ORIGINAL RESEARCH

The Perils of the Pandemic for the Tourism and Hospitality Industries: Envisaging the Combined Effect of COVID-19 Fear and Job Insecurity on Employees' Job Performance in Pakistan

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Purpose: This study aims to improve employees' job performance during COVID-19 pandemic circumstances and demonstrates the impact of COVID-19 fear on hospitality employees' job performance under the mediating role of job insecurity changes and job loss insecurity.

Methods: The study adopts a quantitative approach, and data were accumulated through a structured questionnaire. In total, 509 valid questionnaires were received from employees working in Pakistan's hospitality sector. A structural equation model using Smart-PLS software was used to analyze the collected data from the respondents.

Results: The results have identified that COVID-19 fear has a positive and significant influence on job insecurity changes, job loss insecurity, and a negative and significant relationship with job performance. The mediating relationship of job insecurity changes and job loss insecurity negatively significantly influence job performance. Additionally, results indicate a significant relationship between the moderating effect of the COVID-19 vaccines and job insecurity changes, job loss insecurity, and job performance.

Conclusion: The study revealed that employees who perceived their jobs to be insecure during the COVID-19 pandemic tried to cope with the situation, feel healthy, and perform well in their job after getting vaccinated. The study's findings recommend modifying the employees' working pattern for organizations. This study enhances the existing literature on the COVID-19 crisis in Pakistan's hospitality industry. In particular, this study is a novel addition to academia that highlights the impact of the COVID-19 pandemic on the work performance of front desk employees in the hotel and tourism industry.

Keywords: COVID-19 worry, job performance, job insecurity changes, job loss insecurity, perception of COVID-19 vaccine, hospitality

Introduction

In recent years, globalization has made the spread of viruses more impactful, posing significant challenges to human development. In 2019, the coronavirus's (COVID-19) high contamination rate coupled with its high mortality rate created a new fear in society, as individuals worried about the negative repercussions of the pandemic.[1] Undoubtedly, 21st-century life has become challenging due to the dramatic changes wrought by the recent pandemic. The severity of COVID-19 has caused all industries to experience unprecedented economic crises, with the hotel and tourism industry encountering an employment bump due to massive reductions in the workforce. Presently, more than 30 billion workers have lost their jobs in the U.S,[2] with the lodging and leisure industry recording 7.7 million cutbacks.[3] In particular, surviving these enormous reductions has made the remaining employees question their careers, resulting in a perception

of job instability. Job security is the leading basic obstacle affecting the hotel and tourism industry today. The impact of COVID-19 has made the industry structure vulnerable to economic repercussions, thus engendering high job insecurity among workers in this industry.[4]

As tourism is one of the prime labor-intensive sectors, the pandemic has put employees' jobs at risk, thus threatening the remaining employees' performance. The widespread pandemic has uncovered conditions of job insecurity by connecting the COVID-19 vulnerabilities with those of the hotel and tourism industry. Previous studies reveal that the devastating consequences of the pandemic have led to a decline in employment in the industry due to a rise in scaling down and cutbacks.[5] Altogether, the literature fundamentally calls for research to examine the lodging and tourism industry against the backdrop of increasing pandemic work uncertainty. Undoubtedly, prior research suggests it is vital for future scholars to investigate the devastating effects of the pandemic in the context of accelerating financial vulnerabilities (eg, job insecurity, job loss insecurity),[6] and influencing individual job performance.[7,8] Significantly, within the context of COVID-19 fears, investigations have focused on the work uncertainty experienced by front-line employees, to determine how the industry can recuperate the losses faced to ensure a sustainable future.[9] Today, organizations have become competitive, but employees substantially fail to meet the required performance standards. In recent years, the pandemic changes have evoked a sense of job insecurity among individuals. A widely drawback of the pandemic is increasing job insecurity, which impedes employees' performance and health. As such, the COVID-19 situation has revealed that fear of layoff damages employees' psychological health while also causing a decline in their job performance.[10] Accordingly, the research shows that COVID-19 disturbed the tourism sector significantly, influencing employees' operations.[11,12] COVID-19 had gripped the global service industry, causing front-line hotel employees to experience the increasing impact of COVID-19 on individual performance. The wide spread of COVID-19 has limited access to tourism, causing a disadvantage to tourism employees. The research suggests that employees of lodging enterprises were worried about face-to-face interactions.[13,14] Yet previous studies have not considered the effect of a worker's psychological state on their job performance,[15] thus leaving room for future research.

This paper adds to the existing knowledge, subsequently broadening the study scope in the context of the COVID-19 pandemic and its impact on employees' psychological states and actions. High rates of COVID-19 infectivity had devastated tourism operations.[16] Hence, it has become crucial for researchers to study the pandemic issues affecting employees' performance in the hotel and tourism industry. Furthermore, previous studies have primarily focused on combating COVID-19′s severity from the organization's perspective.[15] Therefore, this study overcomes this prevailing research gap by highlighting the individuals' issues under the impact of the COVID-19 pandemic.

COVID-19 pandemic has elevated the perceived fear of harm, which weakens employees' performance. Reductions in wages, work deterioration, and loss of employment have led the labor market to experience a global economic depression, thereby requiring the development of medical solutions. Fundamentally, to compress the pandemic fear, countries around the globe have adopted vaccines as a viable treatment for this infection.[17] The outbreak of the pandemic has highlighted the need for quick infection treatment to decrease the fear of being contaminated. The COVID-19 vaccines have been the most profound developments in minimizing the pandemic burden. In explaining this notion, the prior literature calls for innovative solutions to limit the spread of this disease. Studies show that vaccine development produces safe and effective results, thus restricting the effect of fear of the virus on employees' performance.[18] Indeed, today, this precautionary measure (ie, vaccine development) has fostered individual confidence by reducing job insecurity and improving employee performance.

Therefore, to fill the research gap, this study conceptualized a compelling framework capturing the components that expand COVID-19 fear among front-line workers. The study intends to examine the extent to which fear can debilitate work security, thereby identifying COVID-19 fear as a prominent factor driving the uncertainty phenomenon. By considering the current situation of the pandemic, the study aims to explore the role of COVID-19 fear in mediating the relationship between job insecurity and job performance. Broadening the literature on COVID-19, the research examines the underlying factors (ie, job insecurity) affecting the experience of front-line employees working in the lodging and tourism sector. This study investigates the employees' job performance under conditions of COVID-19 fear, job insecurity changes, and job loss insecurity. The study objective is to detect the increasing uncertainty of the pandemic by exploring the mediating role of job insecurity changes and job loss insecurity in the COVID-19 pandemic. In addition,

the study also explains the potential of vaccine development in moderating COVID-19 uncertainty, thereby illustrating a direct relationship between job insecurity and job performance.

Significantly, this study revealed various dark sides of the pandemic, opening avenues for future academic researchers. Researching employee performance using the COVID-19 model of fear, job insecurity, job loss changes, and vaccine development, this study highlights the underlying impacts of the pandemic that has remained unexplored. In particular, this study is a novel addition to the field that highlights the impact of the COVID-19 pandemic regarding the work performance of front desk employees in the hotel and tourism industry. Furthermore, to our knowledge, this paper is the first to incorporate all essential socio-economic variables that require immediate attention in the hospitality industry. The study provides an overview of COVID-19 fear through various lenses and numerous economic perspectives (ie, job insecurity, vaccine development). Indeed, this paper is a unique contribution that demonstrates the moderating role of vaccine development in combating the employees' issues that increased due to COVID-19 fear. All in all, by identifying the moderating role of vaccine development, this study is of great significance to tourism enterprises, governments, and policymakers, thus ensuring improved employee work performance.

The first section of this study explains the anxiety caused by the economic repercussions of the pandemic, which caused considerable disruptions to people's working lives. In the same vein, the second section (ie, the literature review) presents the knowledge discussed by the previous studies. Moreover, the third section, the methodology, fulfills the overall aims of the study by recommending the adaptation of suitable tools to answer the research questions. Likewise, Results Discussion, and Conclusion highlight the study results, discussion, and conclusion.

Theoretical Background and Hypothesis Development

The COVID-19 crisis has wreaked phenomenal levels of destruction around the world. The unprecedented consequences of the pandemic have led human societies to experience a severe toll in terms of economic repercussions. The situation has triggered fear of the unknown, work uncertainty, financial instability, and concerns about the future, all of which affect the workspace environment. The pandemic had engendered a conscious feeling of emotion (ie, fears and worry), posing unprecedented challenges to worldwide industries.[19,20]

Considering the nature of fear, COVID-19 has created a panic in the hotel and tourism industry, presenting a significant occupational threat to employees working in these sectors.[16] The unexpected outcomes of COVID-19 have led the hotel industry to face its vulnerabilities,[21] engendering a high level of insecurity among the workers.[4]

In short, the ongoing burden of the crisis has led front-line workers (ie, in tourism and hospitality) to experience a sharp increase in fear and worry. To combat the emergent challenges of COVID-19 requires countries to take defensive measures,[22] such as in the form of the COVID-19 vaccines.[23] Given the uncertainty of COVID-19, this study aims to determine the potential effect of COVID-19 fear on employees' job performance in the service industry (ie, hotel and tourism industries). It investigates how job insecurity mediates the relationship between COVID-19 fears and job performance. It also illustrates the direct impact of the COVID-19 vaccines on employees' work outcomes.

COVID-19 Fear and Job Performance

The uncertainty surrounding COVID-19 has significantly impacted the global working environment, leading to increased stress and worry in individuals. Fear is a natural human emotion that aggravates a defensive response against a potential threat.[24] The terrifying characteristics of the pandemic (ie, COVID-19 fears) have tempered the whole economy, leading to diverse clinical symptoms (ie, stress, anxiety, depression). In the COVID-19 scenario, studies indicate that a large portion of the population has reported an increase in fear and worry.[25]

Excessive fear has a detrimental effect on employee performance. As such, previous research indicates that the pandemic fear has radically changed working dynamics, leading to poor employee performance.[9] Similarly, prior studies illustrate that heightened fear of COVID-19 has drastically disrupted the workplace climate, with reports of a decline in workers' performance.[26] The fear of COVID-19 has manifested in people's working life, altering their behavior at work, and thus resulting in deficient job performance.[27,28] Notably, during the pandemic, employee job performance in the hospitality industry has relied most fundamentally on enhancing the employee-customer interaction.[29] Intense competitiveness in the hospitality industry demands service employees boost their firm's functioning by improving their job

performance.[30] As such, studies show that increased COVID-19 fear has substantially affected the normal functioning of the tourism industry, thus impeding its employees' work performance.[31]

Moreover, due to COVID-19 vulnerability, increasing psychological issues (ie, worry and stress) negatively affect the workspace environment, resulting in decreased employee performance. Employees working under pressure are less likely to perform well. This psychological distress elevates with the fear of COVID-19, prompting unsatisfactory job performance.[32]

Thus, in the COVID-19 crisis, employers have experienced a surge of COVID-19 fear. Therefore, to tackle the COVID-19 vulnerabilities, organizations should recruit a well-performing workforce, thus achieving successful job performance. Indeed, the literature suggests that fear of COVID-19 has decreased job performance. Hence, based on the findings, this study proposes that following hypothesis:

Hypothesis 1: COVID-19 fear (CVF) has a negative and significant impact on job performance (JP).

COVID-19 Fear and Job Insecurity Changes

The literature demonstrates that the COVID-19′s spread throughout the entire globe has disrupted the economic foundation, leaving billions of industry representatives jobless and destitute due to an unprecedented rise in the unemployment rate.[33] As such, the expanding economic emergencies, rapid job changes, and advancement in precautionary measures have emphasized job insecurity as a severe stressor affecting employees' working lives. Job insecurity alludes to uncertainty regarding the continuation of a worker's present job. The COVID-19 conditions have driven the world to the edge of massive instability, forcing a large population to experience uncertainty and precarity. The heightened COVID-19 fear has fundamentally damaged the human psyche while manifesting in economic and social repercussions. Research also reveals that the erratic nature of the pandemic has increased job insecurity, thus engendering a detrimental effect on employees' work performance.[5]

The COVID-19 pandemic has inevitably changed the traditional definition of job insecurity. Job insecurity refers to employees' perception of the likelihood of losing their present job. In particular, COVID-19 instabilities and expanding work uncertainties have caused many employees to change industries. Indeed, research shows that the pandemic's effects have strongly challenged the hotel and tourism industry.[34] The global pandemic has halted the service sector, resulting in excessive layoffs and turnovers. The disastrous effects of the pandemic have created a surge of job insecurity, thereby elevating the unemployment rate. The heightened fear of COVID-19 has produced a profound impact on employees' psychological health (eg, stress, anxiety, depression), leading to an increase in turnover.[35]

The catastrophic results of the pandemic appear to have made people hesitant about working in the hotel industry, due to a concentrated fear of COVID-19. In this way, psychological challenges cause people to question their work continuity within the industry. Relevant to the hotel and tourism industry, fear of COVID-19, exaggerated by the psychological impact, is potentially reflected in an increase in the turnover rate.[36] Accordingly, the work instability caused by the fear of COVID-19 forces employees to leave the organization. This disengagement increases job insecurity, thus driving the work outcomes in an adverse direction.[37] Therefore, fear of COVID-19 has a deleterious influence on employment results, ultimately increasing the turnover intention.[38] However, employees' subjective perception about a career change have been revealed by the pandemic vulnerabilities as the hidden face of job insecurity.

In particular, the spread of COVID-19 had heavily damaged the service industry, with numerous hotels adopting downsizing strategies. This cutting of employment had made the surviving workers experience a high level of job insecurity. The prior literature shows that job insecurity has widely prevailed in the uncertain environment of COVID-19.[39] Undoubtedly, the severe spread of infection had overwhelmed the tourism industry, considerably elevating the feeling of job insecurity in individuals. Studies indicate that the high-level COVID-19 characteristics have engendered increased job insecurity in individuals.[4] Indeed, based on the prior literature, there appears to be a positive relationship between individuals' job insecurity perception and COVID-19 fear.[34] Hence, this study suggests the following hypothesis:

Hypothesis 2: COVID- Fear (CVF) has a positive and significant impact on Job Insecurity Changes (JCI).

COVID-19 Fear and Job Loss Insecurity

The negative consequences of fear lead individuals to leave their jobs.[40] COVID-19 has generated unprecedented economic challenges, exacerbating the feeling of insecurity and distress among workers. As such, COVID-19 fear has fundamentally emerged as a global threat in and of itself, leading to severe economic repercussions. The terrifying consequences of the COVID-19 pandemic have strongly impacted the world economy, bringing unexpected downsizing (ie, unemployment). Previous results suggest that the fear of unemployment has significantly affected the employees' mental well-being.[41] COVID-19 fear has resulted in the deterioration of employees' mental health within the service sector, where the fear of being laid off is higher than the fear of contamination.[42] Therefore, COVID-19′s psychological impact has resulted in millions of individuals losing their jobs, thus escalating the unemployment rate.[43]

In particular, these economic crises have led to unprecedented economic recessions in human history.[44] One study on the impact of COVID-19 records that 21.1% of the total population faced the fear of losing their job.[45] Additionally, research shows that COVID-19 has caused employees to undergo unexpected layoffs.[46] Indeed, the unpredictable downsizing in response to COVID-19 has triggered excessive fear among individuals regarding their job security.

The COVID-19 pandemic has drastically altered the world's economic infrastructure, resulting in increased economic crises (eg, loss of income) and financial instability. For instance, a recent study indicates that two out of three individuals in the restaurant industry have lost their jobs in response to COVID-19, with eight million restaurant workers being laid off (National Health Association, 2020). Therefore, hotel employees are constantly at risk of losing their jobs.[47] The hotel and tourism industry is currently in shock, due to these massive layoffs,[48] with more than three million job losses in the major countries of the world.[49] Tourism is a dominant industry that cannot survive without the mobility of tourists. COVID-19 fear and job insecurity have elevated the lack of jobs in these industries. However, considering the financial condition of the hospitality industry during the pandemic, a high risk of job insecurity means that, with the continuous changes caused by the COVID-19 uncertainties, many hospitality employees feared losing their job.[50] Indeed, in the tourism industry, the outbreak of COVID-19 strengthened the feeling of insecurity (eg, loss of income, safety).[15] Hence, the pandemic appears to have exposed and heightened the existing challenges of the hotel and tourism industry through the fear of COVID-19. Therefore, based on the previous studies, this study proposes that:

Hypothesis 3: COVID- Fear (CVF) positively and significantly impacts job loss insecurity (JLI).

Job Insecurity Changes and Job Performance

The recent recession and growing vulnerabilities have positioned employment security as the world's top priority. Job insecurity refers to an individual's concern about the future of their present job. Notably, high job insecurity impacts work outcomes, which is an essential determinant of employee performance. In short, job insecurity threatens employment status while bringing potential losses. The growing volatility of the labor market has encouraged employees to make intentional withdrawals,[51] thus leading to negativity of work performance. Consequently, these enduring changes tend to decrease employees' motivation, impairing job performance.[52] This negative relation makes employees vulnerable when performing their tasks, leading to poor work productivity.

Due to the increasing instabilities, job insecurity is the most researched subject regarding the hotel and tourism sector. Research shows that 53.2% of employees working in the front-line hotel industry in Northern Cyprus experience job insecurity, and 42% of representatives working in restaurants and tourism in Serbia endure work insecurity.[52] Therefore, job insecurity is the driving figure causing adverse consequences such as stress, absenteeism, and turnovers, resulting in low job performance in the hotel industry.[7] The era of volatility cause by COVID-19 has caused employees to experience a long period of cognitive insecurity.[53] Further, job insecurity stops individuals from performing well, significantly influencing job performance.[54] Hence, based on the literature findings, the following hypothesis is proposed:

Hypothesis 4: Job Insecurity Changes (JCI) have a significant negative impact on Job Performance (JP).

Job Loss Insecurity and Job Performance

Over the years, job insecurity has been recognized as a fundamental challenge threatening the world financial structure. Global economic crises have driven individuals to feel insecure during periods of increased layoffs.[55] In turn, these vulnerabilities caused unexpected job changes. Research suggests that fear of unemployment hurts the individual's cognitive capability to perform, thus producing poor outcomes.[56] In particular, job insecurity (eg, loss of income, downsizing, unemployment) makes employees experience involuntary loss, creating worse results.

Arguably, organizations adopt downsizing as a corporate strategy to increase the firm's effectiveness while improving employee performance. Illustrating this, results demonstrate that downsizing affects the workplace environment, causing some individuals to face severe clinical symptoms (ie, stress, anxiety), which impede work performance.[57] Consequently, employment instability has a devastating effect on individual well-being, affecting job performance.[58]

Employees facing unfavorable circumstances are not as motivated in their endeavors, leading to poor performance.[59] This fear of job loss makes employees think they are less likely to be hired again within the labor market. Consequently, this insecurity creates anxiety among the workers,[60] and they exhibit poor job performance. In addition, an increase in fear of unemployment makes employees feel vulnerable about their work, subsequently impacting their work performance.[61] Therefore, the following hypothesis is put forward:

Hypothesis 5: Job Loss Insecurity (JLI) has a negative and significant impact on job performance (JP).

The Mediating Effect of Job Insecurity Changes and Job Insecurity Loss

As per the definition, job insecurity refers to the emotional vulnerabilities that employees experience during job performance. It makes individuals fear for their careers due to the threat of unemployment. It is no surprise that people with less secure jobs continually confront cognitive challenges (eg, stress and anxiety) that influence their work execution.

It is known that job insecurity rises in times of recession. In this case, the COVID-19 emergency has damaged the global financial structure, particularly influencing the hotel and tourism industry by extensively increasing unemployment fear. Fundamentally, studies show that the hotel and tourism industry had to stand defenseless against the challenges associated with the COVID-19 shock, leading to fears of an undue increase in unemployment.[58] This rapid increase in COVID-19 fear has stifled the global industries' operation. The results of one study confirm that COVID-19 leads to work strain on hotel employees, thus hampering their performance.[62]

The COVID-19 pandemic had devastatingly affected global industries. The pandemic has made the worldwide industries face many struggles, with the hotel and tourism industry encountering the most difficulty in sustaining throughout the pandemic. Undoubtedly, the service sector has shown that the heightened fear of COVID-19 was significantly related to growing concerns about work instability, affecting the individuals' work execution. As reported by respondents within the front-line industry, the COVID-19 scenario and perceptions of susceptibility have increased the fear of the unknown, limiting career opportunities, and thus resulting in a rise in job insecurity, inevitably hampering the work performance of these employees. Fear of contracting COVID-19 has manifested in front-line workers being hesitant and fearful in their work, drastically impacting the job performance. In support of this notion, research shows that unmanaged fear of COVID-19 potentially hurts the work performance of desk employees, thus leading to frequent truancy and turnovers.[63] Indeed, the financial instability and lay-offs during the pandemic have escalated feelings of job insecurity, thus resulting in poor job performance.

Therefore, the unemployment crises caused by the pandemic have resulted in severe disruptions in the lives of hotel employees, as they struggle to cope with the fear of being infected and job loss insecurity. The reduced occupancy in the hospitality industry has seen it decline immensely worldwide.[64] As a result, the increasing perception of job insecurity has considerably caused unfavorable individual outcomes in the hotel industry. One study showed that the adverse effects of job insecurity drastically influenced employee job engagement, thus hampering their work performance.[65] Additionally, the changes in job insecurity during the COVID-19 have reduced the efficiency of hotel workers while increasing the turnover intention, thus mediating the relationship between COVID-19 fear and work performance.[21] Moreover, increasing job insecurity encourages employees to withdraw from employment.[66] As such, the research indicates that this uncertainty about the work reduces the individual's performance and confidence in an organization.[67]

Furthermore, the COVID-19 emergency had resulted in a diminishing performance of employees in the front-line industry, potentially affecting the psychological well-being of hotel representatives as well.[68] The research has fortified the relationship between COVID-19 fear and employee job performance while finding that job insecurity changes may be a crucial mediating factor in understanding the severity of COVID-19′s impact.

In the current case, the economic crises have triggered the factors that create fear of work instability. Due to the ongoing precariousness, job insecurity has developed as an intellectual state that allows employees to question their commitment to an organization. The fear of COVID-19 has made this relationship less faithful,[69] causing involuntary withdrawal.[66] The literature shows that employees lack career resilience,[70] resulting in increased work insecurities. To illustrate, this sense of emotional vulnerability augments the fear of job loss,[43] hampering the individual work performance.[62] Primarily, the results show that fear of COVID-19 has created a panic in the service industry (ie, hotel and tourism) while increasing job insecurity. The hotel industry workers felt vulnerable because of the job loss insecurity. The research shows that during the outbreak, 75% of employees working in the service sector had lost their jobs in countries like Canada,[71] and many nations faced dramatic unemployment crises in the tourism industry.[72]

The research explains that the hotel and tourism industry has been hit hard, with most restaurant employees dealing with the challenges of COVID-19. The findings of one study suggest that front-line restaurant workers fear losing their job due to the negative consequences of COVID-19, thereby expanding job insecurity.[73] Employees in the restaurant industry fear a higher level of job loss insecurity, resulting in decreased job performance, followed by massive layoffs.[74] The COVID-19 challenges have caused much of the population to encounter unexpected downsizing, potentially reducing job performance, which had created a feeling of job uncertainty.[5] Hence, in view of the previous literature, the following hypothesis is proposed:

Hypothesis 6(a): Job Insecurity Changes (JCI) mediate the relationship between COVID- fear (CVF) and Job Performance (JP).

Hypothesis 6(b): Job Loss Insecurity (JLI) mediates the relationship between COVID- fear (CVF) and Job Performance (JP).

The Moderating Effect of the COVID-19 Vaccines

During the pandemic, vaccination became the most effective method in limiting the spread of COVID-19.[75] However, the implementation of this solution has been a challenge for most countries worldwide, especially since vaccines were not initially available. In the absence of COVID-19 vaccination, prevention measures emerged as the curb to limit the virus's infectious spread, with the downside of bringing the world's economy to its breaking point.[76] To combat the pandemic more aggressively, the development of vaccines has limited the pandemic spread while showing good efficacy against the worst symptoms of COVID-19.[77] Population have largely been eager to get vaccinated, resulting in relief from the preventive measures.

Responding effectively to the pandemic has become essential in dealing with the challenges of COVID-19. For example, the Chinese government has implemented strict preventive measures to restrict the virus from further exacerbation.[78] The COVID-19 threat had triggered prevention behavior, mitigating the negative thoughts, fears, and anxiety related to COVID-19 vulnerability.[22] Most prominently, the provision of vaccines has been well received, with many countries getting their citizens vaccinated, thus slowing the spread.

Several studies support the argument that the development of vaccines has decreased the fear and insecurities associated with COVID-19 characteristics. Perceived safety motivates employees to exhibit higher performance. Therefore, the ongoing effect of vaccination has ensured a safe working environment, with better performance predicted through a reduction in COVID-19 fear.[79]

The COVID-19 pandemic had led the world system into a global recession, leading all sectors to experience severe economic repercussions. COVID-19 fear caused industries worldwide to record a reduction in business, making many individuals terminate their employment. In particular, the COVID-19 crisis has dealt the global economy adverse consequences. The hotel and tourism sector was severely hit, as employees had to cope with the fear of being infected. However, in recent years, the development of vaccines has been critical in mitigating or eliminating COVID-19 fear.

COVID-19 fear and dread of new pandemics have emerged as fundamental threats influencing the society. There was an expectation that, after the success of the vaccine program, individuals' lives would go back to normal, thus improving the employees' performance in the tourism industry.[80] As such, vaccine implementation has been the most effective initiative in improving individual job performance during the pandemic.

Consequently, the revival of the mass tourism industry largely depends on the COVID-19 vaccination campaign.[81] The wide adoption of COVID-19 vaccinations significantly raised the hopes of individuals,[82] thus influencing their work performance. Studies suggest that the vaccination process successfully reduced employees' fears of job insecurity. Job insecurity shatters individual confidence due to their experiencing psychological distress.[41] As such, COVID-19 vaccinations have reduced fears, facilitating positive work performance through employment protection.[9] Similarly, COVID-19 vaccinations have enhanced the performance of hotel employees while achieving a remarkable decrease in employment insecurity.[83]

The pandemic has posed uncontrollable challenges to global societies. The development of the COVID-19 vaccines will surely be remembered as some of the most notable inventions of the twenty-first century. The literature reveals that the deployed vaccines have curbed COVID-19 transmission.[84] Hence, the empirical evidence presents the positive role of vaccination[85] in strengthening job performance and reducing the fear of COVID-19. Indeed, based on the literature findings, this study suggests:

Hypothesis 7(a): COVID-Vaccines (CVVACs) moderate the positive relationship between Job Insecurity Changes (JCI) and job performance, and this relation is weaker when CVVACs are at a higher level.

Hypothesis 7(b): COVID-Vaccines (CVVACs) moderate the positive relationship between job loss insecurity (JLI) and job performance, and this relation is weaker when CVVACs are at a higher level.

Figure 1 shows study conceptual framework (Independent, dependent, mediating and moderating variables).

Methods
Data Collection and Procedure
In this study, we have adopted the quantitative research approach and data was obtained using questionnaires distributed at three time periods, with a 15-day lag between each. Participants are full-time front-line employees/managers working
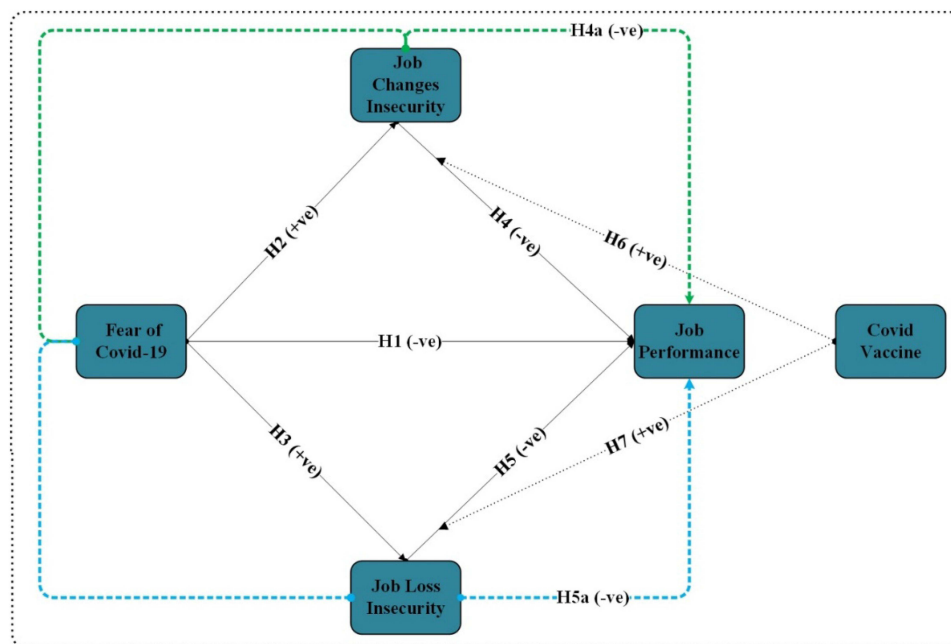

Figure 1 Conceptual framework.

in hotels (three two-star and five three-star hotels) in Pakistan. To ensure a smooth data collection process and cooperation from the participants, the co-author visited the offices of HR managers, briefed them about the purpose and practical implications of the study, and requested their support in this regard. As a result, permission was granted, and with their support, participants were requested to fill out the questionnaire.

Six hundred questionnaires were distributed during period one using a convenient sampling technique, with questions on demographic variables and COVID-19 fear. After removing incomplete responses, 588 complete usable responses were received, ie, 98%. For period two, after a gap of 15 days, 588 participants who provided complete responses were contacted again to fill out the second questionnaire containing questions on job insecurity and COVID-19 vaccines. Of these 89% were complete usable responses, ie, 523. For period three, respondents who participated and filled in the complete questionnaire for the last two periods were contacted again and asked about the dependent variable, ie, job performance. Of 523 respondents, 509 filled out the complete questionnaire, making it an 84% response rate and 509 usable data points. A time-lagged study design was adopted to control the common method variance issue, as suggested by Podsakoff et al and utilized by researchers in the past. Table 1, presenting the study's demographic statistics, reveals that 169 participants were male and 340 were female, 124 respondents were aged 31–40, 119 were aged 41–50, and 134 were aged 51–60. It further illustrates that 148 participants were bachelor's degree holders and 176 were master's degree holders.

Study Measures

COVID-19 fear: COVID-19 fear was measured using a seven-item scale developed by Ahorsu.[40] Sample items include: "I am most afraid of coronavirus-19."; "My hands become clammy when I think about coronavirus-19"; and "I cannot

Table 1 Demographic Characteristics

Items	Frequency (N=509)	(%)
Gender		
Male	169	33.2
Female	340	66.8
Age		
19–30	66	13
31–40	124	24.4
41–50	119	23.4
51–60	134	26.3
>60	66	13
Edu		
Diploma/Intermediate	33	6.5
Bachelor	148	29.1
Master	176	34.6
MPhil/Others	152	29.9
Position		
Receptionist	50	9.8
Low Level Manager	105	20.6
Middle Level Manager	149	29.3
Senior Level Manager	95	18.7
Executive Level	110	21.6
Salary		
>25,000	50	9.8
25,000–50,000	179	35.2
50,001–75,000	138	27.1
>75,000	142	27.9

sleep because I'm worried about getting coronavirus-19." It was measured using a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Job insecurity: Job insecurity and job changes insecurity were measured using a four- and five-item scale developed by Wang.[86] Sample items include: "The possibility of losing my job occupies my thoughts constantly"; and "The rewards of my job are likely to diminish." They were measured using a 5-point Likert scale ranging from 1 = very inaccurate to 5 = very accurate.

COVID-19 vaccines: This moderating variable was measured using 20 items scale developed by Sarathchandra[87] with response options on a scale from 1 = strongly disagree to 5 = strongly agree. Sample items include "Vaccines are safe," "The timing of the current vaccination schedule is appropriate", and "It is legitimate for government to mandate vaccinations."

Job performance was measured using Chiang and Hsieh's six-item scale[88] with response options from 1 = strongly disagree to 5 = strongly agree. Study measurement scales items are provided in the Appendix -A.

Common Method Bias

This research also applied the common method bias using Harman's single-factor approach. The variance extracted by one single factor is 31.274%, less than 50%, indicating no common method bias in this study.[89]

Results

Table 1 provides respondents with complete details of the demographic characteristics of this study.

Assessment of Measurement Model

The first step is to evaluate the reliability and validity of the measurement model. In reliability analysis, the CR and Alpha values must be greater than 0.7,[90] which they were. In convergent validity analysis, the outer loadings of each construct were also higher than 0.5.[91] Moreover, the AVE was also found to be greater than 0.5, indicating no convergent validity issue in this study (see Table 2).

Table 2 Reliability & Validity Analysis

Construct	Items	Loading	α	CR	AVE
Covid 19 fear	CVF_1	0.751	0.896	0.895	0.550
	CVF_2	0.697			
	CVF_3	0.758			
	CVF_4	0.728			
	CVF_5	0.709			
	CVF_6	0.727			
	CVF_7	0.814			
Job Changes Insecurity	JCI_1	0.762	0.833	0.833	0.555
	JCI_2	0.719			
	JCI_3	0.770			
	JCI_4	0.728			
Job Loss Insecurity	JLI_1	0.710	0.864	0.864	0.559
	JLI_2	0.760			
	JLI_3	0.780			
	JLI_4	0.766			
	JLI_5	0.721			

(*Continued*)

Table 2 (Continued).

Construct	Items	Loading	α	CR	AVE
Covid Vaccine	CVVAC_1	0.701	0.892	0.888	0.502
	CVVAC_2	0.831			
	CVVAC_3	0.682			
	CVVAC_4	0.783			
	CVVAC_5	0.539			
	CVVAC_6	0.696			
	CVVAC_7	0.571			
	CVVAC_8	0.811			
Job Performance	JP_1	0.740	0.868	0.868	0.524
	JP_2	0.682			
	JP_3	0.774			
	JP_4	0.722			
	JP_5	0.725			
	JP_6	0.698			

The present study follows the Fornell Larcker method for evaluating discriminant validity. In the Fornell Larcker method, the square root of the AVE of each construct must be higher than all the absolute values[92] (see Table 3).

The cross-loading method was also applied to assess the discriminant validity. The results indicate no cross-loadings between the items (see Table 4). The current study also used a new technique for evaluating the discriminant validity (HTMT). Henseler[93] argues that the HTMT values must be lower than 0.85, meaning there is no discriminant validity issue in this research (Figure 2). While, Figure 3 is a graphical Representation of assessment of measurement model.

Table 3 Discriminant Validity Analysis

Constructs	1	2	3	4	5
CVF	0.742				
CVVAC	0.286	0.709			
JCI	0.614	−0.145	0.745		
JLI	0.620	−0.171	0.586	0.748	
JP	−0.673	0.187	−0.69	−0.711	0.724

Table 4 Discriminant Validity Analysis (Cross-Loadings)

Constructs Items	CVF	CVVAC	JCI	JLI	JP
CVF_1	0.751	0.264	0.464	0.446	−0.522
CVF_2	0.697	0.197	0.422	0.428	−0.479
CVF_3	0.758	0.219	0.472	0.461	−0.513
CVF_4	0.728	0.246	0.474	0.439	−0.478
CVF_5	0.709	0.217	0.412	0.468	−0.472
CVF_6	0.727	0.168	0.413	0.466	−0.504
CVF_7	0.814	0.178	0.522	0.509	−0.526
CVVAC_1	0.202	0.701	−0.075	−0.110	0.131
CVVAC_2	0.182	0.831	−0.136	−0.125	0.156
CVVAC_3	0.194	0.682	−0.049	−0.169	0.128

(*Continued*)

Table 4 (Continued).

Constructs Items	CVF	CVVAC	JCI	JLI	JP
CVVAC_4	0.190	0.783	−0.170	−0.127	0.147
CVVAC_5	0.231	0.539	−0.134	−0.101	0.101
CVVAC_6	0.224	0.696	−0.077	−0.113	0.130
CVVAC_7	0.215	0.571	−0.064	−0.109	0.107
CVVAC_8	0.213	0.811	−0.107	−0.119	0.152
JCI_1	0.471	−0.104	0.762	0.482	−0.523
JCI_2	0.452	−0.083	0.719	0.397	−0.487
JCI_3	0.475	−0.102	0.770	0.436	−0.529
JCI_4	0.430	−0.142	0.728	0.430	−0.517
JLI_1	0.415	−0.174	0.397	0.710	−0.527
JLI_2	0.492	−0.128	0.443	0.760	−0.522
JLI_3	0.481	−0.134	0.455	0.780	−0.557
JLI_4	0.507	−0.093	0.483	0.766	−0.516
JLI_5	0.418	−0.113	0.411	0.721	−0.539
JP_1	−0.479	0.105	−0.546	−0.549	0.740
JP_2	−0.474	0.159	−0.456	−0.455	0.682
JP_3	−0.525	0.146	−0.525	−0.552	0.774
JP_4	−0.498	0.154	−0.469	−0.508	0.722
JP_5	−0.489	0.151	−0.497	−0.507	0.725
JP_6	−0.459	0.101	−0.504	−0.515	0.698

Structural Model

Hypothesis Testing

This research applied the PLS-SEM technique for hypothesis testing using SmartPLS software version 3.3.3. According to Ringle,[94] the bootstrapped procedure was applied with a 5000-sample size recommended to obtain the hypothesis results. The following Tables 5–7 provide the complete detail of direct, indirect, and interaction effects.

In H1, Fear of COVID-19 is negatively associated with Job Performance. The path coefficient of −0.335 and t-statistics of 3.098 denote the significant negative relationship between Fear of COVID-19 and Job Performance;
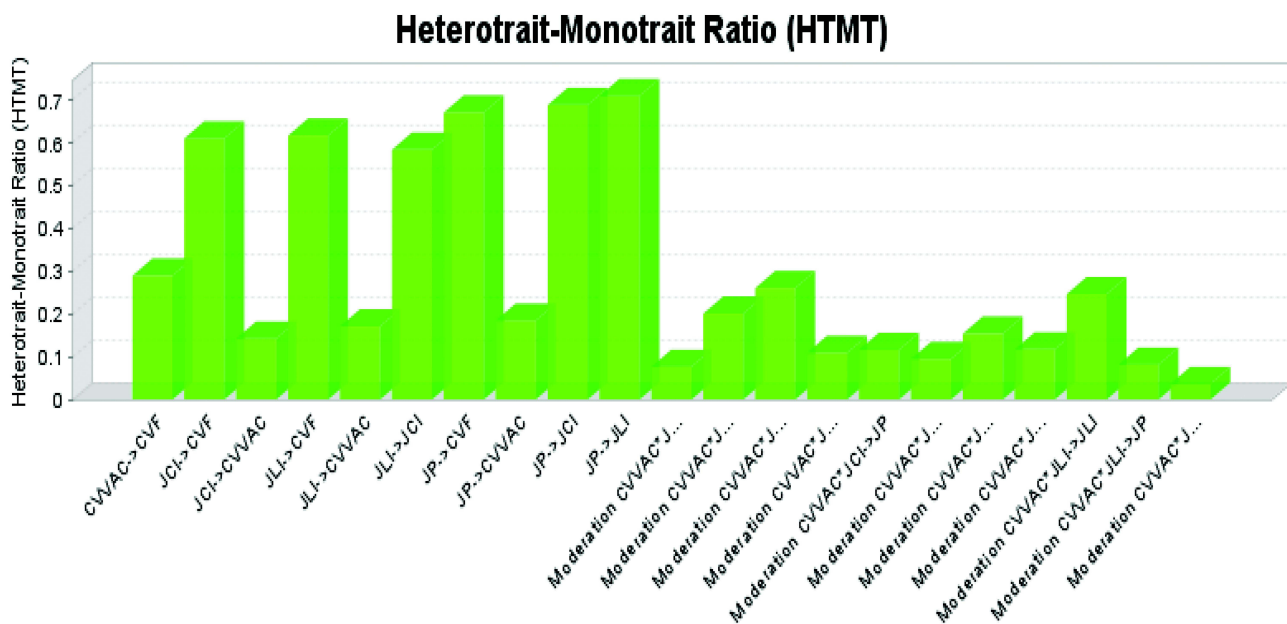
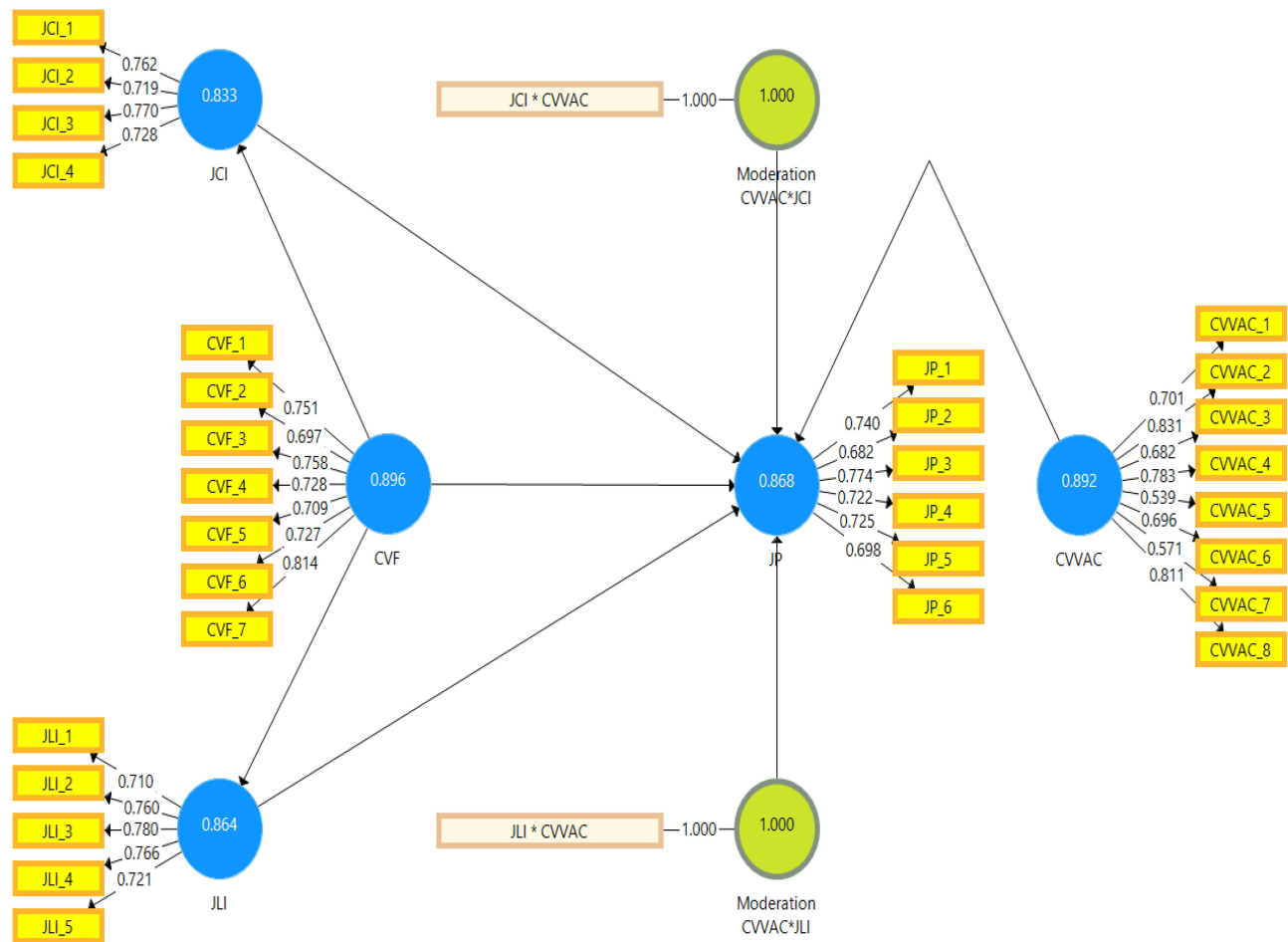
Figure 2 Discriminant validity analysis.

Figure 3 Graphical representation of assessment of measurement model.

thus, H1 is accepted. For H2 & H3, there are strong and positive relationships between Fear of COVID-19 and Job changes insecurity and Job loss insecurity, and both are accepted (beta = 0.614, 0.620, respectively). H4 and H5 both are also accepted (beta = −0.336, −0.329, respectively).

Table 5 Hypotheses Testing Direct Effect

Hypothesis	Direct Relationships	Std. *Beta*	Std. Error	T Values	P values
H1	CVF→JP	−0.335	0.108	3.098	**
H2	CVF→JCI	0.614	0.048	12.807	***
H3	CVF→JLI	0.620	0.047	13.154	***
H4	JCI→JP	−0.336	0.123	2.727	**
H5	JLI→JP	−0.329	0.110	2.976	**

Note: *Indicates significant paths: **$p<0.01$, ***$p<0.001$.

Table 6 Hypotheses Testing Mediation Effect

Hypothesis	Mediation/Indirect Relationships	Std. *Beta*	Std. Error	T Values	P values
H4a	CVF→JCI→JP	−0.206	0.08	2.566	**
H5a	CVF→JLI→JP	−0.204	0.073	2.794	**

Note: *Indicates significant paths: **$p<0.01$.

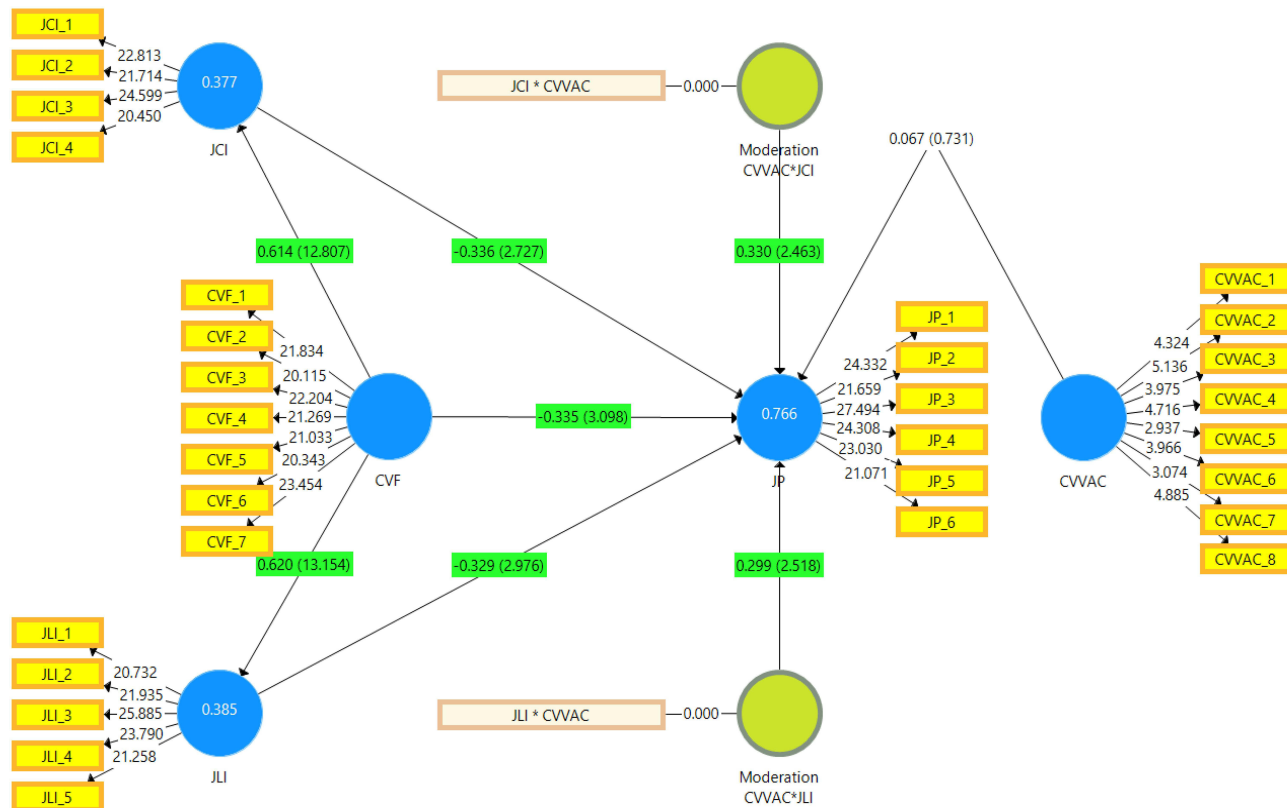**Table 7** Hypotheses Testing Interaction Effect

Hypothesis	Interaction Effects	Std. *Beta*	Std. Error	T Values	P values
H6	Interaction CVVAC*JCI→JP	0.330	0.134	2.463	0.014
H7	Interaction CVVAC*JLI→JP	0.299	0.119	2.518	0.012

In H4a, the mediating effect from CVFJCIJP is negatively significant and established (beta = −0.206). Moreover, H5a is also recognized; JLI is negatively mediating the relationship between CVF and JP (beta = −0.204). Figure 4 is a graphical representation of structural equation model.

H6 and H7 are also accepted. The interaction effects of covid vaccines between JCI & JP and JLI & JP are positive and significant (beta = 0.330 and 0.299, respectively, see Table 7). The interaction results demonstrate that the relationship between JCI & JP and JLI & JP is weaker when respondents get vaccinated. Moreover, this study also conducts a conditional effect analysis on +1, mean, and −1 standard deviation and depicts a graphical demonstration (see Figures 5 and 6). These results are also significant (see Table 8).

Quality Criteria

R square is a "measure of the proportion of an endogenous construct's variance that is explained by its predictor constructs".[95] Generally, 0.25, 0.50, and 0.75 values represent small, medium, and large effects (see Figure 7). The effect size of each exogenous construct can be acquired from SmartPLS in the Consistent PLS Algorithm report. Generally,

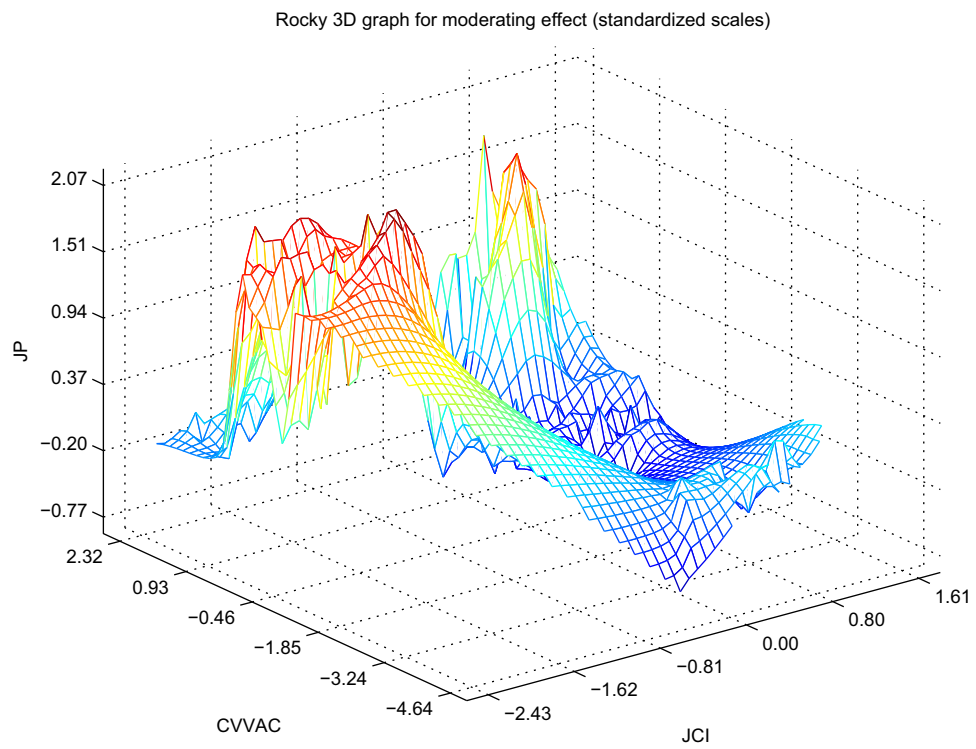**Figure 4** Structural model graphical representation.

Rocky 3D graph for moderating effect (standardized scales)

Figure 5 Interaction effect results of CVVAC*JCI.

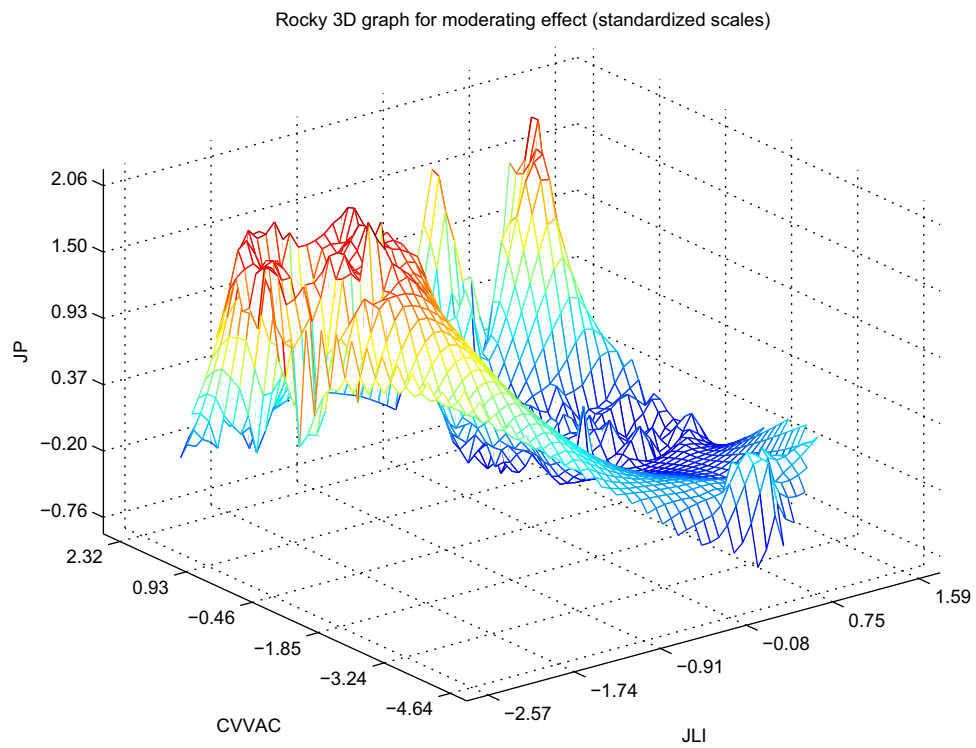Rocky 3D graph for moderating effect (standardized scales)

Figure 6 Interaction effect results of CVVAC*JLI.

Table 8 Conditional Effects

	Level of the Moderator	Effects	Boot SE	LLCI	ULCI
H6	+1 Std Dev	−0.351***	0.047	−0.443	−0.259
	Mean	−0.644***	0.036	−0.714	−0.574
	−1 Std Dev	−0.937***	0.062	−1.058	−0.816
H7	+1 Std Dev	−0.396***	0.047	−0.489	−0.303
	Mean	−0.663***	0.035	−0.732	−0.594
	−1 Std Dev	−0.930***	0.061	−1.051	−0.810

Note: *Indicates significant paths: ***$p<0.001$.

values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects on the exogenous latent variable.[90] Table 9 provides the f2 results. The Q^2 effect categories as 0.02, 0.15, and 0.35 demonstrate a small, medium, and large effect.[96] When Q-square is over, and above zero, the model has predictive relevance. Table 9 presents the value of Q^2 for latent constructs in the model.
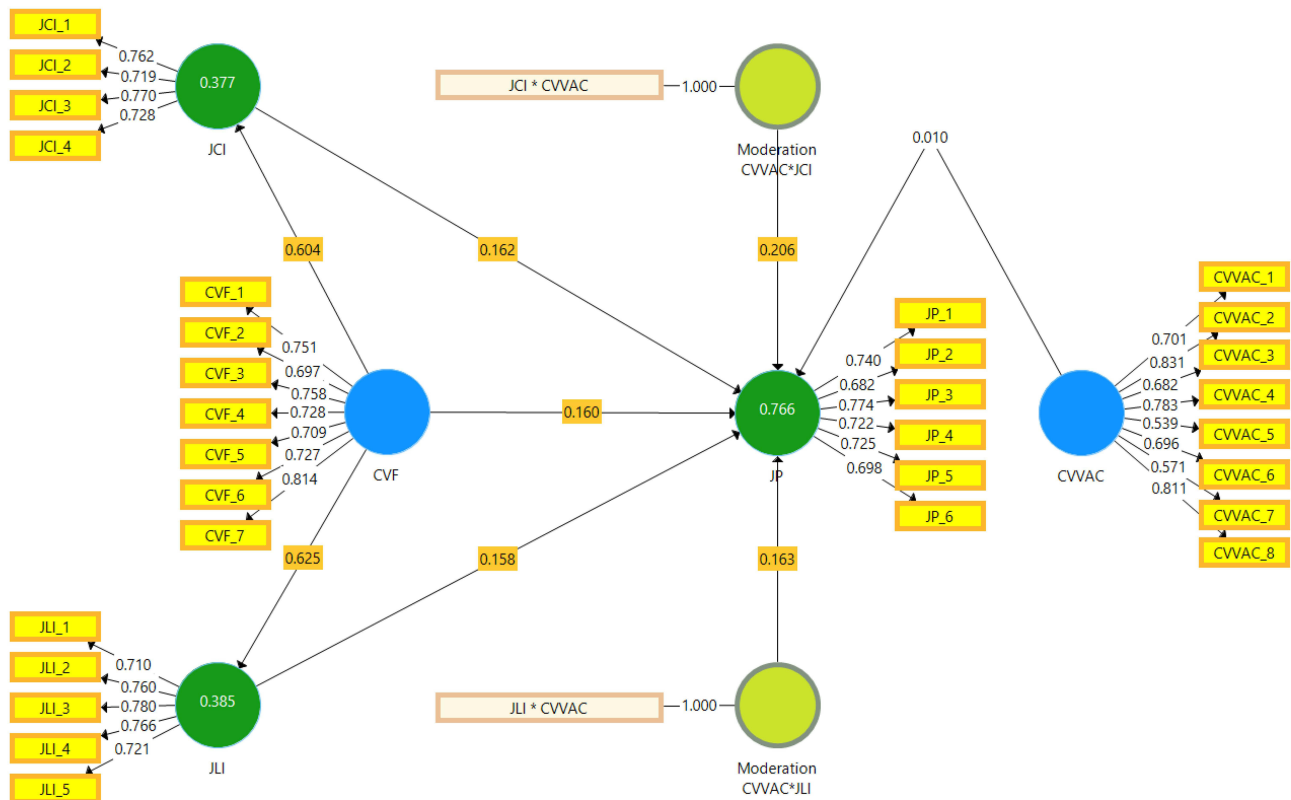
Figure 7 Graphical representation of R^2 & F^2.

Table 9 Values of Adjusted R^2, Q^2 and F^2

Latent Variables	R^{2}Adj	Q^2	F^2
JCI	0.375	0.186	
JLI	0.383	0.191	
JP	0.763	0.351	
CVF→JCI			0.604
CVF→JLI			0.625
CVF→JP			0.160
JCI→JP			0.162
JLI→JP			0.158
MoD CVVAC*JCI→JP			0.206
MoD CVVAC*JLI→JP			0.163

Discussion

The wide spread of COVID-19 means much of the global population has experienced the severity of the pandemic. COVID-19′s progression has influenced worldwide economies by causing many business closures. In particular, the accelerating socio-economic vulnerability has led tourism employees to encounter job insecurities. Accordingly, this current research empirically tests the effect of COVID-19 fear on the job performance of front-line workers in the hotel and tourism industry. In particular, the study explores the relationship between COVID-19 fear and job performance while considering the mediating role of job insecurity and job loss insecurity. However, this study also contributes to the literature on this topic by discussing the role of vaccine development in perceptions of safety within the workplace. As such, the current study explains the moderating effect of vaccine development in satisfying the increasing socio-economic concerns influencing employees' health and performance during the pandemic. Overall, this study reveals the importance of improved job performance, with the study findings statistically validated with the help of PLS-SEM.

Consistently, this section adopts an effective mechanism to explain the impact of COVID-19 fear on employee performance. This section is worthy of attention from industry management regarding the increasing COVID-19 psychological and economic vulnerabilities. It sheds light on the study outcomes in correspondence with the literature review presented previously. Many studies have highlighted the effect of COVID-19 fear on employee job performance. Such research shows that the speed of virus transmission has deepened fears among employees, thereby adversely affecting their job performance.[97] Similarly, the current study records a significant relationship between COVID-19 fear and employee job performance, thus supporting hypothesis H1.

In addition to causing severe psychological impacts, the COVID-19 pandemic has caused numerous economic setbacks, thus leading workers to face unprecedented job-related insecurities. The increasing COVID-19 fear has led tourism employees to encounter various work insecurities. Prior studies indicate that COVID-19 fear has massively induced distress and anxiety in individuals, thus making them experience a high level of job insecurities.[98] Meanwhile, the rapid infectivity of the virus has led the global population to experience economic instability in the form of massive layoffs and unemployment. The poor economic conditions have encouraged firms to close down, thereby engendering a global economic recession. The literature demonstrates that the increasing layoffs, downsizing, and temporary closures have increased job loss insecurity among individuals, thereby impacting their mental health.[99] Unsurprisingly, the current study also concludes that the deep economic recession worldwide caused by COVID-19 has exacerbated individuals' job-related insecurities.

The study objective is to identify the relationship between COVID-19 fear and job performance while considering the moderating role of job insecurity and job loss insecurity. To statistically validate the findings of this study, PLS-SEM was conducted. The results revealed that COVID-19 fear is negatively related to job performance (β= −0.335, p≤0.05); and positively related to Job Insecurity Changes (β= 0.614, p≤0.05) and Job Loss Insecurity (β= 0.620, p≤0.05). Hence, Hypothesis H1, H2, and H3 were proved.

Undoubtedly, COVID-19 has had a pernicious impact on the global population, manifested in reductions to the minimum wage, massive layoffs, scarcity of resources, and increasing poverty, all of which have made employees face increasing employment uncertainty. A review of the literature revealed that the accelerating job insecurity has devastatingly affected employees' job performance.[7] Hence, this study's findings are consistent with the previous literature that states that rising job insecurity (ie, unemployment) widely hampers individual work performance.[100] In particular, the results also revealed that Job Insecurity Changes (β= −0.336, p≤0.05) and Job Loss Insecurity (β= −0.329, p≤0.05) are negatively related to job performance. Hence, hypotheses H4 and H5 are proved.

Similarly, the literature concludes that the COVID-19 pandemic has engendered stress, anxiety, and fear in individuals,[101] thus influencing their work quality. This negative psychology related to COVID-19 (eg, fear) has hampered the employees' job performance, thus infusing a feeling of job insecurity among them.[102] In support of this, the statistical results in Table 6 prove H4a and H5a.

As such, Job Insecurity Changes mediate the relationship between COVID-19 fear and Job performance, and Job Loss Insecurity mediates the relationship between COVID-19 fear and Job performance. Therefore, the COVID-19 economic crisis has caused a significant portion of the population to lose their jobs, giving rise to a desperate need for solutions to the pandemic. In recent years, vaccine development has had a phenomenal impact, with the worldwide audience engaged with scientists' efforts to combat COVID-19 and the increasing adversity it inflicted. The research shows that the introduction of vaccines has minimized job performance problems and the COVID-19 fear, thus fostering positive work outcomes.[103]

The statistical results of this study's moderation analysis are displayed in Table 7. Figures 2 and 3 reveal that the COVID-19 vaccines moderate the relationship between job insecurity (Job Insecurity Changes and Job Loss Insecurity) and job performance. The relationship between hotel employees' perception with regard to job insecurity and job performance weaken when people are vaccinated for COVID-19. Hence, hypotheses H6 and H7 are approved.

These findings are similar to the studies reported in the past, which suggested that the pandemic strongly and significantly influenced employees' job performance. According to Watkins,[104] besides the relief received from the government, jobs are seldom considered available and reliable; therefore, firms should help and support employees to increase their satisfaction and loyalty. Mao[105] also reported that, during the pandemic, firms' help and support of employees led to the development of positive perceptions, strong beliefs, and the courage to deal with the COVID-19 pandemic and related problems. Notably, Vo-Thanh[65] conducted a study in the hotel industry and suggested companies' human resources (employees) as the most valuable asset. If treated well, they will stay satisfied, loyal, and willing to perform better to help the company survive, even during a pandemic.

Conclusion

The tourism and hospitality industry were booming before the abrupt arrival of the global pandemic (COVID-19). In this study, we investigated the effect of COVID-19 fear as perceived by hotel employees in relation to job insecurity and job performance. We found that employees who perceived their jobs to be insecure during COVID-19 were better able to cope with the situation, feel healthy, and perform well in their job once they were vaccinated for COVID-19. The investigation revealed that COVID-19 fear affected the hospitality sector employees' job performance. Job insecurity changes and job loss insecurity were found to mediate the relationship between COVID-19 fear and employees' job performance. Therefore, organizations should plan comprehensively and deploy coping strategies to help employees feel secure and perform well during future disasters. The study findings are useful for practitioners', policymakers and managers. Employees job performance and job insecurity can be managed by considering current study outcomes.

Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethical Approval

All participants gave their informed consent for inclusion before they participated in the study. All procedures per formed were by the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable

ethical standard. All the procedures were approved by the ethical committee of Faculty of Management Sciences, International Islamic University.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors declare no conflicts of interest in this work.

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