hybrid-work environment through which employees could work from offices as well as their residencies. However, though several months have passed since the pandemic being declared over as an emergency, organizations are still using hybrid-work environment. The primary cause to this is employee performance. Though it is known that hybrid-work environment increases employee performance, how exactly the performance is improved is unclear. Furthermore, there has been so research conducted on this in Sri Lanka, so it is unknown whether hybrid-working increases the performance of employees in Sri Lanka. Thus, the question arose

whether hybrid-working increases employee performance in Sri Lanka, and if it does, what exact elements of the hybrid-work environment, increase performance. This research aimed to identify the benefits that hybrid-work environment has brought in terms of the performance if employees in Sri Lanka in order to lay a foundation understanding its benefits and utilizing them to their fullest potential. The independent variables identified flexible environment, disease impact, and time and cost savings.

Literature Review

It is well evident that Covid-19 played was a turning point in human history as several changes were brought to adapt to the unforeseen circumstances. Workplaces and work structures were largely impacted due to the pandemic- the concept of remote-working was used which later evolved into hybrid-working (Verma et al., 2022). Research conducted in 2020 indicates that a large majority of organizations and employees preferred the hybrid-work environment since it greatly improved employee performance (Bahman and Enzi, 2020). Hybrid-working was found to increase the work engagement of employees which in-return increased the

performance of employees (Wontorczyk and Rożnowski, 2022). Flexibility is one of the major factors that impacts the behaviour and performance of employees. Employees prefer more flexibility in their work. Flexibility gives them a sense of being in control and the ability to manage both personal commitments and work- thus compromising none (Sabuhari and Irawanto, 2019). Employees consider flexibility more important than wages (Reisinger and Fetterer, 2021). Hybrid-working provides employees with this much needed flexibility since they are able to work from both work and home, thus being able to attend to both personal commitments and work (Chafi et al., 2021). When employees commuted to work every day, they were more prone to falling sick since there were many more contact-points for diseases to reach them- these contact points were identified as public transport and other sick employees in the workplace. However, when working in a hybrid-work environment, employees did not have to commute to the workplace every day which reduced the chances of them falling sick (Baker et al., 2010). When employees are in good health, they are able to concentrate and perform better in their work, thus improving performance (Gimenez-Nadal, 2022). Research

conducted in 2017 indicates that hybrid-working saved time since there was not need to commute to work (Jessica, 2017). This means that the employees save time on commuting when working hybrid and this can be utilized to work. Hybrid-working also was found to reduce costs for employees since they do not have to spend on transport, office attire and separate meals (Lentz, 1996). Thus, their performance improves.

Hypotheses

H1) There is a significant relationship between flexible work environment and employee performance in a hybrid work setting.

H2) There is a significant relationship between disease impact and employee performance in a hybrid work setting.

H3) There is a significant relationship between cost savings and employee performance in a hybrid work setting.

Methodology

The researcher has approached the positivism research philosophy where scientific, evidence-based findings are attempted to be given. The deductive approach was chosen to support the study which was based on a theoretical framework. The survey method was utilized for data collection, which made

the design a quantitative research. The selected time duration was three months, making it fall onto the cross-sectional time-horizon. Data analysis methods were mainly be descriptive and inferential analysis- the SPPSS software was made use for this. The researcher studied the employees in the operations department of three companies in the Western Province of Sri Lanka to conduct the research. The total population of the operations departments in the 3 companies added up to 140 employees. The Morgan table was then applied to identify the sample size and as per the Morgan table, it was decided that a sample of 101 respondents should be studied for the research. The researcher employed the systematic sampling technique which is a probability sampling technique to ensure that each member had an equal chance of being chosen. This helps to reduce the bias and ensures the representativeness of the sample.

Findings

50.5% (51 individuals) of the respondents who took part in the survey were female and 49.5% (50 individuals) were male. According to Perera, 2018, a Cronbach's alpha of .70 or higher for the reliability analysis is considered

acceptable. The SPSS software generated a value of .926 which indicates that the study has high internal consistency reliability- meaning that the study is highly reliable. A Pearson correlation of .789 was generated for the relationship between employee performance and flexible work environment- indicating a strong positive correlation between the variables. This means that there is a significant increase employee performance when flexibility in the work environment increases. A Pearson correlation of .562 was generated for the variables- employee performance and disease impact- indicating a moderately positive correlation between the variables. This means that there is a moderate increase in employee performance when disease impact increases. The final set of variables- employee performance and time and cost savings generated a Pearson correlation of .723 which indicates a strong positive correlation between the variables. This means that there is a significant increase in employee performance when time and cost savings increase. Under linear regression, an adjusted R square value of .619 was generated between employee performance and flexible work environment, indicating a moderate level of cause and effect relationship between

the dependent and independent variable. It also shows that flexible work environment accounts for over 60% of variance in employee performance. The R square value when considering employee performance and disease impact is .308, showing a moderate influence of disease impact on employee performance. It also shows that disease impact accounts for 30% variance on employee performance. The final set of variables- employees performance and time and cost savings generated an adjusted R square value of .517 which implies that there is an average impact (over 50%) from time and cost savings on employee performance. It can be seen that all 3 independent variables identified have generated moderate R square values which moderate relationships between each variable and employee performance. So, it is understood that there are other independent variables other than the ones mentioned above may significantly impact employee performance. All 3 variables have generated significant values less than .001 which make them all statistically significant- meaning that the hypotheses were accepted

Conclusion and Implications

With the review of literature and analysis of the data collected, it is evident that hybrid-work environment have great potential in improving the performance of employees. Factors such as flexibility, disease impact and time and cost savings which are unique to hybrid-work environment are highly sought after by employees to improve their performance at work. The research concludes that, though more flexibility in work environment, lesser disease impact and more time and cost savings is resulted in hybrid working environment, these three have only a moderate increase in the performance of employees in Western Province of Sri Lanka. This means that there may be other unidentified factors which have a greater impact in increasing the performance of employees in hybrid-work environment in the Western Province. The research conducted lays a foundation for Sri Lankan organizations to better understand the positive implications of hybrid-working and how beneficial it is for them to improve the performance of employees. Other researchers and organizations can thus be benefitted in their work.

References

Babapour Chafi, M., Hultberg, A. and Bozic Yams, N. (2021). Post-Pandemic

Office Work: Perceived Challenges and Opportunities for a sustainable Work Environment. Sustainability, [online] 14(1), p.294. Available at: <https://www.mdpi.com/2071-1050/14/1/294> [Accessed 16 Oct. 2023]

Diab-Bahman, Randa, and Abrar Al-Enzi. "The Impact of COVID-19 Pandemic on Conventional Work Settings." International Journal of Sociology and Social Policy, vol. 40, no.0144-333X, 30 Sept. 2020, pp. 909-927, <https://www.emerald.com/insight/content/doi/10.1108/ijssp-07-2020-0262/full/html>. Accessed 16 Oct. 2023.

Gimenez-Nadal, J.I., Molina, J.A. and Velilla, J. (2022). Commuting time and sickness absence of US workers. Empirica. [online] doi: <https://doi.org/10.1007/s10663-022-09534-z>. [Accessed 16 Oct. 2023]

Lentz, S. (1996). Hybrid organization structures: A path to cost savings and customer responsiveness. Advancing Human Resource Research and Practice, [online] 35(4), pp.453-469. Available at: [https://onlinelibrary.wiley.com/doi/abs/10.1002/\(SICI\)1099-050X\(199624\)35:4%3C453::AID-HRM2%3E3.0.CO;2-V](https://onlinelibrary.wiley.com/doi/abs/10.1002/(SICI)1099-050X(199624)35:4%3C453::AID-HRM2%3E3.0.CO;2-V) [Accessed 16 Oct. 2023]

Reisinger, H. and Fetterer, D. (2021). Forget Flexibility. Your Employees Want Autonomy. [online] Harvard Business Review. Available at: <https://hbr.org/2021/10/forget-flexibility-your-employees-want-autonomy> [Accessed 16 Oct. 2023].

Saubhari, R and Irawanto, D. (2019) The Importance of Flexibility of Human Resources and Employee Performance of Logistic Industry in the Eastern part of Indonesian Region: A Literature Review.

Tahan, H.M. (2020). Essential Case Management Practices Amidst the Novel Coronavirus Disease 2019 (COVID- 19)

Crisis. Professional Case Management, [online] Publish Ahead of Print. doi: <https://doi.org/10.1097/ncm.0000000000000455>. [Accessed 16 Oct. 2023]

Utts, J., Sommer, B., Acredolo, C., Maher, M.W and Matthews, H.R (2003). A Study Comparing Traditional and Hybrid Internet-Based Instruction in Introductory Statistics Classes. Journal of Statistics Education, [online] 11(3). doi: <https://doi.org/10.1080/10691898.2003.1910722>. [Accessed 16 Oct. 2023]

Verma, Anju et al. "The Future of Work Post Covid-19: Key Perceived HR Implications of Hybrid Workplace in India." Journal of Management Development, vol. 42, no. 0262-1711, 24 Nov. 2023, pp. 13-28, <https://www.emerald.com/insight/content/doi/10.1108/JMD-11-2021-0304/full/html>. [Accessed 16 Oct. 2023].

Wontorczyk, A. and Rożnowski, B. (2022). Remote, Hybrid, and On-Site Work during the SARS-CoV-2 Pandemic and the Consequences for Stress and Work Engagement. International Journal Of Environmental Research and Public Health, 19(4), p.2400. doi: <https://doi.org/10.3390/ijerph19042400>.

Baker-McCleary, D., Greasley, K., Dale, J. and Griffith, F. (2010). Absence management and presenteeism: the pressures on employees to attend work and the impact of attendance on performance. Human Resource Management Journal, 20(3). doi: <https://doi.org/10.1111/j.1748-8583.2009.00118.x>. [Accessed 16 Oct. 2023]

Iqbal, K.M.J., Khalid, F. and Barykin, S.E. (2021). Hybrid Workplace: The Future of Work. [online] ResearchGate. Available at: <https://www.researchgate.net/publication>

/353464236_Hybrid_Workplace_The_F

uture_of_Work. [Accessed 16 Oct. 2023]

The Negative Effect of The Work-From-Home Facility on Employees During the Global Pandemic

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Abstract

The goal of this research is to better understand the negative implications that employees had to undergo as a result of the Work From Home (WFH) option implemented in response to the COVID-19 global epidemic. Although there were few good results, the authors' focus is on the problems that employees experience as a result of WFH behaviours. The author investigated a few important consequences, with a specific focus on employees' sudden poor performance as the negative effect of WFH. Using current studies, the author proved a link between increased poor work-life balance, increased poor mental health, increased impediments to skill development, and poor employee performance. As the major technique, the survey method will be used to demonstrate if the hypothesis was confirmed based on data analysis using SPSS. The study would take three months to complete, remaining within the cross-sectional time frame. The

initial data collecting sample will contain 99 respondents from Sri Lanka's western province's Colombo region in the banking and financial business at the executive level. This will be combined with simple random sampling. Since all of the independent variables have a moderate relationship with the dependent variable, the author is able to conclude that the research is significant because the alternative hypotheses are accepted in the research.

Key Words: Work From Home, Remote Work, Lowered Performance, Increase Work-life balance, Increased Barriers to Skill Development, Increase Poor Mental Health

Introduction

As a result of the global pandemic in 2019, organisations have chosen the WFH alternative in order to continue operations while also delivering the necessary services to society by the beginning of 2020. Despite WFH's positive influence, the negative effect

has an impact on both people and the company. Misunderstandings and miscommunications, burnout from constant online meetings, a lack of proper training, a poor work-life balance, a lack of social interaction, and a lack of work environment enthusiasm can all have a negative impact and lead to a stressful environment (TeamMersive, 2021). The purpose of this research is to discover the negative effects of Work-From-Home (WFH) facilities and investigate what factors influenced those negative effects. Also, how they impacted people in the corporate sector,

as well as to investigate what strategies organisations could use to address these consequences. In this research study owing to the collected primary and secondary data, employees' abrupt poor performance is the dependent variable as the main negative effect of WFH (NI Business Info, 2020), whereas the independent variables are increased poor work-life balance (Bataineh, 2019), increased poor mental health (Robinson and Smith, 2023), and increase barriers to skill development (Mind Tools Content Team, 2023).

Hypothesis

Alternative Hypothesis	Null Hypothesis
⊕ 1A - There is a significant relationship between increased poor mental health and the poor performance of the employees	⊗ 0A - There is no significant relationship between increased poor mental health and the poor performance of the employees
⊕ 1B - There is a significant relationship between increased barriers skill development and the poor	⊗ 0B - There is no significant relationship between increased barriers skill development

performance of the employees	and the poor performance of the employees
⊕ 1C - There is a significant relationship between increased poor work-life balance and the poor performance of the employees	⊗ 0C - There is no significant relationship between increased poor work-life balance and the poor performance of the employees

Table 1: Hypothesis

Literature Review

Due to the unexpected closure, personnel were separated into "work from home (WFH)" employees and "life sustain" employees. WFH was new for many organisations, which led to unfavourable management and trust difficulties, which resulted in poor employee performance, which may have a detrimental impact on employees, families, and the economy (Arunima and Nangia, 2022). According to the results of Sarangi, Kim, and Rafael (2022), employee stress has increased due to social isolation, a lack of collaboration among co-workers, and a lack of resources, which proves the H1A. According to HIB, Gardner, Bodiya, and Subramanian (2021) explains, learning skills while remote working is inefficient because individuals get rapidly overwhelmed, engagement is lowered, practical application is limited due to time management issues and a lack of resources, and people feel demotivated. Furthermore, a distracting environment, blurring the distinction between work and personal life, and increasing pressure, and duties will result in family work difficulties proving the H1C (Al Riyami et al., 2023).

Methodology

The study is structured on a positivist research philosophy, with the purpose of delivering scientific evidence-based results. The key technique that supports this is the deductive method, in which the study is predicated on an acceptable theoretical foundation. The survey method will be employed as the primary strategy, making the design measurable. The research would be completed in three months, staying within the cross-sectional time range. The key data analysis approaches would be descriptive statics and inferential analysis. In this study, probability sampling methodologies will be used in conjunction with basic random sampling. The initial data-gathering sample will include 99 respondents from Sri Lanka's western province's Colombo region in the banking and financial business at the executive level. SPSS technology will be used as a data analysis approach.

Findings

This study's sample size is 99 people, with 51.52% being men and 48.48% being women. Pillai, Rjumohan, and Vijayamohanan (2020) define "acceptable" as a dependability coefficient of .700 or above. SPSS determined that the alpha coefficient for the four items is .899, indicating that the

items have a relatively good internal consistency in this research study.

According analysis of SPSS, the correlation study, the dependent variable "Poor Performance Employees" has a.772 moderate degree of Pearson correlation with the independent variable "Increased Poor Mental Health." Increased Barriers to Skill development and low performance have a modest Pearson correlation of.740 in the second table of correlations. Finally, there is a.716 moderate degree of Pearson correlation between increased poor work-life balance and bad employee performance.

When the linear regression value of low employee performance and increased poor mental health is calculated, the R square value and modified R square value of.597 and.592, respectively, suggest that there is a minor degree of cause and effect relationship between the dependent and independent variables. Furthermore, it demonstrates that the independent variable accounts for more than 59% of the variation in the dependent variable. The R square value of.548 and adjusted R square value of.544 indicate a minor degree of association between the independent variable of increased barriers to skill

development and the dependent variable of employee bad performance. Furthermore, it suggested that the independent variable might explain more than 54% of the variation in the dependent variables. The last model summary table in regression shows an average level of impact as the R square value of increased poor work-life balance and the dependent variable is.513 and the adjusted R square value is.508, indicating that the independent variable accounts for more than 50% of the variance in the dependent variable.

In summary, since all of the independent variables have a moderate association with the dependent variable, the author may safely conclude that the research is significant because the null hypotheses are rejected while the alternative hypotheses are accepted. As a result, it is notable that there might be other, more important reasons for the diminished performance caused by the WFH facility. More study should be conducted to determine the causes of the low performance that happened during this time period.

Conclusion

The study covers the challenges that employees encounter as a result of remote working habits, the causes of this

rapid shift in performance, their level of influence, and solutions that may be used to offset this effect in the future. These study issues were addressed through the review of prior literature and the acquisition of data from 99 different sample populations.

This research was done in a deductive, quantitative technique over a three-month period utilizing SPSS software to examine the data. With a strong correlation and a moderate regression level between the three independent variables and the dependent variables, the author was able to reject the three null hypotheses and illustrate that this

study is legitimate while accepting alternative hypotheses.

According to the study's findings, remote working might result in unexpectedly low performance owing to adverse mental health issues such as isolation, stress, and anxiety. Communication difficulties and blurring work-life boundaries can have an impact on motivation and productivity. Furthermore, team chemistry may weaken, thereby affecting cooperation. To reduce performance reductions, employers must address these challenges through clear communication, support systems, and building a healthy remote work culture.

References

- Al Riyami, S., Razzak, M., Al-Busaidi, A.S. and Palalić, R. (2023) *Impact of Work from Home on work-life balance: Mediating Effects of work-family Conflict and Work Motivation*. [online] Heritage and Sustainable Development. Available at: <https://www.semanticscholar.org/paper/Impact-of-work-from-home-on-work-life-balance%3A-of-Riyami-Razzak/ea76271223c1e69ae16192adbdb5030f23abf24d> [Accessed 17 Sep. 2023]
- Arunima, A. and Nangia, R. (2022). Work from Home (WFH) and Covid-19: Encountering Ethical Issues in New Normal. *Asian Journal of Management*, [online] pp.94–100.

doi:<https://doi.org/10.52711/2321-5763.2022.00017>.

Bataineh, K. adnan (2019). (PDF) *Impact of Work-Life Balance, Happiness at Work, on Employee Performance*. [online] ResearchGate. Available at: https://www.researchgate.net/publication/330451021_Impact_of_Work-Life_Balance_Happiness_at_Work_on_Employee_Performance [Accessed 16 Dec. 2023]

Gardner, M.E., Bodiya, E.C. and Subramanian, S. (2021) Remote Learning Barriers and Opportunities for Graduate Student and Postdoctoral Learners in Career and Professional Skill Development: a Case Study †. *Journal of*

Microbiology & Biology Education, 22(1).
doi:<https://doi.org/10.1128/jmbe.v22i1.2451>

Mind Tools Content Team (2023). *MindTools / Home*. [online] www.mindtools.com. Available at: <https://www.mindtools.com/a5h0gr7/dealing-with-poor-performance> [Accessed 16 Dec. 2023]

NI Business Info (2020). *Advantages and disadvantages of employees working at home*. [online] nibusinessinfo.co.uk. Available at: <https://www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-employees-working-home> [Accessed 16 Dec. 2023]

Pillai, N., Rjumohan, A. and Vijayamohanan (2020). *Munich Personal RePEc Archive Reliability, Validity and Uni-Dimensionality: A Primer*. [online] Available at:

https://mpra.ub.uni-muenchen.de/101714/1/MPRA_paper_101714.pdf [Accessed 13 Nov. 2023]

Robinson, L. and Smith, M. (2023). *Mental Health in the Workplace - HelpGuide.org*. [online] <https://www.helpguide.org>. Available at: <https://www.helpguide.org/articles/work/mental-health-in-the-workplace.htm> [Accessed 16 Dec. 2023]

Sarangi, A., Kim, D. and Rafael, J. (2022) The Mental Health Impact of Work from home: a Literature Review. *The Southwest Respiratory and Critical Care Chronicles*, 10(45), pp.10–18. doi:<https://doi.org/10.12746/swrccc.v10i45.1085>

Team Mersive (2021) *The Pros and Cons of the Work-From-Home Workforce: Is It Here to Stay?* [online] Mersive Solstice. Available at: <https://www.mersive.com/blog/the-pros-and-cons-of-the-work-from-home/> [Accessed 17 Sep. 2023]

The Impact of the Covid-19 Pandemic on Employee Excellence at Workplace

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Abstract

For the past few years, many businesses have been suffering from sales decline as they struggled to manage their employees during the Covid-19 outbreak. As a result, many companies today have policies to deal with the epidemic, such as the implementation of hybrid work arrangements to manage Employee excellence. Employee excellence remains crucial for businesses to survive and flourish. Working from home requires self-discipline as there are less interactions with superiors, which can negatively affect Employee excellence. For this study, data was collected via online survey. To collect data structured quantitative questionnaire was adapted from the prior research with permission and referenced. The data collected is analyzed through SPSS, the cross-sectional approach was used. In total, 70 responses were obtained and analyzed using SPSS. To test the data each of the questions were separately

first analyzed and interpreted and to see the contribution of each variable and contribution to the work performance of employees, Pearson's Correlation Analysis was used to see relationship of variables. The factors which were selected for measuring Employee excellence were pay and benefits, training and working conditions. Therefore, it is important for business organizations to understand the relevant Covid-19 work-related factors that impact the performance of their employees'.

Keywords: Employee excellence, Pay and benefits, Training, Working conditions.

Introduction

Amid to the current outbreak of the covid-19 virus, many workers were isolated or directed to work from home as directed by the government to reduce the spread of this virus. However, many organizations continue to operate in the

form of shifts or virtual work setting which has altered the work environment setting. In doing remote work within COVID-19, work performance fully depends on the employee's productivity. One of the most common phenomena is the decline in Employee excellence during the COVID-19 pandemic. Employee excellence can be identified as how the employee's behaviours and attitudes which helps them to do the job and also the results that are expected for acceptable Employee excellence. Nevertheless, organizations still have to find suitable ways to manage their

employees who do remote work, including how to motivate them to improve or minimally sustain Employee excellence (Bartik A. W., 2020). Based on the discussions above, this research, therefore seeks to examine the impact of the three work factors related to Covid-19 on Employee excellence at workplace. The factors are pay and benefits, training and working conditions. Findings of this research can contribute as useful guidance to organizations as they shed light on the effectiveness of using these factors to improve Employee excellence.

Hypothesis

Alternative Hypothesis	Null Hypothesis
There is a significant relationship between Pay & Benefits and Employee excellence within COVID-19	There is no significant relationship between Pay & Benefits and Employee excellence within COVID-19
There is a significant relationship between Training and Employee excellence within COVID-19	There is no significant relationship between training and Employee excellence within COVID-19
There is a significant relationship between Working conditions and Employee excellence within COVID-19	There is no significant relationship between working conditions and Employee excellence within COVID-19

Table 1: Hypothesis

Literature Review

Charity Tinofirei (2009), Performance means the degree of completion of an employee's task or given objective. "Performance is associated with quantity of output, quality of output, and timeliness of output, presence/attendance on the job, efficiency of the work completed and effectiveness of work completed". Pay and benefits had a significant impact on Employee excellence within COVID-19 (Bandiera, 2007). Many employees faced financial stress due to the pandemic, so fair compensation and benefits became even more crucial. Companies that maintained or increased pay, offered bonuses, and extended benefits like healthcare and remote work support saw improved employee morale and productivity (Milkovich, 2002). The COVID-19 pandemic and the need to work from home has made pressure to implement technology at every organizational level. Such changes in the organization, has increased need of training for employees. The increased use of technology forced by the global COVID-19 pandemic causes stress, uncertainty and bitterness which can affect the employee's excellence negatively therefore it is crucial to provide enough training in order to enhance the Employee

excellence further (Landa, 2018). According to (Muchtar, 2017) employees can create better results if they work in a pleasurable, healthy, safe, and ideal setting. Moreover, the suitability of the working environment at home is one of the most critical telework aspects influencing Employee excellence within COVID-19 (Nakrošienė, 2019) .

Methodology

The design of this study is based on the Research Onion structure proposed by Saunders et al (2009). The research-onion framework offers a more thorough analysis of the fundamental issues that must be resolved in order to develop a successful approach. The Onion model was used in this study to determine the variables influencing Employee excellence during the COVID-19 epidemic at workplace. The research is designed basing onto a positivism research philosophy where it tries to produce scientific evidenced based findings. The main approach that supports the study is deductive where the study is based on proper theoretical framework. The research was completed in three months, staying within the cross-sectional time range. The researcher adopted simple random sampling to give potential respondents an equal chance of

being involved in the study. Only those potential respondents that were willing and believed to be able to deliver the required data were approached. In the process of sampling, the researcher kept in mind different groups of employees to meet the objective of the study. The initial data gathering sample will include 70 respondents. SPSS technology will be used as a data analysis approach.

Findings

The target population in this study was 70 employees. Data was collected through self-administered questionnaires to the respondents. The reliability scale proved that there is a high level of internal consistency since Cronbach's alpha statistic value was .938. The investigation had practically rise to proportions of males and females, male 22% and female 48%. This demonstrates that the study does not segregate upon gender. A sizeable number are between the ages of 18-27 years, at this age majority of them pay attention to issues of performance since they need to construct their careers. Furthermore, the correlation analysis proved that there is a positive relationship between Pay and Benefits and Employee excellence within COVID-19, since the Pearson Correlation value was .789. In addition

to that, the regression analysis proved that there is a relationship between Pay and Benefits and Employee excellence within COVID-19 since the sig value is .001 less than 0.05. Therefore, this proves that there is an impact on Pay and Benefits over Employee excellence within COVID-19. Based on this result null hypothesis (Pay and Benefits has no effect on Employee excellence within COVID-19) was rejected. Similarly, the correlation analysis proved that there is a positive relationship between Training and Employee excellence within COVID-19 since the Pearson Correlation value was .751. Furthermore, the regression analysis proved that there is a relationship between training and Employee excellence within COVID-19 since the sig value is .001 less than 0.05. Therefore, this proves that there is an impact on training and Employee excellence within COVID-19. Based on this result null hypothesis (Training has no effect on Employee excellence within COVID-19) was rejected. The researcher revealed that the working conditions has a positive and significant relationship with Employee excellence within COVID-19, with correlation is .845. Furthermore, the regression analysis proved that there is a significant relationship between working conditions and Employee excellence within

COVID-19 since the sig value is .001 less than 0.05. Based on this result null hypothesis (Working conditions has no effect on Employee excellence within COVID-19) was rejected. Furthermore, from the results of the correlation analysis conclude that there is a strong and positive relationship between the dependent variable (Employee excellence) and the independent variables (Pay and Benefits, Training, and Working Conditions) as well as all the independent variables are statistically significant and has an effect on Employee excellence within COVID-19 at Workplace.

Conclusion

Ultimately, this study has outlined the objectives of the study, evaluated the hypothesis, and demonstrated the impact of business practices such as Pay and Benefits, Training, and Working conditions on Employee excellence within COVID-19. Similarly, data was acquired from previous publications, and the hypothesis was confirmed and accepted. Therefore, the outcome of the Employee excellence was analyzed according to each dimension. As a result, the direct influence of COVID-19 on Employee excellence at workplace has been presented in this study. Therefore,

the author believes that the organizations that incorporate these operational policies on Employee excellence, can retain top talent within the organization reducing the employee turnover rates.

References

- Aropah, V. S. M. M. & S. I. M., 2020. Factors Affecting Employee excellence during Work from Home. *International Research Journal of Business Studies*, Issue 14, pp. 72-93.
- Alder, G., 2001. Employee reaction to electronic performance monitoring A consequence of organizational culture. *Journal of High Technology Management Research*, Issue 17/6, pp. 323-327.
- Bandiera, O. B. L. R. I., 2007. Incentives for Managers and Inequality among Workers: Evidence from a Firm Level Experiment. *Quarterly Journal of Economics*, Issue 729 773, p. 122.
- Bartik A. W., B. M. C. Z. G. E. L. L. M. & S. C., 2020. The Impact of COVID 19 on small business outcomes and expectations. *PNAS*, Issue 2(1), pp. 54-64.
- Heneman, H. G. D. P. S. J. A. F. L. D. D., 2005. Human Resource Management. *New York: John Wiley and Sons. PNAS*, Issue 2(1), pp. 54-64
- Milkovich, G. & M., 2002. Compensation. *NV: McGraw-Hill, New York, NY*, Issue 17/6, pp. 323-327.

