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Management Issues

Volume 8, Issue 1, June 2024

Editorial Note

It is with great enthusiasm that we present the Issue 1 (2024 June) of Volume 8 of *Management Issues*, a peer-reviewed academic journal published by the Faculty of Management Studies of the Open University of Sri Lanka. Our journal is dedicated to providing a robust scientific foundation for young researchers who have completed their undergraduate and postgraduate studies. We aim to offer these emerging scholars an intellectual platform to publish their high-quality research, encompassing both the theoretical and practical aspects of all sub-domains of Management. Starting this year, *Management Issues* has transitioned to a bi-annual publication schedule, with issues released in June and December. This change reflects our commitment to providing timely and high-quality research to our readers.

In this inaugural bi-annual issue, we are proud to feature six carefully selected papers that contribute significant insights to the field of management. These papers cover a diverse range of topics pertinent to both academics and practitioners. A brief overview of these papers, in order of their publication in this issue, is as follows. The first paper, titled "Overconsumption through the lens of Sri Lankan consumer activists" explores into the perspectives of consumer activists in Sri Lanka regarding the phenomenon of overconsumption, shedding light on their views and proposed solutions. The next three papers attempt to address issues in the garment, hospitality, and banking sectors of Sri Lanka. The paper on the garment industry examines the impact of internal control systems on organizational performance, emphasizing the moderating influences of information technology and human competencies. The next paper, in the hospitality industry, investigates the determinants influencing environmental sustainability reporting practices, providing valuable evidence and insights to hotels. The paper on the banking sector examines the relationship between credit risk and the financial performance of licensed commercial banks in Sri Lanka, offering crucial findings for enhancing their performance by mitigating the credit risk. This issue also features a paper exploring the factors influencing cryptocurrency investment intentions among the Sri Lankan undergraduates. Lastly, this issue includes a study that provides a comprehensive understanding of strategic realization of CSR initiatives in SMEs, a timely and relevant topic for achieving Sustainability Development Goals.

We extend our gratitude to the authors for their contributions and to our peer reviewers for their diligent work in ensuring the quality and integrity of the published research. We are confident that the studies presented in this issue will inspire further research and practice in the field of management. We look forward to continuing to provide a platform for the dissemination of valuable research and to the ongoing engagement with our readers and contributors.

Dr. K.V. Aruna Shantha
Editor-in-Chief
Management Issues

OVERCONSUMPTION THROUGH THE LENS SRI LANKAN CONSUMER ACTIVISTS

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Abstract

Overconsumption, driven by materialism, results in many environmental and social problems that will impact the long-term wellbeing of individuals making sustainability vitally important. The challenge of overconsumption can be addressed by instilling mindful consumption in the minds of the consumers. The root-cause of overconsumption is the separateness from fellow humans and the natural environment yet, if one makes their consumption choices mindfully, it will no longer be a problem. Consumer activists, as a changing force in any society, view overconsumption with different perspectives and with their awareness of the long-term impacts on the nature and the wellbeing of the humans they adopt different mindful consumption practices towards the betterment of themselves, society along with the nature around them. Yet it is not clear in the current literature how consumer activists in Sri Lanka perceive overconsumption. The objective of this research is to investigate how consumer activists in Sri Lanka perceive overconsumption and to understand their perspectives on its causes and solutions. The specific methodology involved conducting an exploratory study under the inductive approach using the qualitative research design where 25 in-depth interviews were and the thematic analyses was used for data analysis, to gain insight into the views and practices of these consumer activists and the thematic analyses was used for data analysis. The findings show that consumer activists perceive overconsumption as a waste of everything everywhere along with the means and the roots of overconsumption that lead them towards the mindful practices adopted by them. Accordingly, this research contributes to the existing literature by providing a unique perspective on overconsumption from the standpoint of consumer activists in Sri Lanka, offering practical implications for fostering mindful consumption and promoting sustainability in the region. Further, the current study shows key policy implications for improving sustainability initiatives in the business organizations and society as consumer activists of Sri Lanka possess a better understanding of the root causes, as well as the means of overconsumption.

Keywords: Consumer Activists, consumption, materialism, overconsumption

Introduction

Overconsumption of resources, driven by materialism, is likely to impact the long-term well-being of individuals and the environment (Magdoff & Foster, 2011). The major threat the human population faces today is climate change. Along with climate change, countless and unusual environmental problems have also evolved, and they together create unfavorable effects on human health and longevity (NSIDC Arctic News, 2017). It is found that the sea ice extent during May 2019 has been reduced by 1.49 million square kilometers (575,300 square miles). This is close to the 1981 to 2010 average loss for the month (NSIDC Arctic News, 2017). Also, human actions are found threatening wildlife in two main ways: by destroying and damaging the places where species live, and by using them in ways that are unsustainable. Further it has been found that the forest area on earth has been destroyed since 1990 (The World Bank, 2022). The Global Footprint Network, (2017) highlights today's population overuses the earths' crust, natural resources and ecosystem services for their current consumption causing damage to the planet, which in turn, results in climate change. Over half a century, global affluence has increased resource use and pollutant emissions, affecting environmental impacts. Transitioning towards sustainability requires lifestyle changes and technological advancements, but existing societies and economies encourage consumption expansion, hindering necessary societal change (Ripple et al., 2017). Due to this, sea level around Island nations such as Sri Lanka is rising higher, putting millions of lives and billions of dollars' worth of land, property and infrastructure at great risk (Katupotha, 2018). Thus, it is worth exploring this area further. Both international policy organizations and the scientific research communities commonly agree that current levels of consumption of natural resources are unsustainable (Lim, 2017).'Consumption', along with 'production' and 'population', is recently argued to be one of the main causes of

global environmental change, says the Agenda 21, the non-treaty action plan for achieving sustainable development. ‘Today humanity uses the equivalent of 1.6 Earths to provide the resources we use and absorb our waste. This means it now takes the Earth one year and six months to regenerate what we use in a year. We use more ecological resources and services than nature can regenerate through overfishing, overharvesting forests, and emitting more carbon dioxide into the atmosphere than forests can sequester (Global Footprint Network, 2017). It was recognized that the root of the issue is excessive resource utilization. This has been determined that the main issue at hand is the lack of resources. Moreover, the research findings indicate that the genesis of an excessively materialistic lifestyle is the initial attachment to extra wants (Jayantha, Ariyawansa & Kumara, 2022).

Therefore, sustainability has, thus, become a vitally important concern today for multiple parties, including, but not limited to, investors, customers and policymakers (Pfeffer, 2010). Also over the past forty years researches on environmentally and socially responsible consumption or sustainable consumption has created a greater impact on marketing and consumption practices (Huxlin *et al.,* 2009).The giant of sustainability arena says ‘The use of goods and services that respond to basic needs and bring a better quality of life, whilst minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations’ (IISD/United Nations Department of Economic and Social Affairs, 1999). Consumer activists' perception of overconsumption is a growing concern as they recognize its far-reaching negative consequences on the environment, society, and individual well-being. However, a comprehensive understanding of consumer activists' specific perspectives, motivations, and strategies in addressing overconsumption remains limited. As overconsumption continues to exacerbate environmental degradation, social inequalities, and unsustainable production practices, it is imperative to investigate how consumer activists perceive this issue to inform targeted interventions and policy measures that promote sustainable and responsible consumer behavior. Accordingly, the objective of this study is to explore how Sri Lankan consumer activists perceive overconsumption, means of overconsumption and root causes of overconsumption.

Literature review

The nature around us

Katupotha (2018) emphasized that the ocean level growth along with the neo-glacial vicissitudes have together achieved the cumulation of hotness, cold phases, emission of GreenHouse Gas occasionally (by little ice ages) by human activities and industrialization. Authors agree in literature that unsustainable production and consumption is the foremost cause of polluting nature, water pollution, lessening in biodiversity along with climate change. Substantial research indicated the need to adopt sustainable consumption practices in order to protect and enhance the eco systems around us for the collective wellbeing of all living beings for the present moment and to the future usage. These activities have worsened during the last 500-year period, and they have exquisitely hurried since 1,960s and it is found that by 2,100 the climate change and sea level rise will plunge the coastal wetland. This submergence is endangered for rising floods, the population pressure, damages to the coastal buildings, infrastructures and finally to the economy. With careful examinations it is also found that the past Global climate change and sea level rise of the geologic time, it is impossible to prevent the future climate change, sea level rise and the submergence of the coastal wetlands (Katupotha, 2018). Overall theses research highlights the significance of sustainable consumption towards a better world.

Materialism

Materialism is the belief where acquisition and possession of material objects are recognized as the ultimate source of happiness and life satisfaction (Richins & Dawson, 1992) For most individuals in developed and developing countries “Happiness “is the prime goal in consumption. Where they believe that the possession and the more consumption of products will lead them towards happiness, materialism has a negative relationship with the consumer's well-being. Materialism is intensely distinguished with consumption, more than any other personality attribute, and the common notion of materialism is the position with one’s attachments to worldly possessions (Richins & Dawson, 1992). Belk (1985) conceptualized materialism as a personality trait, comprising three traits as envy, possessiveness, and no generosity.

Materialism has been associated with self-centered traits such as selfishness (Bauer et al. 2012), envy, or non-generosity (Belk, 1985). Having money-oriented values brands an individual focus on one’s own wealth and well-

being rather than on another's well-being. Therefore, having materialistic values negatively impacts on the ability to consider macro level concerns such as environmental or community challenges (Kilbourne, 2006). This commands us to marketing. Marketing systems are top powerhouses of both matter and meaning, shaping culture both material and immaterial (Scott at el., 2014). Most of the goods and services that people consume across the globe are produced and distributed by marketing institutions, and marketing is the unchanged system that assigns much of the meaning to those goods and services. Through numerous methods marketing is the perfect institutionalization of the new materialism, at the macro level (Scott at el., 2014). The place where meaning and matter are entirely entwined, where discourses and infrastructures conspire to shape the global society in which we live. Where the new materialist philosophy at large in the world as per (Dolphijn & Tuin 2012), departs radically from idealist traditions that prioritize the social construction of meanings comprising consumption mythologies. Moreover, there are disparities in resource consumption between the wealthy and non-wealthy populations. Over half a century, global affluence has increased resource use and pollutant emissions, affecting environmental impacts. Transitioning towards sustainability requires lifestyle changes and technological advancements, but existing societies and economies encourage consumption expansion, hindering necessary societal change (Wiedmann et al., 2020).

Consumption vs. Overconsumption

Kilbourne, Mcdonagh and Prothero (1997) defined that, "consumption is not just a matter of satisfying material greed, of filling your stomach. It is a question of manipulating symbols for all sorts of purposes. On the level of the lifeworld, it is for the purpose of constructing identity, constructing self, and constructing relations with others. The sense of consumption itself varies, as per physicists, economists, ecologists and sociologists, who have placed uniquely different meanings to the notion of Consumption which is still valid to the modern dynamic society of consumers (Poirier et al. 2006).

Sheth, Sethia and Srinivas (2011) defined Overconsumption as the level of consumption that is unaffordable or unacceptable because of its environmental or economic consequences. He also introduced a framework called 'the guiding principle' towards Customer Centric Sustainability. Thus, Overconsumption is treated as a mean of unproductive unsustainable consumption that creates negative impacts on both individual and collective wellbeing of a society. Sustainable consumption is rooted in a decision-making process that takes the consumer's social responsibility into consideration other than the individual needs and wants (Meulenberg 2003). Thus, overconsumption is a state in which individuals, communities, or societies consume resources, goods, and services at a level beyond what is sustainable and necessary for well-being. It involves excessive consumption patterns that lead to environmental degradation, resource depletion, and social inequality.

Overconsumption has negative impacts on individual consumers, society, and the environment, with direct individual effects being more frequently mentioned in studies. Overconsumption is a widely used term in various scientific fields, including medicine, nutrition, psychology, marketing, sociology, ecology, and economics, and is prominently discussed in numerous scientific publications (Håkansson, 2014). The majority of the research acknowledged the effects of overconsumption, some even going into great detail about them. Table 4 displays the many types of inductively formed categories. The majority of the research lists many effects that fall into various categories. As a result, Table 4 lists the quantity of research discussing every consequence. This mode of representation was selected because it provides a more comprehensive understanding of the effects, leaving out effects that are frequently cited but not as prominent. Overconsumption is primarily defined as harming the individual consumer on a physical and psychological level.

Sustainable Consumption

Unsustainable consumption or environmentally unfriendly consumption conduct entrusts the need for change towards sustainable consumption (Sharma & Rani 2014). Sustainability has been described in many different ways and there is still no unified definition for sustainability (Nicol, 2017). The most widely signified definition of the concept states that the fundamental concern of sustainability lies in meeting the needs of the present without compromising the capability of future generations to meet their needs (Carvalho et al., 2015). Due to the growing emphasis on sustainable development, which requires the participation of both corporate organizations and members of the public, sustainability has emerged as one of the most significant features of the modern business world (Gibson, et al., 2011). According to the Brundtland Report (1987), sustainability is the protection and development of the resources that are currently available for use by future generations. The three fundamental pillars of sustainability are social,

environmental, and economic. These three pillars are also regarded as planet, profit, and people respectively. Although it is one of the most crucial components of sustainable development, environmental sustainability is not the same as sustainability. Yet, sustainability is really about preserving the long-term well-being of corporate organizations' employees through the use of limitless and frightening resources (Brundtland Report, 1987). According to Ekins and Zenghelis (2021) the environmental part of the triple bottom line idea is associated with the mitigation of environmental degradation and the eradication of air, noise, and water pollution. The studies of sustainable consumption conduct within the different communities and countries have shown a diversified set of results (Radzir et al., 2015) There are about two dozen definitions for sustainable consumption within the literature (Bernini, 1998) by the late nineteenth century. As we, consumers demand for many products steered with the aspects of materialism, the businesses will supply what we demand. Thus, consumers must be mindful in demanding products which will make the reduction of overconsumption, environmental harm and pollution possible by changing the mindless consumption practices by practicing mindful consumption.

In terms of the existing gap between consumer attitudes towards green consumption and their actual behavior, which is essential for understanding sustainable consumption practices, it is evident that, the green gap phenomenon, which refers to the discrepancy between consumers' environmental concerns and their actual actions, has been extensively studied in the field of sustainable consumption, despite the lack of literature on this topic (ElHaffar, Durif & Dubé, 2020).Green consumption research has grown significantly, attracting academic and professional attention. Groening et al. (2018) summarized all proposed theories concerning green consumers, classifying them into six categories: Values and Knowledge, Beliefs, Attitude, Intentions, Motivations, and Social Confirmation.

Consumer Activists

As consumption has arrived to recreate a progressively dominant role in contemporary society, consumer movements have arisen to challenge and transform features of it by propagating ideologies of consumption that radicalize mainstream views (Kozinets & Handelman, 2004). The Consumer Activists function with the prime goal of changing the principles, practices, and policies of organizations, businesses, industries, and governments. The movement's activists publicly portray their goal, themselves, and their adversary (Melucci, 1989).

Social movements have only commenced to obtain systematic attention within sociology in the past 25 years. Social scientists have gradually enthused away from considering social movements as threatening or irrational actions by extremists to seeing them as the normal and rational political challenges of aggrieved groups (Buechler, 2000). One important characteristic of social movements is that they function outside of the institutional arena. Social movements normally trust social movement organizations (SMOs) to affect governments because of the absence of formal political representation. However, many contemporary social movements, such as the civil rights and women's movements, have a significant number of activists who have gained political positions (Santoro & McGuire 1997). Accordingly, Sri Lankan Consumer Activists show the same universal Characteristics similarly with the international Consumer Activists Movements. Therefore, it is evident that literature also discusses the role of consumer activism and grassroots movements in raising awareness about overconsumption and advocating for sustainable practices. Activists and NGOs often campaign for responsible consumption and corporate accountability.

Methodology

The philosophical assumptions driving the study come from the interpretive research paradigm which implies a subjective epistemology which means both the researcher and respondents co-create the knowledge (Denzin & Lincoln,2011) and an ontological belief that highlights reality is socially constructed. Under the interpretivism paradigm the researcher will inductively produce a theory or pattern from the data collected (Creswell, 2012). Thus, the present study is an exploratory study with the application of the inductive approach. This research is qualitative in nature with the focus of exploring the ways in which Universal love and spirituality are reflected in the consumption practices of Sri Lankan consumer activists, in a contrived setting.

Primary sampling techniques available for the researcher are probability and non-probability sampling. Bryman and Bell, (2011) provide numerous types of non-probability sampling techniques such as convenience, snowball, and quota sampling. The current study employs the snowball sampling technique. This research adopted the snowballing sampling technique, which involves choosing several 'information-rich' respondents (Patton, 2002). In line with this approach, 25 in-depth interviews were conducted with consumer activists in Sri Lanka under individual units of

analysis. The first six respondents were solicited through the researcher's personal network. It was relevant because the researcher herself had engaged in several social activities and the respondents were personally known by the researcher. As the study proceeded the researcher recognized other potential participants who were previously unknown to the researcher from those who were recommended by the initial respondents and through other references. Appendix 1 shows the diversity of the respondents who took part in the current study, the researcher incorporated respondents with different demographic characteristics such as gender, age, religion, level of education, and the social activist programs conducted by them.

The study used thematic analysis, using interview transcripts. The six-step data analysis method is adopted, which includes familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. The data is transcribed in the original languages used during the interviews, and the Sinhala transcripts are translated into English by the researcher under supervision. Thematic analysis is a valuable method for gathering insights and building relationships. The researcher familiarized herself with the data by reading transcripts multiple times. Initial codes were generated, forming a list of 60 related to the research question. These codes were recorded manually for easy reference and revision. Subcodes were created for easier understanding. After sorting, the search for themes began. The data was collected by the researcher herself.

Findings and discussion

Perception of Overconsumption

This section aims to answer the first research question: "How do Sri Lankan Consumer Activists perceive Overconsumption?" Many insightful descriptions were presented by the participants during the data collection that would enable the understanding of how they perceive Overconsumption. In order to understand the relationship between Materialism driven Over consumption and Climate Change and many other Environmental Problems, the starting point was to analyze the respondents' own understanding and interpretation of the concept of Overconsumption. According to the interpretations made by the Consumer Activists it appears that all of them were well aware of the concept and its hardships who also claimed that Overconsumption is a waste of everything that happens everywhere along with the various means and the root causes of Overconsumption backed by their experiences in life with the engagement of various consumer movements.

Overconsumption as a Waste

Participants claimed that Overconsumption is a waste of all products and resources which is highly unacceptable and unhealthy for the next generations. When asked about how they perceive overconsumption, Respondent 12 (a 24-year-old male) who is an undergraduate of a local university in Sri Lanka replied,

> *"It's a waste and I think it is not a healthy way of living. I think it's not a good thing. When we over consume, our future generations will end up with no resources for their consumption so we should stop it."*

The respondent regrets the fact that with our overconsumption the future generations will happened to face problems in the future unveiling the awareness of the negative effects of consumption on the entire world along with its adverse impact on the health of a human. As per literature, "Consumption at a rate that leads to bad future outcomes, such as excess weight, is considered overconsumption," according to Jain (2012), who defines overconsumption as consumption that is detrimental to an individual's physical health.

Respondent 8 (a 22-year-old male), who was also an undergraduate of a local university in Sri Lanka also agreed with respondent 12,

> *"It's a waste and a set of things go unused. I think people over consume because they don't tend to see the value of what we have received."*

The respondent expounds that overconsumption is due to the lack of mindfulness of the humans.

Respondent 19 (a 25-year-old female), a graduate who is currently researching on spirituality replied,

> *"I believe that overconsumption is when I use even one unit of anything more than what I really need. Now there are some people who want to hear the tap open while brushing teeth, I believe that is overconsumption."*

She explains that overconsumption is the use of one extra unit of anything than what one really needs. Further emphasizing its unaffordability and unacceptance as explained by Sheth, Sethia, and Srinivas (2011) she expressed the negative impacts that might result due to the unsustainable act of mankind. The literature also highlights the significant environmental consequences of overconsumption, including greenhouse gas emissions, deforestation, loss of biodiversity, water pollution, and waste generation. Overconsumption is considered a major driver of climate change and ecological disruption. Respondent 25(a 29-year-old female) who is a Buddhist and a founder of a social group also highlighted,

> *"People consume everything excessively than they really need and it's a total waste. People nowadays waste food a lot. I have seen some people; they won't even tend to feed animals or birds with that overly cooked food. Our people are blind with useless pride but if we all live in harmony and interact with others with unity that won't happen. I think we have to change their attitudes and promote spiritual development among them to avoid all these negative problems for a betterment of our future generations."*

She confirms that consumption nowadays is unsustainable as Holt (2012) argued. The respondent highlights that one must be aware of his or her consumption since it has an impact on both the present and the future caring for the future generations.

Participants perceive Overconsumption as a Waste of Products and Resources. Overconsumption and the need for growing material wealth are treated as unsuitable and as sources of environmental changes along with unhappiness by the respondents in general.

Overconsumption is Everywhere

Another definition was given by the respondents where they see Overconsumption as it is everywhere. Accordingly, Respondent 17 (a 22-year-old female), who is an undergraduate of a local university in Sri Lanka pointed,

> *"I see that it's kind of everywhere. Even at a supermarket these days I see people are given many shopping bags. Some people don't consider it but take them all home and some others say No to them. See now even Lord Buddha has explained the middle way of moderation and life will become simpler and easier if we consume only what we really need."*

The excessive consumption of goods such as polythene is seen everywhere as per the respondents. Also, the neglect of environmental problems and the neglect of individual and societal wellbeing is highlighted by the respondents emphasizing on how they will affect the climate balance of the world. Further it is shown by the respondents that despite following one's religious teachings individuals today engage in mindless consumption practices whereas a few deliberately avoid such consumption. Consumer activists recognize that overconsumption leads to excessive resource extraction, energy consumption, and waste generation. They also have an understanding that this unsustainable use of resources contributes to environmental degradation, climate change, habitat destruction, and biodiversity loss.

Respondent 19, who is also a journalist with the interest of youth empowerment further explained,

> *"It happens everywhere, not only with economic products. Because when we hear of overconsumption, we think of the use of economic goods, but it happens with everything, everywhere. It happens even with our water consumption."*

Respondents see different means of overconsumption with respect to economic goods as well as to the limited resources gifted to us by nature.

Respondent 16(a 22-year-old female), who is an undergraduate of a local university in Sri Lanka further explained,

> *"Overconsumption is witnessed in all ways, even in Love, Family, Bondages simply everything is given a materialistic value. People are more into social trends than ever before, and they consume more only by thinking of themselves. I personally do not appreciate that way of living."*

Further respondents revealed how humans have become more materialistic than ever before and thereby they see no value to human bonds anymore. She explains how individuals today have become self-centered which is the reason for abridged bonds among humans that cause overconsumption eventually.

Respondent 15(a 30-year-old male), who is lecturer of Geography pointed out,

> *"It comes with the social pattern. Humans by nature they do not consume more than their needs. It happens with the societal patterns around people. Now if we take a person living in an urban area, he or she consumes relative to the other or maybe because the other consumes something. The same thing happens in rural areas, but we don't see it. Because those people from villages have limited wealth and they overly consume within their limits. They follow the same trends slowly. So, it is everywhere, and I think it is happening unconsciously."*

The above respondents' explanation further proves that the consumer activists see Overconsumption everywhere which occurs as a result of following social patterns. Moreover, as per literature, "Consumption of goods that are detrimental to personal and societal well-being, as some level of consumption is necessary to maintain life in modern societies" (Albinsson & Perera, 2012) is a more general class of repercussions that could affect both individuals and society as a whole.

Respondent 24(a 28-year-old female), who is currently engaging in research in the field of spirituality and management answered,

> *"I think when we hear the word overconsumption, we tend to think of massive types of things, but I think it starts with tiny things that we don't mind, so I think overconsumption is everywhere. It is like this: we don't care much if we simply throw away plastic or polythene packages."*

Consumer activists seem to be concerned about the vast amounts of waste generated by overconsumption, including plastic pollution, e-waste, and discarded products. They advocate for reducing waste, promoting recycling, and adopting circular economy practices.

In sum, participants perceive Overconsumption as an occurrence evident everywhere with respect to everything in life. In accordance with their thoughts, it is evident that they have consciousness towards sustainable consumption practices to augment the environmental, social and economic aspects of quality of life which they are also trying to instill in their followers' minds. Overall, consumer activists of Sri Lanka hold a negative perception of overconsumption. They view overconsumption as a significant and concerning issue with far-reaching consequences for the environment, society, and individual well-being. Their perception of overconsumption is shaped by various factors, including environmental awareness, social justice concerns, and a desire for a more sustainable and equitable world.

Means of Overconsumption

Within the responses made by the respondents they managed to explain several different means through which they witness overconsumption. Participants claimed that some Sri Lankan consumers engage in Overconsumption whereas some consumers face Underconsumption. Which are treated as Unsustainable consumption practices.

Accordingly, Respondent 1(a 39-year-old male), an army soldier who is amputated stated,

> *"People celebrate their birthdays smashing the whole cake on others' faces just for fun and on the other hand I have seen people, many kids who have not even tasted such a cake. Sometimes those people haven't even heard of a birthday. So, I think that the ones who have something they do have but the ones who have nothing have nothing."*

Respondent 11(a 54-year-old female), a mother of a 28-year-old daughter described,

> "*I personally don't waste. I would reduce my consumption and will give it to the ones in need. There are people that I know who spend on food unlimitedly, who organize parties and won't even eat a bit and who*

throw away everything, but they won't even share the surplus with the ones in need. They waste things abnormally, but they never give."

Underconsumption is a problem for many segments of Sri Lanka due to the poverty levels of consumers. On the other hand, when people come out of poverty gradually higher consumption levels result in. Thus, it is advised to promote awareness of better mindful consumption practices among such segments in the market. As per the above respondent some consumers tend not to share the surplus with the needy segment of society signifying the self-centeredness of such consumers driven by the pride and prejudices, they hold for themselves.

Respondent 15, who is also an innovator and the head of his social group which consist of engineers, architectures, doctors and other professionals emphasized,

"We go to a five-star restaurant, and we keep a bit of our food and from our drinks to show our manners, yet it is also a waste of food that some others could just eat."

It can also be contended that many of the unsustainable and wasteful behaviors in which consumers engage are a result of manners of good behavior that have been taught to us by the society we live in.

Respondent 18(a 28-year-old male), a graduate of a private university in Sri Lanka brought up,

"At the end of parties unconsumed meat is thrown away in kilos uselessly and to fulfill that demand the natural supply of animals is insufficient so that they grow animals artificially which is a major threat to the whole world."

The respondent above recognized how the waste of meat will create adverse effects on nature through supporting more GreenHouse Gas emissions and how the artificial growing of animals damages the entire ecosystem.

As per respondent 19, who as a social activist has struggled for many problems that village farmers face replied,

"I see the need of an opened tap to brush teeth, using the fan in rainy days, engaging in fancy actions at bath, using deodorants and Appling nail polish and several other courts are means of overconsumption."

Means of Over Consumption as per the Consumer Activists is another important finding because these consumer activists engage a lot with different consumers at different segments of the society whether they be educated or not whether they be high-end consumers or not. Thus, it is vital to understand the means of overconsumption backed by the social experiences they have received over time to help businesses and other policy makers to implement better solutions to eliminate such means of overconsumption.

Roots of Overconsumption

Within their prolonged answers for the first question that they were given, almost all the respondents provided the perceived reasons for Overconsumption in their own point of view. The significant reason highlighted by the Consumer Activists was "Materialism."

Respondent 17, whose dream is to build an elder's home which will be funded by her own business one day replied,

"People are more materialized than ever before now. We try to show off everything we do; social media is a good example with the posting of photos of everything we do. I have seen some families where the mother has her own car, the father has his own vehicle, and the children have their own. Which I believe is not necessary. People think that they must collect as many as physical products and items in order to become successful in life. They don't see a life beyond that. People overconsume because they have become more materialistic. They believe that owning a lot of things is life."

Accordingly, Overconsumption is revealed in people's housing, home appliances, vehicles and other personal goods. The possession of durable goods reflects the level of consumer spending. Also, this excessive possession of goods seems to result due to materialism. In accordance with Zinkhan (1994) Overconsumption results in the personal

possession of greater amounts of material goods. Thus, it is evident that similar to the respondents of the present study, the researchers also often link overconsumption to prevailing consumer culture and materialistic values. Societal norms and advertising often promote the idea that happiness and success are tied to material possessions, leading to increased consumption. Respondents identified Marketing and Business' conducts as a root cause of Materialism that together create different social trends, social patterns, the need for wealth, dreams and expectations and the fulfillment of one's endless greed.

Respondent 19, who considered herself as a spiritual living being under the definition of loving all beings equally suggested,

> *"If a person is less attached to physical things and has not made their lives complicated, then that person will not engage in overconsumption. When we allow ourselves to be controlled by today's media, markets and advertising we become materialized. The market system today makes us purchase more. They teach us that our odor due to bacteria is smelly and to use a deodorant. Now that is not something that we had. They teach us that our nails must get painted with nail polish and then not just keep but to apply a topcoat to protect it. They give us many options now. And as humans we fall into their traps and consume more. Not only for products but there are so attached with knowledge."*

Drawing upon the concept of materialism it can be concluded that materialism tends to make individual consumers attached to certain products and perceive that the consumption of such products will make them happy. Materialism is argued as the belief where acquisition and possession of material objects are recognized as the ultimate source of happiness and life satisfaction (Richins & Dawson, 1992) which makes the individuals move away from mindfulness and then by sustainability.

Respondent 20(a 23-year-old male), an undergraduate of a local university in Sri Lanka emphasized,

> *"Businesses today decide how people should live, and they want us to consume their products and Marketing creates needs and influences us in order to sell the businesses products"?*

For businesses and for marketing, the consumers' demand is an achievement. It always seems better for them when consumers tend to consume more. Since Overconsumption plays a major role in climate balance it is the responsibility of the businesses and the marketers to pay more attention on reducing such consumption practices of consumers. Furthermore, consumer activists hold corporations accountable for their role in perpetuating overconsumption. They advocate for greater transparency, responsible marketing practices, and corporate social responsibility to ensure that businesses consider their environmental and social impacts.

Respondent 2(a 27-year-old female), the founder of a social club functioned for two years said,

> *"People crave from one need to the other with the fulfilment of one after the other need."*

Respondent 2, who is an English teacher who teaches free of charge for many students further highlighted,

> *"Their needs are changing and also upscaling in nature."*

The changing wants are considered as a root cause of Over Consumption resulting from cravings and greed of consumers in the society.

Respondent 16, who plays two leading roles in two social clubs in Sri Lanka stated,

> *"We try to live luxury lives, with big houses and all but we do not see that a tree will die for the luxury furniture designs."*

One of the chief determinants of overconsumption provokes problems is mindlessness or the unconsciousness. Also, respondents recognize unconsciousness as a root cause for materialism driven overconsumption. As Black (2011) explained, mindfulness is an inherent quality of human consciousness and when people lack such consciousness it results in Overconsumption.

Most of the contemporary customers sleepwalk through a fog of impulses, habits, addictions, compulsions, and decision biases which were also recognized well by most of the respondents in the study. Learned habits along with the socialization process in general creates materialized humans according to some respondents. Many see Materialism as the basic nature of humankind which lays the foundation for the possessive nature of humans, self-centeredness and pride. From the analysis, it can be concluded that all the participants are fully aware of the concept, Overconsumption and its roots and Sustainable consumption was also a well embraced key concept among all the consumer activists representing a few academics, practitioners along with the many social activists.

Table 1 summarizes the key findings of the study.

Table 1:Summary of Key Findings

Perception of Overconsumption		Means of Overconsumption	Roots causes of Overconsumption
It's a Waste	**It's Everywhere**		
All the consumer Activists perceive Overconsumption as a waste of resources which is unsustainable, unaffordable and unacceptable.	The Consumer Activists see Overconsumption in Everything Everywhere. From the urban societies to the big cities, it happens everywhere consciously or unconsciously.	1) Celebrations of life. 2) Conspicuous consumption and Competitive consumption. 3)Fashion, Habits, Social patterns and Trends.	"Materialism" was recognized as the main root cause of overconsumption and they saw Marketing and business' conducts, the modern market systems, Medias, unconsciousness and the socialization process making humans more materialistic than ever before.

Conclusion and Implications

Materialism driven overconsumption causes a number of environmental and societal issues. The current literature does not make it clear how consumer activists of Sri Lanka perceive Overconsumption, means and the roots of Overconsumption despite the fact that they employ various mindful consumption behaviors as a force for change in any community. Thus, the exact purpose of this study was to contribute to the existing literature gap, since there were limited studies that have accomplished this. Therefore, the proposed research question was to identify how consumer activists of Sri Lanka perceive Overconsumption, means and the roots of Overconsumption. It was found that the Consumer activists view overconsumption as a waste of resources, unsustainable, and unacceptable. It occurs in urban societies, through life celebrations, conspicuous consumption, and competition. Materialism is recognized as the root cause, influenced by marketing, business, media, and unconsciousness. Thus, this study contributes to both academia and practice as follows.

Theoretical contributions

The theoretical contributions of understanding how consumer activists perceive overconsumption can provide valuable insights into various aspects of consumer behavior, social movements, and environmental activism. Studying how consumer activists perceive overconsumption can contribute to social movement theory by shedding light on the motivations, mobilization strategies, and collective action of individuals advocating for sustainable consumption. It can help identify the factors that drive consumer activists to take action and understand how they organize and collaborate to effect change.

Exploring consumer activists' perceptions of overconsumption can enrich the understanding of consumer behavior and decision-making processes. By examining the factors that shape their attitudes and preferences towards sustainable consumption, researchers can identify key drivers for pro-environmental choices and how these motivations differ from conventional consumers. Thus, understanding how consumer activists perceive overconsumption can contribute to various theoretical frameworks, spanning from social movements and consumer behavior to sustainability, ethics, and social change. This knowledge can inform strategies for promoting sustainable consumption and environmental activism to address the pressing challenges of overconsumption.

Having reflected upon the occurrence of managing a qualitative questioning, the existing study adds to the qualitative research practice in some ways. First, it lights up the use of the snowball sampling technique. When adopting snowball sampling, as per Morehouse (2011) the potential respondents need to be identified through referrals from the respondents who have already taken part in the study. Accordingly, Respondent 5 introduced Respondents 9 and 22 where Respondent 2 introduced Respondents 3,6,11 and 18. Trustworthiness could be earned by the Researchers personal experiences and the network created with the considerable time spent with the chosen Respondents and by engaging in several social activities with them. The Respondents 5,8,12,16,17,20,21 and 23 were chosen for inquiry with the personal network of the researcher.

Practical implications

Policies surrounding the initiatives to mold the members of the society from their early stages must be effectively organized. Having explored how the Consumer Activists have evolved it is essential to reorganize the Educational System in Sri Lanka by teaching the children to love themselves, others around them and to nature. It is also necessary to educate the parents on their parenting skills in order to mold the children from their very early stages to the end.

Consumer activists who are aware of overconsumption and its negative impacts can have significant practical implications in promoting sustainable and responsible consumer behavior. Consumer activists can promote and support businesses that prioritize sustainability and ethical practices. They can raise awareness about eco-friendly and socially responsible brands, encouraging consumers to make conscious choices when purchasing products and services.

Limitations

Further the Sample size was 25. Since this a qualitative study the sample size is relatively smaller but if the researcher was able to gather data from a greater number of participants it may gain more information about their reflection of Universal Love and Spirituality. Moreover, since this is qualitative research, it needs more time. Research allowed only to do up to this extent if no researcher would have been able to go beyond and search for more information through a much larger and a diversified sample. In terms of limitations of using snowball sampling and personal network for initial respondents in particular could have missed the opportunity to reach individuals who are not part of the researcher's social network, leading to sampling errors and potential gaps in understanding the broader population. Moreover, another limitation of the study stems from its qualitative approach, particularly its exploration of universal love and spirituality in consumption practices. This emphasis on subjective concepts may introduce a risk of bias, as interpretations could be influenced by the researcher's personal beliefs or preconceptions, potentially compromising the objectivity of the findings.

Future research

Having identified how the Consumer Activists in Sri Lanka perceive Overconsumption, future studies could explore how the Non-Social Activists or the members who follow the leading social activists perceive Overconsumption, means and the roots of Overconsumption. Since most of the Social Activists interviewed were the founders of such work and the current leading party of their work. Thus, a comparison could take place through future studies. Moreover, further research could swell the research horizons by introducing cross-cultural, worldwide, or demographical aspects into the research questions in order to understand how those different groups perceive Overconsumption, means and the roots of Overconsumption. The above issue was addressed to some extent by the researcher staying close with some respondents from the beginning of the study by volunteering with their social work and most of the other respondents were identified with the researcher’s personal network and her engagement with various social work along with the respondents. Thus, it is recommended that longitudinal studies need to be adopted for future research if the researcher has no previous experiences.

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Appendices

Appendix 01: Participants' Profiles

Pseudonyms	Age.	Gender.	Religion.	Educational Level.	Social activist programs and their role.
Respondent 1	39	Male	Buddhist.	Primary.	Founder of a Foundation that has donated the highest number of wheelchairs to disabled.
Respondent 2	27	Female	Buddhist.	Secondary.	Founder and President, a social group.
Respondent 3	38	Male	Buddhist.	Secondary.	Founder of a social service foundation.
Respondent 4	25	Female	Christian	Graduate	Organizer of the religious forum.
Respondent 5	24	Female	Buddhist.	Undergraduate.	Co-Founder of Motivational session for students.
Respondent 6	22	Female	Buddhist.	Secondary.	Coordinator of a social club.
Respondent 7	23	Male	Buddhist.	Undergraduate.	Partner of a social business.
Respondent 8	22	Male	Buddhist.	Undergraduate.	Coordinator of a social club.
Respondent 9	34	Female	Christian.	Secondary.	Founder of a charitable movement.
Respondent10	23	Male	Buddhist.	Undergraduate.	Founder of a social business
Respondent11	54	Female	Buddhist.	Primary.	Coordinator of several humanistic clubs.
Respondent12	24	Male	Buddhist.	Undergraduate.	Coordinator of Motivational session for students.
Respondent13	29	Female	Buddhist.	Graduate	Practitioner of sustainable living.
Respondent14	48	Female	Buddhist.	Secondary.	In charge of the kids' section of a hospital for patients of Cancer.
Respondent15	30	Male	Buddhist.	Graduate	Innovator, Lecturer, Geographer and the founder of their social group.
Respondent16	22	Female	Buddhist.	Undergraduate.	Treasurer of a social club.
Respondent17	22	Female	Buddhist.	Undergraduate.	Founder and president of a social club.
Respondent18	28	Male	Buddhist.	Graduate	Founder of an animal movement.
Respondent19	25	Female	Christian	Graduate	Research Assistant on Spirituality and Management.
Respondent20	24	Male	Buddhist.	Undergraduate.	Former Vice President of a social entrepreneurship club.
Respondent21	26	Male	Buddhist	Undergraduate.	Founder of a social entrepreneurship club.
Respondent22	36	Female	Christian.	Secondary.	Founder of a charitable movement.
Respondent23	24	Male	Buddhist	Undergraduate.	Treasurer of a social entrepreneurship club.
Respondent24	28	Female	Christian.	Graduate	Research Assistant on Spirituality and Management.
Respondent25	29	Female	Buddhist	Secondary.	Founder of a social group.

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THE IMPACT OF INTERNAL CONTROL SYSTEM ON ORGANIZATIONAL PERFORMANCE: THE MODERATING ROLE OF INFORMATION TECHNOLOGY AND HUMAN COMPETENCIES WITH SPECIAL REFERENCE TO GARMENT INDUSTRY IN SRI LANKA

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Abstract

In contemporary business environments, establishing a robust internal control system is imperative to mitigate fraudulent activities and errors. Given this significance, this study aims to investigate the moderating role of technology and human competencies on the impact of internal control systems on organizational performance, in relation to the Sri Lankan garment industry. Employing a quantitative approach, data from 200 participants, including managers and supervisors from five representative factories, were analyzed. The results indicate a significant impact of internal control system implementation on organizational performance. It is also found that technology and human competencies moderate the impact of internal control system implementation on organizational performance. Thus, the findings conclude that integrating well-designed internal control systems with technological advancements and human skills are crucial in enhancing organizational performance. These unique insights about the interplay between internal controls, technology, human competencies and organizational performance offer significance theoretical practical implications for the growth of garment industry.

Keywords: Garment industry, human competencies, internal control system, information technology, organizational performance

Introduction

In contemporary business environments, establishing a robust internal control system is imperative to mitigate fraudulent activities and errors. The internal control system encompasses rules, policies, and procedures guiding organizations to enhance efficiency and ensure policy adherence (Zhou et al., 2017). It is essential for safeguarding assets, ensuring the accuracy of accounting data, and promoting operational efficiency. The Sri Lanka Auditing Standards and ICASL emphasize the pivotal role of internal control in organizations, as outlined by COSO, which consists of five components: control environment, risk assessment, information and communication, control activities, and monitoring. By incorporating information technology (IT) and human competencies, internal control extends beyond financial functions, targeting the efficiency and effectiveness of activities, reliability of financial and management information, and compliance with regulations (Putra and Elpisah, 2023). The success of such systems hinges on their compatibility with organizational culture, policies, human competencies, and adopted IT.

In the absence of a robust internal control system, organizations face risks such as financial fraud, theft, IT-related frauds, noncompliance, bribery, and corruption, jeopardizing reputation, growth, employee and customer satisfaction, employee welfare, investor trust, and overall organizational well-being. Given the complexities of the contemporary business landscape, organizations strive to enhance efficiency, flexibility, and performance (Arslan, 2022). An effective internal control system aids managers in accountability, goal achievement, and fulfilling organizational purposes (Westoline et al., 2019). It integrates efforts, attitudes, plans, and policies to ensure the organization's mission accomplishment. IT capabilities and human resource competencies play pivotal roles, as IT empowers organizations to improve services, create innovative products, enhance productivity, and foster connectivity, while human resource competency directly influences organizational performance through skill improvement, training, adaptability, and alignment with organizational goals (Buthayna, 2016).

Despite the critical role of internal control systems (ICSs) in safeguarding organizations, the corporate world continues to witness business failures and widely publicized frauds. Numerous empirical studies, such as those by Tetteh et al., (2020) and Zhang et al., (2018), have examined the relationship between ICSs and organizational performance, yet their findings are divergent. Some studies reaffirm a positive correlation between ICSs and

performance, while others report a relatively weak or ambiguous association. Additionally, the moderating impact of information technology on the effectiveness of ICSs remains inadequately explored (Saha, 2022). Furthermore, the role of human competency, a key organizational resource, has not been comprehensively studied regarding the effectiveness of ICSs and their impact on organizational performance. This gap in the literature has significant implications for organizations seeking sustainable competitive advantages.

This research seeks to address these gaps by exploring the relationship between ICSs and organizational performance in the context of evolving technology and human competencies. It hypothesizes that the integration of IT and the cultivation of a highly competent workforce can potentially strengthen the impact of ICSs on organizational performance. By investigating this intricate interplay, this study aims to provide a nuanced understanding of the complex relationship between ICSs, technology, human competencies, and organizational performance, offering valuable insights for organizations navigating the modern business landscape. The study's key contributions include identifying the types of controls in the company, examining the impact of the internal control system on organizational performance, and determining the moderating role of IT and human competencies in this relationship.

Literature Review

Internal Control System

In today's organizational landscape, characterized by increased complexity, dynamism, and potential threats, the central focus is on managing day-to-day operations and adapting to evolving environmental conditions. This focus extends to enhancing performance through greater effectiveness, efficiency, and adaptability. The mechanism facilitating this endeavor is the internal control system. This system serves as a lens for the managerial evaluation of an organization's efficiency and resource utilization. By instilling order, coherence, and uniformity, internal control imparts direction to organizational activities. A successful internal control system empowers managers with accountability for their initiatives, reasonably ensuring the realization of established goals and objectives (Mahadeen et al., 2016). Internally, these control systems function to forestall the misuse or unauthorized use of a company's assets, thus safeguarding them and mitigating potential fraudulent activities (Yoon et al., 2023). The American Institute of Certified Public Accountants (AICPA) defined internal control in 2003 as a comprehensive process influenced by the organization's structure, workflows, authority hierarchies, human resources, and management information systems, all aimed at advancing the organization's specific objectives or aims. It is important to note that internal control systems are not a novel concept within both government and private sector domains (Joseph et al., 2015).

The overarching goal of the internal control system is to holistically oversee and balance all transactions, ensuring the methodical and efficient functioning of an enterprise. This includes internal checks, internal audits, and other control mechanisms. Its core function extends beyond guaranteeing the dependability of accounting information. It also encompasses the safeguarding of assets and adherence to management directives. This system not only assures management of the reliability of received information but also facilitates the reliance of external auditors on the internal control system to determine the extent, nature, and scope of audit engagements (Raudhatinur, 2023).

The internal control system constitutes a dynamic framework, integrating all organizational governing structures to uphold ethical values, organizational integrity, and the optimization of performance across activities. This collective effort, involving management, the board of directors, and personnel, aims to efficiently attain the organization's goals and objectives (Mahadeen et al., 2016). An organization's pursuit of operational excellence invariably intersects with the components of the internal control system, underscoring its pivotal role in supporting the viability and continuity of the business entity. By fostering operational accountability, targeted procedures, and operational patterns, the internal control system enhances organizational effectiveness (Verburg, 2017; Adegboyegun et al., 2020).

As a continuum of activities involving leadership and all personnel, the internal control system is indispensable for ensuring efficient operations, reliable reporting, safeguarding public assets, and compliance with legal stipulations, thereby advancing institutional objectives. Its successful implementation can thwart and complicate fraudulent activities. The system incorporates a mix of hard controls (for example, segregation of duties and transaction authorization) and soft controls, which include ethical values and codes of conduct (Juliandini and Biduri, 2023). To underscore the quintessential concepts of the internal control system, the COSO Committee emphasized the following key points:

- Internal control operates as both a process and a means to achieve designated goals.

- Competent individuals undertake the execution of internal control, embodying the capability to fulfill their designated roles.
- Internal control yields reasonable assurance to management and the board of directors, rather than absolute certainty.
- The design and operation of internal control are shaped to effectively attain objectives across various domains, contingent upon management's comprehension of the extent of these accomplishments (Nashwan, 2018).

Theories Supporting Internal Control System

Agency Theory

The foundation of agency theory traces back to Steven Ross (1970), and Adams (1994), with Michael Jensen and William Meckling's work serving as a seminal reference. This theory underscores agencies' capacity to institute internal controls that mitigate opportunistic behavior among agents. This interaction between principal and agent gains potency when the principal designates an expert to oversee the agent, enhancing their relationship (Magu, 2021). Gupta (2001) affirms internal controls as vital for ensuring effective management, and they are integrated into policies, laws, and regulations to achieve institutional objectives. In this study, agency theory illuminates the principal-agent dynamic, contributing to organizational evaluation and understanding of internal controls' role (Magu, 2021). In the garment industry, the practical application of agency theory is evident in how companies structure their management and oversight processes. For instance, a garment manufacturer in Sri Lanka might appoint an internal auditor to monitor production managers and ensure they are not engaging in wasteful practices or unauthorized transactions. This auditor, acting as the principal's expert, ensures adherence to production schedules and cost controls, directly mitigating any opportunistic behavior by the managers. Gupta (2001) affirms internal controls as vital for ensuring effective management, and they are integrated into policies, laws, and regulations to achieve institutional objectives. In this study, agency theory illuminates the principal-agent dynamic, contributing to organizational evaluation and understanding of internal controls' role (Magu, 2021). A real-world example can be seen in MAS Holdings, a leading garment manufacturer in Sri Lanka. They have implemented stringent internal controls and regular audits to oversee the actions of factory managers. By doing so, they ensure that resources are used efficiently, production targets are met, and the interests of the owners (principals) are safeguarded against any self-serving actions of the managers (agents) (Akinleye and Kolawole, 2019).

Stakeholder Theory

Shareholder theory posits that corporate entities strive to harmonize the interests of diverse stakeholders, thereby ensuring varying degrees of contentment among each group (Babaali 2022). Correspondingly, Babaali (2022) emphasizes the evolving responsibility of companies, extending beyond shareholders to encompass societal considerations. Freeman (1984) defines stakeholders as entities influencing an organization's objectives, necessitating tailored internal control systems to accommodate differing needs. Adapting control systems to an organization's unique characteristics enhances both internal controls and organizational performance (Zhang et al., 2018). Consequently, corporate executives institute mechanisms like internal control systems to safeguard stakeholder interests (Akinleye and Kolawole, 2019).

In the garment industry, this theory is practically applied through initiatives aimed at balancing the interests of various stakeholders, including employees, customers, suppliers, and the community. For example, Hirdaramani Group, a prominent garment manufacturer in Sri Lanka, has adopted comprehensive sustainability practices that align with stakeholder theory. They have implemented environmental controls to reduce waste and emissions, benefiting the community and the environment. Simultaneously, they invest in worker welfare programs, ensuring fair wages and safe working conditions, thus addressing the interests of their employees.

Adapting control systems to an organization's unique characteristics enhances both internal controls and organizational performance (Zhang et al., 2018). For instance, by tailoring its internal controls to meet international labor standards and environmental regulations, Hirdaramani Group not only safeguards stakeholder interests but also enhances its market reputation and operational efficiency. Consequently, corporate executives institute mechanisms like internal control systems to safeguard stakeholder interests (Akinleye and Kolawole, 2019).

Information Technology

Technology encompasses tools, techniques, systems, and organizations employed to address specific problems or purposes. The fusion of computers and communication yields information technology (IT), particularly advanced

in dynamic, turbulent environments (Akinleye and Kolawole, 2019). Generally, technology encompasses methods, processes, machinery, and skills, in delivering products and services. Data is digital information processed automatically in the form of symbols (Zikran, 2022). IT is a system utilizing software, hardware, database management, telecommunications, and information processing to store, process, and communicate information (Van Esch et al., 2016).

Information technology profoundly influences organizational structure, inducing redundancies, narrower hierarchies, and reduced levels (Hakizimana and Rusibana, 2021). It transforms tasks through automation, centralizing information and reshaping organizational dynamics (Hakizimana and Rusibana, 2021). Information technology enhances an organization's responsiveness by processing abundant environmental information, enabling flexibility in uncertain contexts (Srimai et al., 2011). Farhanghi et al., (2013) highlight IT's efficiency by reducing coordination costs and enhancing project control. It functions as a proxy for a less centralized and formal structure, providing decentralized virtual models (Van Esch et al., 2016). In essence, technology, particularly IT, has a transformative impact on organizations, adapting them to intricate environments through enhanced information processing, improved coordination, and increased flexibility.

Recent technological advancements have revolutionized the garment industry, with Information Technology (IT) playing a pivotal role. Key innovations include 3D printing and advanced design software, allowing manufacturers like Nike and Adidas to swiftly produce prototypes with precision, reducing lead times and costs (Akinleye and Kolawole, 2019). Automation and robotics, exemplified by Sewbots, streamline operations, cutting human error and boosting productivity (Hakizimana and Rusibana, 2021). Internet of Things (IoT) devices monitor equipment and processes in real time, optimizing efficiency by predicting maintenance needs and preventing downtime (Van Esch et al., 2016). Artificial Intelligence (AI) and Machine Learning revolutionize demand forecasting, quality control, and inventory management, with companies like HandM leveraging AI-driven analytics to enhance supply chain operations (Srimai et al., 2011). Blockchain technology ensures supply chain transparency and traceability, championed by brands like Everledger to bolster consumer trust (Farhanghi et al., 2013). Sustainable technologies like waterless dyeing and biodegradable materials address environmental concerns while meeting consumer demand for eco-friendly products (Van Esch et al., 2016).

Human Competencies

Competent employees are the cornerstone of an organization's competitive advantage, surpassing tangible assets like land or materials. This 'people capital' drives value creation from existing resources, with employees emerging as the paramount source of corporate differentiation (Marina, 2018). While strategies, products, and services can be replicated, skilled and efficient employees offer a sustainable edge. Organizational triumph hinges upon competent human resources, as their capabilities shape both employee and organizational performance. Competencies guide desired behaviors and performance levels within the workplace, aligning with organizational outcomes (Marina, 2018). An effective match between required skills and organizational objectives is pivotal. While competency models inform training, they are tools rather than panaceas. Koutoupis and Malisiovas (2019) underscore the potential of human resource development to elevate employee expertise and actualize business objectives. In essence, competent employees are the bedrock of organizational success, amplifying effectiveness and contributing significantly to overall performance and strategic attainment.

In the garment industry in Sri Lanka, specific competencies such as garment manufacturing techniques, quality control expertise, supply chain management, and sustainability practices are crucial (Salman, 2020). Organizations leverage employees' knowledge, skills, abilities, and other attributes (KSAOs) – referred to as a competency model – to attain their goals. An effective match between required competencies and organizational objectives is pivotal (Jessy, 2014). Competencies encompass both intellectual and ethical dimensions, shaping behaviors and qualities essential for success (Siddique, 2019). The strategic contribution competency is notable, involving customer understanding, quality enhancement, stakeholder management, and addressing public issues (Siddique, 2019). Ultimately, competent employees in the garment industry are vital for organizational success, amplifying effectiveness and contributing significantly to strategic attainment.

Organizational Performance

The concept of organizational performance is rooted in the idea that organizations represent voluntary associations of productive assets, encompassing human, physical, and capital resources, united to achieve shared objectives. The sustained commitment of asset contributors hinges on the perceived value derived from the organization's activities in comparison to alternative asset utilization. Thus, the crux of performance lies in value creation, where the value generated from asset deployment meets or exceeds expectations, ensuring the organization's continuity (Babaali, 2022). Organizational performance gauged against inputs, encompasses tangible outcomes reflecting efficiency in terms of cost, quality, and time. This aids companies in pinpointing areas necessitating improvement.

In the garment industry, this is exemplified by companies like MAS Holdings in Sri Lanka, which focuses on sustainable practices and innovative manufacturing techniques to enhance value creation. Organizational performance is evaluated through tangible outcomes such as cost, quality, and time efficiency (Babaali, 2022). Recent studies emphasize the importance of customer satisfaction and innovation in performance measurement, highlighting the need for continuous improvement and adaptation in the competitive garment industry (John, 2011).

Internal Control System and Organizational Performance

The importance of the internal control system in influencing organizational operational performance is widely recognized. This system encompasses managerial efforts to guarantee the effectiveness, efficiency, compliance, and reliability of business transactions and communications (Verburg et al., 2019). The Committee of Sponsoring Organizations (COSO) has underscored its crucial role, stating that the quality of internal control indicates management's awareness of the control environment, activities, risk assessment, information dissemination, and operational monitoring concerning operational performance (Adegboyegun et al., 2020).

Effectiveness assessment of internal control rests on criteria outlined by Coco (1992), evaluating achievement of operational objectives, reliability of financial statements, and adherence to regulations (John, 2011). Internal control, while a dynamic process, is deemed effective when it ensures reasonable assurance of objective accomplishment, involving the coordination of organizational components (John, 2011). Internal controls are integral to corporate governance, ensuring planned processes, risk treatment, correct attitudes, integrity, competence, and managerial oversight (Saha and Mondal, 2015).

Empirical evidence underscores the crucial role of internal control in promoting good corporate governance and fraud prevention, enhancing organizational performance (Nurmiati, 2017; Jeane et al., 2019). Yudianta and Erawati (2012) found a positive impact of internal control on accounting information quality, supported by Kiranayanti and Erawati (2016) who noted its effect on financial statement quality (Bambang, 2019). Internal control's positive effect on performance is highlighted by Hanim et al. (2005), demonstrating its influence on audit work and reporting (Shafawaty et al., 2016). The interplay between internal control and financial performance is evidenced by studies analyzing internal audits, control practices, risk management, and monitoring in various contexts (Abiodun, 2020; Sabina and Priya, 2010; Mahadeen et al., 2016) (Adegboyegun, 2020).

H1: Internal control system has a positive effect on Organizational Performance

Internal Control System, Information Technology, and Organizational Performance

In the rapidly evolving and turbulent business landscape, advanced IT strategies are gaining prominence through technological innovations (Bergeron et al., 2020; Chege et al., 2020; Puspitasari and Jie, 2020). Effective integration of IT and business operations offers entrepreneurs opportunities for high performance and sustainable competitive advantage (Sumito et al.,2020). The alignment of IT control mechanisms according to Teece et al.'s (1997) approach fosters dynamic integration, learning, and restructuring, enhancing performance (Belitski, 2020).

Comprising resources, organization, and quality, technology management interplays to impact corporate effectiveness and internal control assessment (Gaiman, 2008). Information technology contributes to operational efficiency, compliance, and reliable financial reporting, particularly in processes intertwined with internal control (Lexis, 2020). The Theory of Reasoned Action (TRA) posits that individuals embrace technology when it enhances their performance (Nurmiati, 2017). While IT can enhance efficiency, its competitive advantage hinges on organization-specific competency and complementary resource utilization (Tippins and Sohi, 2003). Empirical studies highlight IT capability's pivotal role in mediating IT investments and firm performance, and its moderating impact on the relationship between customer-focused strategies and organizational performance (Yongmei et al., 2008; Said et al., 2009) (Kabiru, 2012).

H2: Information Technology moderates the effect of internal control systems on organizational performance

Internal Control System, Human Competencies, and Organization Performance

Employee capabilities include an individual's assessment of their knowledge, skills, experience, networking, talents, and development potential, and are an important metric of organizational success (Mayo, 2000). Organizations improve these capacities through specific programs (McCowan et al. 1999). Highly pleased employees view themselves as more competitive, emphasizing the need to analyze HR processes in addition to traditional aspects like satisfaction, salary, and training (Serenko, 2007).

Competence, encompassing skills, knowledge, and ability, underlies high job performance (Hevesi, 2005; Spencer and Spencer, 1993). Armstrong (2003) asserts that competencies drive individual and organizational performance, with recent studies emphasizing biographical factors' role in these relationships (Uli, 2011). Human capital attributes are essential for firm performance, especially in generating distinctive expertise and competencies, thereby achieving competitive advantage in a dynamic business environment (Hatch and Dyer, 2004; Hitt et al., 2001; Emmy, 2017).

Internal control's function aids human resources in understanding work scope, duties, rights, and the role of information technology (Jones, 2008). Effective internal control relies on managerial commitment and a culture of ethical conduct (Ziad, 2014). Empirical studies suggest that human resource competencies positively influence internal control and financial reporting quality (Tugiman, 2000; Stefani, 2018; Bambang, 2019). Employee competencies like self-competence, team competence, communicative competence, change competence, and ethical competence correlate positively with organizational performance (Rambo et al., 2009; Salman, 2020). Overall, the relationship between employee competencies and organizational performance is a subject of extensive research and practical significance.

H3: Human Competencies moderate the effect of internal control system on organizational performance

Methodology

Conceptual framework

In this study, the conceptual framework delineates the relationship between the key variables under investigation. The framework, as illustrated in Figure 1, establishes a structured model for understanding the interplay among these variables. Central to this framework is the dependent variable, namely, "organizational performance." This critical aspect serves as the focal point of the study, representing the outcome or result of interest that we aim to comprehend and analyze. Conversely, the independent variable in this model is the "internal control system." This variable stands as the driver or catalyst that we hypothesize to influence organizational performance.

In recognizing the multifaceted nature of organizational dynamics, researchers introduce moderating variables that contribute to nuanced perspectives. Specifically, we consider two moderating variables, namely, "information technology" and "human competencies." These moderating factors are positioned within the framework to illuminate their potential role in shaping the relationship between the independent variable (internal control system) and the dependent variable (organizational performance). This conceptual framework serves as the foundation upon which this research endeavors to explore and elucidate the intricate connections among these variables. Through empirical analysis and data interpretation, it aims to unravel the extent to which the internal control system, guided by information technology and human competencies, influences and impacts organizational performance within the context of this study.

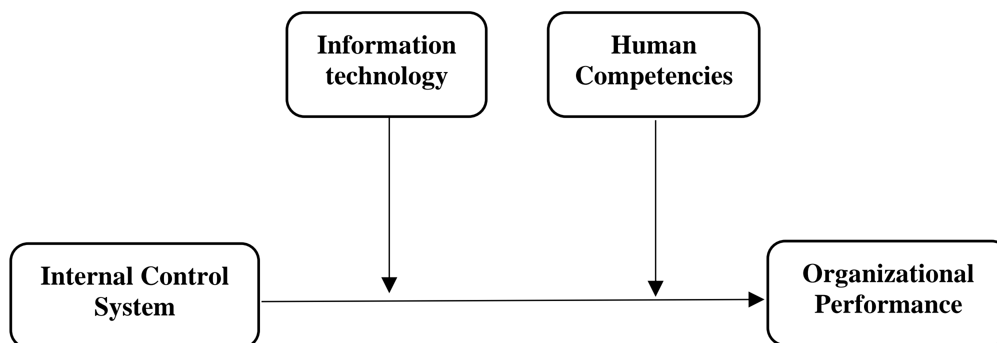

Figure 1: Conceptual Framework
(Source: Researcher’s construction)

Data Collection and Analysis

The foundation of research philosophy aligns with the positivist approach, seeking to test theories and advance knowledge through systematic measurement and observational experiences. A quantitative research design characterizes the approach, where hypotheses are formulated to explore relationships and impacts among variables. The research design primarily takes the form of a quantitative approach. Numerical data are systematically collected and subjected to rigorous analysis to derive conclusions and inferences. Deductive logic underpins the research process, commencing with well-defined hypotheses and subsequently gathering data to

ascertain empirical evidence supporting or refuting these hypotheses. The temporal scope of the study is cross-sectional, with data collection spanning from August 3rd to August 31st, 2023.

Data collection is a vital component of the investigation. Both primary and secondary data sources are utilized. Primary data are derived from a standardized questionnaire delivered to chosen respondents at the five textile factories. The questionnaire contains essential questions on the research variables. The data are collected from a sample of 200 employees. The selection criteria for the 200 participants encompass various factors to ensure a comprehensive representation of managerial and supervisory roles within the garment factories. Managers and supervisors from five prominent companies in the Sri Lankan garment industry, including Brandix Casualwear, Smart Shirt Lanka (PVT) Ltd, Star VT Manufacturing (PVT) Limited, JK Garment (Pvt) Ltd, and Global Sports Lanka (PVT) Ltd, are included in the sample. For managerial roles, individuals with titles such as production manager, operations manager, quality assurance manager, and human resources manager are considered. These roles are pivotal in decision-making, overseeing operations, ensuring quality standards, and managing workforce dynamics within the factories. Supervisory roles include production supervisors, quality control supervisors, floor supervisors, and team leaders. These individuals are responsible for day-to-day operations, coordinating tasks, ensuring adherence to production schedules, and managing frontline workers. The selection of participants also considers their experience levels within the garment industry. Both seasoned professionals with extensive experience and relatively new entrants to the industry are included to capture a diverse range of perspectives and insights.

In the data analysis process, descriptive statistics are used to summarize and present the characteristics of the dataset, providing insights into central tendencies and variability. Regression analysis is employed to explore the relationships between variables, identifying potential predictors of organizational performance. Additionally, moderation techniques are utilized to assess the influence of a third variable on the relationship between two other variables, enhancing the understanding of nuanced interactions within the data and adapting the approach to align with the research objectives and the nature of the data at hand. Throughout the research journey, adherence to ethical considerations remains paramount. The principles of confidentiality and anonymity are upheld to protect the identity and privacy of respondents. Informed consent is diligently sought, and the research is conducted with the utmost integrity and impartiality.

Results and Discussion

Descriptive Analysis

Tables 1 and 2 summarize statistics relating to the three dimensions of internal controls and the level of their implementation in the organizations.

Table 1: Descriptive Statistics of Internal Control System

Dimension/Variable	Mean	Standard Deviation
Process Control	4.02	0.58
Personal Control	3.94	0.58
Output control	0.53	0.53
Internal Control system	4.09	0.49

(Source: Survey Data)

According to Table 1, the average values (mean values) for the three dimensions of process control, people control, and output control are 4.02, 3.94, and 4.28, with standard deviations of 0.58, 0.58, and 0.53 respectively. Because of the analysis, output control in the firms has a higher mean value than the other two controls. It is 4.28. It indicates that companies prioritize output control over the other two controls. The total mean value of the Internal Control system is 4.09, with a standard deviation of 0.499.

Table 2: Implementation Level of Internal Control System

Level	**Frequency**	**Percentage (%)**
High Level	193	96.5%
Moderate Level	2	1%
Low Level	5	2.5%
Total	**200**	**100%**

(Source: Survey Data)

According to Table 2, most of the respondents 96.5% perceived that high level of internal controls enforced in the organization. Due to the large number of employees working in the factory, managers have to be more concerned

about implementing a proper internal control system. It is very important for an organization. It will be caused by reducing fraud, corruption, non-compliance with rules, and breaking the rules and regulations within the organization. Therefore, there is a high level of adoption of internal control systems in this industry.

Impact of Internal Control System on Organizational Performance

The regression analysis reveals an R square value of 0.041, indicating that 4.1% of the variation in Organizational Performance (OP) can be accounted for by the predictor of Internal Control System (ICS) at the 0.05 significance level. This suggests that 95.9 % of the variation in organizational performance is influenced by other factors within the organization. Additionally, the regression analysis demonstrates the significance of the ICS coefficient, indicating a positive impact of the internal control system on organizational performance, which supports H1. The β coefficient of ICS is 0.203, suggesting that for every unit increase in ICS, there is a corresponding increase of 0.203 units in OP. This underscores the significant positive impact of ICS on OP.

Table 3: Regression Analysis Results for the Effect of ICS on OP

	Coefficient	Std. Error	t-statistic	p-value
Constant	0.000	0.69	0.000	1.000
ICS	0.203*	0.70	2.913	0.004
	R^2 0.041	Adjusted R^2 0.036	F-statistic 8.485*	

Note: *indicates the significance at a 1 percent level.

(Source: Survey Data)

Furthermore, the present findings align with previous research. For instance, Buthayna (2016) conducted a study showing a high positive impact of the study variables on organizational effectiveness, with R and R square values of 87.9% and 77.3%, respectively. Gideon (2019) found that the overall influence of COSO components of internal control on the performance of selected tertiary institutions in Ekiti state was significantly positive. Specifically, Control activities (CA), Information and Communication (IFC), and Monitoring activities (MA) had significant and positive influences on organizational performance, while Control environment (CE) and Risk assessment (RA) had positive but insignificant effects. Similarly, John (2011) observed a significant positive relationship between internal controls and organizational performance at Medpoint Industries Limited. Justine (2015) also found a significant positive relationship between internal controls and organizational performance at Monaco Business Institute. These findings collectively support the notion of the positive impact of internal controls on organizational performance, as evidenced by various studies in the literature. Thus, it is possible to infer that an internal control system improves organizational performance.

Moderating Role of Information Technology

The current study sought to investigate the possible moderating effects of information technology (IT) on the link between internal control systems and organizational performance. To achieve this goal, a moderated regression analysis was performed, with regression coefficients serving as the major indicators of the desired outcomes. IT was included as a moderating variable by incorporating an interaction term, ZICS*ZIT, into the analytical model. Tables 4, 5, and 6 summarize the hierarchical multiple regression analysis for examining the moderating role of information technology on the effect of ICS on OP. The results showed a significant increase in the coefficient of determination (R^2) of 0.017, suggesting a 1.7% increase in explained variance due to the inclusion of the interaction term. ANOVA analysis revealed the statistical significance of Models 1 and 2 (p = 0.000, <0.05).

Table 4: Model Summary of Hierarchical Multiple Regression Analysis for Moderating Role of Information Technology

Model	R	R^2	Adjusted R^2	R square change	F change	Sig. F change
1	0.470	0.221	0.213	0.221	27.903	0.000
2	0.487	0.226	0.226	0.017	4.282	0.040

(Source: Survey Data)

Table 5: ANOVA of Hierarchical Multiple Regression Analysis for Moderating Role of Information Technology

Model		Sum of squares	df	Mean Square	F	Sig.
1	Regression	43.928	2	21.964	27.903	0.000
	Residuals	155.072	197	0.787		
	Total	199.000	199			
2	Regression	47.244	3	15.748	20.339	0.000
	Residuals	151.756	196	0.774		
	Total	199.000	199			

(Source: Survey Data)

Table 6: Coefficient of Hierarchical Multiple Regression Analysis for Moderating Role Information Technology

	Coefficients	Std. Error	t-statistic	p-value
Constant	-0.015	0.063	-0.237	0.813
Z score (ICS)	0.148	0.063	2.361	0.019
Z score (IT)	0.450	0.064	7.047	0.000
Int_ICS_by_IT	0.118	0.57	2.069	0.040

(Source: Survey Data)

The scrutiny of the coefficient table, crucial for assessing the significance of moderation effects, uncovered a p-value of 0.040 for the interaction term, which remained below the preset alpha level of 0.05. This clearly illustrates the interaction's statistical significance, implying that IT has a significant moderating impact on the link between the internal control system and organizational performance. The interaction term's coefficient ($\beta = 0.118$, $p < 0.05$) showed significant results. This empirical data implies that incorporating information technology can strengthen the link between internal control systems and organizational performance, which supports the H2.

Surprisingly, the conclusions of a relevant previous study done by Lexis (2020) coincide perfectly with the findings of the current analysis. This previous study confirms a substantial association between internal control systems and company performance, highlighting the function of information technology as a moderator that improves the favorable relationship between internal control and business success. Furthermore, findings from Nurmiati (2017) research tangentially corroborate the current study's premises by emphasizing the beneficial, but non-significant, influence of information technology on financial management performance.

However, in this study, IT had a noticeable influence on organizational performance. Based on rigorous selection criteria, it is concluded that IT plays an important moderating role in the interface between the internal control system and organizational performance. As a result, the established link between the internal control system and organizational performance is greatly strengthened by the integrative impact of information technology in this industry. In light of these findings, it is critical for businesses to focus more on strengthening their internal control systems, while also acknowledging the magnifying impact of IT on organizational performance.

Moderating Role of Human Competencies

In the pursuit of exploring the potential moderating role of Human Competencies in the relationship between the internal control system and organizational performance, an extensive examination was conducted through the application of moderated regression analysis. This analytical approach sought to unveil the nuanced interplay between these critical factors within organizational contexts. To ascertain the moderating influence of Human Competencies, the model introduced an interaction term, denoted as ZICS*ZHC, into the analysis. Tables 7, 8, and 9 summarize the hierarchical multiple regression analysis for examining the moderating role of information technology on the effect of ICS on OP. The results revealed a notable increase in the coefficient of determination (R2) by 0.034, indicative of a 3.4% augmentation in the explained variance, owing to the incorporation of the interaction term. The statistical assessment presented in ANOVA Table 8 underscored the significance of the model, with a calculated significance value of 0.000, surpassing the conventional threshold of 0.05. This underscored the collective statistical significance of both regression models under scrutiny.

Table 7: Model Summary of Hierarchical Multiple Regression Analysis for Moderating Role of Human Competencies

Model	R	R^2	Adjusted R^2	R square change	F change	Sig. F change
1	0.310	0.096	0.087	0.096	10.484	0.000
2	0.361	0.130	0.117	0.034	7.622	0.006

(Source: Survey Data)

Table 8: ANOVA of Hierarchical Multiple Regression Analysis for Moderating Role of Human Competencies

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.144	2	9.572	10.484	0.000
	Residuals	179.856	197	0.913		
	Total	199.000	199			
2	Regression	25.876	3	8.625	9.765	0.000
	Residuals	173.124	196	0.883		
	Total	199.000	199			

(Source: Survey Data)

Table 9: Coefficient of Hierarchical Multiple Regression Analysis for Moderating Role of Human Competencies

	Coefficients	Std. Error	t-statistic	p-value
Constant	-0.042	0.68	-0.619	0.537
Z score (ICS)	0.184	0.070	2.641	0.009
Z score (HC)	0.203	0.070	2.913	0.004
Int_ICS_by_HC	0.188	0.068	2.761	0.006

(Source: Survey Data)

Delving further into the statistical insights, it became apparent that Regression Model 1 and Regression Model 2 demonstrated statistical significance, as elucidated by the computed F-statistics. Specifically, Regression Model 1 exhibited statistical significance at F (2,197) = 10.484, with a p-value below 0.05. Similarly, Regression Model 2 showcased statistical significance at F (3,196) = 9.765, also with a p-value below 0.05. The pivotal interaction term's p-value was established at 0.006, a figure that unequivocally fell below the stipulated alpha value of 0.05. This compellingly affirmed the statistical significance of the interaction, thereby substantiating the notion that Human Competencies function as a moderator within the relationship between the internal control system and organizational performance. The specific coefficient associated with the interaction term, symbolized as β, was determined to be 0.188, and importantly, demonstrated statistical significance with a p-value below 0.05. This coefficient underscored the extent of the interaction's influence on the relationship between the internal control system and organizational performance. In consequence, supporting H3, this provided robust grounds for the researcher's assertion that human competencies augment the connection between the internal control system and organizational performance. These empirical findings align harmoniously with prior research. For instance, in a study conducted by Nurmiati (2017), it was observed that human resource competencies exhibited a noteworthy positive effect on financial management performance, a conclusion supported by a coefficient of 0.285 with a positive direction (P-Value = 0.042 < 0.05).

Moreover, a corroborative study by Julie (2015) found that managerial competence, as delineated by motives, traits, self-concepts, knowledge, insight, and skills, wielded a significant impact on enhancing government financial performance. This was evident through an array of indicators with substantial positive effects, as evidenced by a p-value of 0.000. The research landscape was further enriched by investigations, such as the one undertaken by Hunziker (2016), which highlighted the affirmative relationship between competencies and internal control effectiveness. A statistically significant path coefficient of 0.35 (p < 0.001) substantiated the direct and favorable influence of competence on internal control efficiency. However, in this study, human competencies (HC) have a significant impact on organizational performance (OP). According to the decision criteria, it can be concluded that human competencies play a moderating role in the relationship between internal control systems (ICS) and organizational performance. Additionally, the relationship between ICS and OP is enhanced by the effect of human competencies in this sector. Therefore, it can be inferred that garment factories should pay greater attention to internal control, with organizational performance moderated by human competencies.

Conclusion and Implications

This study investigates the relationships between internal control systems and organizational performance and the moderating effects of information technology and human competencies on this relationship in the Sri Lankan garment industry. The analysis indicated that output controls exhibited the highest mean value among the three, suggesting a considerable emphasis placed by garment sector organizations on monitoring and managing output processes. Furthermore, through simple regression analysis, it was determined that the internal control system has a statistically significant positive impact on organizational performance. This highlights the pivotal role of a robust internal control system in augmenting overall organizational effectiveness.

The study then delved into the moderating roles of information technology and human competencies in the relationship between the internal control system and organizational performance. The interaction term between the internal control system and information technology (ZICS*ZIT) was found to be statistically significant, indicating that IT acts as a moderator in this relationship within the garment sector. It was found to contribute an additional 1.7% of the total variance, signifying its influence in bolstering the impact of the internal control system on organizational performance. Similarly, the interaction term between the internal control system and human competencies (ZICS*ZHC) also demonstrated statistical significance, highlighting HC as another moderator. Human competencies explained an additional 3.4% of the total variance, emphasizing the critical role played by human competencies in moderating the relationship between the internal control system and organizational performance in garment sector organizations.

Practically, these findings have significant implications for the garment industry in Sri Lanka. By implementing robust internal control systems, garment manufacturers can enhance operational efficiency, minimize risks, and ensure compliance with regulatory standards, thereby improving overall organizational performance (Joseph et al., 2015). Leveraging IT solutions such as inventory management systems and production planning software can streamline processes, reduce lead times, and enhance decision-making capabilities (Srimai et al., 2011). Additionally, investing in human competencies through training and development programs can empower employees to adapt to technological advancements, foster innovation, and contribute to organizational growth (Akinleye and Kolawole, 2019).

Based on the findings, several recommendations can be made for implementing internal control systems and leveraging IT and human competencies in the garment industry in Sri Lanka. Firstly, organizations should conduct regular assessments of their internal control systems to identify areas for improvement and ensure alignment with organizational objectives (Nashwan, 2018). Secondly, investing in advanced IT infrastructure and software solutions tailored to the garment industry's specific needs can enhance operational efficiency and decision-making processes (Hakizimana and Rusibana, 2021). Finally, organizations should prioritize continuous learning and development initiatives to nurture a culture of competence and innovation among employees, thereby strengthening the organization's competitive position in the market (Siddique, 2019).

Limitations of the Study and Future Research

This study is subject to several limitations. The research operates within a specific period and confines its focus to selected garment factories in Sri Lanka, potentially limiting the generalizability of the findings. Additionally, the reliance on self-reported data introduces the potential for response bias. Nevertheless, the combination of quantitative data collection and deductive reasoning allows for rigorous hypothesis testing and the derivation of meaningful conclusions regarding the internal control systems within the selected Sri Lankan garment factories.

Future research should address these limitations by adopting a broader and more diverse sample size and incorporating qualitative research methods to gain deeper insights into the experiences and perspectives of stakeholders within the garment industry. Moreover, examining the impact of external factors such as market trends, economic conditions, and regulatory changes on internal control systems and organizational performance would provide a more comprehensive understanding of the dynamics at play (Koutoupis and Malisiovas, 2019). Overall, further research in these areas would contribute to the continuous improvement and innovation within the garment industry in Sri Lanka and beyond.

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FACTORS AFFECTING ENVIRONMENTAL SUSTAINABILITY REPORTING PRACTICES: EVIDENCE FROM SRI LANKAN HOTEL INDUSTRY

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Abstract

Achieving sustainability is facilitated by the implementation of protective laws and regulations designed to ensure transparency and accountability. To address the growing information asymmetry between corporations and stakeholders, comprehensive reporting requirements and standards have been established globally. This study aims to examine factors influencing environmental sustainability reporting in the Sri Lankan hotel industry, shedding light on the dynamics shaping these practices. Utilizing a quantitative research approach, data were collected through a structured questionnaire distributed to accountants and managers in hotels located in Central, Southern, and Western Provinces of Sri Lanka. The valid responses received to the questionnaire were 102, which were analyzed using structural equation modeling techniques to uncover significant patterns and relationships. The findings indicate that senior management commitment, legislative pressure, industry influence, knowledge of GRI, and organization culture significantly impact on the environmental sustainability reporting practices. Specifically, these factors enhance the knowledge and application of GRI standards, driving more comprehensive and effective environmental reporting practices. This study offers novel insights and important implications for hotel managers and accountants, emphasizing the critical roles of these factors in promoting environmental sustainability. By identifying key drivers of effective reporting, this research contributes to the ongoing efforts to improve sustainability practices in the hotel sector, ultimately supporting the broader goal of environmental preservation.

Keywords: *Environment sustainability reporting, global reporting initiatives, hotel industry*

Introduction

Human activities, particularly within industrial sectors, have a substantial impact on the environment. The Industrial Revolution marked a significant shift in the relationship between humans and nature, moving from incremental and irregular impacts to widespread and profound effects. With the advent of Industry 4.0, the way companies manufacture, improve, and distribute their products has been transformed. However, despite these advancements, the consumption of resources, raw materials, energy, and information remains high, leading to environmental unsustainability. This has heightened societal and public awareness of environmental risks and challenges (Oláh et al., 2020).

Since the 1992 Rio Conference, the concept of sustainable development has gained increasing attention (Marin & Jafari, 2002). Sustainability is defined as an effort to meet present needs without compromising the ability of future generations to meet their own (Morelli, 2011). The goal of sustainability is to balance economic development, social well-being, and the responsible use of environmental resources. However, rapid scientific and technological development has led to social, economic, and environmental crises, threatening human living conditions and societal values (Goettsche et al., 2016). Thus, in the current competitive landscape, environmental protection has become a critical variable. Companies must consider the long-term environmental effects of their activities. As a result, organizations face increasing pressure from stakeholders to develop sustainable practices (Nethsarani & Samudrage, 2021). Environmental initiatives are hence recognized as valuable tools for improving performance and gaining competitive advantages (Molina-Azorín et al., 2009). However, despite awareness of limited natural resources and increased stakeholder pressure to develop sustainable practices, organizations often prioritize growth over sustainability, leading to environmental degradation (Oláh et al., 2020).

The tourism industry, despite the impact of COVID-19, has seen significant growth, contributing to economic, social, and environmental impacts globally (Simpson, 2014). The hotel sector, a major component of tourism, plays a vital role in environmental sustainability. Hotel operations require significant resources, impacting the environment. Eco-friendly tourism is believed to provide long-term socio-economic benefits (Bonilla-Priego et al., 2014). Tourism in Sri Lanka has shown potential for substantial economic contribution, with increasing arrivals and revenue until 2018 (Bank et al., 2022). Sri Lanka's tourism sector witnessed continuous growth until 2018 and experienced a significant increase in tourism revenue in 2022 compared to 2021. The Sri Lankan hotel

sector is increasingly concerned with nature conservation and eco-friendliness (Sri Lanka Tourism Development Authority, 2022).

It is widely acknowledged that due to variety of reasons businesses are shifting from traditional financial reporting to sustainability reporting (Lozano et al., 2016). However, as per the pilot study results, given in Table 1, it was noted that in the Sri Lankan hotel industry, a smaller number of hotels have adopted environmental sustainability reporting in their operations. For example, focusing on the annual report of John Keells Hotels PLC 2021 it offers information on performance with five parameters, namely, financial, manufactured capital, social and relationship, human and environmental. At the same time Aitken spence hotels Annual report also offers wide range of environment sustainability reporting content. In contrast, Sudusinghe and Jayaratne (2017) stated that Sri Lankan apparel sector exporters are sending their sustainability reports directly to the customers in order to comply with their sustainability requirements and retain credibility. Hence, these exporters are not taking much interest in reporting their best practices to the general public. More specifically, the annual report 2021 John Keells Hotels PLC (Lines, 2020) is engaging in sustainable reporting through the global reporting initiative. Regarding environmental performance, they have disclosed various aspects, including carbon footprint, carbon footprint per earth check guest night, and water disposed per guest night, and it has been subjected to a yearly comparison as well. Moreover, sustainability reporting is seen as an essential element of corporate communication, as evidenced by the increasing trend of sustainability reporting by Sri Lankan listed companies over the 2012-2015 period of study.

Table 1: Current Status of Environment Sustainability Reporting

Resort Name	Awareness of Environment Sustainability	Environment Sustainability reporting in the hotel
Aliya Resorts &Spas (Pvt) Ltd	Yes	Yes
Maalu Maalu Resort& Spa	Yes	Yes
Kithala Resort.	Yes	No
Mountbatten Bungalows	No	No
Scottish Planter Bungalow	No	No
Adventure Factory	Yes	No
Colonial Bungalow Tebuwana	No	No
Ayurvie Weligama	Yes	No

(Source: Pilot Study Results, 2024)[1]

Accordingly, this study aims to investigate the factors influencing environmental sustainability reporting in Sri Lankan hotels, focusing on economic, environmental, and social sustainability. The research questions raised to fill the gaps in the existing literature are *what do hotels in Sri Lanka currently report under environmental sustainability reporting practices?* and *what factors cause the environment sustainability reporting practices of the hotel industry in Sri Lanka.* The findings will offer insights for government regulations related to environmental sustainability and have practical implications for stakeholders relying on both financial and non-financial information for business decisions and policy formulation. Understanding the current status and trends of environmental sustainability reporting in Sri Lanka will clarify the gap between desired and actual practices.

Literature Review

Theoretical Review

Stakeholder theory is a foundational concept in business studies, emphasizing the ethical implications and outcomes of business decisions on all stakeholders, including shareholders, employees, financers, government, customers, and suppliers. Stakeholders are defined by Koizumi et al. (2002) as "any group or individual who is affected by or can affect the achievement of an organization’s objectives." This theory posits that organizations must balance the interests of various stakeholders to achieve their goals effectively (Hörisch et al., 2020). Companies began to adapt their behavior to mitigate environmental impacts due to rising pressures from governments and environmentalist groups and heightened societal awareness of environmental issues (Monteiro & Aibar-Guzmán, 2010). This adaptation often involves voluntarily disclosing environmental information to maintain a positive image and avoid conflicts with stakeholders. Stakeholder theory's influence has extended into corporate social responsibility and stakeholder initiatives, responding to global challenges like climate change and nuclear risks. This necessitates a global stakeholder discourse and highlights the need for a functional global governance framework for management guidance in the 21st century (Richter & Dow, 2017).

[1] The Pilot study was based eight hotels in the Sri Lanka. Only five hotels aware about the sustainability reporting. Currently two companies are reporting their environmental sustainability practices.

Factors Affecting Environmental Sustainability Reporting in the Hotel Sector

Senior Management commitment

Wijethilake and Lama (2019) show that top management commitment is an integral part of implementing any sustainability practices, without which implementations may not be practical. Further, organisations use core values as a management control system to disseminate organisational objectives and purpose among stakeholders. Parallel to that view, Robert Simons (1991) revealed that organizations use formal belief systems such as vision and mission statements, credos and statements of purpose to communicate organisational core values, purposes and future directions. Core values are referred to as management control systems that the top management team uses to establish a shared understanding of organisational objectives among stakeholders. Moreover, the study stated, top managers must decide what to emphasise and what to de-emphasise. In the Jang et al. (2017) found the significance of leadership and values of the top management in advancing environmental commitment. Park et al. (2014) examined the degree to which the impact of top management has influenced environmental reporting through an online survey with the participation of 206 USA hotel top managers and found that environmental attitudes have a significant influence. On the other hand, with regard to the understanding of how managers institutionalise sustainability reporting, Farooq and de Villiers (2019) reflected that there is a lack of management commitment to sustainability reporting in Australia and New Zealand. Thus, the literature suggests that senior management commitment affects environmental sustainability reporting practices in the hotel industry, as shown by the hypothesis H_1.

H_1: Senior management commitment has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka.

Legislative Pressure

The study by Novokmet and Rogošić (2016) disclosed that legislative pressure encourages managers to establish sustainability accounting. In the case of enforced information requirements on sustainability, institutional compliance and stakeholder communication, dialogues can become necessary for the continuation of corporate activities. Moreover, CDSB et al. (2014) indicated that the United Nations had shown its interest in environmental reporting and stated that corporate environmental reports have quickly become the key channel for companies to communicate their environmental performance, have become an effective tool to demonstrate company-wide integrated environmental management systems, corporate responsibility and the implementation of industry voluntary codes of conduct. Further, Controversy Контроль (2010) has shown that based on the annual reports published in Bangladesh, there is no legislative requirement for sustainability reporting. Dissanayake et al. (2019) revealed that pressures to adopt Western codes and standards to attract foreign capital and secure access to international markets may offer sustainability reporting incentives to publicly listed companies in Sri Lanka. Accordingly, the literature suggests that legislative pressure affects environmental sustainability reporting practices in the hotel industry, as demonstrated by the hypothesis H_2.

H_2: Legislative pressure has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka

Customer Influence

Customers are important to a company's sustainability efforts. From the viewpoint of Goettsche et al. (2016), customer profile differences affect the value relevance of sustainability reporting in US companies. Research indicates that the customer stakeholder group is the most critical to the majority of executives investing in relationship-building through sustainability (Bradford et al., 2017). Customers also influence a firm's sustainability strategy more than any other stakeholder group. Researchers found that the customer stakeholder group has a direct influence on the choice of environmental key performance indicators. According to Holland and Foo (2003), ISO 14001 certification may be required to maintain a customer base, especially in Europe. Simultaneously, Kolk (2004) disclosed in the literature that customers are not interested in reporting sustainability practices. Goettsche et al. (2016) demonstrate that shareholders of B2B firms value the issuance of a GRI-aligned sustainability report negatively, while shareholders of B2C firms show no reaction to the issuance of such a report. Further it had indicated firm value is caused to be decreased when they do not address end consumer. Hence, the literature suggests that customer influence affects environmental sustainability reporting practices in the hotel industry, as presented by the hypothesis H_3.

H_3: Customer Influence has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka

Industry Influence

The findings from Abd-Mutalib et al. (2014) have indicated that the lowest level of sustainability reporting in both extent and quality is among the firms in the hotel industry. As per the findings, 33% of firms in the real estate investment trust industry do not incorporate sustainability reporting in their annual reports. The situation might be due to the low level of holdings by institutional investors in the industry firms. According to the analysis of information disclosed by Rodrigo Garcia Motta et al. (2021), companies are more oriented to disclose integrated information. Hence, there is a clear positive effect of environmental innovation on the level of environmentally integrated disclosures. Moreover, the research carried out by Kühn et al. (2018) showed that industry affiliation has a positive impact on corporate sustainability reporting. In contrast, in a widely influential paper published by Dissanayake et al. (2019), the industry sector does not influence sustainability reporting in Sri Lanka. It is hypothesized that industry influence affects environmental sustainability reporting practices in the hotel industry, as presented by the hypothesis H_4.

H_4: Industry Influence has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka

Knowledge of GRI

Knowledge of the Global Reporting Initiative (GRI) guidelines is essential for sustainability reporting. Lack of education on environmental and social responsibility can hinder reporting practices. According to Bradford et al. (2017) GRI is not an important dimension when reporting corporate sustainability. Abd-Mutalib et al. (2014) elaborate that the lack of education on environmental and social responsibility caused reporting on the firm's sustainability practices. As cited in CDSB et al. (2014), organizations should keep in mind the fact that GRI guidelines are a rather new way of reporting. The guidelines ought to be treated as the dynamic instrument they claim to be and, therefore, will continuously be developed. The transparency that the guidelines provide is perhaps more important. Thus, it is hypothesized that industry influence affects environmental sustainability reporting practices in the hotel industry, as presented by the hypothesis H_5.

H_5: Knowledge of GRI has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka

Governance Committee

Based on the literature, it is assumed that governance committee meetings will affect environmental sustainability practices in the hotel industry. Research conducted by Ariyani et al. (2018) found that Governance Committee variables have a significant effect on Sustainability reporting disclosure. This means that in the implementation of serious corporate responsibility for long-term stability, the establishment of a Governance Committee can help sustainability reporting much higher. Companies that have a governance committee tend to conduct sustainability reporting publications compared with companies that do not have a governance committee, meaning there is pressure from the general public as well as reaction to the request stakeholders. Controversy Hidayah et al. (2019) indicated that the governance committee did not significantly affect the sustainability reporting. Even though the governance committee is trying to assist in the implementation of good corporate governance to the directors, there is no influence on disclosing the sustainability reporting. Parallel to the above aspiration, Lucia and Panggabean (2018) also reported that corporate governance does not significantly influence sustainability reporting disclosures. It is hypothesized that governance committee meetings affects environmental sustainability reporting practices in the hotel industry, as presented by the hypothesis H_6.

H_6- Governance Committee has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka.

Organization Culture

Cultural factors, such as uncertainty avoidance, influence the reporting of environmental matters. As per the findings of Pucheta-Martínez & Gallego-Álvarez (2020) uncertainty avoidance contexts tend to encourage the reporting of environmental matters in their financial reports. The uncertainty avoidance focuses "a society's tolerance for ambiguity", in which people embrace or avert an event of something unexpected, unknown or away

from the status quo. In Domingues et al. (2017) also identified sustainability reporting has an impact to the organizational culture and in certain situations that has led to an increase in proactive changes made by internal stakeholders. Accordingly, organizational culture impacts sustainability reporting, as given by H_7.

H_7: Organization culture has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka.

Hotel Size

Company size is a significant characteristic associated with sustainability reporting. Larger companies with substantial workforces and market shares are more likely to provide detailed sustainability reports. Thus, company size is found to be the most relevant company characteristics associated with sustainability reporting by listed companies in Sri Lanka (Dissanayake, Tilt & Qian, 2019). Based on the research carried out Kühn et al. (2018) showed effect of company size caused to the CSR reporting. It is required to provide information on the sustainability report for companies with a sizeable workforce and market share (Le et al., 2023).

H_8: Hotel size has a positive impact on environmental sustainability reporting practices in the hotel industry in Sri Lanka.

This literature review highlights the various factors influencing environmental sustainability reporting (ESR) in the hotel industry. Senior management commitment, legislative pressure, customer influence, industry influence, knowledge of GRI, governance committee meetings, company culture, and hotel size all play critical roles in shaping sustainability practices, which is summarized in Table 2.

Table 2: Summary of literature used for hypothesis development

Variable	Hypotheses	Positive/ Negative	References
Senior Management commitment	There is a significant impact of SMC on ESR practices in the hotel industry in Sri Lanka	Positive	Jang et al. (2017), Wijethilake & Lama (2019)
Legislative Pressure	There is a significant impact of LP on ESR practices in the hotel industry in Sri Lanka	Positive Negative	Park et al., (2014), Farooq & de Villiers (2019), Novokmet & Rogošić, (2016)
Customer Influence	There is a significant impact of CI on ESR practices in the hotel industry in Sri Lanka	Positive	CDSB et al. (2014), Dissanayake et al. (2019) Контроль (2010)
Industry Influence	There is a significant impact of II on ESR practices in the hotel industry in Sri Lanka	Positive	Goettsche et al. (2016), Kolk (2004), Dissanayake et al. (2019)
Knowledge of GRI	There is a significant knowledge of GRI on ESR practices in the hotel industry in Sri Lanka	Negative Positive	Kühn et al. (2018), Bradford et al. (2017)
Governance committee meetings	There is a significant knowledge of GCM on ESR practices in the hotel industry in Sri Lanka	Negative Negative Positive	Ariyani et al. (2018) Hidayah et al. (2019) Lucia & Panggabean (2018)

Research Methodology

This study employs the positivism research philosophy with deductive reasoning approach, since it investigates factors affecting environmental sustainability reporting in the hotel sector. Positivism relies on quantifiable observations and objective data collection. Further, given the nature of this study, a quantitative research approach was selected, as it can provide presumptions about potential outcomes. The total population is 490 hotels, as listed on the Sri Lanka Tourism Development Authority website. The target population consists of 102 hotels from three provinces, licensed by the Tourist Board of Sri Lanka, across various star categories. The sample was drawn from the Central, Southern, and Western Provinces as of March 31, 2024. Non-random sampling was employed, with selections made based on convenience. Accordingly, a structured questionnaire was distributed to hotel senior

management electronically via Google Forms. The sample size consisted of 102 respondents from various hotels. The questionnaire employed a 5-point Likert scale to measure independent and mediator dependent variables, with end points ranging from "strongly disagree" to "strongly agree." Appendix 2 presents the operationalization of the study's variables. The variables, hotel size, and culture, were assessed using categorical, nominal variables. The content validity was ensured through expert views and available sustainability literature, ensuring the questionnaire provided adequate coverage of the investigative questions.

In the data analysis, first data is examined for reliability and validity. Cronbach's alpha and composite reliability (CR) was used to measure the internal consistency reliability. An alpha value of 0.70 or higher is considered acceptable. The internal consistency reliability of the instrument was evaluated for the dependent variable scale and five independent variable scales. Convergent Validity explained the extent to which a measure positively correlated with alternative measures of the same construct. According to Hair et al. (2018), the threshold value for Average Variance Extracted (AVE) should be greater than 0.50 to confirm convergent validity. Discriminant validity is the next criterion for assessing a reflective measurement model. It shows the extent to which a construct is distinct from other constructs using heuristic standards, implying that a construct is unique and captures phenomena not represented by other constructs in the model. The Fornell Larcker criterion and HTMT criterion are used to assess the discriminant validity of the variables. Then, the Structural Equation Modelling (SEM) using SmartPLS was employed for data analysis. Partial Least Squares Structural Equation Modelling (PLS-SEM) is widely used in social sciences to analyze quantitative data. Kajtazi et al. (2023) note that PLS-SEM is efficient and flexible for testing relationships between variables. Faraj (2005) supports this, stating that PLS-SEM can analyze measurement models and structural models with multi-item constructs, including direct, indirect, and interaction effects. Sarstedt et al. (2020) further highlight that SEM is useful when the phenomenon of interest cannot be observed directly, establishing relationships between latent variables and their measures.

Results and Discussion

Reliability and Validity of Variables

The results presented in Table 3 reveal that the measurement of variables is reliable as all the variables got more than 0.7 Cronbach's alpha value and CR value. Further, for each construct, the AVE values are higher than greater than 0.50, which confirm convergent validity. Fornell-Larcker criterion, as shown in Table 4, and HTMT ratios below 0.85, as show in Table 5, confirmed the discriminant validity (Fornell & Larcker, 1981; Henseler et al., 2015). The multicollinearity issues were present as VIF values were below five (Hair et al., 2011).

Table 3: Reliability and Validity of Variables

Latent Variables	Loadings	Cronbach's alpha	CR	AVE	VIF
Culture (CL)					
CC 1	0.860				
CC 2	0.848				
CC 4	0.810				
CC 5	0.806				
CC 6	0.755	0.946	0.954	0.673	4.2
CC 7	0.804				
CC 8	0.857				
CC 9	0.788				
CC 10	0.845				
CC 11	0.824				
Customer Influence (CI)					
CI 2	0.855				
CI 4	0.871	0.858	0.914	0.780	4.8
CI 6	0.921				
Environment Sustainability Reporting (ESR)					
ESR 1	0.863				
ESR 2	0.937	0.863	0.916	0.785	-
ESR 3	0.856				
Governance Committee Meetings (GCM)					
GCM 1	0.886	0.903	0.939	0.838	4.9

GCM 2	0.954				
GCM 3	0.906				
Knowledge of GRI (KGRI)					
GRI1	0.953	0.871	0.939	0.885	4.9
GRI2	0.928				
Industry Influence (II)					
II 1	0.889				
II2	0.922	0.884	0.928	0.812	4.4
II3	0.891				
Legislative Pressure (LP)					
LP1	0.858				
LP2	0.835				
LP3	0.746	0.882	0.914	0.680	3.4
LP4	0.875				
LP5	0.802				
Hotel Size (HS)	1.000	-	-	-	-
Senior Management Commitment (SMC)					
SMC1	0.838				
SMC3	0.809				
SMC4	0.903	0.922	0.941	0.762	2.9
SMC5	0.892				
SMC6	0.839				

Table 4: Fornell-Larcker Criterion for Discriminant Validity

	CL	CI	ESR	GCM	HS	II	KGRI	LP	SMC
Culture (CL)	0.820								
Customer Influence (CI)	0.786	0.883							
ESR	0.792	0.692	0.886						
Governance committee meetings (GCM)	0.792	0.814	0.709	0.916					
Hotel Size (HS)	0.677	0.6210	0.745	0.716	Single-item				
Industry Influence (II)	0.649	0.807	0.697	0.797	0.691	0.901			
Knowledge of GRI (KGRI)	0.766	0.856	0.726	0.867	0.822	0.827	0.941		
Legislative Pressure (LP)	0.756	0.787	0.699	0.702	0.662	0.693	0.664	0.825	
Senior Management Commitment (SMC)	0.729	0.728	0.549	0.608	0.710	0.634	0.657	0.756	0.873

Table 5: HTMT Criterion for Discriminant Validity

	CL	CI	ESR	GCM	HS	II	KGRI	LP
Culture (CL)								
Customer Influence (CI)	0.754							
ESR	0.792	0.693						
Governance committee meetings (GCM)	0.792	0.790	0.710					
Hotel Size (HS)	-0.199	-0.121	-0.124	-0.171				
Industry Influence (II)	0.649	0.801	0.697	0.797	-0.126			
Knowledge of GRI (KGRI)	0.730	0.823	0.728	0.821	-0.079	0.828		
Legislative Pressure (LP)	0.756	0.755	0.699	0.702	-0.123	0.693	0.654	

Hypothesis Testing

The objective of this study was to indicate the factors affecting the environmental sustainability reporting practices in the Sri Lanka hotel industry. The findings, as reported in Table 6, show that the coefficients of the variables representing senior management commitment, legislative pressure, industry influence, knowledge of GRI, and organization culture are positive and significant. Accordingly, supporting H_1 H_2 H_4 H_5 and H_7 , results reveal that senior management commitment, legislative pressure, industry influence, knowledge of GRI, and culture have positive impact on the environmental sustainability reporting of the Sri Lankan hotel industry.

Table 6: Hypothesis Testing Results

	Coefficient	p-value	Hypothesis Testing Result
Senior Management Commitment→ESR	0.272*	0.013	H_1 is supported.
Legislative Pressure→ESR	0.260*	0.023	H_2 is supported.
Customer Influence→ESR	-0.121	0.461	H_3 is not supported.
Industry Influence→ESR	0.311*	0.011	H_4 is supported.
Knowledge of GRI→ESR	0.227*	0.017	H_5 is supported.
Governance Committee→ESR	-0.173	0.256	H_6 is not supported.
Culture→ESR	0.656**	0.000	H_7 is supported.
Hotel Size→ESR	0.021	0.715	H_8 is not supported.
	R^2 0.726		

** and * indicate significance at 1 percent and 5 percent levels respectively.

These results are consistent with those of the previous studies, as follows. Wijethilake & Lama (2019) pointed out that senior management commitment is essential to the implementation of sustainability reporting practices. Further, as found by Dissanayake et al. (2019), the listed companies in Sri Lanka may receive incentives for sustainability reporting in response to pressure to adopt western standards to access to international markets. Moreover, as shown by Kühn et al. (2018), the environmental sustainability reporting is positively impacted by industry affiliation. The study of Ariyani et al. (2018) find that governance committee variables have a significant effect on sustainability reporting disclosure, which is consistent with the results of the current study. Meanwhile, Hidayah et al. (2019) do not support this result as they stated that governance committee does not significantly affecting the sustainability reporting. The results of the current study are not consistent with the studies conducted by Dissanayake et al. (2019) and Abd-Mutalib et al. (2014) which find that the industry influence has no significant influence over the environmental sustainability reporting.

Conclusion and Implications

Drawing on the stakeholder theory perspective this study investigates factors affecting the environmental sustainability reporting practices of the Sri Lankan hotel industry. According to the results, this study concluded that senior management commitment, legislative pressure, industry influence, knowledge of GRI, and organization culture are significant influences of the environmental sustainability reporting practices of the Sri Lankan hotels sector. The results of this study have several important implications for both theory and practice. Theoretically, it enhances the understanding of factors that drive ESR within the context of the hotel industry in a developing country like Sri Lanka. It contributes to the existing literature by providing empirical evidence from Sri Lanka, emphasizing the unique influences in this sector. When practical implications are concerned, hotel management should focus on fostering a strong commitment to sustainability at the senior management level since it plays a crucial role in setting the tone and priorities for sustainability initiatives. Further, understanding and complying with legislative requirements related to sustainability reporting is essential. Managers should stay informed about relevant regulations and ensure their organizations adhere to these standards. The industry influence on ESR suggests that benchmarking against peers and industry leaders can drive improvements in sustainability practices. Hotels can benefit from participating in industry forums and networks to share best practices and learn from each other. Moreover, the positive effect of the knowledge of GRI on ESR suggests that training and awareness programs on the GRI standards are important. Managers should invest in building knowledge and skills related to sustainability reporting frameworks among their staff. Cultivating a culture that values sustainability can significantly enhance ESR practices. Organizational culture change requires ongoing effort and commitment but can lead to substantial long-term benefits. Policymakers should consider strengthening legislative frameworks to encourage more robust sustainability reporting. The positive impact of legislative pressure highlights the role of policy in promoting sustainable practices. Incentives for compliance with sustainability reporting standards can be introduced to motivate organizations to adopt best practices. This could include tax benefits, recognition programs, or access to financing for companies demonstrating strong sustainability performance.

Limitations of the Study and Recommendations for Future Studies

This study has several limitations that may present opportunities for future research. The sample in this study was chosen from hotels registered with a Sri Lanka tourism development authority; this may not be representative of the entire population of Sri Lanka hotel managers. In future studies, researchers may collaborate with hotel

associations to obtain a more representative sample of Sri Lankan hotel managers. The sample of the current study is limited to three provinces of the country. Future studies should be directed to cover other provinces of the country. Further, sustainability reporting quality has been ignored. Thus, future studies should focus on whether the quality and the content of the sustainability reporting actually satisficing the information need of the stakeholders and contributes to their empowerment.

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THE IMPACT OF CREDIT RISK ON THE FINANCIAL PERFORMANCE OF LICENSED COMMERCIAL BANKS IN SRI LANKA

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Abstract

This study investigates the impact of credit risk on the financial performance of licensed commercial banks in Sri Lanka during the period of 2013 to 2022, a time marked by significant macroeconomic challenges. The research employs panel data regression analysis using data from 12 commercial banks listed on the Colombo Stock Exchange. The findings reveal that credit risk, measured by the non-performing loan ratio and loan loss provisions to total loans, has a significant negative impact on bank profitability, as proxied by return on assets. Specifically, higher levels of non-performing loans and loan loss provisions adversely affect profitability, aligning with prior research. Interestingly, the capital adequacy ratio does not exhibit a statistically significant influence on bank profitability during the study period. Results also highlight the importance of bank-specific factors in determining profitability. While bank size is negatively related to the profitability, the bank age is positively associated with profitability, potentially due to economies of scale, diversification benefits, established customer relationships, and brand recognition. The differences in the significance of variables between the results of two models could be due to the distinct focus on assets versus equity in the generation of banks' profits. That is, the sources of banks' profitability are more dependent upon the asset base of the banks than that of the equity. The findings contribute to the ongoing debate on the impact of credit risk on different profitability ratios.

Keywords: Capital adequacy, credit risk, financial performance, loan loss provisions, non-performing loan

Introduction

Sri Lanka has faced an unprecedented crisis due to a series of unexpected events and policy errors. The country's debt became unsustainable because of significant fiscal imbalances, exacerbated by substantial tax reductions and the onset of the COVID-19 pandemic. This led to Sri Lanka losing its ability to borrow from international financial markets, depleting its foreign currency reserves and causing a significant drop in the exchange rate value. Consequently, the country ceased making debt payments in the late of 2022, resulting in a surge in inflation due to substantial monetary support aimed at meeting fiscal obligations. This has plunged the Sri Lankan economy into a deep recession, posing a threat to financial stability given the tight financial sovereign nexus (International Monetary Fund, 2023).

In such challenging circumstances, it is crucial to closely monitor a nation's commercial banks and institutions, which form the foundation of the economy and its future prospects. Within the Sri Lankan financial system, banks play a critical role by providing liquidity across the economy and influencing the risk profile of assets (Central Bank of Sri Lanka, n.d.). The banking sector in Sri Lanka is notably significant, with banks holding nearly half of the financial system's assets, making them key players in the financial landscape (Ariyadasa, et al., 2016). Licensed Commercial Banks (LCBs) and Licensed Specialized Banks (LSBs) lead the banking sector in Sri Lanka, exerting substantial control over the financial system with the largest share of assets. The Central Bank of Sri Lanka oversees and regulates banks, finance companies, and primary dealers to ensure the robustness and security of the financial system. This regulatory framework, guided by the Banking Act and Monetary Law Act, adheres to international standards set by the Basel Committee. The Central Bank employs a risk-focused supervisory approach, focusing on identifying, managing, and evaluating risk mitigation capacities of banks in line with global trends (Central Bank of Sri Lanka, n.d.).

The banking sector in Sri Lanka plays a crucial role in enhancing returns and wealth by providing capital to businesses and offering various investment opportunities to private and institutional investors. Both investors and banks are concerned about bank profitability, facing distinct risks in their pursuit of generating profits (Bandara, et al., 2021). Banks encounter various financial and non-financial risks, including credit, market, and

operational risks. Credit risk, stemming from borrowers' failure to meet obligations in direct lending and commitments, is a significant concern for banks (Commercial Bank of Ceylon, 2022). The implementation of Basel III by the Bank of International Settlements (BIS) has led to strengthened capital requirements for banks, enhancing the quality and amount of capital needed and improving risk coverage within the capital framework (Gunawardhana & Damayanthi, 2019). Basel III has implications for Sri Lankan banks, requiring them to maintain more capital and liquidity, which can impact returns on equity (ROE) due to increased costs. Compliance with Basel III may lead to reduced profitability for banks, depending on how lending rates respond to changes in the capital structure and the sensitivity of credit growth to lending rates (Gunawardhana & Damayanthi, 2019).

Despite prior studies on credit risk and financial performance of commercial banks, conducted before the pandemic and economic crisis, there is significant controversy in the findings. Some studies suggest that credit risk impacts the financial performance of commercial banks, while others conclude that credit risk does not significantly influence loan performance (Bandara, et al., 2021; Sun & Chang, 2022; Liyanage, et al., 2021; and others). Notably, there is a scarcity of studies conducted during the pandemic and economic crisis. *Therefore, this research aims to provide a more comprehensive understanding of how credit risk affects the financial performance of Licensed Commercial Banks (LCBs) in Sri Lanka, both during and after the pandemic-induced economic crisis.*

Research Problem

Some studies have shown a significant influence of credit risk on the financial performance of commercial banks (Bandara et al., 2021; Sun & Chang, 2018; Liyanage et al., 2021; Perinpanathan, & Vijeyaratnam, 2015; Rasika & Hewage, 2015; Kodithuwakku, 2015; Singh & Sharma, 2018; Poudel, 2012; Charles & Kenneth, 2013; Lawrence et al., 2020). Conversely, other studies have concluded that credit risk does not significantly affect the financial performance of commercial banks (Lebbe et al., 2016; Kithinji, 2010). *This contradictory evidence highlights a significant research gap necessitating further investigation*.

A research gap is evident in the examination of Capital Adequacy Ratio (CAR) and its impact on bank profitability, with prior studies from Sri Lanka and internationally, showing a diverse and conflicting relationship between CAR and financial performance (e.g. Weersainghe & Perera, 2013; Swarnaplai, 2014; Rasika & Hewage, 2015; Perinpanathan, & Vijeyaratnam, 2015; Suganya & Kengatharan, 2018; Poudel, 2012; Charles & Kenneth, 2013; Gizaw, et al., 2015; Singh, et al., 2020). Similarly, the Non-Performing Loan Ratio (NPLR) presents contradictory findings on its influence on bank profitability, with studies from various countries, including Sri Lanka, highlighting the need for further research to study the contextual factors shaping this intricate relationship (See e.g. Kithinji, 2010; Charles & Kenneth, 2013; Kodithuwakku, 2015; Perinpanathan, & Vijeyaratnam, 2015; Swarnaplai, 2014; Wijewardana & Wimalasiri, 2017; Shrestha, 2019; Singh, et al., 2020; Bandara, et al., 2021). Furthermore, the area of Loan Loss Provision to Total Loan (LLPTL) also exhibits conflicting connections with bank profitability, as studies both within Sri Lanka and globally offers contrasting findings. These studies emphasize the necessity for additional research to uncover the contextual elements influencing this complex relationship (Charles & Kenneth, 2013; Kodithuwakku, 2015; Gizaw, et al., 2015; Serwadda, 2018; Gunathilaka & Wijesingha, 2021; Sun & Chang, 2018; Ruwanthika, et al., 2018).

The period from 2013 to 2022 in Sri Lanka highlights a crucial period marked by significant challenges. This timeframe coincided with security threats, political instability, pandemics, and economic crises, emphasizing the need for in-depth exploration (Fitch Rating, 2023). *The macroeconomic impact on Sri Lanka's banking sector during this period remains largely unaddressed*. From 2013 to 2022, Sri Lanka faced significant challenges, including security threats, political instability, pandemics, and economic crises (Fitch Rating, 2023). These events impacted the banking sector, particularly from 2019 to 2022, when economic difficulties tested the sector's resilience. The Easter Sunday attacks and political instability in 2019 slowed growth, and the COVID-19 pandemic in 2020 further stressed the financial system (Central Bank of Sri Lanka, 2018, 2019). In 2022, Sri Lanka's most severe economic crisis since independence led to a sovereign rating downgrade, banking sector exposure, economic contraction, foreign exchange scarcity, high inflation, and a temporary halt on external debt repayments. These factors severely impacted the financial sector (Central Bank of Sri Lanka, 2022). Following the downgrade, Fitch Ratings downgraded the ratings of ten Sri Lankan banks in 2023 (Fitch Rating, 2023). Reports from the Central Bank highlight a decline in profitability from 2018 to 2019, with loan portfolio expansions increasing risk-weighted assets and non-performing loans. Moratoria from 2020 to 2022 temporarily froze loan classifications, yet non-performing loans continued to rise. By 2022, credit growth slowed, and impairments increased, indicating systemic risks that policymakers aim to mitigate through macroprudential tools.

The research gap of this study lies in the need to clarify the contradictory findings regarding the impact of credit risk on the financial performance of commercial banks in Sri Lanka. While some studies have shown a significant influence, others have concluded that credit risk does not significantly affect bank profitability. This inconsistency necessitates further investigation to establish a clear understanding of the relationship between credit risk and bank performance in the Sri Lankan context. The main research question of this study is whether there is an impact of possible factors that determined financial leverage such as Non-Performing Loan Ratio, Capital Adequacy Ratio, Loan Loss Provision to Total Loans, Bank Size, Bank Age, Interest Rate, and Inflation Rate on the financial performance of licensed commercial banks in Sri Lanka from 2013 to 2022. This study aims to investigate the impact of various factors, including Non-Performing Loan Ratio, Capital Adequacy Ratio, Loan Loss Provision to Total Loans, Bank Size, Bank Age, Interest Rate, and Inflation Rate, on the financial performance of licensed commercial banks in Sri Lanka from 2013 to 2022.

Literature Review

Financial Performance

Financial intermediation is a process where banks and other financial institutions collect funds from customers and then lend those funds to borrowers (Perera & Morawakage, 2016). The performance of institutions is influenced by a combination of strengths, weaknesses, opportunities, and threats stemming from internal and external environments. Therefore, a bank's efficiency is shaped by factors from both its specific operations and the broader environment (Swarnaplai, 2014).

Profitability holds significant importance in the banking sector, particularly in ensuring its continued existence. Profitability serves as a crucial indicator of a bank's future potential, with every bank striving to enhance its profitability. Higher profitability levels reflect superior bank performance, indicating effective and efficient operations (Suryaningsih & Sudirman, 2020). Over time, the profitability of banks has been impacted by various internal and external factors. Profitability is essential for banks to sustain their activities and for shareholders to receive fair returns (Weersainghe & Perera, 2013). While the definition of profitability varies across studies, previous literature extensively explores the determinants of profitability, offering empirical insights into this area. Bank profitability, often measured through ratios such as return on assets (ROA) and return on equity (ROE), is commonly identified as a function of both internal and external determinants (Weersainghe & Perera, 2013). ROA acts as an indicator of efficiency in using assets for income generation, with higher values indicating better efficiency. Despite its limitations in capturing off-balance-sheet activities, ROA is considered a robust measure of bank performance and profitability (Weersainghe & Perera, 2013). Many studies recommend using Return on Assets (ROA) as a method to measure bank profitability, as evidenced by various researchers (Kodithuwakku, 2015; Suganya & Kengatharan, 2018; Liyanage, et al., 2021). Return on equity (ROE) is also widely recognized as a key indicator for measuring profitability, as indicated by studies such as (Alshatti, 2015; Wijewardana & Wimalasiri, 2017; Hunjra, et al., 2020).

Non-Performing Loan Ratio

The quality of assets reflects the level of credit risk associated with a bank's loan and investment portfolio (Suganya & Kengatharan, 2018). The Basel Committee on Banking Supervision (BCBS) acknowledges the importance of asset quality in effectively supervising the banking system, including overseeing the bank's loan risk (Perinpanathan, & Vijeyaratnam, 2015). The Non-Performing Loans Ratio (NPL) is a critical measure of a commercial bank's credit risk. Non-Performing Loans (NPLs) are defined as the total borrowed funds for which the debtor has failed to make scheduled payments for at least 90 days (Nwude & Okeke, 2018). This ratio is calculated by dividing the Gross Non-Performing Loans by the Total Gross Loans, as supported by various studies (Weersainghe & Perera, 2013; Kodithuwakku, 2015; Wijewardana & Wimalasiri, 2017; Sun & Chang, 2022). Research indicates that financial and banking crises in East Asian and Sub-Saharan African countries were preceded by an increase in non-performing loans (Vatansever & Hepşen, 2013). When borrowers miss scheduled payments, it can lead to higher collection and borrowing costs. A significant portion of non-performing investments can negatively impact a bank's ability to invest in new profitable opportunities and repay depositors (Poudel, 2018).

The Non-Performing Loan ratio is expected to have a negative impact on profitability as non-performing loans do not generate interest income. Additionally, the need to make provisions for potential loan losses, dependent on the value of non-performing loans, affects a bank's profits (Weersainghe & Perera, 2013). An increasing ratio signals a higher risk of not recovering a significant portion of a bank's major assets (Kodithuwakku, 2015).

While some studies show a significant influence of the non-performing loan ratio on bank profitability (Rasika & Hewage, 2015; Swarnaplai, 2014; Liyanage, et al., 2021), others suggest otherwise (Weersainghe & Perera, 2013; Ariyadasa, et al., 2016). This variation in findings highlights the importance of further exploration into the role of the NPLR as a key credit risk indicator.

Loan-Loss Provision to Total Loan

The level of loan loss provisions in banks is a crucial indicator of credit risk and asset quality, impacting the future performance of banks (Menicucci & Paolucci, 2016). Loan loss provisions, which are recognized on income statements, represent anticipated losses associated with specific loan portfolios. According to Basel II regulations, Loan Loss Provisions (LLP) can be integrated into a bank's capital, reflecting management's confidence in asset quality (Gizaw, et al., 2015). These provisions serve as protective buffers for a bank's capital (acting as a strong defense against insolvency risks) particularly when a bank encounters significant asset quality challenges and existing reserves are insufficient, leading to losses absorbed by shareholders' equity (Golin, 2001).

Several studies have shown that the loan loss provision to total loan ratio significantly influences bank profitability (Kodithuwakku, 2015; Gunathilaka & Wijesingha, 2021; Sun & Chang, 2022; Ruwanthika, et al., 2022; Gizaw, et al., 2015; Serwadda, 2018). However, other research has indicated that the loan loss provision to total loan ratio does not have a substantial impact on bank profitability (Charles & Kenneth, 2013). The conflicting findings regarding loan loss provisions to total loans highlight the need for further comprehensive investigation.

Capital Adequacy Ratio

In Sri Lanka, the Central Bank introduced the internal capital adequacy assessment process in 2013, facilitating the implementation of Basel III requirements. Subsequently, in June 2017, capital adequacy requirements conforming to Basel III were put into effect (Chandrasegaran, 2020). Capital adequacy is a crucial indicator of the financial stability of the banking industry, acting as a safety mechanism to safeguard depositors and enhance stability and efficiency in the overall financial system of a country (Herath, 2015). The capital adequacy ratio (CAR) is a metric that evaluates a bank's financial robustness by leveraging its capital and assets (Chandrasegaran, 2020). A well-capitalized bank, capable of seizing unexpected opportunities and managing unforeseen losses, tends to exhibit higher profitability. The CAR, as an endogenous variable, is instrumental in assessing profitability.

Moreover, a bank's capital strength signifies its ability to absorb unexpected losses, suggesting that capital is expected to positively impact profitability. However, theoretically, the relationship with capital should be negative, given that equity financing typically involves higher costs compared to funding sources such as customer deposits and short-term debt, which carry less risk (Ariyadasa, et al., 2016). The CAR is defined as the ratio of the capital base to total risk-weighted assets, where assets are adjusted for credit, operational, and market risk. This definition of CAR has been utilized in various prior studies (Weersainghe & Perera, 2013; Ariyadasa, et al., 2016; Shrestha, 2019; Ruwanthika, et al., 2022).

Some studies have shown a significant influence of the capital adequacy ratio on bank profitability (Weersainghe & Perera, 2013; Rasika & Hewage, 2015; Ariyadasa, et al., 2016; Liyanage, et al., 2021; Bandara, et al., 2021; Ruwanthika, et al., 2022), whereas the other studies have concluded that there is an insignificant relationship between capital adequacy ratio and bank profitability (Sun & Chang, 2022; Gizaw, et al., 2015; Singh, et al., 2020). The literature highlights the context-specific nature of the relationship between CAR and bank profitability, with findings differing across various countries.

Bank Size

Bank size plays a crucial role in determining bank profitability. The relationship between bank size and profitability can vary based on economies of scale and risk diversification. Larger banks may benefit from economies of scale, leading to increased profitability due to cost efficiencies and greater operational capacity. Conversely, smaller banks might excel in risk diversification, potentially reducing credit risk and enhancing returns. A handful of Sri Lankan studies such as Weersainghe & Perera (2013), Kaaya & Pastory (2013) have explored this relationship, highlighting the complex interplay between bank size, economies of scale, and profitability in the banking industry.

Bank Age

Established banks typically experience rising profits, improved productivity, and expanded size. The age of a bank significantly influences its financial performance, indicating that older banks, with their accumulated experience, tend to achieve higher profitability. Older banks often provide a diverse range of products and services, attracting more customers and leading to enhanced financial performance. These assertions align with the research findings of Hunjra et al. (2020) and are further supported by the work of Lawrence et al. (2020).

Macro-Economic Factors

The inflation and interest rates have a significant impact on banks' performance as these variables impact the aggregate borrowing of an economy. Inflation can be defined as continuous increase in the prices of goods and services of an economy that can have a mixed effect on banks' performance. In order to generate higher returns, banks can raise their lending rates in the course of inflation but central banks may respond to that by raising policy interest rates so as to limit excessive credit creation and increase borrowing costs for consumers. The overall impact of inflation on banks' performance depends on how banks respond to inflationary conditions, leading to potentially positive or negative outcomes (Ariyadasa, et al., 2016). The impact of interest rates on banks' performance can be positive or negative, with varying findings across studies. Some studies show a significant influence of interest rates on bank profitability, while others suggest no significant impact (Poudel, 2018). The conflicting results regarding inflation rates and interest rates emphasize the complexity of these factors and the need for further research to understand their specific impact on bank profitability in Sri Lanka.

The existing literature on the impact of credit risk factors on the financial performance of commercial banks in Sri Lanka presents conflicting findings. Some studies have found a significant influence of credit risk, as measured by non-performing loan ratio (NPLR), loan loss provision to total loan (LLPTL), and capital adequacy ratio (CAR), on bank profitability (Bandara et al., 2021; Sun & Chang, 2022; Liyanage et al., 2021). However, other studies have concluded that these credit risk factors do not significantly impact the financial performance of commercial banks (Lebbe et al., 2016; Kithinji, 2010).

This contradictory evidence highlights a significant research gap that necessitates further investigation. The relationship between CAR and bank profitability is particularly contentious, with prior studies from Sri Lanka and internationally showing diverse and conflicting findings (Weersainghe & Perera, 2013; Suganya & Kengatharan, 2018; Poudel, 2012; Gizaw et al., 2015). Similarly, the influence of NPLR and LLPTL on bank profitability also presents contradictory results, emphasizing the need for more research to understand the contextual factors shaping these complex relationships (Kithinji, 2010; Kodithuwakku, 2015; Gunathilaka & Wijesingha, 2021; Sun & Chang, 2018).

Conceptual Framework

Researchers such as Poudel, (2012), Rasika & Hewage, (2015), Kodithuwakku, (2015) & Mulwanda, (2021) identify Non-Performing Loan Ratio, Capital Adequacy Ratio, average inflation, total assets to GDP, total loans to deposit ratio, natural log of total assets, provision for loan losses, total loans to total assets, growth of GDP, Default rate, Cost per loan asset, NPAs to Net Advances, Profit per Employee (PPE), Credit-deposit Ratio (CDR), Investment-deposit Ratio (IDR), and Lending to the Sensitive Sector (SEN) as indicators of credit risks of banks. They also identify Return on Equity and Return on Assets as indicators of bank performance.

These research articles discuss the impact of non-performing loans (NPLs) on the banking industry, particularly focusing on loan loss provisions and capital adequacy ratios. Non-performing loans can significantly affect the loan loss provisions of banks, impacting their soundness and ability to lend. The studies highlight that NPLs reduce banks' earnings, cause losses, and hinder their lending capacity, which can have negative implications for the overall economy. Banks prepare for potential losses by estimating future losses on loans and booking provisions accordingly. The NPL coverage ratio indicates the extent to which a bank has recognized expected losses from non-performing loans. Timely coverage of non-performing loans is crucial, with mechanisms like a provisioning calendar in place to guide banks in adequately covering potential losses over time.

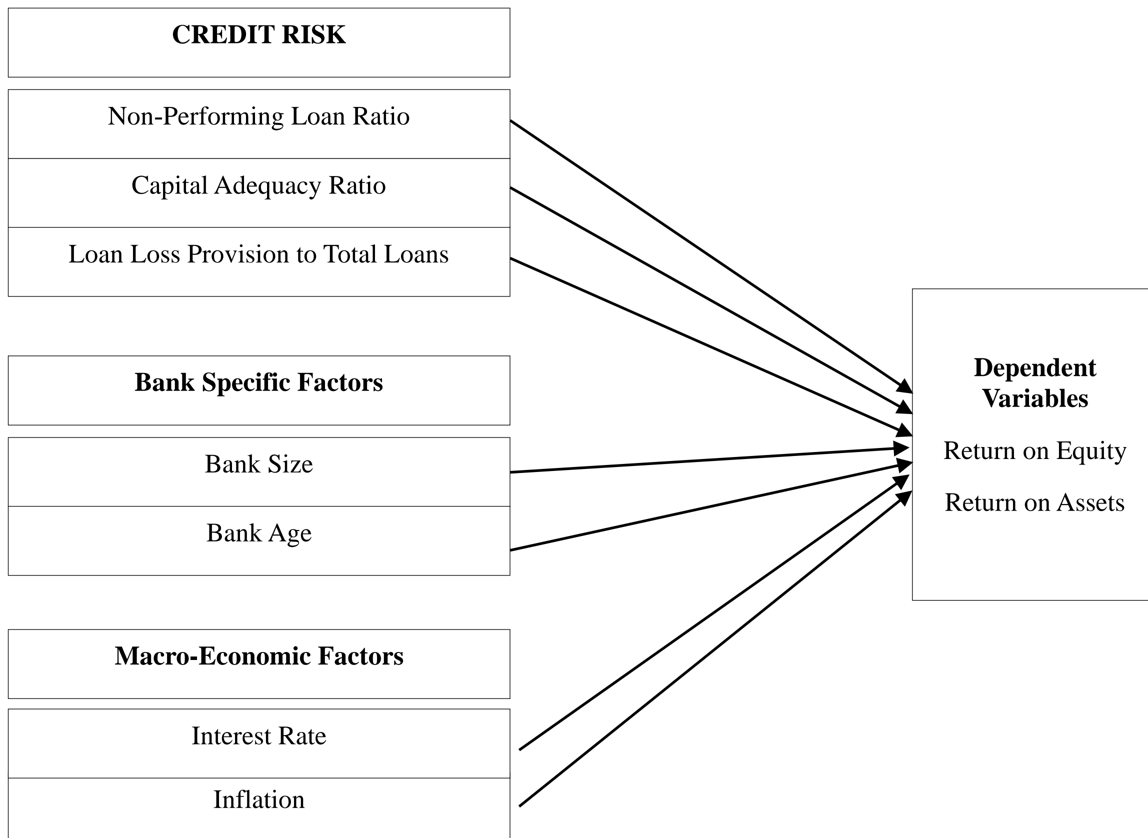

Figure 01. Conceptual Framework

Methodology

The study targets twelve registered commercial banks listed on the Colombo Stock Exchange (CSE) as the population for the study. Namely Amana Bank PLC, Commercial Bank of Ceylon PLC, DFCC Bank PLC, Housing Development Finance Corporation PLC, Hatton National Bank PLC, National Development Bank PLC, National Trust Bank PLC, Pan Asia Banking Corporation PLC, Sampath Bank PLC, Sanasa Development Bank PLC, Seylan Bank PLC, Union Bank of Colombo PLC were selected. All twelve registered commercial banks in Sri Lanka listed on the CSE is included in the sample. Therefore, the sample size is identified as twelve, utilizing a census sampling approach.

This study adopts a quantitative approach, focusing on collecting quantitative data. The data will be sourced from the audited financial statements published in the annual reports of the commercial banks, and the annual reports of the Central Bank from a period of 2013 to 2022. The data will be analyzed using descriptive statistical and inferential statistical techniques such as regression analysis that includes diagnostic tests for regression analysis. The data are processed and regressions are run on EViews software. In order to ensure free from scaling issues, robustness and efficiency of linearization of non-linear relationship, the natural algorithms of variables were taken in the model estimation. However, actual values of bank age, interest rate and inflation rate were presented in Table 1 (e.g. descriptive statistics) for better understanding of the readers.

The regression models utilized in the study are as follows:

$$Y_i = \alpha + \sum \beta_i X_j + \varepsilon_i \quad \text{......} 01$$

Where:

Y_i represents the financial performance measure for the banking sector firm i.

a denotes the constant term if the regression i.

Two dependent variables considered are Return on Assets (ROA) and Return on Equity (ROE).

The explanatory variables Xi to Xj are categorized into specific and bank-level variables based on the above discussion.

Model (1):
$ROA_{it} = a + β_1NPL_{it} + β_2LLP_{it} + β_3CAR_{it} + β_4SZE_{it} + β_5AGE_{it} + β_6INT_{it} + β_7INF_{it} + ε_i$..............................02

Model (2):
$ROE_{it} = a + β_1NPL_{it} + β_2LLP_{it} + β_3CAR_{it} + β_4SZE_{it} + β_5AGE_{it} + β_6INT_{it} + β_7INF_{it} + ε_i$..............................03

Where;
ROA: Return on Assets
ROE: Return on Equity
a: Constant term
β: Coefficient of the independent variables
NPL: Non-performing Loan Ratio
LLP: Loan Loss Provision to Total Loan Ratio
CAR: The Capital Adequacy Ratio
SZE: Bank Size
AGE: Bank Age
INT: Interest Rate
INF: Annual inflation rate
$ε$: Error term

Results and Discussion

Descriptive statistics of sample data

The findings from the updated sample data show that the mean Return on Assets (ROA) for the commercial banks in Sri Lanka is 1.3%, with a low standard deviation of 0.008, indicating minimal variability in ROA across the banks. The mean Return on Equity (ROE) is 14.2%, with a standard deviation of 0.094, suggesting some variability in ROE among the banks. Regarding the key independent variables, the mean Non-Performing Loan Ratio (NPLR) is 5.3%, with a moderate standard deviation of 0.047, implying an average of 5.3% non-performing loans in the banks' portfolios. The mean Loan Loss Provision to Total Loan (LLPTL) ratio is 1.5%, with a low standard deviation of 0.019, indicating little variability in loan loss provisions relative to total loans. The mean Capital Adequacy Ratio (CAR) is 15.9%, with a relatively low standard deviation of 0.036, suggesting that banks maintain capital well above regulatory thresholds with little variability.

The descriptive statistics also show that the mean bank age is 31.5 years, with a standard deviation of 24.45, indicating some variability in the ages of the commercial banks. The mean bank size, measured by total assets, is 11.38, with a standard deviation of 0.496, signifying variability in the sizes of the banks. The mean interest rate charged by the banks is 7.98%, with a standard deviation of 8.31, indicating variability in interest rates over time. Additionally, the mean inflation rate is 10.27%, with a standard deviation of 2.270, suggesting some variability in the economic environment where these banks operate. A significant variability was observed only during 2022 but the effect was negligible when taking the averages and calculating the standard deviation.

The Levin, Lin & Chu (LLC) test results show that all variables are stationary, as the test statistics are negative and statistically significant at the 1% level (i.e., does not have a unit root). As results show all the variables appear to be stationary based on the negative and statistically significant LLC test statistics.

Table 1: Descriptive statistics of sample data

Description	Min	Max.	Mean	Std. Dev.	LLC*
ROA	-0.019	0.044	0.013	0.008	-4.218
ROE	-0.016	0.676	0.142	0.094	-6.753
NPLR	0.009	0.330	0.053	0.047	-7.433
LLPTL	0.001	0.096	0.015	0.019	-7.897
CAR	0.103	0.409	0.159	0.036	-9.403
BANK AGE	3.000	125.00	31.50	24.45	-7.979
BANK SIZE	10.369	12.385	11.379	0.496	-17.84
INT. RATE %	4.50%	15.50%	7.98%	8.310	-7.044
INFLATION %	-0.90%	21.50%	10.27%	2.270	-6.201

Note: *LLC is the Levin, Lin & Chu t test where p-value is less than 1% in all variables. Inflation rate and the interest rates were counted upto March, 2022 from the year 2013.

Panel Data Model Selection Test

The test results of panel specification are outlined in Table 2 and Table 3 (for the two regression specifications) to determine the most suitable model for assessing the determinants of profitability of commercial banks Sri Lanka. Specifically, if the p-value of the Hausman test is less than the significance level, it implies that the pooled OLS model should be rejected in favor of the fixed effects model. Conversely, if the p-value exceeds the significance level, one should retain the fixed effects model. The Hausman test results presented in Table 2 show a Chi-square statistic of 0.00 with 7 degrees of freedom and a probability of 0.999 for the cross-section random test. This statistical analysis indicates that there is no significant difference between the fixed effect and random effect models at the 0.05 significance level. The low Chi-square value and the very high p-value of 0.999 suggest that the null hypothesis, which states that the preferred model is the random effects model, cannot be rejected. This implies that the choice between fixed effects and random effects models does not significantly impact the results for the variables ROA/ROE, NPLR, LLPTL, CAR, Bank Age, Bank Size, Interest Rate, and Inflation. Therefore, based on these Hausman test results, the random effects model appears to be the more appropriate and statistically comparable model for capturing the relationships between the variables in the analysis. The high p-value of 0.999 indicates a very strong statistical evidence in favor of the random effects model, suggesting that this model is the preferred specification for the given data and variables.

Table 2. Hausman Test – Model I &II

Test Summary	Chi-square statstic	Chi-sq.df	Probability
Cross-section Random			
Model I	0.000	7	0.999
Model II	0.000	7	0.999

Model I - Null hypothesis: the preferred model is random effects, Alternate hypothesis: the model is fixed effects. Variable list: ROA (Return on Assets), NPLR (Non-Performing Loan Ratio), LLPTL (Loan Loss Provision to Total Loans), CAR (Capital Adequacy Ratio), Bank Age (BA), Bank Size (BS), Interest Rate (IR), Inflation (INF). Model II - Null hypothesis: the preferred model is random effects, Alternate hypothesis: the model is fixed effects. Variable list: ROE (Return on Equity), NPLR (Non-Performing Loan Ratio), LLPTL (Loan Loss Provision to Total Loans), CAR (Capital Adequacy Ratio), Bank Age (BA), Bank Size (BS), Interest Rate (IR), Inflation (INF).

The panel cross-sectional heteroskedasticity LR test results provide strong evidence of the presence of heteroskedasticity in the panel dataset used to investigate the impact of credit risk on the financial performance of commercial banks in Sri Lanka from 2013 to 2022. The highly significant likelihood ratio statistics suggest that the null hypothesis of homoscedasticity can be rejected. The substantial differences in log-likelihood values between the restricted and unrestricted models further corroborate this finding, suggesting that the unrestricted model, which allows for heteroscedastic errors, fits the data significantly better. The presence of panel cross-sectional heteroskedasticity implies that the error variances are not constant across the cross-sectional units (i.e., the banks in the sample). This violation of the classical linear regression assumption of homoscedasticity can lead to biased and inefficient parameter estimates if not properly addressed. Consequently, the researchers must account for the heteroskedasticity in the subsequent regression analysis, using appropriate methods such as robust standard errors or weighted least squares, to ensure the validity and reliability of the research findings. Thus, the model was estimated suing weighted least squares.

Regression Results

Regression Model I

The regression analysis examining the impact of credit risk on the financial performance proxied by Return on Assets (ROA) of licensed commercial banks reveals several key findings. Credit risk as measured by NPLR has a significant negative impact on bank profitability. This indicates that higher levels of non-performing loans adversely affect the profitability of banks, as measured by ROA. This finding is consistent with prior research by Khanal and Sapkota (2023), Seetharaman et al. (2017), Al Zaidanin and Al Zaidanin (2021), Alshatti (2015), Anita et al. (2022), Bhuiya et al. (2023), Poudel (2012), Perera and Morawakage (2016), Rajkumar and Hanitha (2015), Rasika and Madushani (2019), Shrestha (2019), Serwadda (2018), Sewwandi and Karunarathne (2022), and Tuladhar (2017).

Loan loss provisions, which are set aside to cover potential loan defaults, significantly and negatively impact bank profitability. This suggests that higher loan loss provisions, which are set aside to cover potential defaults, reduce the profitability of banks. This finding is supported by previous studies by Ajayi et al. (2019), Badawi

(2017), Bahattai (2017), Ekanayake and Azeez (2015), Fernando and Ekanayake (2015), Gowthaman and Kengatharan (2023), Jayalath and Palihena (2017), and Weerasinghe and Sun & Chang (2021).

Bank size is significantly and negatively associated with bank profitability. Larger banks tend to have lower profitability, as measured by ROA, potentially due to the inefficiencies that can arise from increased complexity and the potential for decreased customer relationships and loyalty. This contradicts the findings of Ariyadasa et al. (2016), Chandrasegaran (2020), and Suganya and Kengatharan (2018), which suggest a positive relationship between bank size and profitability. Bank age is however significantly and positively related to bank profitability, corroborating the research of Ariyadasa et al. (2016). Older and more established banks tend to have higher profitability compared to younger banks, likely due to their experience, customer relationships, and brand recognition.

The regression analysis provides important insights into the key drivers of bank profitability, as measured by ROA, in the Sri Lankan banking sector during the 2013-2022 period marked by significant macroeconomic challenges. These findings highlight the critical role of credit risk, bank size, and bank age in determining the financial performance of licensed commercial banks in Sri Lanka.

Table 3. Regression Results of Model I

Variable	Coefficient	t-Statistics	Probability
NPLR	-0.0006**	-1.979	0.0505
LLPTL	-0.0011*	-1.791	0.0763
CAR	-0.0002	-0.069	0.9450
BS	-0.0222**	-4.678	0.0000
BA	0.06999**	6.212	0.0000
INR	-0.0011	-0.883	0.3789
INF	0.00365	0.003	0.9971
C	0.15507	3.438	0.0009

Note: Dependent variable: ROA (Return on Assets) & independent variables: NPLR (Non-Performing Loan Ratio), LLPTL (Loan Loss Provision to Total Loans), CAR (Capital Adequacy Ratio), Bank Age (BA), Bank Size (BS), Interest Rate (INR), Inflation (INF). *, ** significant at 10 % and 5 % respectively

The results from regression I above show that interest rate (INR) does not have a statistically significant impact on ROA. This suggests that changes in interest rates do not have a significant direct effect on the profitability of commercial banks in Sri Lanka, as measured by ROA, during the study period. The non-significant relationship between interest rates and ROA aligns with findings from prior studies, such as Weersainghe and Perera (2013) and Ariyadasa et al. (2016). The regression results also indicate that inflation rate (INF) does not have a statistically significant impact on ROA. This implies that fluctuations in the inflation rate do not directly translate into significant changes in the profitability of commercial banks in Sri Lanka. The non-significant relationship between inflation and ROA is consistent with the findings of Ruwanthika et al. (2022).

Regression Model II

The regression results for the impact on Return on Equity (ROE) show some differences. CAR, NPLR and LLPTL do not exhibit statistically significant direct effects. Similar to the ROA findings, Bank Age has a significant positive impact on ROE. This indicates that older, more established banks tend to have higher profitability as measured by ROE compared to younger banks but Bank Size does not have a significant influence. Interestingly, the control variables of Interest Rate and Inflation Rate do not have significant impacts on either ROA or ROE during the study period. This indicates that changes in macroeconomic factors such as interest rates and inflation do not directly translate into significant changes in the profitability of commercial banks in Sri Lanka.

The regression analysis examining the impact of credit risk management on the Return on Equity (ROE) of licensed commercial banks in Sri Lanka reveals some findings that are consistent with prior studies in this area. The insignificant negative impact of Non-Performing Loan Ratio (NPLR) on ROE found in this study aligns with the findings of Ruwanthika et al. (2022). Their studies also reported an insignificant relationship between non-performing loans and bank profitability as measured by ROE in the Sri Lankan context. This suggests that the level of non-performing loans may not have a direct significant effect on the return generated for shareholders. Similarly, the insignificant negative impact of Loan Loss Provision to Total Loan Ratio (LLPTL) on ROE is consistent with the results reported by Kodithuwakku (2015) and Perinpanathan, & Vijeyaratnam

(2015). These researchers also found that loan loss provisions do not have a significant direct influence on the ROE of commercial banks in Sri Lanka. In contrast, the finding of an insignificant impact of Capital Adequacy Ratio (CAR) on ROE is supported by studies such as Sun & Chang (2022) and Liyanage et al. (2021).

Table 4. Regression Results of Model II

Variable	Coefficient	t-Statistics	Probability
NPLR	-0.0141	0.1337	0.8939
LLPTL	0.00056	-1.5700	0.1195
CAR	-0.0267	-0.6262	0.5326
BS	-0.0402	-0.6292	0.5306
BA	0.26070*	1.72015	0.0885
INR	-0.0109	-0.6199	0.5367
INF	-0.0064	-0.5144	0.6081
C	0.1047	0.1725	0.8633

Note: Dependent variable: ROE (Return on Equity), NPLR (Non-Performing Loan Ratio), LLPTL (Loan Loss Provision to Total Loans), CAR (Capital Adequacy Ratio), Bank Age (BA), Bank Size (BS), Interest Rate (INR), Inflation (INF). *, ** significant at 10 % and 5 % respectively

Interest Rate (INR) does not have a statistically significant impact on ROE. This suggests that changes in interest rates do not have a meaningful effect on the profitability of banks as measured by ROE. Inflation Rate (INF) does not have a statistically significant impact on ROE. This indicates that the level of inflation does not have a significant influence on the profitability of banks as measured by ROE. The regression results for ROE are consistent with some of the existing literature, providing further evidence on the complex relationship between credit risk management and bank financial performance in the Sri Lankan context.

The significant differences between the two regression outcomes in terms of the significance of the variables

The significance difference between the two regression outcomes in terms of the significance of the variables can be attributed to several factors. The measurement of profitability, with ROA focusing on assets and ROE on equity, could influence the results. Additionally, the inclusion of different credit risk factors in each model, such as NPLR and LLPTL in Model I & Model II, could contribute to the differences in significance. Bank-specific factors such as Bank Size and Bank Age, as well as macroeconomic factors such as Interest Rate and Inflation Rate, could also have distinct effects on the profitability ratios at different magnitudes. The key take-away from this observation of differences is that the differences in the significance of variables between the two models could be due to the *distinct focus on assets versus equity* in the generation of profitability. That is, the sources of profitability is more dependent upon the asset base of the banks than that of the equity

Diagnostics Check

Regression Model I

The Jarque-Bera statistic of 51.09 with a probability of 0.00 indicates that the residuals are not normally distributed. The Durbin-Watson statistic of 1.144 falls in the inconclusive range, so we cannot definitively conclude whether autocorrelation is present or not. The Breusch-Pagan LM, Pesaran scaled LM, and Bias-corrected scaled LM tests all have p-values less than 0.05, suggesting the presence of cross-sectional dependence (correlation) in the residuals. However, the Pesaran CD test has a p-value of 0.516, which fails to reject the null hypothesis of no cross-sectional dependence. In contrast, the cross-section F and Chi-square tests both have p-values of 0.00, indicating that the fixed effects in the model are statistically significant, which imply that there is cross-sectional dependence in the model.

Regression Model II

The Jarque-Bera statistic of 1921.16 with a probability of 0.000 clearly shows that the residuals are not normally distributed, which violates a key assumption of classical linear regression models. The Durbin-Watson statistic of 1.789 falls in an inconclusive range, so it's unclear whether autocorrelation is present or not. While the Breusch-Pagan LM, Pesaran scaled LM, and Bias-corrected scaled LM tests suggest cross-sectional dependence (correlation) in the residuals with p-values less than 0.05, the Pesaran CD test fails to reject the null hypothesis of no cross-sectional dependence with a p-value of 0.8448. However, the cross-section F and Chi-square tests both have p-values of 0.000, clearly indicating the presence and significance of fixed effects in the model.

Conclusion

The study examines the impact of credit risk on the financial performance of licensed commercial banks in Sri Lanka during the period from 2013 to 2022, which was marked by significant macroeconomic challenges including the COVID-19 pandemic and an unprecedented economic crisis. The analysis reveals that credit risk, as measured by the non-performing loan ratio (NPLR) and loan loss provisions to total loans (LLPTL), has a significant negative impact on financial performance, measured by return on assets (ROA). Specifically, higher levels of non-performing loans and loan loss provisions are found to adversely affect the profitability of banks.

Interestingly, the capital adequacy ratio (CAR) does not exhibit a statistically significant impact on bank profitability during the study period. This may be attributed to the unique economic conditions faced by Sri Lanka's banks in this difficult period, which could have contributed to differences from previous studies. The findings suggest that economies of scale may allow larger banks to benefit from cost efficiencies and increased operational capacity, resulting in improved profitability. On the other hand, smaller banks could be able to diversify their risk portfolios and reduce credit risks, leading to increased returns. The importance of strategy growth and longevity to the banking sector is underscored by these findings.

During the study period, bank profitability is not significantly affected by macroeconomic factors such as interest rates or inflation. This may be due to Sri Lanka's extraordinary circumstances, where the impact of these factors might have been overshadowed by the larger financial crisis. A difference in the significance of variables between these two models can be explained by a particular focus on assets versus equity when generating banks' profits. This means that the banks' asset base is more important in terms of sources of profitability than their equity. These findings will contribute to a continuing debate on the impact of credit risk for various profitability ratios.

Implications of the Study

Theoretical Implication

The study emphasizes the significance of credit risk, particularly non-performing loan ratios and loan loss provisions, in determining bank profitability. This aligns with existing theories on credit risk, such as capital structure theories, which highlight its impact on financial performance. The study also suggests a negative relationship between bank size and profitability, potentially due to the inefficiencies that can arise from increased complexity and the potential for decreased customer relationships and loyalty. This has significant theoretical implications for the banking industry and its regulatory frameworks, indicating that there may be a point of diminishing returns in bank size beyond which further growth does not necessarily lead to increased profitability. This challenges the traditional view of economies of scale and diversification benefits and highlights the importance of considering the potential drawbacks of large bank size in policy and regulatory decisions. Furthermore, the study implies a positive association between bank age and profitability, which is rooted in the advantages that older banks tend to have due to their experience, established customer relationships, and brand recognition. This relationship supports theories that suggest older banks are more profitable due to the benefits that come with their age. The experience of older banks can lead to improved operational efficiency, better risk management, and more effective decision-making processes. This experience can also translate into a deeper understanding of the market and customer needs, allowing older banks to adapt more effectively to changing conditions and maintain a competitive edge.

Managerial Implications

The findings of this study have several important practical implications for bank management and policymakers in Sri Lanka. For bank management, the significant negative impact of non-performing loans (NPLR) and loan loss provisions (LLPTL) on bank profitability, as measured by ROA, underscores the critical importance of effective credit risk management. Bank management should prioritize robust credit assessment, monitoring, and recovery processes to minimize the accumulation of non-performing assets and the need for high loan loss provisions. Additionally, the lack of a significant relationship between the capital adequacy ratio (CAR) and bank profitability suggests that banks should not solely focus on increasing capital levels to boost financial performance. Instead, they should strike a balance between maintaining adequate capital buffers and optimizing their asset-liability management to enhance overall profitability. The negative relationship between bank size and ROA indicates that larger banks may face challenges in maintaining operational efficiency, and bank

management should explore strategies to streamline operations, leverage technology, and enhance customer relationships to improve profitability, even as they grow in size. The positive impact of bank age on both ROA and ROE highlights the importance of experience and diversification in the banking sector, and younger banks should focus on building their expertise, customer base, and product offerings to emulate the profitability of more established institutions.

Bank managers should prioritize effective credit risk management, such as robust loan underwriting, monitoring, and recovery processes, to minimize non-performing loans and maintain profitability. Adequate loan loss provisions should be maintained to cover potential defaults and protect the bank's capital position. Strategies for growth and consolidation should be considered to leverage the benefits of larger size and economies of scale. Established banks should capitalize on their experience, customer relationships, and brand recognition to maintain profitability advantages over newer entrants. While macroeconomic factors may have a negligible impact during crises, bank managers should still monitor and adapt to changes in interest rates and inflation to mitigate potential risks.

Policy Implications

The results indicate that factors related to credit risk, such as non-performing loans and provisions for loan losses, have a notable effect on the financial performance of commercial banks in Sri Lanka. It is important for policymakers to enhance the macroprudential supervisory framework to closely track these risk indicators and enforce suitable regulatory actions to maintain the stability and strength of the banking industry. The absence of a substantial correlation between the capital adequacy ratio (CAR) and bank profitability might necessitate a reassessment of the current capital adequacy regulations to ensure they achieve the right equilibrium between financial stability and bank profitability. Policymakers should also explore ways to facilitate the merging of banks, acquisitions, and the entry of new participants to encourage a more varied and competitive banking environment. Furthermore, the research shows that macroeconomic elements such as interest rates and inflation did not significantly impact bank profitability directly during the study period. This highlights the importance of policymakers addressing broader macroeconomic issues, such as the current economic crisis in Sri Lanka, to establish a conducive environment for the growth of the banking sector.

Regulatory authorities should ensure that banks maintain robust credit risk management frameworks and adhere to prudential norms for non-performing loan ratios and loan loss provisions. Policies promoting consolidation and growth in the banking sector could enhance profitability and stability, given the disadvantage of size and advantage of age. To foster strategic growth and longevity in the banking industry, policymakers could consider initiatives that support smaller banks, such as targeted financial assistance, regulatory relief, or tax incentives. Larger banks, benefiting from economies of scale, could be encouraged through measures that facilitate mergers and acquisitions. Risk management and diversification are crucial, and regulations could be implemented to promote these practices. Regulatory frameworks should also provide flexibility for smaller banks to innovate and adapt to market changes. Continuous monitoring and stress testing of banks' credit portfolios and capital adequacy should be undertaken to ensure financial stability and resilience. Policies encouraging transparency and disclosure of credit risk management practices could enhance market discipline and public confidence in the banking system.

Limitations and Directions for Future Research

This study encounters some limitations as well. The data availability limits the study to the period from 2013 to 2022, which aligns with substantial macroeconomic difficulties in Sri Lanka. The results may not completely reflect the banking sector's performance during periods of greater economic instability. The study does not specifically consider the influence of regulatory modifications, such as the adoption of Basel III, or institutional aspects, such as corporate governance standards, on the correlation between credit risk and bank profitability.

For future research, expanding the time period and sample size, incorporating alternative profitability measures could provide a more comprehensive understanding of the relationship between credit risk and bank profitability in Sri Lanka. Additionally, including a broader range of macroeconomic and regulatory factors, conducting comparative analyses with other regional or global banking sectors, and incorporating qualitative insights from industry experts could offer valuable insights into the complex interplay between external factors and the banking sector's financial performance, particularly during periods of economic turmoil and crisis.

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DETERMINANTS OF CRYPTO CURRENCY INVESTMENT INTENTION OF UNDERGRADUATES IN SRI LANKA

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Abstract

Given the numerous studies examining the desire to invest in cryptocurrencies, very few have explored the specific factors influencing the intention to invest in cryptocurrency. This study aims to fill this gap by identifying and analyzing these factors. The target population consisted of undergraduate students from both state and private sector universities in Sri Lanka, particularly those who have invested in or are interested in investing in cryptocurrency. Data was collected through a self-administered questionnaire survey for a sample of 384 students selected through convenience sampling. The multiple regression analysis was conducted to test the hypotheses of the study. The results indicate that financial literacy, perceived trust, perceived behavioral controls, and social norms significantly influence the intention to invest in cryptocurrency among the undergraduate students. Based on these findings, this study offers important theoretical and practical implications. For literature, it suggests that these factors are crucial in shaping investment intentions in the context of undergraduate students' intention to invest in cryptocurrencies This expands the understanding of their engagement with the cryptocurrency market. Practically, the findings are relevant to marketers, educators, and companies involved in the creation, trade, and development of non-fungible tokens. Enhancing financial literacy and trust among undergraduate students is essential for attracting and retaining them in the cryptocurrency market. Further, strategies should be in place to address perceived behavioral control and social norms to enhance their effective engagement this demographic in the market.

Keywords: Cryptocurrency investment, financial literacy, intention to invest, perceived behavioral control, perceived trust

Introduction

Cryptocurrency, defined as a digital or virtual currency that uses cryptography for security, has emerged as a significant innovation in the financial sector (Douglas & Brito, 2014). This digital asset facilitates secure transfer and exchange of digital tokens among investors via encryption, distinguishing itself from conventional forms of currency through its decentralized nature and the underlying blockchain technology (Reid & Harrigan, 2013, quoted in Hashemi Joo et al., 2019). The evolution of cryptocurrency began with the introduction of Bitcoin in 2009 by an unknown entity under the pseudonym Satoshi Nakamoto (Berentsen & Schar, 2018). Bitcoin aimed to create a decentralized economy, and its value is influenced by acceptance, speculative activity, and trust (Taskinsoy, 2021). Following Bitcoin, numerous other cryptocurrencies, such as Ethereum, Ripple, Cardano, and Dogecoin, have emerged, each offering unique features and utilities (Tretina, 2023). The development of blockchain technology, which serves as the foundational mechanism for recording transactions, has been pivotal in this evolution (Reid & Harrigan, 2013, as quoted in Hashemi Joo et al., 2019).

In Sri Lanka, the adoption and regulation of cryptocurrencies have been gradual. The Central Bank of Sri Lanka (CBSL) has been monitoring the issuance, growth, and use of cryptocurrencies, implementing regulations in 2018 to prevent money laundering, enhance transparency, and regulate cryptocurrency exchanges (Gafar et al., 2021). Despite the lack of official data on cryptocurrency adoption, it is believed that Bitcoin has been traded in Sri Lanka since 2012 (Nawang & Azmi, 2021). Companies such as CryptoBilis, Goobat, and Bitstore provide cryptocurrency payment options, reflecting the increasing interest and usage of cryptocurrencies in the country. Despite the potential benefits, such as reduced fees and quicker transfer times compared to traditional bank transactions, cryptocurrencies also present significant risks. Their extreme volatility is a major concern, with prices fluctuating rapidly (Malekan, 2022). This volatility, combined with regulatory uncertainty, poses

challenges for investors. Nevertheless, cryptocurrencies have historically yielded substantial returns, attracting attention from both individuals and undergraduate students (Fidelity Investments, 2023).

The previous studies conducted on the factors influencing cryptocurrency investment intentions has identified various motivators, including social support, perceived usefulness, perceived trust, social commerce usage, facilitating conditions, financial literacy, and social influence (Mendoza-Tello et al., 2018; Arias-Oliva et al., 2019, referenced in Gupta et al., 2020). Additional factors such as e-word-of-mouth, web quality, perceived risk, ease of use, price stability, governance, attitude, social norms, financial risk tolerance, and perceived rewards have also been highlighted (Gil-Cordero et al., 2020; Spenkenlink, 2014). Further, these studies have largely focused on general populations or specific demographic segments without delving into the unique perspectives of Sri Lankan undergraduates. However, there is a notable research gap regarding the specific factors influencing cryptocurrency investment intentions among university students in Sri Lanka. Addressing this gap is crucial for policymakers and educational institutions to better advise and regulate this emerging market.

Accordingly, the aim of this study was to examine the main variables associated with cryptocurrency investment among Sri Lankan university undergraduates using empirical data. This research seeks to enhance our understanding of the cryptocurrency investment behavior of undergraduates, providing valuable insights for stakeholders within the cryptocurrency ecosystem, including marketers, educators, and regulatory bodies. By focusing on the specific context of Sri Lankan university students, this study aims to fill the existing research gaps and contribute to the broader discourse on cryptocurrency investment intentions.

Literature Review

To develop a sound conceptual framework, it is essential to critically evaluate and select the most relevant independent variables that influence the intention to invest. The literature presents a range of potential variables, including risk tolerance, herding behavior, financial knowledge, awareness of risk and return, investing mechanism, investment purpose, perceived risk, product knowledge, subjective standards, perceived behavioral control, financial literacy, and level of trust and confidence. In this study, we focus on four key independent variables: financial literacy, social norms, perceived behavioral control, and perceived trust. These variables were selected based on their theoretical relevance, empirical support, and their specific applicability to the context of Sri Lankan university students.

Relationship between Financial Literacy and Intention to Invest

Financial literacy, as defined by Samsuri et al. (2019), refers to an individual's capability to comprehend and apply financial principles. Research suggests that individuals with higher financial literacy are more inclined to engage in financial markets, grasp the concept of money and compound interest, and make diverse investment decisions (Lusardi & Mitchell, 2011; Agarwalla et al., 2013). The significance of financial literacy in ensuring long-term financial stability and making rational investment choices is underscored by Sadiq & Khan (2019), who imply that those lacking financial literacy are less likely to participate in financial markets. Additionally, the findings of Van Rooij et al. (2011) indicate that financial literacy influences financial decision-making and that individuals with low financial literacy are less inclined to invest in stocks, are highlighted by Arias-Oliva et al. (2019). Previous studies (Munnukka et al., 2017) have demonstrated a strong link between individuals' propensity to invest and their level of financial literacy. Bannier et al. (2019) suggest that financial literacy explains approximately 40% of the gender disparity in Bitcoin literacy concerning cryptocurrencies. This suggests that, akin to its role in explaining investment intentions in other financial assets, financial literacy significantly influences investor behavior towards cryptocurrencies (Pham et al., 2021). However, despite these findings, an empirical study by Arias-Oliva et al. (2019) found that financial literacy did not significantly impact the intention to invest in cryptocurrencies. Given these conflicting results, further investigation is warranted:

H1: Financial literacy influences the intention to invest in cryptocurrencies among undergraduates in Sri Lankan Universities

Relationship between Social Norms and Intention to Invest

As posited by Hasbullah et al. (2016), social norms refer to the perceived consequences of others engaging in a particular behavior and can directly or indirectly influence an individual's behavior. Previous research has identified various types of social norms. According to Croy et al. (2010), descriptive social norms are less impactful than injunctive social norms in predicting savings intentions, which may indirectly relate to investment behavior. The concept of "subjective norm" in the Theory of Planned Behavior (TPB) aligns with the idea of

"normative social influence" in social psychology (Fang et al., 2017). While subjective norms have been found to significantly influence e-commerce intentions, their effect has been less pronounced compared to other study variables (Hasbullah et al., 2016). Criticisms have been raised against the TPB for the weak link between intentions and subjective norms (Ham et al., 2015). However, Gazali et al. (2018) suggest that individuals' investment intentions, particularly in the cryptocurrency market, may be influenced by subjective norms if they mimic the behavior of those around them. Based on these findings, the researcher proposes the following hypothesis for further investigation:

H2: Social norms influence the intention to invest in cryptocurrencies among undergraduates in Sri Lankan Universities.

Relationship between Perceived Behavioral Control and Intention to Invest

According to the Theory of Planned Behavior, perceived behavioral control, akin to Bandura's concept of self-efficacy, serves as a mediator for the influence of social norms on behavior (Liu et al., 2019). Perceived behavioral control, as defined by Hamid (2014), reflects an individual's confidence in their ability to assess their own actions. Higher levels of perceived behavioral control are associated with an increased likelihood of engaging in a specific behavior (Ajzen, 1991), as individuals' beliefs impact their behavioral intentions and motivate them to enact those intentions (Tan et al., 2015). Rahadjeng & Fiandari (2020) identified a positive correlation between individuals' belief in their ability to invest and their propensity to invest. When predicting behavior based on intention, perceived behavioral control assumes significance (Amireault et al., 2008). Moreover, Cuong and Jian (2014) observed a robust correlation between individual investors' behavioral intentions and their perception of behavioral control. Based on these findings, the researcher proposes the following hypothesis for further investigation.:

H3: Perceived behavioral controls influence the intention to invest in cryptocurrencies among undergraduates in Sri Lankan Universities

Relationship between Perceived Trust and Intention to Invest

While trust embodies the willingness to have faith in the reliability of something or someone, perceived trust refers to the belief that an activity or system will perform as expected or anticipated by an individual (Gupta et al., 2020). Rahman et al. (2020) assert that trust motivates investors and individuals to engage in specific activities. Previous research has indicated that perceived trust positively influences people's behavioral intentions (Nuryyev et al., 2018) and their responses to new products and technologies (Bitkina et al., 2020). Moreover, perceived trust and investment intentions exhibit a positive correlation, with higher levels of trust linked to increased numbers and amounts of investments (Rin et al., 2018). In a separate study, Ali (2011) discovered that perceptions of risk, returns, and trust directly impact individual investors' trading and investment decisions. Based on these findings, the researcher proposes the following hypothesis for further investigation:

H4: Perceived trust influences the intention to invest in cryptocurrencies among undergraduates in Sri Lankan Universities

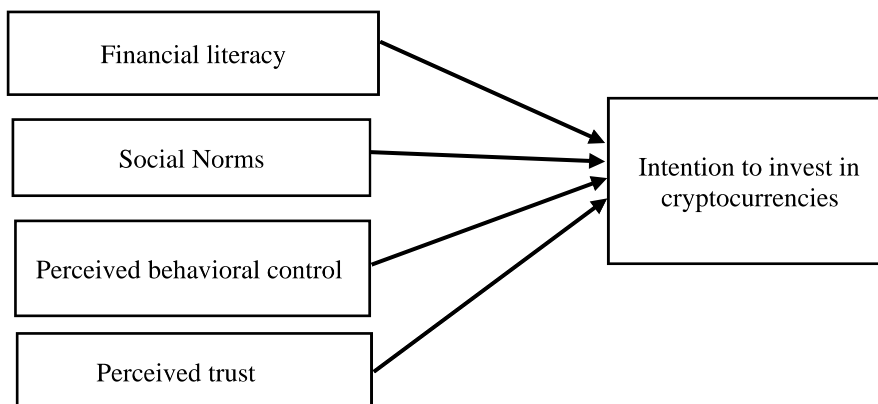

Figure 1: Conceptual Framework

Methodology

This research adopts a positivist approach, which asserts that there is a single truth that can be uncovered through quantifiable data. Positivism is grounded in the belief in the objective reality of the world and relies on empirical evidence to validate hypotheses (Saunders et al., 2019). This approach aligns with the aim of this study to investigate the relationships between variables influencing cryptocurrency investment intentions among Sri Lankan university students using quantitative data. Accordingly, employing the deductive reasoning, the hypotheses are derived from existing theories and literature and are then tested using quantitative data collected from surveys. Deductive reasoning involves moving from general principles to specific instances, making it suitable for hypothesis testing in quantitative research.

The study is a quantitative study, aiming to quantify the relationships between various variables influencing the cryptocurrency investment intentions of Sri Lankan university students. Quantitative research methods allow for the collection of numerical data, facilitating statistical analysis to test hypotheses and draw conclusions. Further, it adopts a cross-sectional design, capturing data at a single point in time to provide a snapshot of the relationship between variables. Cross-sectional studies are efficient in gathering data from a large sample within a relatively short timeframe, making them suitable for exploring associations between variables.

The population of this study comprises undergraduate students from Sri Lankan universities who are either currently investing in cryptocurrencies or have the intention to do so. This population is chosen based on the specific focus of the study on university students and their investment intentions in the context of Sri Lanka. The sampling frame includes all undergraduate students from both state and private Sri Lankan universities who meet the criteria of either currently investing in cryptocurrencies or intending to do so. By including students from diverse educational backgrounds, the study aims to capture a comprehensive view of cryptocurrency investment intentions among university students in Sri Lanka. Convenient sampling is employed to select participants for the study. This method is chosen due to its ease of access to potential respondents and the practical constraints of conducting research within a specific timeframe and budget. The sample size is determined based on the feasibility of data collection within the constraints of time and resources. A total of 384 respondents participated in the survey, providing a sufficient sample size to conduct statistical analyses and test hypotheses effectively.

Data for this study were collected through an online survey administered to undergraduate students from Sri Lankan universities. The survey instrument comprised two sections: demographic profiles and Likert scale questions items related to financial literacy, social norms, perceived behavioral control, perceived trust, and investment intention. Online surveys offer a convenient and cost-effective method of data collection, allowing respondents to participate at their convenience. In the data analysis, using SPSS software, the descriptive analysis was first conducted to understand the central tendencies and dispersions of the data. Reliability tests were then performed to assess the consistency of the survey instrument. After that, inferential statistics, such as regression and correlation analyses, were used to test hypotheses and draw conclusions from the data. These analytical methods enable researchers to examine the relationships between variables and make meaningful interpretations of the findings.

Results and Discussion

Sample Profile and Descriptive Analysis

The sample comprised 384 respondents, with 47.9% male and 52.1% female. Age-wise, 27.1% were between 18-20 years, 50.3% were 21-25 years, and 22.7% were above 25 years. This demographic breakdown highlights that the majority of participants were in the 21-25 age group and that there was a nearly even split between male and female respondents. These demographics provide a comprehensive overview of the participants' profiles, essential for understanding the factors influencing their investment intentions in cryptocurrency.

Table 1 presents the descriptive statistics of the variables. Accordingly, their mean scores, ranging from 4.606 to 4.708. Their standard deviations, ranging from 0.347 to 0.531, indicate moderate to slightly high variability. Skewness values range from -1.270 to -0.858, suggesting slight negative skewness. Kurtosis values are moderately peaked, ranging from -0.488 to 1.080. However, the skewness and kurtosis values are within the acceptable range, indicating that these variables are approximately normally distributed.

Table 1: Descriptive Statistics

	Mean	Std. Deviation	Skewness	Kurtosis
Financial Literacy	4.606	0.531	-1.270	1.080
Social Norms	4.644	0.458	-1.125	0.152
Perceived Behavioral Control	4.653	0.347	-0.858	-0.488
Perceived Trust	4.640	0.451	-1.164	0.253
Investment Intention	4.708	0.367	-1.129	0.518

Reliability Tests

Cronbach's alpha test was used to assess the internal consistency of the study's variables. A Cronbach's alpha value of 0.7 or higher indicates strong internal consistency among the variables (Pallant, 2010). As presented in Table 1, the Cronbach's alpha values of all the variables of the study are greater than 0.7, indicating their acceptable level of reliability.

Table 2: Reliability Analysis

Variable	Cronbach Alpha	Reliability
Financial Literacy	0.734	Acceptable
Social Norms	0.867	Acceptable
Perceived Behavioral Control	0.744	Acceptable
Perceived Trust	0.802	Acceptable
Intention to Invest	0.908	Acceptable

Hypothesis testing

As shown in Table 3, the variance explained (adjusted R^2) is 0.875 which indicates that the independent variables collectively account for 87.5% of the variance in the intention to invest in cryptocurrencies. The Durbin-Watson statistic of 1.408 suggests slight positive autocorrelation, but it is not severe. Generally, values between 1.5 and 2.5 are considered acceptable. Thus, the autocorrelation is not a major concern.

Table 3: Results of Regression Analysis

Hypothesis	Path	Coefficient	t-statistic	p-value
H1	Financial Literacy→Intention to Invest	0.153	4.847*	0.000
H2	Social Norms→Intention to Invest	0.631	8.292*	0.000
H3	Perceived Behavioral Control→Intention to Invest	0.677	7.839*	0.000
H4	Perceived Trust→Intention to Invest	0.146	3.358*	0.001
	R^2 = 0.875, F (3, 246) = 575.121*, Durbin-Watson = 1.408			

* denotes significance at 1 percent level.

When the regression coefficients are concerned, the coefficient for financial literacy is 0.153, indicating that for one standard deviation unit increase in financial literacy, the cryptocurrency investment intention increases by 0.153 standard deviation units. This coefficient is positive and statistically significant ($p < 0.001$). Thus, supporting the hypothesis H1, financial literacy has a positive influence on the intention to invest in cryptocurrencies. This aligns with prior research by Lusardi and Mitchell (2011) and Agarwalla et al. (2013), indicating that individuals with higher financial literacy are more inclined to invest in various financial assets. Similarly, the study confirms the positive relationship between financial literacy and financial market participation, as observed by Lusardi et al. (2009), cited by Samsuri et al. (2019). These findings underscore the importance of promoting financial literacy among university students in Sri Lanka to enhance their investment decision-making capabilities and participation in financial markets.

In addition, with respect to social norms, the regression coefficient is 0.631, which indicates that one standard deviation unit increase in social norms is associated with 0.631 standard deviation units increase in cryptocurrency investment intention. Since the coefficient is positive and statistically significant ($p < 0.001$), the hypothesis H2 is supported. Accordingly, social norms positively influence the intention to invest in cryptocurrencies. Consistent with prior studies by Gopi & Ramayah (2007), Alleyne & Broome (2011), and Ibrahim & Arshad (2017), it

highlights the influential role of social norms in shaping investment intentions, as suggested by the TPB. Further, this finding aligns with findings by Raut et al. (2021), indicating that social norms play a crucial role in influencing investment intentions, particularly in socially responsible activities. Thus, interventions aimed at fostering positive social norms may effectively promote investment in cryptocurrencies among university students in Sri Lanka.

Similarly, the regression coefficient for perceived behavioral control and trust are 0.677 and 0.146 respectively, which are also positive and statistically significant ($p < 0.001$). These findings reveal a positive effect of perceived behavioral control on the intention to invest in cryptocurrencies (supporting H3), and a positive effect of perceived trust on the intention to invest in cryptocurrencies (supporting H4). This finding is consistent with previous research such as Shih (2009), cited by Nuryyev et al. (2018), which indicate that perceived trust positively influences behavioral intentions. Thus, it underscores the importance of trust in driving positive user reactions to new technology and products, suggesting that enhancing perceived trust may foster greater interest in cryptocurrency investment among university students in Sri Lanka.

Conclusion and Implications

This study aims to investigate factors influencing the intention to invest in cryptocurrencies among university students. The target population consisted of undergraduate students from both state and private sector universities in Sri Lanka, particularly those who have invested in or are interested in investing in cryptocurrency. Data was collected through a self-administered questionnaire survey for a sample of 384 students selected through convenience sampling. The results indicate that financial literacy, perceived trust, perceived behavioral controls, and social norms significantly influence the intention to invest in cryptocurrency among the undergraduate students. Based on these findings, this study offers important theoretical and practical implications.

This study provides valuable theoretical insights for scholars, researchers, and academics interested in cryptocurrency-related topics. By examining the influence of financial literacy, social norms, perceived behavioral control, perceived trust, and investment intention among university students in Sri Lanka, the study contributes to fill the knowledge gap in this field. By utilizing theoretical frameworks such as theory of planned behavior, social learning theory, and socio-cognitive theory, researchers and academics can gain a comprehensive understanding of how to promote cryptocurrency investment and enhance financial literacy among individuals.

The study's findings hold significant implications for businesses and organizations operating in the cryptocurrency space, including cryptocurrency exchanges, coin developers, NFT creators, investors, and more. These insights can inform strategic decisions, marketing efforts, product development, and investment strategies within the cryptocurrency industry. For marketers and educators targeting college students in Sri Lanka, understanding the influence of factors such as financial literacy, social norms, and perceived trust on investment intentions can be invaluable in tailoring their messaging and offerings to effectively reach this demographic. Similarly, cryptocurrency exchanges can utilize these findings to enhance their platforms, provide educational resources, and improve user experience to attract and retain investors. Investors can also benefit from understanding the factors that influence their cryptocurrency investment decisions. Awareness of the impact of financial literacy, social norms, and perceived trust can help investors make more informed decisions and mitigate risks associated with cryptocurrency investments.

Limitations of the Study and Future Research Directions

This study exclusively focused on undergraduate students enrolled in Sri Lankan universities who have either invested in cryptocurrencies or expressed an interest in doing so. While this approach provides valuable insights into the factors influencing investment intention among this specific demographic, it may limit the generalizability of the findings to other populations or contexts. In addition, it examined only four independent variables financial literacy, perceived behavioral control, social norms, and perceived trust. There may be other factors that could influence investment intention, such as demographic characteristics like gender or income level, which were not explored in this study. Future research could consider incorporating these variables to provide a more comprehensive understanding of the factors influencing investment intention.

The self-completed nature of the questionnaire method relies on respondents' honesty, which could introduce bias or inaccuracies into the survey results. Future research should consider employing additional methods, such as interviews or focus groups, to gather qualitative data that may provide deeper insights into participants' attitudes and perceptions regarding cryptocurrency investment. Further, while the study utilized a quantitative approach to

investigate the factors influencing investment intention, future research could benefit from employing a mixed-methods approach. Combining quantitative analysis with qualitative methods would allow researchers to gain a more holistic understanding of the complexities surrounding cryptocurrency investment behavior. Additionally, exploring potential moderators or mediators of the relationship between independent variables and investment intention could yield further insights into this phenomenon. Overall, incorporating these suggestions into future research endeavors could contribute to a more nuanced understanding of the factors driving cryptocurrency investment intention.

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STAKEHOLDER ENGAGEMENT AS A DRIVER IN THE CSR-PERFORMANCE DYNAMIC OF SMES

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Abstract

The link between corporate social responsibility and SME performance has been extensively studied. However, previous studies fail to incorporate factors facilitating this link. This study aims to fill this gap by exploring the role of stakeholder engagement and firm size in the relationship between corporate social responsibility and the non-financial performance of SMEs, providing a comprehensive understanding of strategic realization of such initiatives in SMEs. Data was collected through a self-administered questionnaire from a sample of 382 owners/ managers of SMEs in the Anuradhapura district and analyzed following the PROCESS procedure developed for SPSS. The results reveal that stakeholder engagement mediates the positive effects of economic, social, and environmental responsibility initiatives on non-financial performance. Further, firm size moderates these effects, with larger firms experiencing stronger positive impacts of such initiatives through stakeholder engagement. Accordingly, this study concludes that stakeholder engagement is crucial for the strategic realization of SMEs' corporate social responsibility efforts. These findings provide valuable insights for developing tailored corporate social responsibility initiatives that consider resource availability, dynamic capabilities and stakeholder expectations.

Keywords: Firm size, non-financial performance, small and medium-sized enterprises, stakeholder engagement

Introduction

Corporate Social Responsibility (CSR) has become a significant concern among businesses of all sizes, across various industries and locations with the recognition of its dual benefits for society and businesses themself (Stoain & Gilman, 2017). From a business point of view, stakeholders generally respond positively to socially responsible behaviors, which often translate into enhanced non-financial performance outcome, for example, brand reputation, employee loyalty and productivity, and customer satisfaction and retention. These non-financial performance outcomes provide competitive advantages and ensure sustainability, leading to increased financial performance in the long run. In addition to business benefits, CSR efforts fulfill a firm's responsibilities to society. By addressing economic, social and environmental issues, such CSR efforts can contribute to the overall well-being of the communities in which the firm operates. This can involve initiatives such as reducing carbon footprints, ensuring fair labor practices, supporting local charities, and investing in community development projects. Accordingly, while improving business performance, a firm's CSR efforts create a more sustainable environment, which ultimately contributes in achieving Sustainable Development Goals (SDGs).

Small and Medium-sized Enterprises (SMEs), in particular, play a crucial role in local communities in which they operate. It is generally believed that SMEs can build strong stakeholder relationships with their CSR initiatives, which consequently enhance their performance outcome and sustainability in the market. For instance, by engaging in CSR activities, SMEs can demonstrate their commitment to social and environmental issues, which helps to foster trust and loyalty among stakeholders, achieving sustained growth and long-term success. Further, strong relationships with stakeholders allow SMEs to gain valuable insights into their expectations, preferences, and values (Rodrigue et al., 2013). This knowledge can be strategically utilized in decision-making processes. Therefore, the strategic realization of SMEs' CSR efforts largely depends on the extent to which stakeholder engagement is promoted by such efforts. In this way, stakeholder engagement acts as a bridge that links a firm's CSR initiatives to its non-financial performance outcomes.

Stakeholder engagement is primarily influenced by how stakeholders perceive CSR efforts, which is however subjective and varies across stakeholder groups, markets, industries, and countries (Frynas & Stephens, 2015). This subjectivity reflects the different priorities and expectations stakeholders have regarding CSR activities. For example, in some markets, environmental initiatives might be highly valued, while in others, social or economic contributions might be more significant. Cultural differences can also influence how CSR efforts are perceived and valued by stakeholders. For instance, in some cultures, community support and philanthropy might be more

appreciated, while in others, transparency and ethical business practices might take precedence. Consequently, such diverse stakeholder perceptions can challenge the extent to which a firm's CSR initiatives translate into enhanced performance outcomes (Du et al., 2010; Rhou & Koh, 2016). Therefore, the CSR-performance link should be studied by incorporating factors that bridge the link such as stakeholder engagement.

The relationship between CSR and SME performance has been extensively studied over the last few decades. The literature generally highlights the positive impact of CSR on both financial and non-financial performance outcome (Alatawi et al., 2023; Oduro et al., 2022; Saeidi et al., 2015; Torugsa et al., 2013). However, these studies typically focus on the direct effect of CSR on performance outcomes rather than incorporating factors that facilitate the CSR-performance link. Further, previous research has emphasized that the CSR-performance relationship is influenced by contextual factors such as firm type, industry characteristics, firm size, and geographic location (Dobre et al., 2015; Oduro et al., 2022). These studies have often examined contextual factors in isolation, without recognizing the complexity of their interactions (Acampora et al., 2022; Langgat et al., 2023). As a result, existing literature does not provide a comprehensive understanding of how a firm's CSR initiatives foster its performance outcomes. This study aims to address this gap by considering stakeholder engagement and firm size in the relationship between CSR and non-financial performance of SMEs. It examines how the interaction of stakeholder engagement and firm size shapes the strategic realization of CSR efforts in SMEs.

The findings of the study offer valuable insights into both theory and practice. Theoretically, the findings support the applicability of resource-based view, dynamic capability theory and stakeholder theory for conceptualizing CSR-performance relationship. theoretical frameworks. The stakeholder theory is supported, as the results highlight the crucial role of stakeholder engagement in mediating the relationship between CSR activities and non-financial performance. Practically, the findings offer valuable guidance for SMEs and policymakers. SMEs should strategically implement CSR activities, considering the importance of stakeholder engagement. By actively involving stakeholders, SMEs can maximize the positive impact of their CSR initiatives on non-financial performance. Further, SMEs should involve in developing their resources and capabilities, for example innovative ways to engage stakeholders, which consequently enhances stakeholder engagement, thereby improve their non-financial performance. Policymakers can play a supportive role by creating environments that encourage SMEs to engage in CSR activities. This could involve providing resources, training, and incentives to help SMEs develop effective stakeholder engagement strategies. By integrating these insights, SMEs can enhance their non-financial performance and contribute positively to their broader social and environmental goals as fulfilment of their responsibility towards Sustainable Development Goals (SDGs).

The remaining sections of the paper are structured as follows: Section 2 reviews the extant literature and presents the study's hypotheses. Section 3 discusses the methodology employed in the study for data collection and analysis. The empirical results are discussed in Section 4. Section 5 concludes the paper with implications for practice.

Literature Review

CSR refers to the practices and policies undertaken by businesses to have a positive impact on society. It encompasses a wide range of activities, for example, ethical labor practices, environmental sustainability initiatives, community engagement, and philanthropy. CSR is grounded in the idea that businesses should go beyond profit-making and contribute to the well-being of their stakeholders and the community at large (Dahlsrud, 2008). The concept of CSR is a multifaceted phenomenon. According to the triple-bottom line approach, CSR initiatives are categorized into three main types: economic, social, and environmental responsibilities (Oduro et al., 2022).

CSR has been extensively studied for its impact on organizational performance. The literature recognizes that CSR has a strategic value beyond its traditionally viewed social and environment value. It means that each of the three primary dimensions of CSR contributes to various aspects of firm performance, particularly non-financial performance, which includes brand reputation, employee satisfaction, customer loyalty, and overall stakeholder trust (Alatawi et al., 2023; Oduro et al., 2022). Building on these insights, this study attempts to extend this understanding by examining how the interaction of stakeholder engagement and firm size shapes the realization of this strategic value of CSR efforts in SMEs.

Economic Responsibilities, Stakeholder Engagement and Non-financial Performance

Economic responsibilities focus on a firm's financial responsibilities and commitment to economic stability and growth. The resource-based view (RBV) and dynamic capabilities theory posit that unique resources and

capabilities confer competitive advantages to achieve a firm's financial responsibilities. From the RBV perspective, CSR initiatives are valuable assets that can boost brand reputation, employee engagement, and stakeholder relationships, contributing to long-term success (Barney, 1991). Dynamic capabilities theory further suggests that CSR activities foster organizational learning, innovation, and adaptability, which are crucial for responding to environmental changes (Teece et al., 1997). Thus, integrating CSR into strategic management can enhance a firm's competitiveness through improved flexibility, innovation, and risk management. According to these theoretical perspectives, economic CSR positively impact on firm's non-financial performance outcomes. Previous studies demonstrate that economic responsibility initiatives enhance both financial and non-financial performance outcomes such as market share, product quality, and customer satisfaction (e.g., Torugsa et al., 2013; Nejati et al., 2017).

Economic responsibilities plays a crucial role in enhancing stakeholder engagement. Practices such as fair wages, ethical business operations, transparency in financial reporting, and investments in local economic development build trust and confidence among stakeholders. For instance, transparent and ethical business practices signal to stakeholders that the firm is reliable and trustworthy, which increases their willingness to engage with the firm. Fair wages and good working conditions boost employee satisfaction and loyalty, leading to higher levels of engagement. Investments in local economic development demonstrate the firm's commitment to the community's well-being, fostering positive relationships and support from community stakeholders. In addition, an effective stakeholder engagement significantly enhances non-financial performance outcomes. For instance, engaged stakeholders provide valuable feedback and insights, which supports a firm better align its operations with stakeholder expectations. It results in improved brand reputation, increased customer retention, higher employee productivity, and stronger community support. Thus, economic responsibility initiatives that foster stakeholder engagement lead to these positive non-financial performance outcomes. Accordingly, it is hypothesized that stakeholder engagement mediates the positive effect of economic responsibility initiatives on non-financial performance, as given by the hypothesis H1.

H1: Stakeholder engagement mediates the positive effect of economic responsibility initiatives on non-financial performance.

Social Responsibilities, Stakeholder Engagement and Non-financial Performance

Social responsibilities emphasize responsibility towards societal well-being, including health, safety, and welfare of employees. The legitimacy theory, agency theory, and institutional theory emphasize the importance of external pressures and institutional contexts in shaping CSR practices. Legitimacy theory suggests that CSR enhances a firm's legitimacy by conforming to societal norms (Suchman, 1995). Agency theory posits that CSR aligns managerial and shareholder interests, improving governance and stakeholder relations (Jensen & Meckling, 1976). Institutional theory highlights that CSR helps firms meet stakeholder expectations and gain legitimacy (Campbell, 2007). Supporting these theoretical perspectives, previous studies find that social-related CSR initiatives enhance firm reputation, employee productivity, and stakeholder relationships, contributing to long-term competitiveness and sustainability (Nejati et al., 2017; Steinerova & Makovski, 2008; Turker, 2009). Further, Oduro et al. (2022) show that social responsibility initiatives have stronger effect on non-financial performance compared to financial outcomes, as these initiatives are not solely aimed at generating immediate financial returns.

Social responsibility initiatives can improve stakeholder engagement. Since such CSR focuses on initiatives such as community involvement, fair labor practices, and contributions to social welfare. These actions directly impact stakeholders' perceptions and attitudes towards the firm. For example, when a company actively participates in community development projects or supports local charities, it demonstrates a commitment to societal well-being, fostering a sense of goodwill and trust among community members and other stakeholders. Fair labor practices, including equitable treatment of employees and ensuring a safe working environment, increase employee satisfaction and loyalty. Satisfied employees are more engaged and motivated, contributing positively to the company's operations. These engaged employees are also likely to advocate for the company, enhancing its reputation. Thus, the increased stakeholder engagement leads to better feedback and collaboration, allowing the firm to better understand and meet stakeholder expectations. As a result, firm experiences improved non-financial performance outcomes such as enhanced brand reputation, increased customer retention, higher employee productivity, and stronger community support. Accordingly, social responsibility initiatives that foster stakeholder engagement lead to significant improvements in non-financial performance. Based on this ground, it can be expected that social responsibility initiatives positively influence stakeholder engagement, which in turn enhances non-financial performance. Therefore, it is hypothesized that stakeholder engagement mediates the positive effect of social responsibility initiatives on non-financial performance, as given by the hypothesis H2.

H2: Stakeholder engagement mediates the positive effect of social responsibility initiatives on non-financial performance.

Environmental Responsibilities, Stakeholder Engagement and Non-financial Performance

Environmental responsibilities address ecological challenges and promotes sustainable practices, aligning with the concept of double materiality which emphasizes economic viability, environmental sustainability, and social equity (European Commission, 2019). Environmental responsibilities provide opportunities for firms to engage with diverse stakeholders, including environmental groups and communities, leading to favorable non-financial outcomes such as enhanced trust and stakeholder engagement. Previous studies suggest that environmental responsibility initiatives improve SME performance by increasing reputation and access to government funding (Torugsa et al., 2013). Choongo (2017) finds that the impact of environmental responsibility initiatives on firm performance and reputation exceeds that of economic and social CSR.

Environmental responsibility initiatives enhance stakeholder engagement by demonstrating a firm's commitment to sustainability and environmental stewardship. When a firm invests in practices such as reducing carbon emissions, conserving resources, and implementing eco-friendly technologies, it signals to stakeholders that it is taking responsibility for its environmental impact. This commitment enhances the engagement of environmentally conscious stakeholders with the firm. For example, customers who prioritize sustainability are more likely to support and remain loyal to firms that actively engage in environmentally responsible practices. Similarly, employees who value environmental issues are often more motivated and engaged when working for a firm that aligns with their values. An effective engagement with stakeholders through environmental CSR fosters non-financial performance. When stakeholders see a firm actively addressing environmental challenges, they are more inclined to engage with and support the company, providing valuable feedback and insights. This engagement helps the firm better align its strategies with stakeholder expectations, which can lead to enhanced brand reputation, improved customer retention, and stronger community support. Accordingly, environmental responsibility initiatives not only builds trust and loyalty among stakeholders but also contribute to non-financial performance improvements. Thus, it can be expected that environmental responsibility initiatives positively influence stakeholder engagement, which in turn enhances non-financial performance. Therefore, it is hypothesized that stakeholder engagement mediates the positive effect of environmental responsibility initiatives on non-financial performance, as given by the hypothesis H3.

H3: Stakeholder engagement mediates the positive effect of environmental responsibility initiatives on non-financial performance.

Moderating Effect of Firm Size

From a resource-based view, smaller firms often face challenges in investing in extensive CSR programs due to limited resources and capacity constraints. This limitation can result in a weaker or even nonexistent relationship between CSR and firm performance for these smaller firms. According to dynamic capability theory, a positive CSR-performance relationship is more likely when firms possess the capabilities to effectively implement and integrate CSR initiatives into their business strategies. Smaller firms may lack these necessary capabilities, leading to a diminished or absent positive impact of CSR on performance. Further, even when smaller firms engage in CSR activities, managers may have fewer incentives to align these initiatives with shareholder interests, further weakening the observable impact of CSR on firm performance. Therefore, based on these theoretical perspectives and supporting evidence from previous research, it can be argued that firm size enhances the indirect effects of CSR initiatives on the non-financial performance through the mediation of stakeholder engagement. This leads to the following hypotheses:

H4: Firm size moderates the indirect effect of economic responsibility initiatives on the non-financial performance through the mediation of stakeholder engagement.

H5: Firm size moderates the indirect effect of social responsibility initiatives on the non-financial performance through the mediation of stakeholder engagement.

H6: Firm size moderates the indirect effect of environmental responsibility initiatives on the non-financial performance through the mediation of stakeholder engagement.

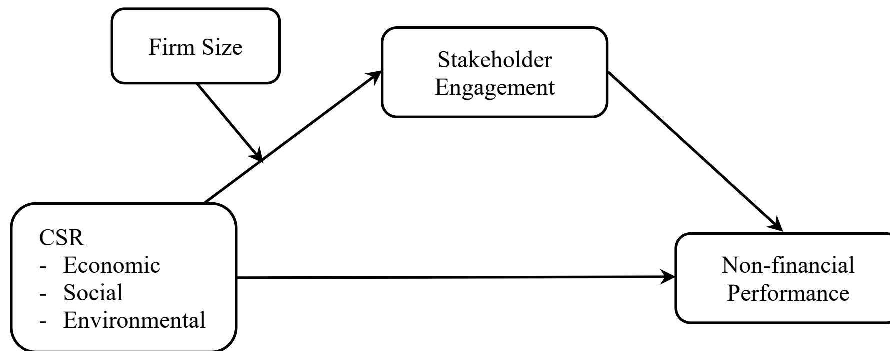

Figure 1: Conceptual Framework

Methodology

The study employed an explanatory research design with a quantitative approach. Data was collected through a self-administered questionnaire from a sample of 382 owners/ managers of SMEs in the Anuradhapura district. The questionnaire included 8 items to gather demographic information and SME characteristics, and 23 items to measure six constructs - economic responsibilities (ECR), social responsibilities (SOR), environmental responsibilities (EVR), firm size (FSZ), non-financial performance (NFP), and stakeholder engagement (SEG). Except for firm size, all constructs were measured using multiple items on a five-point Likert scale, adapted from existing literature to ensure content validity. CSR constructs and SEG were based on scales from Choongo (2017), and non-financial performance was measured using items from Abdul & Ibrahim (2002). The questionnaire was reviewed by five experts and translated into Sinhala and Tamil, following the procedure suggested by Squires et al. (2013). A pilot study with 20 respondents further ensured its content validity. In the data analysis, reliability and validity were first confirmed. Following this, the indirect effect of each CSR construct was analyzed using the PROCESS procedure developed for SPSS (Hayes, 2018). Specifically, the PROCESS model template 7 was run separately for ECR, EVR and SOR, referring to these as models 1, 2, and 3, respectively.

Results and Discussion

Respondents' characteristics

The majority of the respondents to the questionnaire (57.1%) were men. In terms of their age, 21.0% were 18–25 years old, 51.2% were 26–35 years old, 14.1% were 36–45 years old, 8.6% were 46–55 years old, and 5.1% were older than 56 years. 46.3% of them have completed secondary education, while 27.8% hold diplomas and 8.6% have degrees. In terms of business type, 62.8% of respondents were employed in sole proprietorships, 26.7% in private companies, and the remainder in partnership businesses. Further, 31.9% of them in manufacturing, 39.8% in trading, and the rest in service businesses. Regarding monthly revenue, 41.9% were employed in SMEs earning less than Rs 250,000, while 16.8%, 25.7%, and 14.7% were in SMEs earning Rs 250,000-Rs 1,000,000, Rs 1,000,000-Rs 2,000,000, and more than Rs 2,000,000, respectively.

Reliability and Validity of Constructs

Cronbach's alpha and composite reliability values were used to assess the reliability of the constructs. As presented in Table 1, these values are greater than 0.7, which confirms an adequate reliability level of the constructs. The convergent validity was confirmed by the average variance extracted (AVE) values greater than 0.5. Employing the Fornell & Larcker criterion, as given in Table 2, the discriminant validity was confirmed.

Table 1: Measurement Quality of Constructs

Construct	Cronbach's alpha	Composite reliability	AVE
ECR	0.898	0.901	0.832
EVR	0.937	0.933	0.892
NFP	0.984	0.987	0.878
SEG	0.922	0.925	0.822
SOR	0.945	0.958	0.903

Note: The cronbach's alpha and composite reliability values larger than 0.7 indicate the internal consistency reliability. The AVE value greater than 0.5 represents the convergent validity (Hair et. al, 2014).

Table 2: Fornell-Larcker Criterion Analysis for Assessing Discriminant Validity

	ECR	EVR	NFP	SEG	SOR	FSZ
ECR	**0.912**					
EVR	0.820	**0.944**				
NFP	0.826	0.862	**0.937**			
SEG	0.820	0.863	0.886	**0.907**		
SOR	0.821	0.952	0.861	0.868	**0.950**	
FSZ	0.576	0.486	0.529	0.549	0.534	Single-item

Note: This table presents a comparison between each construct's the square root of AVE value (as presented in bold in the diagonal) and its correlations with the other constructs for assessing the discriminant validity. A construct's discriminant validity is confirmed when its square root of AVE is larger than its correlation values with other constructs (Fornell & Larcker, 1981).

Hypothesis Testing

Table 3 presents the regression results for the three models, showing the effect of each construct on its corresponding endogenous variable. Table 4 shows the indirect effect of each CSR construct on non-financial performance through the mediation of stakeholder engagement. Accordingly, supporting hypotheses H1, H2 and H3, the indirect effect results indicate that stakeholder engagement mediates the positive effect of economic CSR on non-financial performance of the SMEs ($\beta = 0.317$, $p<0.01$), the positive effect of social CSR on non-financial performance of the SMEs ($\beta = 0.184$, $p<0.01$), and the positive effect of environmental CSR on non-financial performance of the SMEs ($\beta = 0.189$, $p<0.01$). Further, as Table 3 and 4 shows, the direct effects of each CSR on non-financial performance is positively significant ($p<0.01$). Thus, the stakeholder engagement has a partial mediation on the effect of economic, social and environment CSR initiatives on non-financial performance of the SMEs.

Table 3: Direct Association between CSR, SEG, FSZ and NFP

Model	Path	Coefficient	t-statistic	p-value	R^2
1	ECR→SEG	0.682**	19.389	0.000	0.716
	FSZ→SEG	-0.124*	-2.397	0,014	
	FSZ×ECR→SEG	0.241**	14.159	0.000	
	SEG→NFP	0.387**	7.537	0.000	0.907
	ECR→NFP	0.610**	22.322	0.000	
2	EVR→SEG	0.726**	24.994	0.000	0.785
	FSZ→SEG	0.010	0.228	0.820	
	FSZ×EVR→SEG	0.181**	5.574	0.000	
	SEG→NFP	0.387**	7.537	0.000	0.938
	EVR→NFP	0.773**	30.434	0.000	
3	SOR→SEG	0.757**	26.614	0.000	0.792
	FSZ→SEG	-0.084*	-1.981	0.048	
	FSZ×SOR→SEG	0.219**	7.257	0.000	
	SOR→NFP	0.776**	29.253	0.000	0.934
	SEG→NFP	0.387**	7.537	0.000	

Note: ** and * indicate the significance at 1 percent level and 5 percent level respectively.

Table 4: Mediation Analysis Results

Model	Path	Total effect	Direct effect	Indirect effect			
				Effect	LLCI	ULCI	*t*-statistic
1	ECR→SEG→NFP	0.926**	0.610**	0.317**	0.240	0.409	7.372
2	EVR→SEG→NFP	0.962**	0.773**	0.189**	0.117	0.271	4.846
3	SOR→SEG→NFP	0.961**	0.776**	0.184**	0.118	0.264	4.842

Note: This table presents the results relating to the indirect effects of economic CSR (ECR), environment CSR (EVR) and social CSR (SOR) on non-financial performance (NFP) of SMEs through the mediation of stakeholder engagement (SEG), as hypothesized by H1, H2 and H3. ** and * indicate the significance at 1 percent level and 5 percent level respectively. The number of bootstrap samples is 5,000. The confidence intervals at lower level (LLCI) and upper level (ULCI) are given at 95%.

The significant direct effects of economic, social, and environmental CSR on non-financial performance imply that these initiatives independently contribute to the success of SMEs. It highlights the strategic value of engaging in CSR activities to SMEs. The significant indirect effects of economic, social, and environmental CSR on non-financial performance through the mediation of stakeholder engagement suggest that engaging stakeholders can effectively amplify the benefits of CSR activities. Accordingly, supporting the stakeholder theory, the results emphasize the crucial role of stakeholder engagement in enhancing the positive impact of CSR initiatives on the non-financial performance of SMEs. However, since stakeholder engagement only partially mediates the relationship between CSR initiatives and non-financial performance, it implies that there are other factors at play. While stakeholder engagement is crucial, SMEs should also consider other mechanisms and processes that contribute to the strategic value of their CSR initiatives.

Table 5: Conditional Mediation Analysis Results

	Effect	Standard error	95% Confidence Interval		*t*-statistic
			LL	UL	
Panel A: Model 1 - Indirect effect of ECR on NFP through SEG conditional on FSZ					
Index of moderated mediation	0.093**	0.015	0.062	0.122	6.200
Lower level (M -1 std) of FSZ	0.178**	0.048	0.108	0.292	3.708
Mean level (M) of FSZ	0.264**	0.046	0.193	0.366	5.739
Higher level (M +1 std) of FSZ	0.349**	0.045	0.271	0.466	7.756
Panel B: Model 2 - Indirect effect of EVR on NFP through SEG conditional on FSZ					
Index of moderated mediation	0.040**	0.009	0.020	0.057	4.444
Lower level (M -1 std) of FSZ	0.121**	0.034	0.069	0.201	3.559
Mean level (M) of FSZ	0.159**	0.035	0.098	0.236	4.543
Higher level (M +1 std) of FSZ	0.196**	0.037	0.126	0.274	5.297
Panel C: Model 3 - Indirect effect of SOR on NFP through SEG conditional on FSZ					
Index of moderated mediation	0.047**	0.011	0.024	0.069	4.273
Lower level (M -1 std) of TMS	0.118**	0.032	0.067	0.192	3.688
Mean level (M) of TMS	0.161**	0.036	0.097	0.239	4.472
Higher level (M +1 std) of TMS	0.204**	0.043	0.126	0.292	4.744

Note: This table presents the results relating to the indirect effects of economic CSR (ECR), environment CSR (EVR) and social CSR (SOR) on non-financial performance (NFP) of SMEs through the mediation of stakeholder engagement (SEG) conditional on firm size (FSZ), as hypothesized by H4, H5 and H6. ** and * indicate the significance at 1 percent level and 5 percent level respectively. "std" denotes standard deviation. The number of bootstrap samples is 5,000.

Table 5 presents the conditional mediation analysis results for testing hypotheses H3, H4 and H5. These results facilitate to examine whether firm size moderates the indirect effects of each form of CSR initiatives on non-financial performance through the mediation of stakeholder engagement. With respect to the indirect effect of economic CSR, as shown in Panel A, the index of moderated mediation is statistically significant at the 1 percent level, which therefore supports hypothesis H4. It therefore indicates that firm size moderates the indirect effect of economic CSR initiatives on non-financial performance through the mediation of stakeholder engagement. Aiken & West (1991) suggest an approach to further examine this conditional mediation effect at lower (M -1 std), mean (M), and higher (M +1 std) levels of firm size. Accordingly, as shown in Panel A, the findings indicate that the indirect effects are significantly positive across all three levels of firm size ($p<0.01$) and tend to increase as firm size increases.

Similar results can be observed in Panels B and C of Table 5 which present the results relating to the indirect effects of social CSR and environmental CSR initiatives on non-financial performance through the mediation of stakeholder engagement. The indexes of moderated mediation are statistically significant ($p>0.01$), and the indirect effects at lower, mean, and higher levels of firm size are statistically significant ($p>0.01$) and tend to increase as the firm size increase. Thus, supporting the hypotheses H5 and H6, the results reveal that firm size moderates the indirect effects of social CSR initiatives on non-financial performance through the mediation of stakeholder engagement.

These conditional mediation analysis results imply that firm size plays a significant moderating role in the relationship between CSR initiatives (economic, social, and environmental) and non-financial performance through the mediation of stakeholder engagement. This means that the size of a firm influences how strongly CSR activities impact non-financial performance through stakeholder engagement. Further, the tendency to increase the indirect effects with the increase of firm size suggests that larger firms benefit more from CSR activities, possibly due to their greater resources, capabilities, and influence in engaging stakeholders effectively. Accordingly, supporting the resource-based view and dynamic capability theory, the size of a firm influences how strongly CSR activities impact non-financial performance of the SMEs.

Conclusions and Implications

This study aims to examine how the interaction of stakeholder engagement and firm size shapes the effect of CSR on the non-financial performance of the SMEs. The findings indicate that stakeholder engagement mediates the positive effects of economic, social, and environmental CSR on the non-financial performance of SMEs. Since the direct effects of each form of CSR on non-financial performance are also significantly positive, the results indicate a partial mediation by stakeholder engagement. This suggests that CSR initiatives enhance SMEs' non-financial performance both directly and indirectly through stakeholder engagement. Accordingly, it can be inferred that CSR activities contribute to the non-financial success of SMEs not only by their intrinsic impact but also by fostering effective stakeholder engagement. In addition, the analysis reveals that firm size moderates these indirect effects, which means that larger firms experience stronger positive impacts of CSR activities on non-financial performance through stakeholder engagement. Thus, the study shows that firm size strengthens the effectiveness of CSR initiatives, implying larger firms' ability to leverage greater resources and capabilities for more effective stakeholder engagement. In conclusion, the study emphasizes the strategic value of CSR activities for SMEs, with stakeholder engagement playing a crucial mediating role. The moderating effect of firm size concludes the need for tailored CSR strategies that account for resource availability and dynamic capabilities.

The findings of the study contribute to both theory and practice, as follows. Theoretically, these findings reinforce several key theoretical frameworks. The stakeholder theory is supported, as the results highlight the crucial role of stakeholder engagement in mediating the relationship between CSR activities and non-financial performance. Accordingly, engaging stakeholders effectively enhances the positive outcomes of CSR initiatives. The findings also support the resource-based view (RBV) and dynamic capability theory by demonstrating that firm size, representing resource availability and dynamic capabilities, moderates the impact of CSR initiatives. Larger firms, with more resources and dynamic capabilities, can engage stakeholders more effectively, thereby strengthening the benefits of CSR activities. The partial mediation by stakeholder engagement also suggests that other factors contribute to the relationship between CSR initiatives and non-financial performance, which emphasizes avenues for future research to explore additional mediators and moderators.

Practically, these insights offer valuable guidance for SMEs and policymakers. SMEs should strategically implement CSR activities, considering the importance of stakeholder engagement. By actively involving stakeholders, SMEs can maximize the positive impact of their CSR initiatives on non-financial performance. Further, since the results show a moderating effect of firm size, SMEs should involve in developing their resources

and capabilities, for example innovative ways to engage stakeholders, which consequently enhances stakeholder engagement, thereby improve their non-financial performance. Moreover, SMEs should consider their size when designing CSR strategies. Large SMEs can focus on optimally using their existing resources and capabilities for more effective stakeholder engagement, while smaller firms might benefit from collaborative approaches or external support. Policymakers can play a supportive role by creating environments that encourage all firms, regardless of size, to engage in CSR activities. This could involve providing resources, training, and incentives to help SMEs develop effective stakeholder engagement strategies. By integrating these insights, SMEs can enhance their non-financial performance and contribute positively to their broader social and environmental goals as fulfilment of their responsibility towards SDGs.

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