

# The Global Financial Challenges of Entrepreneurship, E-Commerce, Terrorism and COVID-19



# The Global Financial Challenges of Entrepreneurship, E-Commerce, Terrorism and COVID-19

By

Kiran Javaria and Omar Masood

**Cambridge  
Scholars  
Publishing**



The Global Financial Challenges of Entrepreneurship, E-Commerce, Terrorism  
and COVID-19

By Kiran Javaria and Omar Masood

This book first published 2023

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Copyright © 2023 by Kiran Javaria and Omar Masood

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-1013-1

ISBN (13): 978-1-5275-1013-5

# TABLE OF CONTENTS

Preface .....	viii
Introduction .....	x
Chapter 1 .....	1
Issues and Challenges in Implementing E-Commerce during Covid Times	
Summary of Chapter One .....	1
Section 1 : Introduction.....	2
Section 2 : Critical Analysis on risk reduction strategies.....	3
Section 3 : Approaches/Methodology for legal risk strategies.....	9
Section 4 : Statistical Analysis and Result for E-Commerce .....	10
Section 5 : Chapter Conclusion.....	15
Chapter 2 .....	21
Fear and Uncertainty Effects of the COVID-19 Crisis	
Summary of Chapter Two.....	21
Section 1 : Chapter Introduction .....	21
Section 2 : Coronavirus Crisis, Fear Index, And Oil Price Theories ...	25
Section 3 : Methodological Contribution.....	33
Section 4 : Graphical Representation of Data .....	34
Section 5 : Analysis, Discussion and Results.....	37
Section 6 : Chapter Conclusion.....	41
Chapter 3 .....	46
Volatility of Oil Prices and International Stock Return	
Summary of Chapter Three.....	46
Section 1 : Introduction.....	47
Section 2 : Literature Review.....	48
Section 3 : Approaches/ Chapter Methodology .....	52
Section 4 : Empirical Analysis.....	53
Section 5 : Conclusion .....	56

Chapter 4 .....	62
Entrepreneurship: The Engine of Growth in Emerging Economies	
Summary of Chapter four .....	62
Section 1 : Introduction.....	62
Section 2 : Literature Review.....	64
Section 3 : Research Methodology .....	73
Section 4 : Evidence and Analysis .....	73
Section 5 : Chapter Conclusion.....	75
 Chapter 5 .....	 83
Uncertainty and Financial Risks faced by International Financial Institutions	
Summary of Chapter five.....	83
Section 1 : Chapter Introduction .....	83
Section 2 : Critical argument/ Literature Review.....	85
Section 3 : Approaches/Methodology .....	88
Section 4 : Empirical Analysis.....	89
Section 5 : Conclusion and Discussion .....	96
 Chapter 6 .....	 102
Global Challenges through Enterprise Risk Management Solutions	
Summary of Chapter six .....	102
Section 1 : Chapter Introduction .....	102
Section 2 : Critical Review .....	103
Section 3 : Approaches/Methodology .....	109
Section 4 : Data Analysis .....	110
Section 5 : Chapter Conclusion.....	112
 Chapter 7 .....	 116
Financial Stock Markets' Reaction to Terrorism Activities	
Summary of Chapter seven.....	116
Section 1 : Chapter Introduction .....	116
Section 2 : Theoretical Support/ Literature Review.....	118
Section 3 : Methodologies and Approaches.....	124
Section 4 : Regression Model .....	125
Section 5 : Chapter Conclusion.....	129

Chapter 8 .....	133
Increasing Trust in E-Commerce during the COVID-19 Pandemic	
Summary of Chapter eight .....	133
Section 1 : Chapter Introduction .....	134
Section 2 : Theoretical Background.....	135
Section 3 : Approaches/ Methodology .....	138
Section 4 : Analysis of Research.....	140
Section 5 : Discussion and Conclusion .....	142

## PREFACE

Global financial management determines the health and performance of the world economy. While a global pandemic has been a looming risk for decades, Covid-19 has come as a shock to society, health systems, economies and governments worldwide. Whenever there is a recession or economic slowdown Governments try to lift economic confidence with stimulus of different kinds. The Covid-19 Pandemic is a one-of-a-kind health and economic incident during the last century. One of the reasons for this immediate and timely stimulus is governments did not want this slowdown cycle to convert into a full economic depression where it is very hard to control prices going down. If we look the world economy after the great recession it was not able to fully recover by the time of Covid-19's beginning, due to which it was a more difficult task for the governments and central banks of the world economies and especially the developed world to contain the Covid shock. Therefore, governments and central banks tried their best to use whatever tools they had in their arsenal and to use them fully.

The biggest opportunity presented by Covid-19 is the chance to reset some of our economic approaches in a way that maximizes the chances of developing more resilient and sustainable approaches to globalization. Innovation, adaptation and entrepreneurial spirit are particularly important when dealing with global challenges that threaten everyone, like pandemics and climate change. Covid-19 has produced uncertainty within the financial sector for both businesses making money and individuals taking care of their money. Prudent financial management now seems to be more important than ever, in addition to planning for the unthinkable, where institutions, firms and individuals all are insuring themselves against possible losses. This book highlights these strategists through a series of chapters.

This book is designed for anyone who is interested in understanding current global financial challenges which are affecting everyone due to the Covid-19 pandemic. The core objective of this book is to bring together different factors which are influencing our financial markets like entrepreneurship, e-commerce and terrorism how they are influencing our financial decisions.



This book is designed for learners from the fields of economics, finance, accounting and financial management, highlighting the most important and relevant topics. Students and teachers from universities all over the world including the UK, the USA, India, Pakistan, Canada, Australia, and Malaysia among others will enhance their abilities and understanding of these most pertinent issues. Every chapter in this book is very relevant and equipped with most up-to-date figures, tables, and charts. The book's material is globally relevant, rather than being relevant only to a specific region.

This book not only identifies these new challenges but provides future recommendations and strategies to mitigate these financial risks. This book is a must-read for professionals, bankers, students of business and finance and policy makers.

# INTRODUCTION

Innovation, adaptation and entrepreneurial spirit are particularly important when dealing with global challenges that threaten everyone, like pandemics, terrorism and climate change.

The **first chapter** of this book explains the management of legal risk in e-commerce during the Covid time period. This chapter explains the different barriers faced by financial managers during the uncertain and legally risky situation created by the coronavirus. This chapter provides a major contribution to the e-commerce technology world as it explains the concept of legal risk in marketing in the e-commerce world as there is currently insufficient research on the concept despite its critical importance in influencing the behaviour of consumers.

**Chapter two** focuses on the “Global Fear and Uncertainty” effect of the Coronavirus crisis (USCovid-19), the fear index, and oil price in the United States’ equity market. This is the first time the novel proxy of the fear index (Infectious Disease EMV index), developed by Baker et al. (2020), has been used. The study collected the data from 21 January 2020 which was the start of novel coronavirus (Covid-19) in America (US) up till August (2020). This ground-breaking insight is beneficial for individuals, researchers and policy makers world-wide.

The aim of the **third chapter** is to investigate the impact of oil prices on the stock markets of G7 countries. Oil prices not only affect the economy of a country but also the country’s stock market. The stock market is essentially directly connected to the stock valuation whereas the stock value is associated with a discounted sum of predictable future cash flows and these flows may be distressed due to macroeconomic variables in the shape of oil price fluctuations during stressful times.

The **fourth chapter** introduces the concept of technology entrepreneurship which is the engine of growth in emerging economies after Covid-19. Entrepreneurship education has been characterized as an essential driver of sustainable socio-economic development as it plays a significant role in performing productive activities efficiently and effectively by using commitments, initiatives and innovative efforts.

The **fifth chapter** highlights the uncertainty and financial risk faced by international financial institutions and how this impacts the profitability and liquidity of banks in Europe. This chapter used various financial performance ratios of 100 banks operating in different European countries over five-year period (2011 to 2015) to investigate if such a relationship exists.

The **sixth chapter** introduces the global challenges of Enterprise Risk Management. The arrival of ERM is a natural evolution of risk management, so that risks can be managed at an organization-wide level. Enterprise Risk Management is an invention of this century and it has emerged mainly as an approach which addresses the limitations of Traditional Risk Management. No doubt, it's a supreme subject, especially for those firms which have a desire for success in the future. Since its commencement, it has turned into a standard instrument to manage the diversified risks of organization, dealing the operational as well as strategic risks, and transforming the risks into opportunities.

**Seven chapter** explains the impact of terrorism activities on different economies' (Developing and Developed) financial stock markets. Spain, the United Kingdom, India, Pakistan, America and France were chosen for analysis. The variables considered were terrorist activities and the market return of the stock markets. The results suggest that the market return is affected by terror events and the model is statistically significant.

**The eighth chapter** of the book discusses the increasing trust in e-commerce during the Covid-19 pandemic. The explosion of e-commerce activities required academia and industry to recognize the key factors of customer online repurchase intention. The purpose of writing this chapter was to determine the primary drivers of customer repeat-purchase intention. Online shopper repeat purchase intention is affected by many factors like consumer inertia and online trust. Managers and academics know fairly little about how the collective effect of consumer inertia and online trust on repeat-purchase intention.



# CHAPTER 1

## ISSUES AND CHALLENGES IN IMPLEMENTING E-COMMERCE DURING COVID TIMES

### **Summary of Chapter One**

This chapter explains the management of legal risk in e-commerce during the Covid-19 time period. The problem statement/purpose of this chapter is to explain what the different barriers faced by financial managers during the uncertain and legally risky situation of coronavirus are. This chapter provides a major contribution in the technological e-commerce world. This is a very important topic as it explains the concept of legal risk in e-commerce marketing, as there is currently insufficient research on the concept, despite its critical importance in influencing the behavior of consumers. It utilizes both primary and secondary data from Gulf Cooperation Council (GCC) countries in order to get reliable results. There are different risk factors that affect the purchasing behavior of consumers who shop online. The consumer's perception of risk during Covid-19 times may be the result of all the emotional processes through which consumers recognize, organize, and provide meaning to the sensations felt, such as the need for product quality, online safety, and overall satisfaction. The primary data consists of a survey of online shoppers. The data and questionnaire was administered to 972 GCC internet users, who were classed as experienced and avid users between 2019 and 2021. The secondary data includes an analysis of the various theories of consumer behavior, models of online adoption, legal risk factors to marketing and shopping online, models of the adoption of innovation, and new ways of marketing and trade. Both techniques are utilized to examine the relationship between perceived risk strategies and customer satisfaction, as well as examining customer involvement and the propensity to take risks within existing relations of online shopping.

**Keywords:** E-Commerce, Risk Management, Financial Manager, Perceived Risk Strategies, Customer Satisfaction, Customer Involvement, Propensity to Take Risk, Covid-19

## Section 1: Introduction

In today's competitive environment, technology is the most efficient means through which organizations communicate, keep themselves in touch with markets, and gain competitive advantage. This chapter will discuss how the Covid-19 crisis is accelerating an expansion of e-commerce within organizations, customers, and types of product, which is likely to involve a long-term shift of e-commerce transactions from luxury goods and services to everyday necessities. E-commerce shopping, or buying through the internet, is a rapidly growing phenomena (Lim, Osman et al. 2016) especially during Covid-19 times. It is important for e-retailers to maintain customer re-purchase intentions and sustain operations in order to gain competitive advantage in the market (Kuo, Hu & Yang 2013). In an e-commerce world, it is important for service providers to engage with customers and provide them with security against all the risks faced by online consumers. Kim & Hong (2010) and Cunningham et al. (2005) examined the impact on the adoption of purchasing through the internet, and have outlined the risks as: financial, functional, social, and the physical environment, incorporating the fifth dimension of this specific sales system, and the risk of privacy. Kim et al. (2005) contrast the opposite effect, by detecting significant dimensions of risk on purchase intention via the internet, but not attitudes toward such behavior. Based on the work of Gierl et al. (2003) the effect of six dimensions of perceived risk on the adoption of electronic commerce was analyzed. In particular, these authors refer to functional components, financial, time, psychological, and social risk, and privacy, arguing that the last replaces the physical risk in the electronic environment. The empirical evidence supports the influence gained in all dimensions, except the social intentions of the adoption of electronic commerce (Bianchi & Mathews 2016).

The motivation behind writing this chapter is that it strongly contributes to the available research materials on marketing risk in Covid-19 times. Despite the quantity of published studies on the subject, including several reviews (Mitchell et al. 1990, Laroche et al. 2004), most of the research in this area focuses on the perception of risk in relation to product categories, disregarding the means to purchase and customer satisfaction. This chapter provides a major contribution to the e-commerce technology world. The aim

of the chapter is to study the concept of risk in e-commerce marketing as there is currently insufficient research into the concept, despite its critical importance in influencing the behavior of consumers. The analysis of risk has not been limited to academic boundaries; it has been investigated in areas such as medicine and social sciences, among others (Klein, Sterk 2003). It is stated by many authors that e-commerce shopping is one of the most rapid growing phenomena nowadays (Lim, Osman et al. 2016). This area of knowledge has a great influence on theories of marketing, especially in the analysis of consumer behavior. The aim of the study is to identify the different theories and dimensions of risk by consumers as they purchase through e-commerce, analyze the efforts of the consumer through the strategies of reducing legal risk in the process of purchase through e-commerce, and measure consumer satisfaction in the process of buying.

The main contribution of this chapter is to identify the best practice lessons and legal principles in Gulf Cooperation Council (GCC) countries for e-commerce businesses during crisis times such as during the Covid-19 pandemic. One of the main objectives of the GCC is to achieve consistency and harmonization in the legislative frameworks of the Gulf States, especially in the area of e-commerce, which covers local and cross-border sales of goods and services via electronic means. This makes it a particularly interesting legal study for investigating the extent to which developing legislation in electronic contract law and e-commerce can be said to contribute to the level of prosperity and the growth of e-commerce within a selected region of GCC countries.

This chapter is divided into four parts. The second part will provide a critical analysis which explains different types of risk reduction strategies and their impact on customer satisfaction during Covid-19, and also supports this with the theoretical background. The third part demonstrates the measures used to justify the methodology of the paper. The fourth part will present empirical statistics, and the fifth part will conclude with recommendations.

## **Section 2: Critical analysis on risk reduction strategies**

### **a) E-commerce legal regulations**

A number of federal, state, and international laws now govern e-commerce, which can involve complex contract and tax issues, and security, and privacy concerns. Because technology changes quickly, the laws regulating it are new and developing. The Uniform Computer Information Transactions Act (UCITA) intends to bring uniformity and certainty to the laws that apply

to information technology transactions, just as the Uniform Commercial Code does for the sale of goods (Nasir 2004). A few e-commerce laws of GCC countries are mentioned in Appendix (A).

### **b) The Global and National Commerce Acts (E-SIGN Act)**

There are a few Global and National Commerce Acts, which are enforced in various countries. The E-SIGN Act defines the ‘electronic signature’ (sometimes called a ‘digital signature’) as an electronic sound, symbol, or process, attached to, or logically associated with, a contract or other record, and executed or adopted by a person with the intent to sign the record. Because of this broad definition, telephone keypad agreements, (such as ‘press 1 to agree’) may be legally enforced as electronic contracts under the Act. A contract may not be denied legal effect just because a digital signature was used to form it. The E-SIGN Act, which regulates any transactions in interstate and foreign commerce, does not alter existing law, and if state or federal law, including the Uniform Commercial Code, covers a transaction, those statutes supersede (Peter & Deveau 2000).

### **c) Legal action for data protection and privacy violations**

Privacy is one of the most complex legal issues facing e-commerce today. Many sites collect personal information about their users, including names, addresses, and credit card information. Consumers who have pursued legal action because of privacy violations, including breach of contract, unjust enrichment, fraud, and trespass to chattels, or have invoked state statutes prohibiting deceptive or unfair trade practices by businesses, have successfully used common law to obtain redress. Some state laws specifically protect particular classes of data, such as medical information. The Federal Trade Commission (FTC) has recommended legislation to regulate online profiling. The FTC has used its authority to sue corporations that do not comply with privacy policies posted on their websites (Barr & David 2000).

### **d) Copyright and trademark**

Many attempts have been made to address the issues related to copyright of digital content. E-commerce has a tremendous impact on copyright and related issues, and the scope of copyright is affecting how e-commerce evolves. It is essential that legal rules are set and applied appropriately to ensure that digital technology does not undermine the basic doctrine of copyright and related rights. From one perspective, the internet has been described as the world’s biggest copy machine. Older technologies such as



photocopying, recording and taping are bound by rules and regulations regarding quantity, content, quality, and time constraints. In contrast, on the internet, one person can send millions of copies all over the world (Robert and Thomas 2000)

### **e) Theoretical Background**

In the theory “Effort in Purchase” proposed by Laroche et al. (2004), it is suggested that the greater the effort made by the consumer in a particular purchase, the greater will be the perception of satisfaction with the purchase process. Thus, the perception of the outcome of the bid would be shaped in accordance with the effort invested (Sobihah et al. 2015). This theory supports this study and explains that individuals tend to perceive a measure of satisfaction as a result of effort expended in the pursuit of an item. It emphasizes that the degree of involvement with the purchase has an influence on the risk perceived by consumers and reduction strategies (Dholakia 1997) leading to the perception of satisfaction with the purchase process. Many studies have been conducted on consumer online purchasing (McCole et al. 2010). Each consumer purchasing a product, or different products, in different situations, may have a greater or lesser perception of risk (Park, Bhatnagar & Rao 2010).

### **f) Relationship analysis**

#### **i) The effect of legal risk in online marketing on consumer purchase satisfaction**

Evidence supporting the influence of risk on the behavior of consumers who shop online has been highlighted by numerous authors in the field. The attitude of online buyers significantly and positively affects customers' satisfaction and their online purchasing behavior. The management of consumers' risk is very important in their internet-based transactions. Sobihah et al. (2015) analyzed the effect of uncertainty about the product (risk functional) and the shipping process (source of risk) on the adoption of trade. For its part, the empirical evidence obtained by Lim (2003) observed that the guarantees of privacy positively affect confidence in purchasing on the web, and through its intended behavior (Choi, Kim & Kim 2011). There are various types of risk which are defined respectively as follows:

**Legal and financial risk:** Pires et al. (2004) state that legal and financial risk is employed in studies that relate to the potential loss of economic capital by the consumer, or to the purchase and/or use of the product or

service purchased (Mercado & Rajagopal 2015). This is the risk that the product is not worth the cost (Schiffman, Kanuk 1997), and in a broader definition, the financial risk is any risk related to loss of property and money (Solomon 1998).

**Risk of performance and risk functional:** Bateson and Hoffman (2001) explain the concept that the product or service purchased may not correspond to the task for which it was purchased. The risk functional, or performance, is risk that the product does not have the expected performance. It can be mitigated through customer satisfaction (Sobihah et al. 2015).

## **ii) Risk mitigation strategies in online electronic commerce:**

There are various strategies which organizations can use to minimize the risks of online electronic commerce (Lim, Osman et al. 2016). These strategies are given below:

**Online networking:** A strategy to reduce the risk perceived by the search for information. This is that the risk can be minimized through online networking sites, which lots of consumers subscribe to, where information is shared on product reviews (Kim 2005). The benefit of this is that the network provides reviews of customers around the world, online, quickly, and without cost. (Kuo, Hu & Yang 2013).

**Search for online reviewers and rating systems:** In a study conducted by Wu et al. (2004), the results indicate that major strategies for risk reduction, with regard to high ratings of the product purchased are: firstly the group of reference (except for products of high perceived risk, which would feature an image or standards mark), followed by the retailer's reputation, the brand image, and guarantees (Lim, Osman et al. 2016).

## **iii) The involvement of the consumer and the propensity to take risk (as a moderator):**

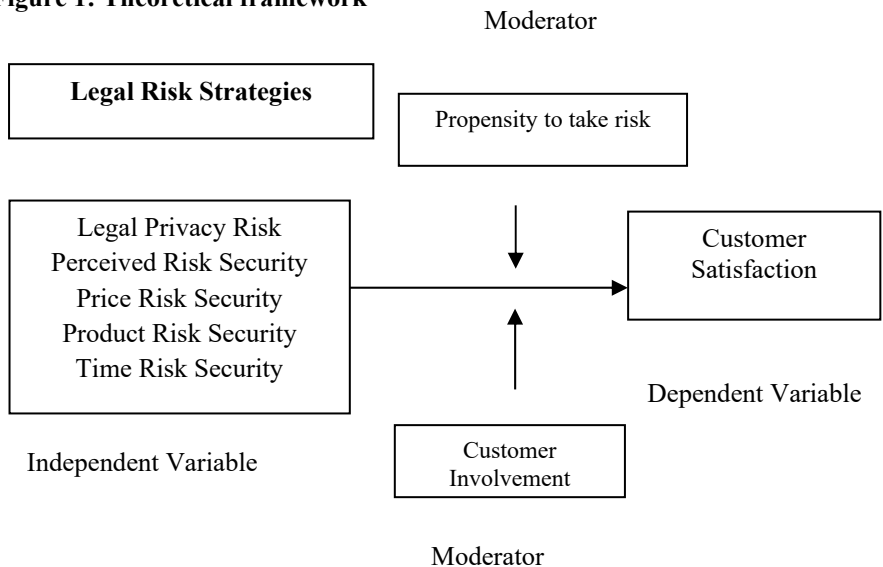
One of the aspects mentioned in the literature of consumer behavior is influences on purchasing decisions and the individual's involvement with the process, product, and brand (Solomon 2002). The consumer's involvement is defined as the perceived relevance of an individual to an object based on their needs, values, and interests (Ranaweera 2016). Corroborating this idea, Engel et al. (1995) comment that this involvement increases when social pressure is perceived, i.e. the extent to which consumers feel they will be judged by an acquisition (Sobihah et al. 2015).

The involvement can be seen as the motivation to process information, in that, where there is a connection between the perceived needs, goals or values of, and knowledge of a consumer product, the individual will be motivated to pay attention to information about it (Mou, Shin, Cohen 2015).

#### iv) Cross-border law enforcement

Cross-border law enforcement can be defined as imposing sanctions on a business in state other than the one in which the law enforcer is established. It is assumed that the sanction is imposed due to the infringement of the law of the state in which the law enforcer is established, and that that law is different from the law in the state where the business is established. This article contains a division between traditional law enforcement (direct law enforcement) and alternative law enforcement (indirect law enforcement). Traditional law enforcement is sanctions imposed on the primary offender (the business) through the Judiciary, whereas alternative law enforcement comprises other sanctions, such as imposing joint liability on intermediaries (secondary offenders), employing technical measures, or using market forces (Singh 2018).

**Figure 1: Theoretical framework**



**Hypothesis development:**

**H1: The legal risk reduction strategies have significant and positive impact on customer satisfaction in e-commerce during Covid-19.**

**H1a:** The perceived risk strategies have significant and positive impact on customer satisfaction in e-commerce.

**H1b:** The price risk strategies have significant and positive impact on customer satisfaction in e-commerce.

**H1c:** The product risk strategies have significant and positive impact on customer satisfaction in e-commerce.

**H1d:** The legal privacy risk strategies have significant and positive impact on customer satisfaction in e-commerce.

**H1e:** The time risk strategies have significant and positive impact on customer satisfaction in e-commerce.

**H2: The involvement moderates the relationship between legal risk reduction strategies and customer satisfaction in e-commerce during Covid-19.**

**H2a:** The involvement moderates the relationship between perceived risk strategies and customer satisfaction in e-commerce.

**H2b:** The involvement moderates the relationship between price risk strategies and customer satisfaction in e-commerce.

**H2c:** The involvement moderates the relationship between product risk strategies and customer satisfaction in e-commerce.

**H2d:** The involvement moderates the relationship between legal privacy risk strategies and customer satisfaction in e-commerce.

**H2e:** The involvement moderates the relationship between time risk strategies and customer satisfaction in e-commerce.

**H3: The propensity to take risk moderates the relationship between legal risk reduction strategies and customer satisfaction in e-commerce during Covid-19.**

**H3a:** The propensity to take risk moderates the relationship between perceived risk strategies and customer satisfaction in e-commerce.

**H3b:** The propensity to take risk moderates the relationship between price risk strategies and customer satisfaction in e-commerce.

**H3c:** The propensity to take risk moderates the relationship between product risk strategies and customer satisfaction in e-commerce.

**H3d:** The propensity to take risk moderates the relationship between legal privacy risk strategies and customer satisfaction in e-commerce.

**H3e:** The propensity to take risk moderates the relationship between time risk strategies and customer satisfaction in e-commerce.

### **Section 3: Approaches/methodology for legal risk strategies**

This chapter methodology used a quantitative-based approach, and the study utilized the triangulation method for data collection. In the triangulation method, the researcher used different data sources to validate the results. Data was collected from six Gulf Cooperation Council (GCC) countries, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. In this study, the researcher utilized two methods which included primary and secondary data collection (theoretical support). The primary data consisted of a survey of online shoppers. The data collection instrument of this phase was a semi-structured script. Questionnaires were administered to a sample segment of the population of consumers who shop online from different online websites (such as Letstango.com, jadopado.com, Aido.com, etc.), in six selected countries. The question about online websites was an open-ended questionnaire. The secondary data included a literature review from the main academic research portals which included an analysis of the various theories of consumer behavior, legal acts, and models of online adoption. The research data and questionnaire were distributed among 1200 online shoppers in GCC countries, from which 1,133 internet users/online shoppers, who were classed as experienced and avid users, filled out questionnaires. In final screenings, 972 questionnaires (properly filled out) were finalized for data analysis. Their pattern of usage was as follows: 38% daily, 52% regularly, and 10% rarely. Of those surveyed, 79% have already purchased online. Based on the sample evidence, 5 out of 7 women faced a greater risk of online harassment than men. 35% of those interviewed had suffered some kind of harassment while

internet chatting. For each risk criterion, women had a perception that their risk is far greater than men for all risks, except security risk, where there is no difference between the sexes. In all the risk factors considered, age was also an important distinguishing factor, at higher age, the perceived risk is stronger. In the first phase, the questionnaire tested a dozen people. This pre-test allowed us to change the wording of some questions or statements. Thereafter, two modes of distribution were made. The first researcher used pilot testing for questionnaire validation, and then distributed the questionnaire among those who responded. 972 respondents filled in the questionnaire, so the response rate was 94%. The researcher utilized two means of sources for the present research validation. The first researcher used the secondary data, in which theories and literature were used to support the results. Then the researcher utilized the survey method in which questionnaire data was collected from customers.

## **Section 4: Statistical analysis and results for e-commerce**

### **4.1. Validation and robustness of regression model**

The validity of this study shows that the findings truly represent the present study phenomena. The study found that the Eigen value was 0.566 i.e., less than 1. (Eigen value  $< 1$  shows that data is valid in nature). The percentage of variance should be less than 50% and the present study percentage of variance was less than 50. An F-statistic of at least 3.95 is needed to accept an alternative hypothesis. The F-statistic of the present study model was 96.23, which showed the overall significance of the regression model. The present study utilized a model of risk management strategy and its impact on customer satisfaction was, overall, significant.

## 4.2. Correlation analysis

### Table 1: Correlation analysis of variables

Variables	M	SD	PerR	PriR	ProR	PrivR	TR	PTR	CI	CS
Perceived Risk Security	1.94	0.667	1							
Price Risk Security	2.15	0.786	0.687*	1						
Product Risk Security	1.91	0.634	0.711*	0.636*	1					
Legal Privacy Risk	2.01	0.670	0.698*	0.654*	0.759*	1				
Time Risk Security	2.19	0.946	0.493*	0.406*	0.536*	0.477*	1			
Propensity to take Risk	1.84	0.567	0.741*	0.627*	0.722*	0.556*	0.759*	1		
Customer Involvement	2.16	0.886	0.721*	0.788*	0.536*	0.453*	0.666*	0.677*	1	
Customer Satisfaction	2.11	0.544	0.546*	0.646*	0.697*	0.755*	0.456*	0.731*	0.435*	1

**Description:** Correlation and descriptive analysis is among the important analysis techniques used to determine the association between independent and dependent variables, and it also explains how much one variable depends on another. In the present study, correlation analysis shows that all variable correlation value lies within range ( $CA < 0.80$ ) so it is stated that all variables act independently, and can be used for further analysis.

### 4.3. Regression Analysis

After determining the relationship between variables through correlation, regression analysis is used to assess the cause and effect relationship between dependent and independent variables. It determines how much change in a dependent variable is caused by independent variables. The regression model equations which were used by the researcher for the present study are shown below:

#### 4.3.1. Equation for customer involvement interaction term

Customer satisfaction =  $\alpha + \beta_1$  (perceived risk security) +  $\beta_2$  (customer involvement) +  $\beta_3$  (interaction PerR\_CI) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (price risk security) +  $\beta_2$  (customer involvement) +  $\beta_3$  (interaction PerR\_CI) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (product risk security) +  $\beta_2$  (customer involvement) +  $\beta_3$  (interaction ProR\_CI) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (legal privacy risk) +  $\beta_2$  (customer involvement) +  $\beta_3$  (interaction PrivR\_CI) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (time risk security) +  $\beta_2$  (customer involvement) +  $\beta_3$  (interaction TR\_CI) +  $e$

#### 4.3.2. Equation for Propensity to take Risk Interaction Term

Customer satisfaction =  $\alpha + \beta_1$  (perceived risk security) +  $\beta_2$  (propensity to take risk) +  $\beta_3$  (interaction PerR\_PTR) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (price risk security) +  $\beta_2$  (propensity to take risk) +  $\beta_3$  (interaction PerR\_PTR) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (product risk security) +  $\beta_2$  (propensity to take risk) +  $\beta_3$  (interaction ProR\_PTR) +  $e$



Customer satisfaction =  $\alpha + \beta_1$  (legal privacy risk) +  $\beta_2$  (propensity to take risk) +  $\beta_3$  (interaction PrivR\_PTR) +  $e$

Customer satisfaction =  $\alpha + \beta_1$  (time risk security) +  $\beta_2$  (propensity to take risk) +  $\beta_3$  (interaction TR\_PTR) +  $e$

In this equation, 'e' is the error term that measures the influence of variables other than independent variables.

**Table 2: Regression Analysis**

Variables	Un- standardized Coefficient	Standardized Coefficient	T	Sig	VIF
	Beta	Beta			
Constant	0.002		0.036	0.024	
Z score (PerR)	0.225	0.225	2.662	0.009	3.048
Z score (PriR)	0.192	0.192	2.736	0.007	2.096
Z score (ProR)	0.457	0.457	5.150	0.000	3.352
Z score (PrivR)	0.049	0.049	2.333	0.000	1.721
Z score (TR)	0.236	0.236	2.556	0.003	2.096
Z score (CI)	0.224	0.224	4.323	0.000	3.352
Z score (PTR)	0.344	0.344	0.772	0.000	1.721
Interaction PerR_CI	0.051	0.063	0.698	0.000	3.497
Interaction Pri_CI	0.080	0.087	1.109	0.000	2.593
Interaction Pro_CI	0.017	0.025	0.298	0.001	2.994
Interaction Priv_CI	0.246	0.226	5.150	0.000	2.096
Interaction TR_CI	0.254	0.244	2.333	0.003	3.352
Interaction Per_PTR	0.090	0.087	2.556	0.000	1.721
Interaction Pri_PTR	0.017	0.025	4.323	0.000	2.096
Interaction Pro_PTR	0.226	0.226	0.772	0.002	3.352
Interaction Priv_PTR	0.070	0.087	0.698	0.003	1.721
Interaction TR_PTR	0.087	0.085	1.109	0.000	3.497

**Description:** The study shows that the beta value of all variables shows a strong relationship between risk strategies and customer satisfaction, and also shows the moderators' impact on present relationships. The results of the present study explain that all relationships are significant in nature, as all variables (z) score P values of less than 0.05, which shows that hypotheses H1a, H1b, H1c, H1d, and H1e, are accepted, and perceived price, products, privacy and time risk securities have significant impact on customer satisfaction. Interaction terms of customer involvement and propensity to take risk are also significant, which shows that in hypotheses H2 and H3 all dimensions are accepted. Customer involvement and propensity to take risk significantly influence the relationship between risk strategies and customer satisfaction.

**Table 3: Summary of Result**

Hypotheses	Results	P- value	Reason of rejection
<b>H1a:</b> The perceived risk strategies have significant and positive impact on customer satisfaction in e-commerce	Accepted	0.009	Significant
<b>H1b:</b> The price risk strategies have significant and positive impact on customer satisfaction in e-commerce	Accepted	0.007	Significant
<b>H1c:</b> The product risk strategies have significant and positive impact on customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H1d:</b> The privacy risk strategies have significant and positive impact on customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H1e:</b> The time risk strategies have significant and positive impact on customer satisfaction in e-commerce	Accepted	0.003	Significant
<b>H2a:</b> The involvement moderates the relationship between perceived risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H2b:</b> The involvement moderates the relationship between price risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant

<b>H2c:</b> The involvement moderates the relationship between product risk strategies and customer satisfaction in e-commerce	Accepted	0.001	Significant
<b>H2d:</b> The involvement moderates the relationship between privacy risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H2e:</b> The involvement moderates the relationship between time risk strategies and customer satisfaction in e-commerce	Accepted	0.003	Significant
<b>H3a:</b> The propensity to take risk moderates the relationship between perceived risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H3b:</b> The propensity to take risk moderates the relationship between price risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant
<b>H3c:</b> The propensity to take risk moderates the relationship between product risk strategies and customer satisfaction in e-commerce	Accepted	0.002	Significant
<b>H3d:</b> The propensity to take risk moderates the relationship between privacy risk strategies and customer satisfaction in e-commerce	Accepted	0.003	Significant
<b>H3e:</b> The propensity to take risk moderates the relationship between time risk strategies and customer satisfaction in e-commerce	Accepted	0.000	Significant

## Section 5: Chapter conclusions

Despite persistent cross-country differences, the Covid-19 crisis has enhanced dynamism in the e-commerce landscape across countries, and has expanded the scope of e-commerce. Theories exist to discuss the theory of perceived risk, but no theory deals with questions of change in perceived risk while using the internet. The development of assumptions of the study's questionnaire revolves around five risk dimensions in electronic commerce. These dimensions were indicative of a change in internet users' perceptions.

Thus, we realized what the characteristics of legal risk influence on customer purchase perception are. Customer satisfaction is one of the major factors studied by current research. This chapter is supported with the Global and National Commerce Act (E-SIGN Act), the Legal Action for Data Protection and Privacy Violations Act, the E-Commerce CAN-SPAM Act of 2003, and the Copyright & Trademark Act. The study represented different legal risk strategies which organizations should understand, and use to provide security to their customers, so that they get more involved with online services, and encourage the propensity to take risk, which leads towards customer satisfaction and repeat purchases. Each risk situation reveals that the cost of a book is significantly higher than buying a laptop. This would mean that if the transaction amount is higher, it is riskier for customers, and they won't want to share their credit card numbers and their personal information online. This is because of risks which customers perceive during their online transactions. Indeed, in 2004, risks related to learning (lost time) and consumption patterns (product risk and intimacy) are based on customer satisfaction. If a customer is satisfied with his internet transactions, he becomes a risk taker. This chapter examined the impact of legal risk-taking strategies which involve perceived, product, price, legal privacy and time risk security, and investigated these strategies' influence on customer satisfaction. The study explained that these strategies (confidentiality, time security, no visual distortion of product) taken by organizations have a major influence on customer satisfaction, and this relationship is influenced by customer involvement and their variable propensity to take risk. Data was collected from internet users/online shoppers from GCC countries during Covid-19. 972 respondents filled out the questionnaire, so the response rate was 94%. The researcher utilized two sources for research validation. First, the researcher used secondary data in which theories and literature were used to support the results, then a survey method in which questionnaire data was collected from customers. Many sites provide clear information on safety, but more than half do not provide this information clearly and in a way that is sufficiently accessible. It is therefore imperative for merchants and retailers to review the usability of their websites, and put forward safety tools that are visible to all users, such as signs, labels, and certifications. It is important for organizations to build their security systems and provide a good customer experience and a less risky online environment, so that the more customers get involved with the product, the more they will be satisfied, and repurchase, which is an important tactic to be used during Covid-19. Future study should include more risk dimensions and should also increase the study sample, which would be helpful to increase the generalizability of the study.

### **The practical implications of the chapter:**

According to critical analysis of the topic and results, legal risk is very important in GCC countries which ultimately influence the customer involvement, satisfaction and purchasing behavior. GCC countries should attempt to create a coherent legal and regulatory framework (lessons can be learnt from the EU). This will help to reduce the legal risk and remove the obstacles to the growth of e-commerce in GCC countries, affirming a certain level of transparency by imposing prior information requirements for electronic contracts, as well as regulating commercial communication and advertisements and regulating consumers' technical errors. This system will also help to regulate the liabilities of intermediary service providers, as well as the right of withdrawal rules. Furthermore, GCC countries should create an efficient system of ODR that will help to build trust in online transactions and preserve online business relationships in the long term.

### **References**

- Ariff M.S.M, Sylvester M, Zakuan N, Ismail K And Ali, K.M, (2014), Consumer Perceived Risk, Attitude And Online Shopping Behavior; Empirical Evidence From Malaysia, IOP Conference Series: Materials Science And Engineering
- Barr, David D. (2000), "The Need of a Broad Standard in Global E-Commerce" *The Internet Law Journal*, Dec. 26,
- Bateson John E. G. And Hoffman, K. Douglas. (2001) *Marketing Service: Bookman*.
- Bianchi & Mathews. (2016). Internet Marketing And Export Market Growth In Chile. *Journal Of Business Research* **69**, 426-434.
- Bond, Robert, "International Legal Issues of E-Commerce" Legal Updates, <http://www.faegre.com>, 2003.
- Choi, H., Kim, Y. And Kim, J. (2011), "Driving Factors Of Post Adoption Behavior In Mobile Data Services", *Journal Of Business Research*, Vol. 64 No. 11, Pp. 1212-7.
- Cunningham, L.F., Gerlach, J.H., Harper, M.D., Young, C.E. (2005), "Perceived Risk And The Consumer Buying Process: Internet Airline Reservations", *International Journal Of Service Industry Management*, Vol. 16 No.4, Pp.357-72.
- Dholakia, Utpal M. (1997) *An Investigation Of The Relationship Between Perceived Risk And Product Involvement*. *Advances In Consumer Research*, V. 24, P.159-167.

- Engel, James F.; Blackwell, Roger D. And Miniard, Paul W. (1995) Consumer Behavior. 8. Ed. Orlando: The Dryden Press. 951 P. Bibliography: P. 441 - 442.
- Gierl, H., Hammer, C. (2003), "Fear Of Loss Of Anonymity On The Internet And Consumers' Reactions: An Empirical Investigation", Yearbook Of Marketing And Consumer Research, Vol. 1 Pp.89-106.
- Kim, E., Hong, T., (2010). Segmenting Customers In Online Stores From Factors That Affect The Customer's Intention To Purchase., Pp. 383-388
- Kim, L.H., Kim, D.J., Leong, J.K. (2005), "The Effect Of Perceived Risk On Purchase Intention In Purchasing Airline Tickets Online", Journal Of Hospitality & Leisure Marketing, Vol. 13 No.2, Pp.33-53.
- Klein, H. E Sterk, E.C. (2003) "At Risk" Women Who Think That They Have No Chance Of Getting HIV: Self-Assessed Perceived Risks. Woman And Health, V.38, N.2, P.47-63
- Kovacs .M, Farias .H. (2002). Perceived Risks And Ways To Purchase: The Duality Versus Internet Consumers Online. Journal Of Economics And Management, V.1, N.2, April / June
- Kuo Y F, Hu T L., & Yang, S. C. (2013) Effects Of Inertia And Satisfaction In Female Online Shoppers On Repeat-Purchase Intention. Managing Service Quality: An International Journal.168 – 187
- Laroche, M., Bergeron, J. And Goutaland, C. (2004) How Intangibility Affects Perceived Risk: The Moderating Role Of Knowledge And Involvement. The Journal Of Services Marketing, V.17, N.2 / 3, P.122-141.
- Lim, N. (2003), "Consumer Perceived Risk: Sources Versus Consequences", Electronic Consumer Research And Applications, Vol. 2 Pp.216-28.
- Lim Y. J, Osman A, Salahuddin S.N, Romle A. R, Abdullah. S, (2016), Factors Influencing Online Shopping Behavior: The Mediating Role Of Purchase Intention, Procedia Economics And Finance, Vol 32, 401- 410
- Mccole, P., Ramsey, E. And Williams, J. (2010), "Trust Considerations On Attitudes Towards Online Purchasing: The Moderating Effect Of Privacy And Security Concerns", Journal Of Business Research, Vol. 63 Nos 9/10, Pp. 1018-24.
- Mercado & Rajagopal. (2015). Driving Consumers Toward Online Retailing Technology: Analyzing Myths And Realities. *Journal Of Transnational Management* **20**, 155-171.
- Mitchell, V.-W. (1998) A Role For Consumer Risk Perceptions In Grocery Retailing. British Food Journal, N.4, P.171-183.
- Mitchell, V.-W. And Greatorrex, M. (1990) Consumer Purchasing In Foreign Countries: The Perceived Risk Perspective. International Journal Of Advertising, V.9, N.4, P.295-307.