Socioeconomic Status, Covid-19 Perception and Willingness to Vaccinate: A Case Study of Pakistani Travelers

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Abstract

The present study aims at investigating the linkage of Socioeconomic Status, Perceived Susceptibility, Perceived Protection benefits and Perceived severity on Willingness to vaccination of COVID-19. For that purpose, primary data of 395 respondents have been collected through questionnaire approach from Pakistani travelers. Partial Least Squares (PLS) method has been utilized for analysis purpose. This study concludes positive relationship between perceived protection benefits and willingness to receive vaccinations. The findings indicate that there is an insignificant relationship between perceived susceptibility and willingness to vaccinate. The study also explores the positive and significant relationship between perceived severity and vaccination willingness. The study suggests that NGSs and governments should organize awareness programs for the pubic to highlight the importance of COVID-19 and other vaccines so that willingness to vaccination may be enhanced and health issues may be reduced.

Keywords: Perceived Susceptibility, Perceived Protection Benefits, Partial Least Square, COVID-19 vaccine

Introduction

A worldwide epidemic has emerged from the dissemination of the new corona virus (COVID-19). Worldwide, there have been about 80 million verified cases and 1.8 million documented fatalities. Since the outbreak's start in December of 2019 (Alley et al., 2021). Severe acute respiratory syndrome (SARS-CoV-2) the contagious illness corona virus disease is brought on by the virus corona virus 2 (COVID-19). Most COVID-19 patients only experience mild to moderate symptoms, and they got well on their own. On the other hand, some people had severe illness and need medical

attention. An ordinance recognizing importance of widespread immunization as a major public health priority for halting the spread of SARS-CoV-2 was accepted by the 73rd World Health Assembly in May 2020 (Machingaidze & Wiysonge, 2021). Some people were afraid of vaccinations because they believed they were rushed or experimental, and they might have heard untrue stories about vaccines having chips in them or causing infertility. Due to concerns about the COVID-19 vaccine's negative effects and safety, some people were reluctant or unwilling to receive vaccinations (Nomura et al., 2021).

Pakistan had 3,772 active cases, 30,620 deceased cases and 297,783,703 recovered cases as per 10-october-2022 (covidvisualizer, 2022). On the other hand, 7,630,494 people were partially vaccinated and 131,801,962 were fully vaccinated as of10-october-2022 (vaccinevisualizer, 2022). When reliable and efficient vaccinations have been developed, attaining herd immunity is significantly hampered by community acceptance of immunization."Vaccination hesitation" is a key idea that has emerged with the introduction of every vaccine and encompasses several factors. A delay in accepting or rejecting a vaccine is known as vaccine hesitancy even though vaccination services are available. Complacency, confidence, and convenience are three variables that exacerbate how difficult it is to decide whether to vaccinate someone(Baumgaertner, Ridenhour, Justwan, Carlisle, & Miller, 2020).Some people choose not to receive vaccinations because they were unable due to medical issues or did not want due to vaccine hesitancy (Böhm, Meier, Groß, Korn, & Betsch, 2019).

**Figure 1: Daily new confirmed cases COVID-19 per million people**
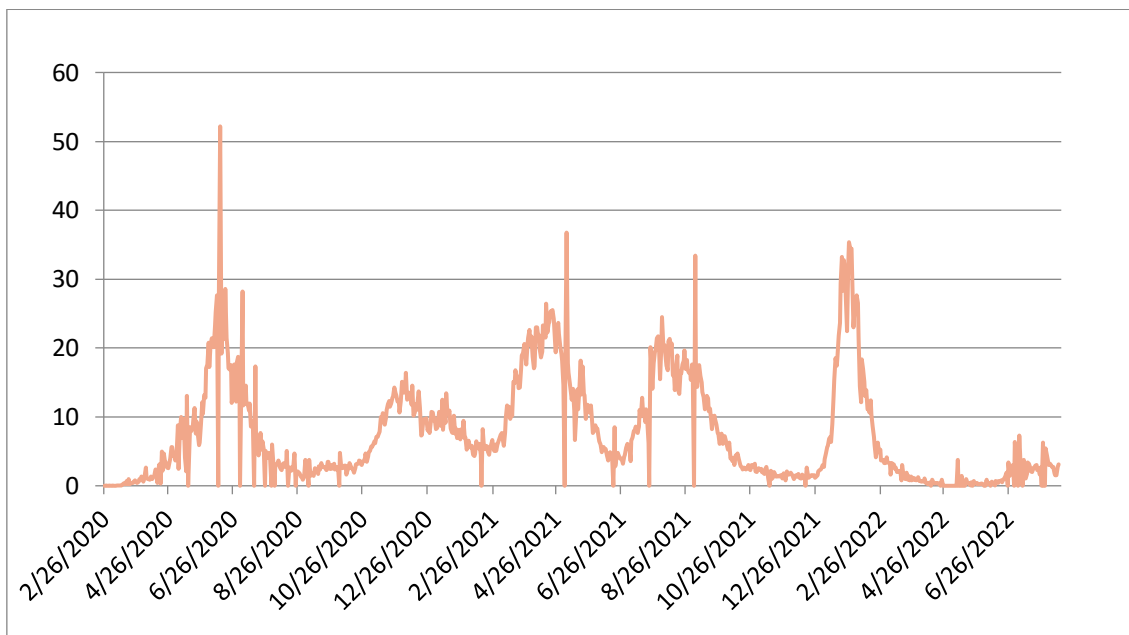
Source: Official data collected by our World in data

Vaccine hesitation is exacerbated by complacency, yet increasing perceived risk can identify hesitation (which decreases complacency). What is unclear is how variations in perceived risk affect variations in vaccine reluctance. To put it another way, Justwan and colleagues' concept of "vaccine propensity" still escapes us completely (Baumgaertner et al., 2020).The best obstacle to vaccination may be the fear of negative side effects. A belief about the possibility of possible injury or loss is referred to as risk perception, which has two sub-dimensions: susceptibility and severity. The possibility that someone would experience a risk (side effects from vaccinations) is known as "perceived susceptibility," and the degree of harm that risk poses is known as "perceived severity" (Zheng, Jiang, & Wu, 2022). A high level of resistance to the vaccine was linked to low levels of

information, information attention, and faith in official media, perceived susceptibility, and non-medication protection behavior. People with stronger perceived controllability and lower perceived susceptibility would be more hesitant to receive vaccinations (Zheng et al., 2022).

When other characteristics, such as vaccine confidence and convenience, are maintained constant, vaccination propensity is defined as a mapping from the reported readiness to vaccinate to the perceived risk of infection. The combination of the chance of developing the infection and the severity of the condition, as determined by morbidity and death, is referred to as "perceived risk of infection." By providing a dynamic mechanism for how hesitancy may vary in response to changes in the risk environment, we view vaccination propensity as a complement to vaccine complacency (Baumgaertner, Carlisle, & Justwan, 2018).

Figure 1: People vaccinated against COVID-19 per hundred
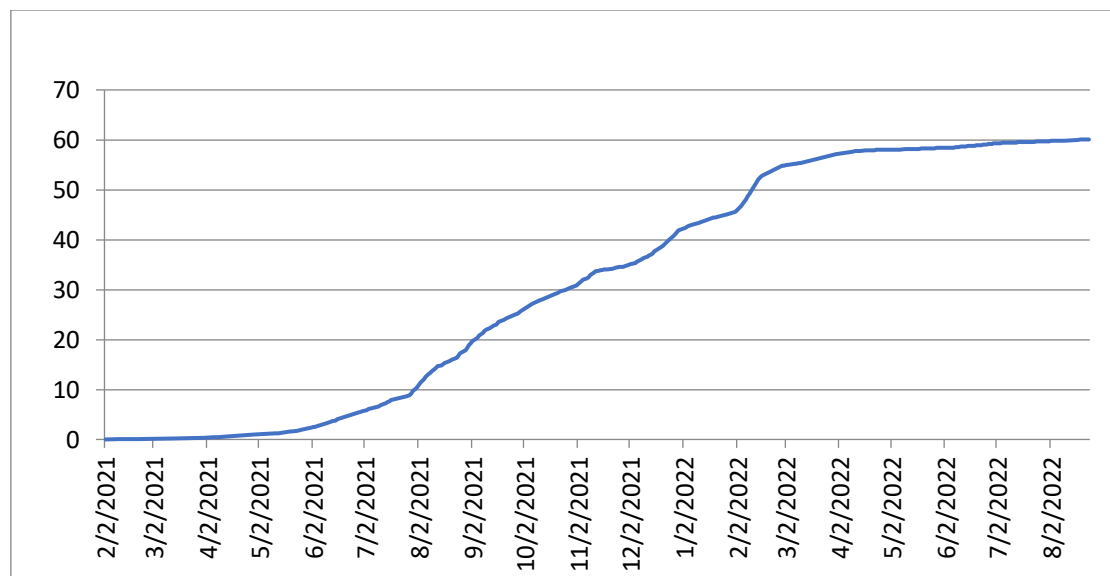
Source: Official data collected by our World in data

A trait that is projected to change depending on the individual is vaccine propensity. Based upon their subjective perceptions of their risk of infection and their general understanding of disease prevalence and severity. People may report not wanting to get vaccinated if a specific subjective threshold is crossed by the perceived risk, or not. In its place, you can figure out how much risk a person is ready to bear prior to consenting to receive immunizations by asking them how prevalent a disease is in their area (holding fixed other concrete information about, for example, disease severity). Although vaccination preference is a matter of personal opinion or subjectivity, generalizing it is helpful (Baumgaertner et al., 2020).

Most vaccines directly protect vaccinated individuals as well as indirectly protect unvaccinated individuals. This is a phenomenon known as "herd immunity" (Fine, Eames, & Heymann, 2011). Herd immunity is the effect of the transmission of a pathogen being slowed when the population's vaccination rate rises. An illness may eradicated if a particular vaccination rate is met, as was the case with smallpox (Breman, Arita, Unit, & Organization, 1980). Herd immunity is therefore crucial for achieving public health objectives, such as the removal and eradication of diseases World Health Organization (WHO, 2013).

Vaccination can be seen as a prosaically act because of the favorable externalities it has on those who are not immunized (Bauch & Earn, 2004); (Betsch, Böhm, & Korn, 2013). Because of this, people should be more inclined to pay for their own vaccinations if they: (1) are aware of the

benefits of vaccination for society as a whole due to herd immunity; and (2) an interest in the wellbeing of others (for example, effort, time, risk of vaccine side effects). Experimental research connecting pro-social motivations to vaccination uptake supports this viewpoint (Böhm, Betsch, Korn, & Holtmann, 2016). Furthermore, emphasizing the pro-social benefits of vaccination encourages vaccination uptake. For instance, it has been demonstrated that educating people about the societal benefits of herd immunity increases their desire to get immunized, especially when vaccination is thought to be inexpensive (Betsch et al., 2013); (Vietri, Li, Galvani, & Chapman, 2012). The following research objective is to investigate the role of socioeconomic status, perceived susceptibility, perceived severity and perceived protection benefits on willingness to vaccinate among travelers in Pakistan. Moreover, apart from introduction in 1st section, this study explains the literature review in 2nd section, data and methodology is presented in section 3, results are portrayed and discussed in section 4 while conclusion along with recommendations is illustrated in section 5 and after that references are given.

Literature Review

Tourism is predicted to increase by an average of 3-5% annually through 2023, ranking as a major global industry, according to the World Travel & Tourism Council. In 2018, it reached $8.8 trillion, with a 3.5% increase in 2019 (WTTC, 2020). However, SARS-CoV-2 (COVID-19) severe acute respiratory syndrome virus quickly spread to become a global pandemic in December 2019(Lu, Stratton, & Tang, 2020)which abruptly ended domestic and international travel. The entrance of foreign visitors from nations with high infection rates has been addressed by several nations (USA, Spain, Iran, China, Italy, etc.).

Additionally, vaccines are the best way to prevent the spread of infectious diseases including malaria, diphtheria, hepatitis A and B, hepatitis C, and tuberculosis, which are still widespread throughout the world(Suess et al., 2022) Visitors to nations where these diseases are still common are frequently advised to get vaccines(Seale et al., 2016). In a similar vein, it seems apparent that immunization would aid in controlling the COVID-19 outbreak (Neumann-Böhme et al., 2020); (Wong et al., 2020); (Eibensteiner et al., 2021) and, in doing so, facilitate travel. But there has been disagreement on uptake (Palamenghi, Barello, Boccia, & Graffigna, 2020) There are also several anti-vaccination movements, which are considered to be a public health emergency (Schunk, Wachinger, & Nothdurft, 2001). Also with a bachelor's degree were more proactive than those with a diploma or certificate, frequent media users were more proactive than less active users, and men were more likely to be vaccinated females are more uncertain (Alley et al., 2021).

According to research currently available, many adults choose not to vaccinate themselves or their children against a range of infectious diseases, citing lack of knowledge about the risks of related illnesses, pertinent information, cost considerations, irrational concerns about side effects, and concerns about the efficacy of vaccinations (Baeyens, 2010); (Goldman et al., 2020); (Goldman et al., 2021); (Böhm et al., 2019). According to the findings, 66% of Czech students wanted him to receive the COVID-19 vaccine (Pišl et al., 2021). Ideology has an impact that is both statistically significant and substantively significant (Baumgaertner et al., 2018). Low income, without a degree, younger adults, females, and Black are unwilling, while higher income and older age are willing to get vaccinate (Daly & Robinson, 2021). Caregivers are not willing to give their kids vaccines (Almusbah et al., 2021). While according to (Goldman et al., 2020) caregivers are willing to give their kids vaccines.

The majority of Asian healthcare professionals were open to receiving the COVID-19 vaccine. The key motivators are perceived susceptibility to COVID-19, minimal possible risk of vaccination side effects, and pro-social nature (Chew et al., 2021). The elements that frequently demonstrated a substantial correlation with vaccine acceptance or rejection included age, gender, education,

vaccination attitudes, and perceptions (Nehal, Steendam, Campos Ponce, van der Hoeven, & Smit, 2021). According to the findings, parents' intention to vaccinate was significantly predicted by their religiosity, perception of their children's HPV susceptibility, and perception of the harmful effects of HPV infection. A doctor's area of expertise and whether or not they would vaccinate their own children were significant indicators of whether or not they would advise parents to vaccinate their kids (Barnack, Reddy, & Swain, 2010). The mothers expressed a strong desire to vaccinate their daughters and advocate for the vaccine among others (Ezenwa, Balogun, & Okafor, 2013).

The majority of responders desired to vaccinate either themselves or their kids. In contrast to white respondents, Hispanic respondents had more favorable responses than black respondents, which is noteworthy. Women had a lower probability than men. Less drive existed among the uninsured than among the insured. Groups 65 years and older had a higher likelihood of receiving the vaccination than some younger groups, while other groups at higher risk from underlying illnesses or morbid obesity were more likely to get the immunization than groups at lesser risk. Even while the majority of Americans reported being ready to get the COVID-19 vaccine, other susceptible communities reported being less ready. These deficiencies in public health need to be filled, but national implementation efforts are still ongoing (Kelly et al., 2021); (Baumgaertner et al., 2020).

Other significant predictors included high perceived benefits, low subjective normative barriers to vaccinations, and high levels of self-efficacy. Age, race/ethnicity, favorable subjective norms, increased knowledge of behavior control, positive attitudes towards vaccines, high perceived susceptibility to COVID-19, high perceived vaccine benefit, and low vaccine benefit were predictors of COVID-19 vaccine readiness under the EUA. Trust in the health system, health insurance, norms, attitudes toward vaccinations, perceived COVID-19 risk, Perceived factors include the advantages of vaccinations, or the notion that becoming vaccinated will lessen COVID-19 worries (Guidry et al., 2021); (Suess et al., 2022); (Wake, 2021).

Till yet some of the studies explain the effect of socioeconomic status and Covid-19 Perception on willingness to vaccinate. (Suess et al., 2022) worked on perceived susceptibility, perceived severity and perceived protection benefits but did not include Pakistani international travelers. The best of my knowledge, nevertheless, no prior research directly looked into how socioeconomic level, perceived susceptibility, perceived severity, and reported protection advantages affect visitors from Pakistan's willingness to get vaccinated. So, in this study impact of socioeconomic statusand Covid-19 Perception on willingness to vaccinate is specifically explored for significant contribution to the scholarly literature.

Data and Methodology

There are different theories which describe the association between an individual's COVID-19 Perception and Willingness to Vaccinate. The Health Belief Model, the Theory of Planned Behavior, and the Protection Motivation Theory are all supported by the findings of this study (Godwin et al. 2021). All of the model's elements were made up of indicators that were evaluated through survey questions.

Figure 3: Theoretical Framework
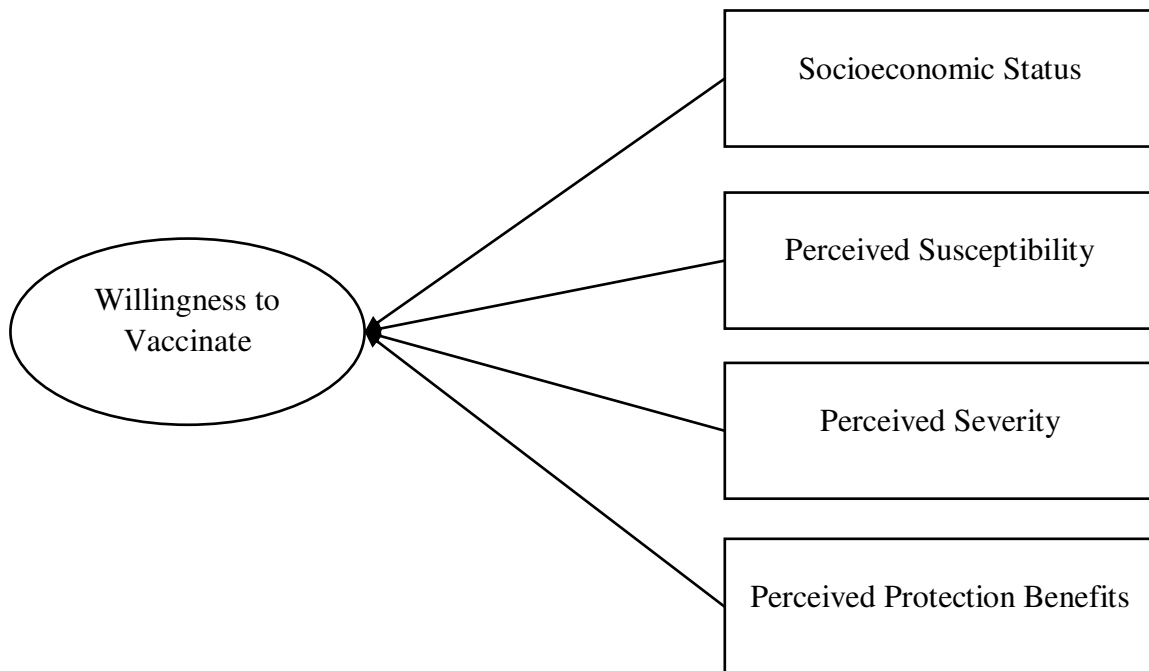
At this stage, objective was to ascertain if the study needed to be further fine- tuned or modified to allow respondents to answer all question sina clear and understandable questionnaire. In this study, we conducted apilot study distributing the questionnaire to 100 foreign travelers to find out if the questionnaire was well designed and the questions were simple to comprehend. You were requested to respond to inquiries and offer comments to ensure the effectiveness and clarity of the survey and avoid misunderstandings.

Response rate to Questionnaire	Frequency	Percentage
Surveys distributed in number	500	
Return questionnaire	500	100.00
useless questionnaire	105	21
Useful questionnaire	395	79

Table 1: Study Response Rate for a sample

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
WTV	0.893	0.898	0.824
PSV	0.734	0.792	0.644
PSC	0.706	0.718	0.628
PPB	0.804	0.830	0.636
INC	1.000	1.000	1.000

Table 2: Reliability Analysis of Pilot test

This study uses secondary data of International travelers of 395 which is suggested by Krejcie and Morgan. Information is collected from respondents using Snowball Sampling from Pakistan. The study looked at international travelers from Pakistan. The unit of analysis is overseas travelers and business owners who responded to the questionnaire. There were circulated 500 survey forms in total. 395 questionnaires were indeed obtained from the respondents. Consequently, 79% of the responses were valid. In order to assess the gathered data statistically, structural equation modeling (SEM) was selected. The study's objective is to determine the intensity and direction of the association between Covid-19 perception and vaccination willingness among international travelers so following model is specified;

$$WTV = \beta_o + \beta_1 SES + \beta_2 PSUS + \beta_3 PSEV + \beta_4 PPB + \mu_i$$

In the above equation, WTV is Willing to Vaccinate, SES is Socioeconomic Status, PSUS is Perceived Susceptibility, PSEV is Perceived Severity and PPB is Perceived protection benefits. The variable Socioeconomic status is measured by income (INC) while the other variables perceived susceptibility, perceived severity, perceived protection benefits and willingness to vaccinate are measured by the instruments which are taken (Suess et al., 2022).

| Variables	Description	Measurement
WTV	Willingness to vaccinate	The percentage of individuals who were ready or willing to take the vaccination was used to measure vaccination willingness (if available).
SES	Socioeconomic Status	The term "socioeconomic status" refers to social rank or class of an individual or group. Frequently evaluated by combining wealth, work, and education.

PSUS	Perceived Susceptibility	Perceived susceptibility is how much a person thinks they are susceptible to disease (Champion & Skinner, 2008), (Janz & Becker, 1984); (Klohn & Rogers, 1991); (Mermelstein & Riesenberg, 1992); (D'Souza, Zyngier, Robinson, Schlotterlein, & Sullivan-Mort, 2011).
PSEV	Perceived Severity	One's perceptions of the disease's significance and the potential negative repercussions of contracting an illness on their health are related to perceived severity (Rahmati-Najarkolaei, Tavafian, Fesharaki, & Jafari, 2015).
PPB	Perceived Protection Benefits	Protection was initially envisioned in the health-related attitude model as a means of understanding behaviour(Rogers, 1975).The perceived protective benefits of COVID-19 vaccines are impacted by people's willingness to be protected from infection as well as by how serious and susceptible they believe the disease to be, based on the framework of the Health Belief Model (HBM).

Table 3: Description of Variables

Results and Discussions

This section presents the results of the study as per objectives of the study and their interpretation. Determining each item's reliability, convergence validity, internal consistency reliability, and discriminant validity is the first step in evaluating measurement models (Hair Jr et al., 2014); (Joe F Hair et al., 2011); (Henseler et al., 2009) as shown in Figure 4.

Figure 4: Measurement Model
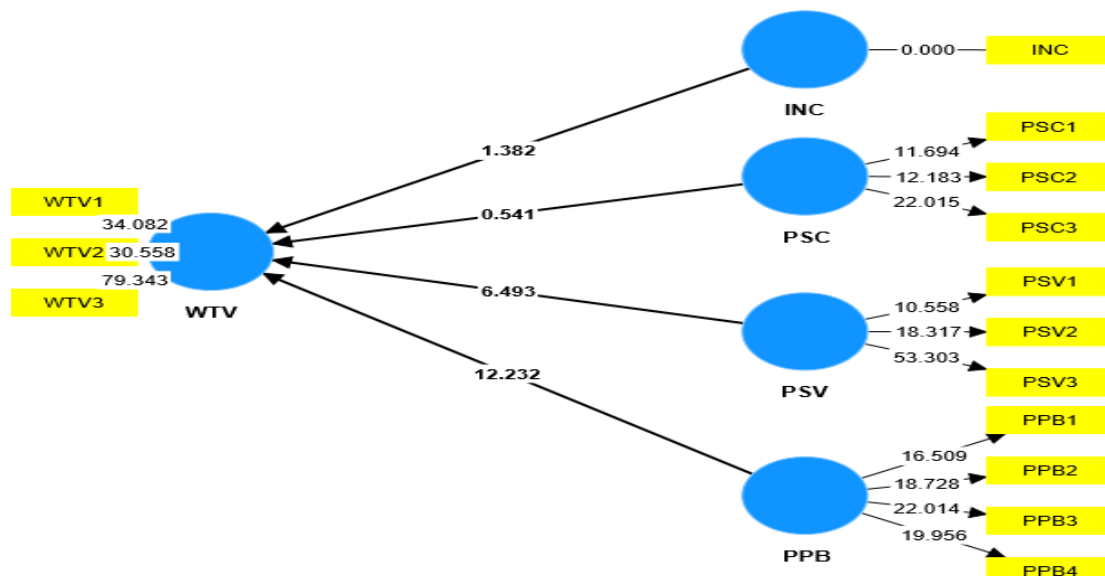
	INC	PPB	PSC	PSV	WTV
INC					
PPB	0.054				
PSC	0.084	0.456			
PSV	0.036	0.705	0.776		
WTV	0.078	0.882	0.442	0.765	

Table 4: Heterotrait - MonotraitRatio (HTMT)

The ideal HTMT ratio is less than 1.00 (Henseler, Ringle, & Sarstedt, 2015). The HTMT results reveal that every value is significant deviation from 1, and the HTMT correlation ratios in Table 4 reveal that every value is below the cutoff of 0.90, proving that it is impossible to distinguish between reflecting structures. It has been proven to be valid.

Items	Standardized loadings	AVE	Composite Reliability	Cronbach's Alpha
WTV1	0.807			
WTV2	0.882			
WTV3	0.908	0.751	0.900	0.834
PPB1	0.667			
PPB2	0.718			
PPB3	0.796			
PPB4	0.766	0.545	0.827	0.719

PSC1	0.734			
PSC2	0.710			
PSC3	0.840	0.583	0.807	0.647
PSV1	0.641			
PSV2	0.728			
PSV3	0.862	0.561	0.791	0.622
INC	1.000	1.000	1.000	1.000

Table 5: Standardized Loadings, Average Variance Extracted, Composite Reliability, and Cronbach's Alpha

Calculations show that factor loadings are more than 0.50 (Joseph F Hair et al., 2017). Table 5 presents the factor loading's outcomes. Every factor loading was greater than 0.50. The range of factor loadings was 0.641 to 1.000.As a rule of thumb, we strongly recommend an AVE of at least 0.50 for good convergence validity. The item, however, explains more mistakes than the variance of the structure if the AVE is less than 0.50. Table 6 AVE therefore shows that all elements are above 0.5, which is highly recommended. A confidence factor of 0.70 or higher is considered more than sufficient for behavioral studies (Nunnally, 1994).

The composite confidence coefficients for latent structures are displayed in Table 6. The breakdown is as follows. Perceived susceptibility (PSC) = 0.811; perceived severity (PSV) = 0.816; vaccination readiness (WTV) = 0.901. All of them exceeded the 0.70 threshold, indicating reasonable internal consistency in the reliability of theme asurement susedin this study (Bagozzi & Yi, 1988); (Joe F Hair et al., 2011). A high composite confidence reliability that all articles consistently measure the same structure. A suitable Cronbach's alpha is one of 0.70 or higher. Cronbach's alpha provides a more exact indication of whether the items measure the same structure. So the Cronbach's alpha was more than 0.7 for all constructs. This was proposed by (Nunnally, 1994) as the minimum acceptable bound. Below this value, the common area becomes l essinternally consistent. In Table 6, the Perceived Vulnerability and Perceived Severity values are lower than 0.70, It implies that there is little internal coherence in the common region.

	INC	**PPB**	**PSC**	**PSV**	**WTV**
INC	**1.000**				
PPB	0.019	**0.734**			

PSC	0.060	0.349	**0.768**	
PSV	-0.003	0.511	0.497	**0.773**
WTV	0.072	0.696	0.375	0.604	**0.868**

Table 6: Fornell – Larcker Criterion

If the square root of AVE for each latent variable is greater than the correlation coefficient between that latent variable and the other latent variables, the measurement model meets the discriminant validity requirement(Mohammadi & Mahmoodi, 2019).According to Table 6, each latent variable's correlation coefficient with the other latent variables in the measurement model is less than the latent variable's AVE square root.

	INC	**PPB**	**PSC**	**PSV**	**WTV**
INC	**1.000**	0.026	0.073	0.009	0.067
PPB1	0.033	**0.667**	0.220	0.355	0.520
PPB2	0.071	**0.718**	0.270	0.381	0.514
PPB3	-0.005	**0.796**	0.235	0.379	0.496
PPB4	-0.025	**0.766**	0.197	0.369	0.501
PSC1	0.075	0.267	**0.734**	0.333	0.253
PSC2	0.011	0.205	**0.710**	0.344	0.196
PSC3	0.069	0.244	**0.840**	0.402	0.313
PSV1	0.047	0.262	0.436	**0.641**	0.313
PSV2	0.005	0.297	0.369	**0.728**	0.367
PSV3	-0.013	0.511	0.320	**0.862**	0.590

WTV1	0.008	0.614	0.360	0.636	**0.807**
WTV2	0.096	0.539	0.239	0.408	**0.882**
WTV3	0.081	0.625	0.271	0.471	**0.908**

Table 7: Cross Loadings

All elements of the construct were higher in each construct than the others. Therefore, The constructs' discriminant validity was sufficient (Mohammadi & Mahmoodi, 2019).

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
INC -> WTV	0.049	0.036	1.382	0.084
PPB -> WTV	0.520	0.042	12.232	0.000
PSC -> WTV	0.022	0.041	0.541	0.588
PSV -> WTV	0.322	0.050	6.493	0.000

Table 8: Path Analysis

This study proposed that there is a positive relationship between perceived protection benefits and willingness to receive vaccinations, based on theory and earlier research. The results confirm this relationship, as noted in Table 8 above. The findings revealed a statistically significant (p-value = 0) positive correlation between desire to vaccinate and perceived protection benefits.

Previous studies have emphasized the part of fear and threat protection in activating subsequent behavior in humans (Horng, Hu, Teng, & Lin, 2014); (Milne, Sheeran, & Orbell, 2000); (Rogers, 1975); (Suess, Woosnam, & Erul, 2020). An individual's perception of the COVID-19 protection that vaccination provides in the context of the trip is portrayed as a potential protective advantage as a crucial mediating dynamics of the mechanism an individual's decision-making about COVID-19 vaccination for travel. The perceived protection benefits of the COVID-19 vaccine, when applied to the HBM framework, depend on perceptions of the disease's severity and susceptibility, on individuals' willingness to get vaccinated before travelling, and on the willingness of others to get vaccinated before travelling, which is assumed to be influenced by the assumption that it will then affect support for mandatory pre-travel vaccination requirements.

Due to methodological arguments, we expected a positive correlation between perceived susceptibility and willingness to vaccinate in this study. However, as explained in Table 8, this

result is not supported. This finding indicates that the variable willingness to be vaccinated did not meet the criteria for perceived susceptibility. This result is inconsistent with previous studies (Suess et al., 2022); (Wake, 2021); (Guidry et al., 2021) which found that perceived susceptibility has an impact on willingness to vaccinate. The findings indicate that there is an insignificant relationship (p-value = 0.588) between perceived susceptibility and willingness to vaccinate.

The results indicate that perceived severity may be one of the most important determinants of vaccine use. Furthermore, the results show that the perceived severity is statistically significant (p-value = 0).These outcomes are consistent with earlier research (Suess et al., 2022); (Wake, 2021); (Guidry et al., 2021)explored the relationship between perceived severity and vaccination willingness. There was shown to be a statistically significant positive correlation between the positive and significant effects of perceived severity and willingness to vaccinate can be argued against the background of the following possible reasons:

First, perceived severity is related to beliefs about disease severity and infection's potential implications on health(Rahmati-Najarkolaei et al., 2015). Therefore, perceived severity is strongly associated with willingness to receive vaccines(Najimi & Golshiri, 2013). In this regard, (Manika & Golden, 2011)discovered that behaviour to prevent disease was significantly influenced by perceived threat. Also, (Setbon & Raude, 2010)stated that actual vaccination behaviour is influenced by the perceived level of risk. Nevertheless, despite these research, vaccination behaviour is only infrequently explained by perceived severity(Manika & Golden, 2011); (Scherr et al., 2017); (Weldon et al., 2012).

Second, the findings of this study are congruent with those of several earlier investigations, reporting an association between perceived severity and willingness to vaccinate. Arguably, the structure of perceived severity and willingness to vaccinate are conceptually related and measurable on the same behavior. In other words, perceived severity is strongly associated with willingness to receive the vaccine (Najimi & Golshiri, 2013).There are correlations between perceptions of COVID-19 susceptibility and severity and vaccination uptake according to nine researches. Eight research discovered a correlation between desire to get a vaccine and perceptions of infection risk and severity (Yigit, Ozkaya-Parlakay, & Senel, 2021), (Yılmaz & Sahin, 2021), (Goldman et al., 2020), (Teasdale et al., 2021), (Babicki, Pokorna-Kałwak, Doniec, & Mastalerz-Migas, 2021), (Wan et al., 2021), (Goldman et al., 2020), (Bell, Clarke, Mounier-Jack, Walker, & Paterson, 2020). Only one study found that vaccine acceptance was not significantly influenced by how seriously people took the danger and severity of COVID-19 disease(Humble et al., 2021).

Conclusion and Policy Recommendations

This study conducted an experiential study to investigate the effect of socioeconomic status, perceived susceptibility, perceived severity and perceived protective benefits on willingness to vaccinate. The study looked at international travelers from Pakistan. The unit of analysis is overseas travelers and business owners who responded to the mail questionnaire. There were circulated 500 survey forms in total. 395 questionnaires were indeed obtained from the respondents. Consequently, 79% of the responses were valid. In order to assess the gathered data statistically, structural equation modeling (SEM) was selected.

This study concludes positive relationship between perceived protection benefits and willingness to receive vaccinations, based on theory and earlier research. An individual's perception of the COVID-19 protection that vaccination provides in the context of the trip is portrayed as a potential protective advantage as a crucial mediating dynamics of the mechanism an individual's decision-making about COVID-19 vaccination for travel. The variable willingness to be vaccinated did not meet the criteria for perceived susceptibility. The findings indicate that there is an insignificant

relationship between perceived susceptibility and willingness to vaccinate. The study also explored the positive and significant relationship between perceived severity and vaccination willingness. Perceived severity is related to beliefs about disease severity and infection's potential implications on health. In view of the results, the following suggestions have been provided;

- To increase public support for the COVID-19 vaccine and achieve adequate immunization rates, major governmental efforts may be necessary.
- It is essential to start providing health education to the populace as soon as feasible in order to boost the communities' readiness to receive COVID-19 immunization.
- In order to avoid unnecessarily spreading the pandemic, seminars should be held to inform the public about the advantages, safety, and effectiveness of a COVID-19 vaccine.
- Lastly, since the COVID-19 vaccination has been determined to be an essential preventive measure that can stop this pandemic, community health plans should immediately address any obstacles that can affect recipients' willingness to receive the COVID-19 vaccine.

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