FACTORS INFLUENCING OCCUPATIONAL HEALTH AND SAFETY (OHS) IMPLEMENTATION IN THE AGRICULTURE SECTOR OF PAKISTAN: THE MODERATING ROLE OF MIMETIC MOTIVES

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UNIVERSITI SAINS MALAYSIA

2025

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by

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

January 2025

ACKNOWLEDGEMENT

I would like to take this opportunity to show my gratitude to ALLAH SWT, the most gracious and the most merciful. Indeed, all praise is to Allah Almighty, who enabled me to stay resolute through all the thick and thin phases of my life. May ALLAH SWT shower His blessing and peace upon our beloved Prophet Muhammad PBUH, his household, companions and those who follow him in the righteousness until the day of judgement.

At the same time, I would also like to show my respect to my supervisor Assoc. Prof. Dr. Lilis Surienty Abd. Talib, for their encouragement throughout my PhD journey. Admittedly, this PhD journey would have been a nightmare without her consistent mentoring. It is privileged to be mentored by her. A special thank also goes to Muhammad Manzoor (my cousin, my teacher, my mentor) who always encourage me and make me believe that I can succeed with my hard work. A note of thanks is extended to Dr. Ghazanfar Ali Abbasi who always provides his friendship, compassion, and generosity of assisting me whenever I needed so.

Also, my most profound reverence to family members explicitly, my late father, my mother, my brothers, and sisters. Off course, I would also like to thank my beloved wife who had struggled a lot taking care my children while I was away on this journey. Their constant support, limitless sacrifice and sincere prayers have built a foundation for all the success I have ever had so far. May God bless them all.

Last but not least, I am thankful to Higher Education Commission of Pakistan for granting me the opportunity for further study. A special thanks to Muhammad Ishaq-ur-Rehman (Headmaster, GPS#5, KRK) and Dr. Faheem Yousuf (MS Allied Hospital, Faisalabad) who supported me during hard time of my PhD journey.

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CMB	Common Method Bias
CMS	Certified Management System
CR	Composite Reliability
CRM	Customer Relationship Management
GDP	Gross Domestic Product
GoP	Government of Pakistan
HIRAC	Hazard Identification, Risk Assessment and Control
HTMT	Heterotrait-Monotrait Ratio
ILO	International Labour Organization
ISO	International Organization for Standardization
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act
OHSAS	Occupational Health and Safety Assessment Series
OHSMS	Occupational Health and Safety Management System
PLS-SEM	Partial Least Square – Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
VIF	Variance Inflation Factor
WHO	World Health Organization

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FAKTOR-FAKTOR MEMPENGARUHI PELAKSANAAN KESIHATAN DAN KESELAMATAN PEKERJAAN DALAM SEKTOR PERTANIAN PAKISTAN: PERANAN MODERASI MOTIF MIMETIK

ABSTRAK

Pakistan, sebagai sebuah negara yang kebanyakannya bergantung pada sektor pertanian, mempunyai 27 juta tenaga kerja dalam sektor pertanian. Ia merangkumi 37.42 peratus daripada jumlah keseluruhan tenaga kerja tetapi sedang menghadapi kadar kecederaan dan penyakit pekerjaan yang tertinggi (iaitu 39 peratus setiap tahun). Walaupun statistik yang membimbangkan, perhatian yang mencukupi tidak diberikan kepada pelaksanaan kesihatan dan keselamatan pekerjaan (OHS) dalam sektor ini. Oleh itu, kajian ini bertujuan untuk mengenal pasti faktor utama yang boleh mendorong pelaksanaan OHS. Model kajian yang dicadangkan adalah berdasarkan teori institusi. Dalam hal ini, penyelidik mengkaji kesan beberapa faktor seperti komitmen pengurusan, latihan keselamatan, komunikasi dan maklum balas keselamatan, serta gaya pelaksanaan terhadap pelaksanaan OHS. Kajian ini juga meneliti peranan moderasi motif mimetik antara faktor-faktor tersebut dan pelaksanaan OHS. Data dikumpul daripada 311 organisasi pertanian di Pakistan menggunakan kaedah serah/hantar-ambil. Pengumpulan data berlangsung selama empat setengah bulan bermula dari Ogos 2021. Untuk analisis statistik, kedua-dua Pakej Statistik untuk Sains Sosial (SPSS) dan SmartPLS digunakan untuk menganalisis data. Dapatan kajian mendedahkan bahawa semua hubungan langsung kecuali komunikasi dan maklum balas keselamatan didapati mempunyai kesan positif yang signifikan. Selain itu, didapati bahawa gaya pelaksanaan rasional berfungsi lebih baik daripada gaya pelaksanaan beransur-ansur dalam pelaksanaan OHS. Berkenaan

dengan moderasi, dapatan menunjukkan bahawa motif mimetik memoderasi secara positif antara komitmen pengurusan, gaya pelaksanaan beransur-ansur dan pelaksanaan OHS. Walau bagaimanapun, kesan moderasi motif mimetik yang tidak signifikan didapati antara latihan keselamatan, komunikasi dan maklum balas keselamatan, gaya rasional dan pelaksanaan OHS. Kajian ini bukan sahaja memperluaskan pengetahuan sedia ada tetapi juga menyediakan pandangan dan pemahaman yang bernilai tentang faktor-faktor yang merangsang pelaksanaan OHS dalam sektor pertanian di Pakistan. Selain itu, dicadangkan juga bahawa organisasi yang ingin melaksanakan program OHS perlu memberi tumpuan kepada amalan pengurusan keselamatan, gaya pelaksanaan, dan meniru trend pasaran semasa mengikut kecekapan organisasi mereka.

FACTORS INFLUENCING OCCUPATIONAL HEALTH AND SAFETY (OHS) IMPLEMENTATION IN THE AGRICULTURE SECTOR OF PAKISTAN: THE MODERATING ROLE OF MIMETIC MOTIVES

ABSTRACT

Pakistan, being a predominantly agrarian country, has 27 million agrarian workforces. It accounts 37.42 percent of the total workforce but suffering from a highest occupational injuries and diseases rate (i.e., 39 per cent annually). Despite these alarming statistics, not much attention has been given to occupational health and safety (OHS) implementation in this sector. Therefore, this study is aimed at excavating the key factors that can encourage OHS implementation. The proposed model of the study was based on institutional theory. In this regard, the researcher investigated the effect of several factors such as management commitment, safety training, safety communication and feedback, and implementation styles on OHS implementation. This study also examined the moderating role of mimetic motives between these factors and OHS implementation. The data was collected from 311 Pakistani agriculture organizations using drop-off pick-up method. The data collection lasted over four and half months starting from August 2021. For statistical analysis, both Statistical Package for Social Science (SPSS) and SmartPLS were used to analyse the data. The findings revealed that all direct relationships except safety communication and feedback were found to have positive significant effect. Furthermore, it was also found that rational implementation style works better than incremental style in OHS implementation. Regarding moderation, the finding illustrated that mimetic motives positively moderate between management commitment, incremental implementation style and OHS implementation. However,

insignificant moderating effect of mimetic motives was found between safety training, safety communication and feedback, rational style and OHS implementation. The current study not only extended the extant body of knowledge but also provide valuable insights and understanding of factors in stimulating OHS implementation in the agriculture sector of Pakistan. Furthermore, it is also suggested that the organizations seeking to implement OHS program must focus on safety management practices, implementation styles, and mimic current market trends as per their organizational competencies.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The Universal Declaration of Human Rights stipulates in Article 3 that the right to life is one of the fundamental human rights (UN General Assembly, 1948). This right must also be protected within the workplace (Baum & Hai, 2019; International Labour Organization, 2019). Ghahramani and Salminen (2019) argue that occupational health and safety (OHS) programs are essential in safeguarding this right at the workplace by reducing accidents. It comprises a series of decisions and actions related to the creation, execution and monitoring of safety plans intended to realize the organization's pre-established safety goals (Laal et al., 2019). Research shows that OHS programs, if well adopted, can help prevent workplace incidents and ensure employees' health and safety (Ghahramani & Salminen, 2019). However, the true effectiveness of such programs is most profoundly contingent on their degree of implementation and thus is a principal concern in contemporary OHS debates (Laal et al., 2019). Therefore, it is important that organizations must pay adequate attention to its implementation to ensure employees' health and safety at the workplace.

Many global organizations such as International Labour Organization (ILO), World Health Organization (WHO), and other agencies (i.e. ISO, and OSHA) are continuously putting efforts to encourage organizations to integrate OHS programs into their routine practices. Ncube and Kanda (2018) state that these organizations recognize OHS as a global concern and offer standards and guidelines for effective OHS implementation. The general Occupational Safety and Health Convention No.155 of 1981, the specific Safety and Health in Agriculture Convention No. 184 of 2001 (International Labour Organization, 2019, 2020), the Global Plan of Action

(2008-2017) of WHO on worker's health (World Health Organization, 2008), and the introduction of the new ISO 45001:2018 standard (International Organization for Standardization, 2018) are significant to date. In general, these guidelines and standards not only specify the protective and preventive requirements to ensure that adequate measures are taken at the workplace for the health and safety of workers, but also provide a systematic framework in improving safety conditions at the workplace.

However, while these OHS guidelines and standards are extensive, their application has predominantly focused on industrial sectors in the race of industrialization. Similarly, most of the past studies on OHS have been conducted in manufacturing (Ahmad Mujtaba Khan, 2016; Ghahramani, 2016; Ghahramani & Salminen, 2019b; Karanikas et al., 2018; Nord Nilsson & Vänje, 2018; Z. A. Shah & Ashraf, 2016), constructions (Ahmad Mujtaba Khan, 2016; Ahmed, Shaukat, et al., 2018; Lingard et al., 2019; Mohammadi et al., 2018; Raheem & Issa, 2016; Rajaprasad & Chalapathi, 2015; Yiu et al., 2019; Zhou et al., 2015), mining (Longinos et al., 2017; Mustard et al., 2018; York & Gernand, 2017), and oil and gas sectors (Evangelinos et al., 2018; Isha, 2017; Mustard et al., 2018; Phusavat et al., 2017; Toutounchian et al., 2018). In contrast, the agriculture sector is severely neglected, which is the most hazardous sector worldwide (Holte & Follo, 2018; Pyykkönen & Aherin, 2012). Girdžiūtė (2020) argued that past researchers mostly analyzed economic risks and climatic conditions in agriculture while they neglected the OHS aspect. The study further revealed that by setting health, safety and risk management on top priority, the agriculture sector can be socially beneficial. Thus, there is a need to focus OHS aspect in the agriculture sector.

Previous studies (e.g., Hena et al., 2019; Rehman et al., 2019) demonstrated that the agriculture sector is a key driver of a country's economy which provides development bases to other non-agricultural sectors and industries. For example, cotton ginning, spinning and weaving performance in manufacturing are closely linked to the cotton crop performance. In fact, its products serve as raw materials for other industries which perform a unique role in the industrial expansion and boost the economy of a country.

As an agrarian country, the Pakistani agriculture sector comprises four subsectors like crops, livestock, forestry, and fisheries (Federal Bureau of Statistics, 2010) which contribute around 22.70 percent to economy (Ministry of Finance, 2022; State Bank of Pakistan, 2022). The contribution of livestock in GDP is highest (i.e., 14.04%) amongst other subsectors with a healthy growth of 3.26% in 2021-22 as compared to the previous years. It not only contributes to foreign exchange earnings by 13% of the total exports in 2021-22 but also provides livelihood for over 8 million rural families. Livestock contributes 14.04% to the GDP alone with 61.89% value addition in the agriculture sector followed by crops 8.15% contribution to GDP with 35.70% value addition in agriculture. While, forestry and fishery subsectors contribute less than 1% to GDP collectively with less than 5% value addition in agriculture (Ministry of Finance, 2022; State Bank of Pakistan, 2022). The average contribution of agriculture to the country's economy and its growth rate presented in Table 1.1.

Table 1.1

Contribution of Agriculture in GDP and its Growth Rate

Sector	Growth Rate					Value Addition in Agriculture 2021-22	Contribution in GDP 2021-22*
	2017-18	2018-19	2019-20	2020-21	2021-22 P		
Agriculture	**3.88**	**0.94**	**3.91**	**3.48**	**4.4**	**100%**	**22.70%**
1. Crops	4.61	−4.38	6.32	5.96	6.58	35.70%	8.15%
a. Important Crops (wheat, rice, sugarcane maize and cotton)	4.27	−8.59	5.24	5.83	7.24	19.44%	4.41%
b. Other Crops (Lentil, Gram, Mustard, Barley, Tobacco, etc.)	4.65	3.62	9.21	8.27	5.44	13.86%	3.14%
c. Cotton Ginning	8.27	−11.23	−4.06	−13.08	9.19	2.40%	0.60%
2. Livestock	3.59	3.65	2.8	2.38	3.26	61.89%	14.04%
3. Forestry	2.24	7.22	3.36	−0.45	6.13	2.14%	0.49%
4. Fishery	1.57	0.78	0.63	0.73	0.35	1.39%	0.32%

Note. P = Provisional; *Contribution in GDP is based on 2021-22 report of the finance division, Chapter.02

Source: (Ministry of Finance, 2022; State Bank of Pakistan, 2022)

Although, the GDP share of this sector has reduced from 57% to 60% in 1949-50 to 29% to 31% in 1978-79, and still further to 22.70% in 2021-22, it is still a core pillar of Pakistan's economy. It is providing livelihood to about 68% of people living in rural areas and contributing significantly as the primary source of export earnings for the overall economy of Pakistan (Pakistan Bureau of Statistics, 2022; Rehman et al., 2019). It contributes about 75 percent of the export of the country and makes Pakistan the 66th largest export economy in the world (OEC, 2021).

Approximately 27.23 million people are engaged with agriculture sector in Pakistan (Statista, 2021). However, the OHS in this sector is lagging far behind in meeting the minimum standards of OHS (Longinos et al., 2017). For example, Ahmad et al., (2016) noted that lack of practicing preventive measures and poor working conditions are two major causes of OHS problems. Similarly, the labour force survey reports of the past decade, conducted by the Pakistan Bureau of Statistics (2022), show that 38.8 per cent of the employed agricultural workforce (equivalent to 13 million approx.) received occupational injury or disease annually due to poor OHS implementation. The details of occupational injuries and diseases in Pakistani agriculture sector are shown in Fig. 1.1. Memon et al., (2019) also noted that most of these occupational injuries and diseases occur due to unawareness of personal protection opportunities and poor implementation of safety measures. It represented that the frequency of accidents in the agricultural sector is a matter of utmost importance. Thus, the implementation of occupational health and safety preventive measures should be addressed seriously.

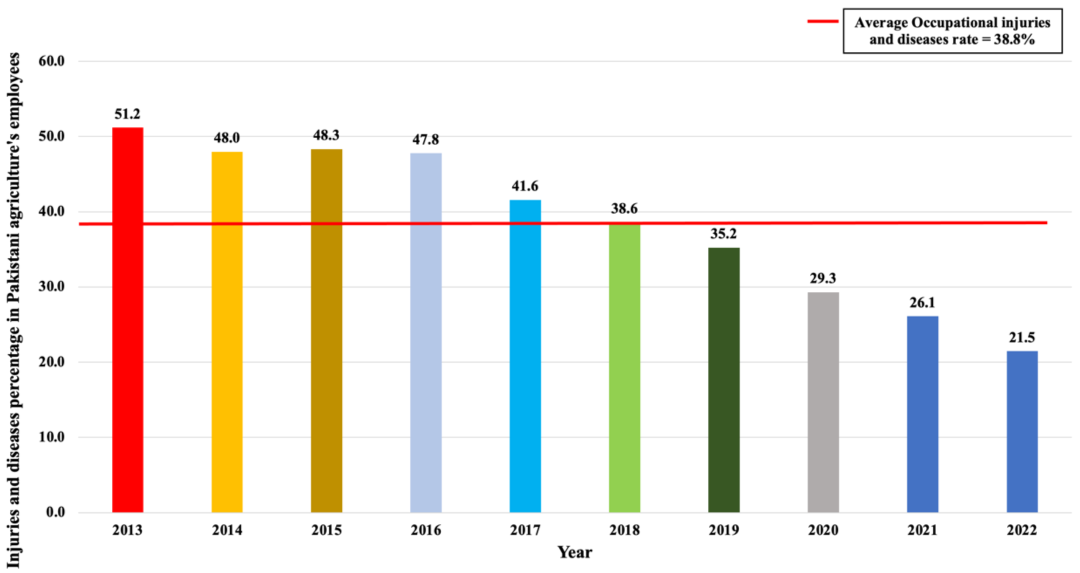

Figure 1.1 OHS condition of the past decade (2013-2022) in the Agriculture Sector of Pakistan.
Source: Labor force survey 2013 to 2022 (Pakistan Bureau of Statistics, 2022)

Although the government has directed the provincial administrators to put OHS on higher priority, the progress is painfully slow. For example, the latest labour force survey 2020-2021 of Pakistan Bureau of Statistics shows a highest injuries and diseases rate of 29.3% cases in the agriculture sector, followed by construction sector with 19.7% cases as shown in Fig. 1.2. Similarly, the recent research which was conducted by Raza et al. (2024) in Sindh and Punjab revealed that agricultural injuries rate is very high in Pakistan. Nevertheless, OHS professionals and practitioners are in the hope that the recently enacted Punjab OHS act 2019 and Sindh OHS act 2017 will lead the way in lowering OHS risks in Punjab and likewise in other provinces. However, the studies of Ahmad et al., (2016) and Qaisrani et al., (2018) argue that the attention of government and regulatory bodies is vital for its implementation.

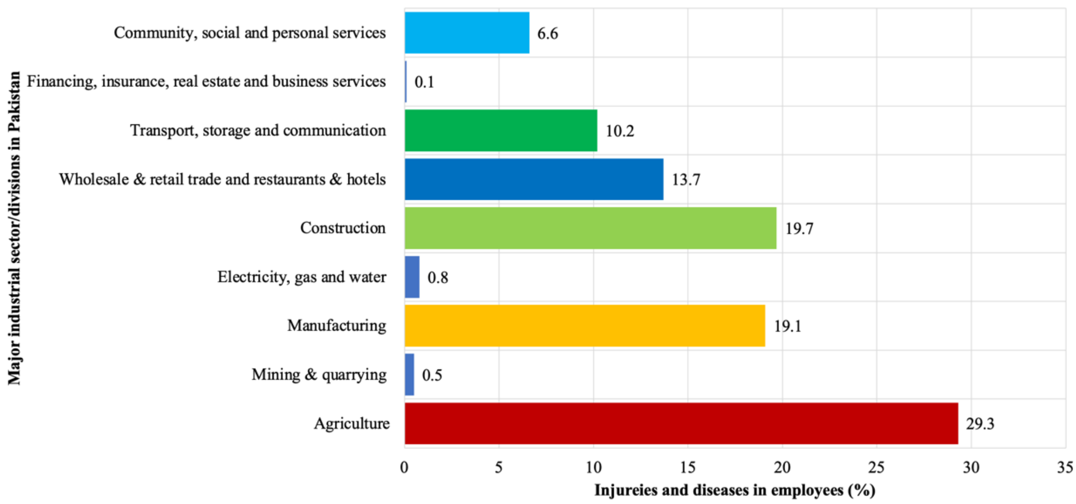

Figure 1.2 Current OHS condition in major sectors of Pakistan
Source: Labour Force Survey 2020-2021 (Pakistan Bureau of Statistics, 2022)

On the closer look, *Figure 1.1* and Figure 1.2 reveals that, despite a decrease in OHS injuries and diseases in the agriculture sector, this sector is still at the plateau of occupational injuries and diseases. Nik (2017) explain different causes of this severity such as lack of upgradation of legislations according to the modern technologies, absence of dedicated OHS department and lack of standardized program at university level. Similarly, Pasha (2003) argued that there is lack of basic infrastructure and qualified staff in the country to provides workers with OHS services. Likewise, Longinos et al., (2017) found that employers have more emphasis on productivity than OHS of workers. On the other hand, Ahmad et al., (2016) revealed that poverty, illiteracy, insufficient trainings, unavailability of reliable OHS data and poorly enforced of existing legislation are responsible factors for the poor implementation of OHS program in the country.

The implementation of OHS program is an organization-wide initiative (Surienty, 2019) and an occupational health and safety management system (OHSMS) is the best tool for its actualization (Laal et al., 2019). However, Hyder (2019) argue that OHSMS is not enough to put an OHS program into practice. Several other factors such as commitment, implementation support, encouraging environment, confronting threats and engagement of stakeholders should be considered for its implementation. The empirical findings of a recent study of Nderitu et al., (2019) revealed that the successful implementation of OHS policies is only feasible when management remained supportive and committed in term of both human and financial resources. Likewise, in the broader sense, Surienty (2019) and Kim et al., (2019) showed that safety training, safety commitment, safety communication, and safety accountability are significant for the implementation of a safety program. Therefore, it seems that OHS implementation cannot be successful without considering these factors.

The implementation style also matters in the execution of a program (Andrews et al., 2011b, 2017; Nderitu et al., 2019). There are different implementation styles such as commander, collaborative, coercive, change and cultural style (Brodwin & Bourgeois, 1984; Nderitu et al., 2019). However, strategic decision-makers generally focus on two most influential implementation style; 1) rational style and 2) incremental style (Andrews et al., 2017). A rational style of implementation offers a planned, comprehensive, systematic path for organization change (Andrews et al., 2017; Chaffee, 1983). It is also called a planned style of implementation. By contrast, the incremental style of implementation keeps the fluid nature of change management, encourages modification on the ground and emphasis short-run solution of a problem (Andrews et al., 2017). Therefore, this study also seeks to identify the contributing effect of implementation style on OHS implementation.

Besides, the institutional theory posits that organizations do not operate in isolation (Hillebrand et al., 2011; Hossain et al., 2015; Meyer & Rowan, 1977). They need to admit rules and adopt structure and practices of the surrounding in which the organization operate (Meyer & Rowan, 1977). A good organization always adapts external pressure for isomorphism irrespective of change process, i.e. mimetic, coercive or normative (Peters, 2019). Notably, many of the times, an organization exerts a pressure force on itself and perceived that another organization within the same business environment is succeeding by adopting management practices or a program and try to act likewise (DiMaggio & Powell, 1983). This phenomenon is called mimicry. However, the organization try to imitate the best practices of other organizations.

There could be different motives that emphasize an organization to mimic best practices. For example, Iatridis et al., (2016) state that government authorities, local agencies and community influence the organizations to copy the practices of the trend-setting organization to obtain legitimacy and other benefits. Similarly, Hillebrand et al., (2011) argue that the competitors, management consultants, management press, and other industries are significant motivators for the adaptation of a program to improve firm performance. Further, these motives have been identified as an influential positive source of the preventive work environment and the well-being of the employees (McBain-Rigg et al., 2017). As a matter of fact, these motives play a significant role in adopting a program for organizational effectiveness. Thus, mimetic motives are highly regarded in implementing the best practices of fashion setter organizations. Hence, the present research is intended to seek the effect of mimetic motives as a potential moderator on the relationship between endogenous and exogenous variables of the study.

In sum, OHS implementation is an important initiative because the causes of occupational injuries and accidents, and preventive measures are usually attributed to personal and work-related factors. Even though many previous studies have looked up OHS programs in term of social and economic benefits, this study aims to focus on those factors that should be incorporated for OHS implementation. In the Pakistani context, this study is a pioneer in investigating factors for OHS implementation in the agriculture sector to the best of researcher knowledge. It is because most studies have focused on the manufacturing and construction industries (e.g., Yaqoob et al., 2024; Ali et al., 2021). Thus, the spectrum of OHS challenges in the Pakistani agriculture sector is overly broad while strategies of yield-enhancing and agricultural transformation are way too below its potential (Memon et al., 2019). Further, most of the OHS issues are due to lack of commitment, insufficient training and awareness programs, absence of OHS policy, poor work environment, and lack of funds and interest of the government in OHS implementation. Therefore, the demand for implementation of the OHS program is essential that it may overcome the occurrence of occupational injuries and diseases in the agriculture sector.

1.2 Problem Statement

More than 2.78 million people lose their lives each year due to occupational accidents and diseases around the globe (Hämäläinen et al., 2017). The work-related mortality rate is two-thirds in Asia which is six times higher than the rates in Europe and Africa (Hämäläinen et al., 2017). In Pakistan, being an Asian country, more than 11 per cent of total workforce (i.e., around 7.92 million) are injured in their occupational activities annually (Pakistan Bureau of Statistics, 2022). However, when it comes to the agriculture sector, the statistics regarding occupational injuries and diseases paint a more concerning picture (Abbas, 2015; Abbas & Balkhyour, 2018). The survey reports of the recent decade show that around 39 per cent of the employed labor force in the Pakistani agriculture sector are injured or experienced a occupational disease within a calendar year (Pakistan Bureau of Statistics, 2022). This high rate of occupational accidents can be attributed to the lack of emphasis on implementing suitable OHS programs in the agriculture sector.

The organizations of developing countries hardly take the essential implementation of OHS programs (Abbas, 2015; Ahmed, Usman, et al., 2018a). They prioritize productivity over worker well-being. In Pakistan specifically, these programs are unfortunately perceived as a waste of time, money and resources (Nawaz et al., 2019). However, overlooking the importance of OHS implementation may lead to numerous problems, affecting not only the well-being of workers but also the reputation, performance, and economy of the organization and the country as a whole. For example, the workers who have met with an occupational accident may encounter psychological trauma upon returning to work after their recuperation (Ida Safinar Aziz, Chandrakantan Subramaniam, 2019) which may reduce their efficiency. In addition to this, lack of implementation of OHS program creates unsatisfied employees that may come with absenteeism, feeling stress at work, thinking off to leave or switch job, and may pass negative remarks to others about the organization. These factors contribute to a negative work environment and further undermine organizational performance.

In an organizational perspective, poor OHS implementation leads employers to higher compensation costs and medical bills. For example, Memon et al., (2019) revealed that the medical treatment cost of occupational health problem in the Pakistani agriculture sector is more than double the cost of implementation of preventive measures. Similarly, the organizations have to bear the cost of lost time due to occupational health and safety problems in term of production shutdown, machinery repairs, training for substitutes and overtime. In addition, higher insurance premium, significant penalties from the regulatory agencies, and loss of contracts are also put an extra burden on organizations. Consequently, the aforementioned losses not only affect the return on investment of the organization, but also its safety performance and the business competitiveness (Lafuente & Abad, 2018). Furthermore, the literature is evident of a decline in export and negative trend to win foreign contracts owing to OHS issues that have significantly affected the economy as a whole.

Although the growing literature advocates OHS program to solve occupational health and safety problems, being an excessive focus on its formulation and just to win contracts, the issue of its implementation and continual meeting of the requirements has been increasingly coming to the foreground (Nagyova et al., 2018). Hyder (2019) emphases to consider the key factors for its implementation. A study by Surienty (2019) highlighted that management commitment, safety training, safety communication and feedback are important for the successful transition of OHS program into its routine use. Similarly, the empirical findings of Nderitu et al., (2019) reveal that management commitment is a major driving force for OHS implementation. Whereas, safety training and safety communication and feedback play a significant role in achieving targets of OHS program (Rajaprasad & Chalapathi, 2015; Vinodkumar & Bhasi, 2010). Additionally, the problem in OHS implementation also occurs when insufficient attention is given to the way of implementation. Besides, different mimetic motives such as government, management consultants and media may also influence the OHS implementation.

To date, there are very few studies on the OHS program relating to its implementation. However, no empirical study has been carried out on the relationship between different factors and demand criteria of OHS implementation such as general compliance, risk assessment, safety documentation and others. In addition, no effort has been made to clarify the concept of OHS implementation in the Pakistani agriculture sector (Nadeem et al., 2022; Yaqoob et al., 2024). Thus, it is important to investigate the determinants that mitigate the inevitable OHS problems of Pakistani agriculture sector. In other words, the conventional wisdom is that, to stay competitive and innovative, the agriculture sector must focus on OHS implementation without sacrificing more on OHS aspect. It is because OHS has become an integral part of business strategies. Therefore, this proposed research aspires to explore the different factors that impact the OHS implementation by raising the research question of *"what factors influence the organization for OHS implementation?"*. Other questions to be considered include how the mimetic motives moderate the relationship between study variables in the Pakistani agriculture sector. To answer these questions, this study is undertaken with the following objectives.

1.3 Research Questions

Given the problem statement described in section 1.2, the current study will attempt to answer the major question of "*what type of factors influence the OHS implementation in agriculture sector?"*. This study will contribute to the body of knowledge on OHS implementation by answering the following sub-questions.

1. Does management commitment have a positive impact on OHS implementation in the agriculture sector?
2. Does safety communication & feedback have a positive impact on OHS implementation in the agriculture sector?
3. Does safety training have a positive impact on OHS implementation in the agriculture sector?
4. Does the incremental implementation style have a positive relationship with OHS implementation in the agriculture sector?
5. Does the rational implementation style have a positive relationship with OHS implementation in the agriculture sector?
6. How is mimetic motives moderate the relationship between health and safety practices (management commitment, safety communication & feedback and safety training) and OHS implementation in the agriculture sector?
7. How is the mimetic motives moderate the relationship between implementation style (incremental, rational) and OHS implementation in the agriculture sector?

1.4 Research Objectives

This study aims to examine the credible factors that help in OHS implementation in the agriculture sector in Pakistan. Apart from that, this study is intended to assess the moderating effect of mimetic motives on the relationship between exogenous and endogenous variables of the study. To sum it up, the objectives of this study are primarily focus:

1. to investigate the relationship between management commitment and OHS implementation in the agriculture sector.
2. to investigate the relationship between safety communication & feedback and OHS implementation in the agriculture sector.
3. to investigate the relationship of safety training and OHS implementation in the agriculture sector.
4. to investigate the effect of incremental implementation style on OHS implementation in the agriculture sector.
5. to investigate the effect of rational implementation style on OHS implementation in the agriculture sector.
6. to examine the moderating effect of mimetic motives on the relationship between management commitment and OHS implementation in the agriculture sector.
7. to examine the moderating effect of mimetic motives on the relationship between safety training and OHS implementation in the agriculture sector.
8. to examine the moderating effect of mimetic motives on the relationship between safety communication and feedback and OHS implementation in the agriculture sector.
9. to examine whether mimetic motives moderates the relationship between rational implementation style and OHS implementation in the agriculture sector.
10. to examine whether mimetic motives moderates the relationship between incremental implementation style and OHS implementation in the agriculture sector.

1.5 Significant of the Study

The present study examines the influence of different factors on OHS implementation in the presence of mimetic motives. The study hopes to offer substantial theoretical and practical contributions in the field of occupational health and safety within the agriculture sector. The contributions of the study are given below.

1.5.1 Theoretical Significance

This study is supposed to contribute to the existing literature on OHS in several ways.

First, the current study utilizes institutional theory to explain the proposed research model. To the best of the researcher's knowledge, previous research has typically examined variables such as health and safety practices, implementation styles, and mimetic motives separately. In contrast, this study integrates these variables into a single model. The model is structured with OHS implementation as the dependent variable, health and safety practices and implementation style as independent variables, and mimetic motives as a moderating variable, all framed within the context of institutional theory.

Second, Pakistan presents a unique case regarding OHS. For instance, the entire country is currently grappling with a wide range of health and safety concerns at the organization level (e.g., quality of working conditions, good health and safety, and workers well-being). These aforementioned concerns directly or indirectly affect the performance of different businesses, particularly the performance of the agricultural sector, which is linked with other sectors. Nevertheless, there has been a progressive improvement in the current conditions, indicating that the agriculture sector is likely to maintain its potential. Therefore, it is relevant and worthy to research.

Third, there is a scarcity of information that explores factors affecting OHS implementation in the agriculture sector. Specifically, empirical research related to this topic in the agriculture sector is quite new. Thus, this study extends the current body of knowledge on OHS implementation by empirically investigating influencing factors such as safety communication and feedback, safety training, management commitment, implementation style, and mimetic motives in the labor-intensive sector of Pakistan – the agriculture sector.

1.5.2 Practical Significance

The results of this study may benefit the agriculture sector in many ways from the practical contribution point of view.

First, OHS practitioners may use the findings to foster occupational health and safety conditions in their organization by implementing OHS practices. Second, it will help the policymakers in developing policies on OHS, keeping in view the importance of influencing factors of OHS implementation specifically for the agricultural sector. The government can then relook at the legislation to strengthen them and seal loopholes for the protection of agri-workers. Third, it is crucial for managers to have an understanding of OHSMS in relation to OHS implementation. This understanding is seen essential as it is recognized as a means by which a firm may ensure its sustainability and increase its performance during the complex and uncertain environmental conditions. Fourth, the implication of the findings of the study will give a competitive advantage to the adopted sector – agriculture sector over other sectors by correcting the shortcomings in the current structure. Fifth, the study will raise the awareness about OHS implementation and introduces a new angle of thinking. Considering these, the agriculture sector will be able to prioritize factors for OHS implementation. This prioritization will aid agri-businesses in comprehending effective strategies for managing, mitigating, and significantly preventing work-related fatalities, diseases, accidents, and injuries within their work environments.

1.6 Definition of Key Variables

The operational definitions of key variables are given in Table 1.2.

Table 1.2

Definition of Key Variables

Sr.	Key Variable	Definitions
1	***Management Commitment***	The involvement and commitment of management in undertaking initiatives aimed at attaining a OHS goals (Vinodkumar & Bhasi, 2010).
2	***Safety Communication and Feedback***	A way to enhance the general effectiveness of any motivational effort that lead to changes in behavior and an opportunity to discuss and report a hazard, safety issues, goals and targets (Vinodkumar & Bhasi, 2010).
3	***Safety Training***	The training which plays a significant role in accident prevention program and in any occupational safety and health program by improving behavioral skills, related knowledge and/or attitudes of an employee

Sr.	Key Variable	Definitions
		and making accidents more predictable (Vinodkumar & Bhasi, 2010).
4	***OHS Implementation***	"An organization-wide initiative to capture the act of adopting the extent of the health and safety practices known to the employer to ensure that health and safety practices exist" (Surienty, 2019).
5	***Rational Implementation Style***	A planned, comprehensive, systematic path for organization change (Andrews et al., 2017; Chaffee, 1983).
6	***Incremental Implementation Style***	A fluid nature implementation style of change management, which encourages modification on the ground and emphasis short-run or *ad hoc* basis solution of a problem (Andrews et al., 2017).
7	***Mimetic Motives***	A tendency to imitate best practices of other organizations to get benefits by admitting rules and adopting structure and practices of the surrounding in which organization operate (DiMaggio & Powell, 1983; Klöcker et al., 2014; Meyer & Rowan, 1977; Shahzad et al., 2018).

1.7 Scope of the Study

The present study centres on OHS Implementation within the agricultural sector in Pakistan, except the Gilgit-Baltistan area, which is a recently formed province and subject to COVID-19 related restrictions. The agriculture organizations of four distinct sub-categories, namely crops, livestock, fisheries, and forests, were explored to get a holistic view of OHS implementation in this sector. Moreover, this study focuses exclusively on large-scale farms, as they offer reliable data for an in-depth investigation. The main factors being examined are health and safety practice (management commitment, safety training, safety communication and feedback), implementation styles (rational style and incremental style) and mimetic motives that influence OHS implementation in the agriculture sector. The participants include farm owners, safety representatives, safety managers, safety officers, and other pertinent safety personnel engaged in safety-related matters. The sampling period spanned from August 2021 until mid-January 2022. The study employs a strictly quantitative methodology, employing structured questionnaires distributed through the drop-off pick-up method. The dataset was examined using SPSS and SmartPLS software. Lastly, small and medium-sized farms were not covered due to their lack of dedicated safety personnel or representatives.

1.8 Organization of Thesis

This study comprises of five chapters. The first chapter presents a comprehensive examination of the information pertaining to different influential factors for OHS implementation in the agriculture sector. This examination subsequently leads to the formulation of problem statement, research questions, and research objectives. After that, the significance of the study was explained, key variables were defined, and organization of thesis was discussed. The second chapter covers the holistic review of relevant previous literature on the proposed variables and discuss the theoretical framework of this study which leads to the formulation of research hypotheses. The third chapter of this research work outlines the research methodology employed in this this study, covering research design, population and sampling, questionnaire design, variable and measurements, pre-test and pilot study, data collection and data analysis methods. Subsequently, the fourth chapter presents the findings of the study. Last chapter, the fifth one, provides a recap of the study and comprehensive discussion on results. The limitations of the study, conclusions as well as future research directions are also discussed at the end of this chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter starts with a discussion about occupational health and safety implementation linking with research objectives and hypotheses of the study. Next, it focuses on different factors such as health and safety practices, implementation styles, and their influence on the OHS implementation. It also elaborates on the contribution of health and safety practices, implementation styles along with the moderating effect of mimetic motives, from an organizational perspective, on OHS implementation. This is followed by an overview of key theories, a gap in the literature, and a detailed exposition of the theoretical framework developed in this study. Finally, the hypotheses of the study are outlined to show the relationship between the study variables.

2.2 OHS Implementation

Occupational health and safety risks are inherently associated with workplaces. It can stem from routine operational processes or may arise during unusual circumstances such as accidents and incidents. Increasing trends in occupational injuries and diseases emphasize more on the development of occupational health and safety programs and their implementation. These programs encourage health and safety at the workplace to enhance the safety outcomes of an organization (Bavafa et al., 2018; Laal et al., 2019). Its effective implementation generates valuable knowledge that impacts various performance dimensions (Lafuente & Abad, 2018), such as injury management, absenteeism, and productivity. However, Cândido and Santos (2015, 2019) estimated that a significant portion, ranging from 30 to70 per cent, of such initiatives failed due to inadequate formulation or ineffective implementation.

Inadequate formulation implies that the program, for example, may lack a well-structured designed or not according to the organizational processes, whereas ineffective implementation pertains to deficiencies in commitment, knowledge, and competency during its execution. Nevertheless, Klein and Sorra (1996) asserted that a program does not fail by itself; rather, it results from poor implementation, which primarily attributed to factors within the purview of management control (Nutt, 1999). Therefore, a loose command on these factors makes the implementation a challenge for the organizations.

The OHS professionals and practitioners encourage organizations to adopt an occupational health and safety management system such as BS OHSAS 18001 and ISO 45001 to overcome the implementation challenges of an OHS program (Pryor et al., 2019). Similarly, Laal et al., (2019) advocate that implementing these management systems are the most suitable approach for the organizations to manage OHS programs. Their systematic nature makes them more compatible with operational processes by coupling safety knowledge and safety practices with organizational activities (J. I. Chang & Liang, 2009). Furthermore, their well-structured approach to identifying and documenting risks, as well as implementing corrective measures, leads to a reduction in workplace accidents (Fernández-Muñiz et al., 2012), increased safety control (McKinnon, 2019), and safety performance (Bevilacqua et al., 2016; Laal et al., 2019). It implies that adaptation of a management system is the most potent means to enhance working conditions, and such initiatives facilitate an organization in attainin the goals of an OHS program. However, on the contrary, Ghahramani and Salminen (2019) offer a critical perspective. They criticize that while the objectives of an OHS program may be sound in theory and valid on paper, the true success hinges on the appropriate execution of the requirements of the adopted standard. It is because, the implementation of requirements of an adopted standard, consequently, reduce the likelihood of accidents and foster a healthy and safe work environment (De Oliveira, 2013). All standard requirements for OHS implementation should, therefore, be treated in a business-like manner.

The implementation of the requirements of the adopted standard is an organization-wide strategic initiative (Herrera-Sánchez et al., 2017; Reese, 2017; Surienty, 2019a). For example, Surienty (2019) explained that the successful OHS implementation necessitates the coordination of all staff of every shift, departments, and involvement of key stakeholders. This collaborative effort lays a solid foundation for the effective realization of OHS goals (Ghahramani & Salminen, 2019a). In contrast, Jilcha et al., (2017) pointed out that the execution of OHS requirements is not solely responsibility of internal stakeholders. External stakeholders such as regulatory bodies, insurance agencies, trade unions, and other higher institutions are also equally responsible in ensuring compliance with OHS requirements. It emphasizes the occupational health and safety as a shared responsibility of all stakeholders.

Similarly, Tappura et al., (2017) argue that the allocation of resources, assigning rules and responsibilities, and supportive behavior of the top management by encouraging safety culture in the organization make the implementation successful. However, Cândido and Santos (2015) found that most of the managers perceive the implementation of the program to be more complicated compared to its formulation. This perception is largely due to the longer timeframe of implementation, the involvement of a larger number of individuals, and the greater take complexity. Therefore, the implementation of the requirements of OHS program, and even more of OHS management system, can be successful only when all stakeholders participate fully in its actual execution (International Labour Organization, 2011).

Undoubtedly, the OHS management systems provide opportunities for better management of OHS program. Its importance can be seen by the rising trend in its adaptation. For example, a recent empirical study by Ghahramani and Salminen (2019) shows that, until now, around 90000 organizations of 127 countries have adopted BS OHSAS 180001 since its birth to manage their OHS program. Fernández-Muñiz et al., (2012) identify sixteen reasons to adopt OHSAS 18001 in agriculture and other sectors. Accident prevention, employee wellbeing at the workplace, and integration of safety into organization strategy are the highest common reasons among them. Similarly, Bamber et al., (2017) investigate stakeholder perception about the top ten management systems in the agriculture sector. They found that although the adoption of all management systems is not necessary for each category of agriculture, ISO 45001 and OHSAS 10081 are critical for all operational areas of the agriculture sector as compared to other standards. However, a comprehensive plan based on OHS policy, purpose, commitment, and safety resources are essential to achieve OHS goals and objectives.

Based on the earlier discussion, it is clear that there is a recognized link between OHS management systems and the implementation of OHS programs. It suggests that OHS programs, which enhances health and safety at work, need to be well implemented. However, the adaptation of a management system is not enough for OHS implementation (Hyder, 2019). The identification of several influencing and measuring factors are also necessary. As an example, when health and safety practices such as management commitment and safety training are observed, a few of the immediate consequences would be safety compliance, effective risk assessment, and following the safety procedures. Therefore, this may be how one could measure OHS implementation.

Past studies reveal that the concept of OHS implementation encounters conceptual confusion (Pryor et al., 2019; Rae & Provan, 2019), and this confusion lies