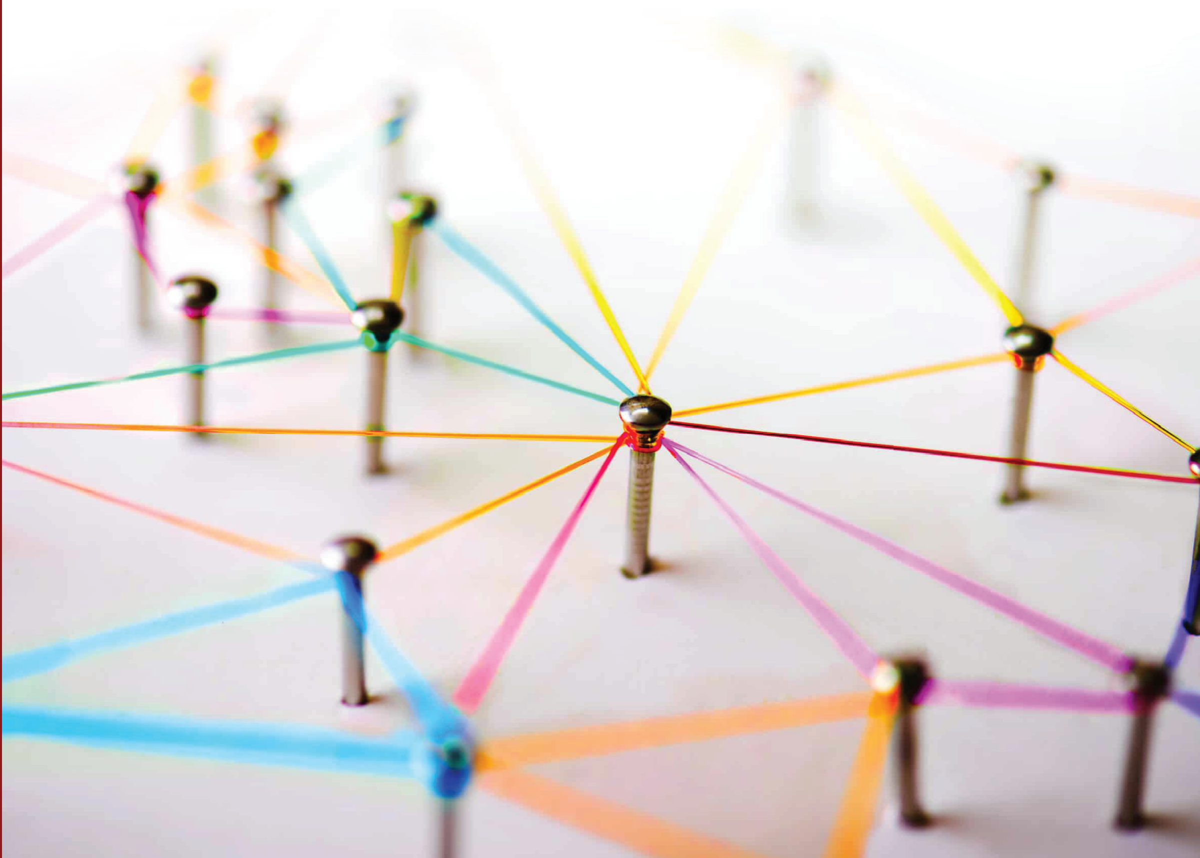
Volume 6 • Issue 2
December 2025

BIMTECH
BIRLA INSTITUTE
OF MANAGEMENT TECHNOLOGY
Excellence with Values

bsp.bimtech.ac.in
ISSN: 2581-9542
e-ISSN: 2582-3965

BIMTECH Business Perspectives



ISSN: 2581-9542
e-ISSN: 2582-3965

BIMTECH Business Perspectives is published biannually in June and December by Birla Institute of Management Technology (BIMTECH), Greater Noida, Uttar Pradesh.

BIMTECH Business Perspectives is hosted on our web-based online submission and peer review system. Please read the manuscript submission guidelines on the journal website, and then visit https://peerreview.sagepub.com/bsp to login and submit your article online. Manuscripts should be prepared in accordance with the 7th edition of the *Publication Manual of the American Psychological Association*.

Annual Subscription: Individual rate (print only) ₹1,580; institutional rate (print only) ₹2,760. For orders from Pakistan, Bangladesh, Sri Lanka and Maldives, SAARC rates apply: individuals \$35; institutional rate \$50. Prices include postage. Print subscriptions are available for institutions at a discounted rate. For subscriptions, please write to: customerservicejournals@sagepub.in

Abstracting and Indexing: *BIMTECH Business Perspectives* is indexed in:

- UlrichWeb (Proquest)
- J-Gate
- India Citation Index
- Google Scholar

Change of Address: Four weeks' advance notice must be given when notifying change of address. Please send the old address label to ensure proper identification. Please specify the name of the journal and send change of address notification to customerservicejournals@sagepub.in

Printed and published by Registrar, BIMTECH, on behalf of Birla Institute of Management Technology (BIMTECH), Plot No. 5, Knowledge Park II, Institutional Area, Greater Noida (NCR), Uttar Pradesh 201 306, India. Printed at Sai Printo Pack Pvt Ltd, A 102/4 Phase II, Okhla Industrial Area, New Delhi, Delhi 110020.

Editor: Sugandh Ahuja

RNI No: UPENG/2018/76514

About the Journal

BIMTECH Business Perspectives is a scholarly Open Access journal of Birla Institute of Management Technology, India. The journal publishes original contribution in the functional areas of business management (see Aims and Scope). Furthermore, the journal is a platform for interdisciplinary studies that provide both empirical evidence and nuanced perspectives on business management in the national, regional, and global contexts. The contexts include, but not limited to, the contemporary economic, political, social, technological, and environmental challenges facing business stakeholders.

The journal brings out two issues per year, and it follows a double-anonymized peer-review process. All contributions should be well written in English. Submission to the journal should be relevant to one or more business and allied disciplines and backed by suitable methodology, sound analysis, practical perspectives, and managerial or policy implications.

To this end, *BIMTECH Business Perspectives* invites contributions from both the academic community and business practitioners. The journal publishes and disseminated original articles, review essays, perspectives, book reviews, interviews and invited pieces. Special theme-focused and/or guest-edited issues are also planned.

BIMTECH
BIRLA INSTITUTE
OF MANAGEMENT TECHNOLOGY
Excellence with Values

Aims and Scope

The objectives of *BIMTECH Business Perspectives*, the journal, are to encourage and publish research in the field of business management. The terms business and management are both broadly defined. While the former encompasses both discipline and business problem-based research, the latter includes the management of firms, groups, industries, regulatory bodies, government, and other institutions. The journal has a special focus on emerging and functional areas of business management. Consistent with the policy, the journal publishes peer-reviewed research in financial markets, emerging economies, entrepreneurship and start-ups, emerging technology and innovation in business functions, consumer behaviour, human behaviour in management decisions, risk management, supply chain management, business strategy, and other domains having a direct or indirect bearing on business management. The journal encourages both quantitative and qualitative research methods to unearth relevant findings. The journal aims to nurture a debate among individuals and groups, which have keen interest in business and managerial processes. The journal encourages inter-disciplinary studies that may lead to new understanding of business and management functions. The journal welcomes research papers examining dynamics of business management in the backdrop of changes in the global business environment. The journal serves as a platform that connects thought-leaders and researchers from diverse fields to address crucial business and management issues. Published twice a year (June and December), *BIMTECH Business Perspectives* is an official publication of Birla Institute of Management Technology (BIMTECH), Greater Noida, India. The journal has been publishing in its current form since 2019. Prior to 2019, the journal was known as *Business Perspectives*, which had a publication history of more than a decade.

If you wish to contact the editors of the journal *BIMTECH Business Perspectives,* please email at editor@bimtech.ac.in

Volume 6 Issue 2 December 2025

BIMTECH
Business Perspectives

Contents

Visit https://www.bsp.bimtech.ac.in/

Article

Marketing Insights from Quan He: Navigating Vietnamese Business Practices for Foreign Investors in an Emerging Market

BIMTECH Business Perspectives
6(2) 107–123, 2025

DOI: 10.1177/25819542251364646
bsp.bimtech.ac.in

Huan Henry Pham[1,2] and Ngoc Cindy Pham[3]

Abstract

Although Vietnam has attracted significant foreign investment in recent years, many Western companies continue to face challenges in building trust and cultivating meaningful relationships due to a limited understanding of local customs. The concept of Quan He, while central to Vietnamese business practices, remains largely undertheorized in academic literature. While much has been written about China's Guanxi and Western Relationship Marketing (RM), Vietnam's Quan He offers a distinct relational framework shaped by the country's dual ideological economy and cultural values.

This study explores the foundational elements of Quan He: The Dien (face-saving), Co Qua Co Lai (reciprocity), and Tinh Cam (emotional bonding), and compares them to Guanxi's Mianzi, Renqing, and Ganqing, as well as the core principles of RM such as communication, reciprocity, and bonding. Drawing on both theoretical analysis and empirical data collected from Vietnam, the United States, and Bangladesh, I propose a culturally grounded framework and introduce a validated scale to measure the three facets of Quan He. The findings provide important insights for international firms seeking to operate successfully in Vietnam by helping them navigate relationships and avoid common cultural missteps.

Keywords

Vietnamese business culture, Quan He, foreign investment, relationship marketing, Guanxi

[1] Houston Community College, Houston, Texas, USA
[2] Current Affiliation: Lone Star College, Cypress, TX, USA
[3] The City University of New York, Brooklyn College, New York, USA

Corresponding author:
Ngoc Cindy Pham, The City University of New York, Brooklyn College, New York 11210, USA.
E-mails: Ngoccindy.pham@brooklyn.cuny.edu; dr.ngocphamcindy@gmail.com

Introduction

This manuscript builds on an earlier version published in a local conference journal (Pham, 2024).1 The current version significantly expands the theoretical framing, revises the structure for an international business audience, and deepens the discussion with broader implications for foreign investors operating in emerging markets. Although Vietnam continues to draw substantial foreign investment, many Western firms struggle to establish trust and meaningful connections due to a limited grasp of local cultural norms. *Quan He*, a concept central to doing business in Vietnam, remains insufficiently developed in existing scholarship. While *Guanxi* and relationship marketing (RM) have been widely studied, *Quan He* has received little academic attention. As Vietnam becomes increasingly significant in global trade and operates within a unique dual ideological system, gaining a deep understanding of *Quan He* is crucial for foreign companies seeking to navigate the local business environment effectively and avoid cultural pitfalls.

Building and maintaining solid customer relationships is pivotal for enhancing firm performance and ensuring customer satisfaction, especially in emerging economies where personal relationships and networks are vital for business success (Ndubisi & Wah, 2005; Shaalan et al., 2013). The East and West have distinct approaches to building these relationships, known as Guanxi and RM. Grasping the nuances of these practices can offer cross-national companies a competitive edge by catering to diverse customer needs.

However, it is essential to note that Guanxi does not encapsulate all Eastern business relationship types. Vietnam, for instance, blends elements from both Guanxi and RM (Do et al., 2007; Nguyen Hau & Viet Ngo, 2012; Smith & Pham, 1996). The nation's shift from a centrally planned economy to a socialist market economy two decades ago (Beresford, 2008) has led to a unique blend of ideologies. This change has resulted in regional disparities, a new social class structure, and challenges in establishing a comprehensive legal framework (Nguyen, 2005). Consequently, Guanxi-style relationships have become crucial for business in Vietnam (Do et al., 2007).

In Vietnam, the cultural custom of Quan He, akin to Guanxi, emphasizes the significance of business relationships (Le & Nguyen, 2009). This practice, deeply rooted in Confucian philosophy, has several non-verbal rules that, if breached, can have severe repercussions. Despite its importance, more business research regarding Quan He needs to be conducted, highlighting the need for further study.

Quan He shares similarities with Guanxi in China, Kankei in Japan, and Kwan-kye in Korea. All these practices underscore the power of relationships in business. Given Vietnam's unique societal backdrop, examining Quan He in the context of both Guanxi and RM is beneficial.

This study seeks to bridge Quan He and Guanxi with RM. We aim to explore:

1. The compatibility of The Dien with mianzi (Guanxi) and "communication" (RM).
2. The alignment of Co Qua Co Lai/No On with renqing (Guanxi) and "reciprocity" and "empathy" (RM).

3. The comparison of Tinh Cam with ganqing (Guanxi) and “bonding” (RM).
4. The influence of these components on customers’ purchase intentions across different cultural contexts.

To address these research questions, we will review the literature in the mentioned areas, comparing facets across Vietnamese, Chinese, and Western business practices. We have also gathered data from Eastern and Western countries to assess the impact of Quan He’s components on consumer purchase intentions. The study concludes with recommendations for Western entrepreneurs aiming to succeed in Vietnam.

Theoretical Foundation

The significance of Guanxi in influencing performance has been widely discussed in academic literature. Various theories have been employed to elucidate the Guanxi-performance linkage, including social capital theory, social network theory, social embeddedness theory, transaction cost economics, and the resource-based view (Tang & Cheng, 2012). Among these, social capital and network theories are particularly relevant for our study, as they emphasize the role of social ties and networks in shaping business outcomes.

Social Capital Theory

Social capital theory posits that social ties, viewed as a form of social capital, facilitate the creation of valuable resources, leading to positive outcomes (Adler & Kwon, 2000; Burt, 2017). Such ties grant privileged access to information and opportunities (Inkpen & Tsang, 2005). Defined as a resource derived from social relationships (Granovetter, 1977), social capital encompasses cognitive, relational, and structural dimensions (Nahapiet & Ghoshal, 1998). This study focuses on the structural dimension, which pertains to relationship patterns.

Guanxi can bolster firms’ competitive advantages as a form of social capital by facilitating access to favors, resources, and protection (Luo, 1997; Park & Luo, 2001; Peng & Luo, 2000). Leveraging Guanxi, firms can efficiently control resources, garner crucial information, and foster business collaborations, thereby enhancing performance (Park & Luo, 2001).

Social Network Theory

Social network theory delves into the formation and impact of social relationships (Kadushin, 2004; Krause et al., 2007; Liu et al., 2017). It categorizes networks into ego-centric (individual connections), socio-centric (within organizations), and open-system networks (inter-organizational) (Kadushin, 2004). This study emphasizes ego-centric networks, exploring individual relationships like those between salespersons and customers.

Guanxi, deeply rooted in collectivist societies, can be seen as an early form of social network theory (Hampden-Turner & Trompenaars, 2002). In this context, Guanxi components like Mianzi and Renqing align with weak ties characterized by short-term, distant interactions. In contrast, Ganqing, the highest Guanxi level, aligns with solid ties, denoting long-lasting, trustworthy relationships.

From RM to Guanxi and Quan He

RM, emphasizing long-term customer relationships, has gained prominence since the 1990s (Morgan & Hunt, 1994; Palmatier et al., 2006). While RM often pertains to organizational relationships, it can also apply to individual interactions. On the other hand, Guanxi operates at a personal level, representing individual social capital (Fan, 2002b; Wang, 2007).

To comprehend Quan He's compatibility with Guanxi, this study juxtaposes Quan He facets with Guanxi constructs and key RM components. Table 1 compares the key components of Quan He with Guanxi and Western Relationship Marketing. It highlights how Vietnamese business culture blends Eastern and Western relational norms, particularly in communication, reciprocity, and emotional bonding.

Communication, Mianzi (Guanxi), and Dien (Quan He)

Communication is pivotal in forming strong relationships between buyers and sellers. Effective communication can resolve disputes and foster trust and commitment (Morgan & Hunt, 1994; Palmatier et al., 2006). However, in East Asian cultures like China, Korea, Japan, and Vietnam, preserving one's reputation or "face" is paramount. This concept is termed Mianzi in China and Dien in Vietnam. Both emphasize the importance of maintaining one's social standing and dignity in public (Leung & Cohen, 2011; Pham, 2014).

In these cultures, direct criticism can be seen as a loss of face. Therefore, disagreements are often handled privately to avoid public embarrassment (GoinGlobal, 2015). Vietnamese proverbs like "Mất lòng trước, được lòng sau" and "Thuốc đắng dã tật, sự thật mất lòng" emphasize the value of honesty and careful communication.

Reciprocity, Renqing (Guanxi), and Co Qua Co Lai (Quan He)

Co Qua Co Lai in Vietnamese culture mirrors the concept of Renqing in Chinese Guanxi. Both emphasize the importance of reciprocity and empathy in relationships. In both cultures, favors are expected to be returned, though not necessarily immediately (Barbalet, 2021; Yen et al., 2017; Zhao & Zhang, 2020). This facet of the relationship is more profound than the first, requiring multiple exchanges of favors.

Table 1. Compare *Quan He* with Relationship Marketing and *Guanxi*.

Western (RM)	China (*Guanxi*)	Vietnam (*Quan He*)	Relationship Characteristic
Communication • Honesty and openness • Is more appreciated in private settings in the Eastern context • Direct and honest verbalization does not directly benefit Customer Satisfaction in Vietnam (Nguyen Hau & Viet Ngo, 2012)	*Mianzi* • External face/giving face to others • Represents an individual's prestige in society • Losing face causes mutual disaffection (Fan, 2002a)	*The Dien* (Ne Mat) • Face-saving • One's family background and class play a role • Consequence of losing face: the relationship with that person will be severely impacted	One-time interaction/superficial/short-term oriented
Empathy/reciprocity • Willingness to help • Put yourself in someone else's shoes • Empathy has no effect on Customer Satisfaction in Vietnam (Nguyen Hau & Viet Ngo, 2012)	*Renqing* • Sensibility/favor • "Obligation" to return • Non-repayment is immoral and will have a negative effect on the relationship (Park & Luo, 2001)	*Co Qua Co Lai/ No On* • Exchanging favor • Feel in debt for returning the favor • Uncomfortable to turn down others when requested to return a favor	Two-way transaction/moderate/long-term oriented
Bonding • Deepest link among business associations • Plays a significant role in building an effective business relationship • Increase the competitive advantage of firms	*Ganqing* • Feelings • Created and accumulated through long-term social relations • Could lead to a high level of trust	*Tinh Cam* • Affection • Strongest and the most intimate practice • Leads people to unconditional devotion, giving, and mutual protection	Intimacy interaction/close/long-term oriented

Bonding, Ganqing (Guanxi), and Tinh Cam (Quan He)

Tinh Cam in Vietnamese culture resembles Ganqing in Chinese Guanxi, representing deep emotional bonds formed over time. Such bonds are more substantial than mere reciprocity and involve mutual trust and protection. This concept aligns with the "bonding" dimension in RM, which emphasizes unified actions to achieve mutual goals (Sin et al., 2006). However, the intimacy in Ganqing or Tinh Cam is more profound than in Western "bonding."

Methodology

The methodology here entailed developing a novel scale to gauge the concept of Quan He, complemented by surveys to delve into the intricacies of these cultural notions across various contexts.

Building a New Scale to Measure the Three Facets: The Dien, Co Qua Co Lai, and Tinh Cam

1. The Dien Facet: Communication and Face-Saving
   Communication is pivotal in relationship-building, encompassing the quality, frequency, and amount of information exchanged between parties (Anderson & Weitz, 1992; Morgan & Hunt, 1994; Palmatier et al., 2006). Effective communication is instrumental in resolving disputes and fostering solid relationships (Anderson & Narus, 1990; Palmatier et al., 2006). However, in East Asian cultures, including China, Korea, Japan, and Vietnam, there is a significant emphasis on preserving one's reputation and avoiding public embarrassment. This cultural nuance is termed Mianzi in China and Dien in Vietnam. Both concepts revolve around maintaining one's public image, dignity, and honor (Bedford, 2011; Hwang, 1987; Leung & Cohen, 2011; Pham, 2014; Wang, 2007).
2. Co Qua Co Lai Facet: Reciprocity & Empathy
   Like Renqing in Chinese culture, Co Qua Co Lai embodies the principle of reciprocal favor. In Chinese culture, Renqing is twofold: it signifies an individual's emotional response to daily situations and is closely tied to reciprocity (Hwang, 1987; Wang, 2007). Similarly, in Vietnam, there is a strong cultural emphasis on returning favors (Zhou & Bankston, 1998). The essence of this facet is captured in the Vietnamese proverb, "Có đi có ll mm tool lòng nhau," emphasizing the harmony achieved through reciprocal exchanges.
3. Tinh Cam Facet: Bonding & Affection
   Tinh Cam, synonymous with Ganqing in Chinese culture, represents the emotional bonds formed within networks. It is the pinnacle of relationship facets, cultivated through enduring social interactions and often characterized by unwavering loyalty (Zhang & Wang, 2007). In the

> Vietnamese context, Tinh Cam signifies deep emotional connections, mutual protection, and implicit trust among closely-knit groups. This facet mirrors the bonding dimension in RM, which emphasizes unified actions to achieve mutual goals (Sin et al., 2005).

Summary

The three facets of Quan He, juxtaposed with RM and Guanxi components, offer a comprehensive understanding of relationship dynamics in the Vietnamese context. The Dien facet underscores the importance of communication and face-saving, the Co Qua Co Lai facet emphasizes reciprocity and empathy, and the Tinh Cam facet encapsulates deep bonding and affection.

Empirical Study

Research Design & Measures

Table 2 outlines the case scenarios used in the survey along with the corresponding measurement items for each construct. The scenarios reflect different levels of relationship closeness, while the items measure face-saving, reciprocity, relationship, and customer intention. The data for this study were collected from the US, Bangladesh, and Vietnam. While Guanxi is a Chinese concept, its principles are reflected in many East Asian cultures, making it relevant for a broader study.

The United States and Vietnam were selected for cross-cultural comparison due to their contrasting cultural orientations, with the US representing individualism and Vietnam representing collectivism. Bangladesh was included to assess the construct within its native socio-cultural context.

We decided to use a cosmetic product as our survey scenario because it involves a relationship between buyer and seller and is familiar to our respondents. Since no existing scales were available for our study, we developed measurement scales by adapting items from Yen et al. (2011) and consulting experts in the field. All measures were analyzed for validity and reliability by following the guidelines from Anderson and Gerbing (1988). We pre-tested the questionnaire among convenience samples and made necessary modifications. We then distributed the questionnaire to respondents in the USA and Bangladesh.

In the questionnaire, respondents were presented with a scenario and asked to respond to the questions. Respondents rated the questions on a five-point Likert scale. Each item is assigned a numerical value of 1 with a verbal statement “highly disagree” and a numerical value of 5 with a verbal statement “highly agree.” A multi-item scale was used to measure each construct to assess reliability and validity. The dependent variable, intention, was measured through two items. Demographic variables are also collected from the respondents.

Data Collection

Data was collected from one large public university in each of the USA, Vietnam, and Bangladesh. Students majoring in business were invited to participate in the

Table 2. Case Scenarios and Measures.

Case Scenario 1:
You know a female sales representative at the Avon, a beauty and skincare store. You often visit this store for free consulting on different skincare products. She sometimes sends you free samples.

Today, this salesperson gives you a call and directly asks you to visit her store to try another new face care product since her supervisor would like her to get a customer to try it on. Then she explains that she is under pressure of this month's quota for that new product sale (today is the end of the month). In other words, she hopes you will buy this new skincare product.

Case Scenario 2:
You have a very good friendship with a female sales representative at Avon, the beauty and skincare store. You know her family, and she knows yours quite well. She is more than a beauty consultant, but a good friend to you. You usually visit her store for free consulting and chatting. She often sends you free samples.

Today, this salesperson gives you a call and asks you to try another new face care product since her supervisor would like her to get a customer to try it on. Then, she explains that she is under pressure of this month's quota for this new face care product sale (today is the end of the month). In other words, she hopes you will buy this new product.

Variables	Measures
Face 1	I am concerned about how others perceive me.
Face 2	I worry about losing face (mianzi) in daily life.
Face 3	I like to associate myself with people who have prestige or status.
Face 4	I like for people to think of me as a person having prestige or status.
Recp 1	I feel a sense of obligation to this salesperson for doing her a favor.
Recp 2	I think that "calling in" favors is part of doing business with this salesperson.
Recp 3	The practice of "give and take" of favors is a key part of the relationship between the salesperson and me.
Recp 4	I am happy to do a favor for this salesperson when she requests one.
Rela 1	I would try my best to help the salesperson when she is in need because she is a friend of mine.
Rela 2	I would consider whether the salesperson's feelings would be hurt before I made an important decision.
Rela 3	If I were to change this salesperson, I would lose a good friend.
Rela 4	My salesperson and I are usually able to talk openly as friends.
Int 1	Would you like to try this product?
Int 2	Would you buy this product?

survey. Though participation was entirely voluntary, bonus points were provided as an incentive. Respondent's anonymity is maintained by not providing any identification in the survey questionnaire.

A total of 123 responses were collected from the USA. Likewise, 87 and 108 responses were collected from Bangladesh and Vietnam, respectively. Respondent's characteristics are depicted in Table 3.

Analyses

Exploratory factor analysis was conducted to investigate whether the measures used in this study loaded on expected variables. Even though items were adapted

Table 3. Sample Characteristics (USA, Bangladesh, and Vietnam).

USA		Bangladesh		Vietnam	
Age	%	Age	%	Age	%
18–25 years	60.3	18–25 years	90.8	18–25 years	18.6
26–45 years	36.4	26–45 years	9.2	26–45 years	66.7
45 years or above	3.3	45 years or above	0.0	45 years or above	14.7
Gender		Gender		Gender	
Male	37.1	Male	50.5	Male	35.2
Female	62.9	Female	49.5	Female	64.8
Occupation		Occupation		Occupation	
Employee	60.2	Employee	21.8	Employee	77.8
Business & others	39.8	Business & other	78.2	Business & other	22.2
Income		Income		Income	
Below $5,000	42.8	Below $5,000	91.1	Below $5,000	83.7
$5,001–$20,000	27.3	$5,001–$20,000	7.7	$5,001–$20,000	12.0
$20,001 and above	29.9	$20,001 and above	1.2	$20,001 and above	4.3
Marital Status		Marital Status		Marital Status	
Single	85.3	Single	97.7	Single	86.2
Married	14.6	Married	2.3	Married	13.8

from existing scales, EFA was necessary to validate construct structure in a new cultural context and to ensure the proper loading of our novel constructs, specifically the three facets of Quan He.

As expected, four factors were confirmed (Table 4). The eigenvalue of each factor is greater than 1. The cumulative variation was maintained by more than 60%. Table 4 contains the factor loadings, reliability coefficients, and average variance extracted (AVE).

Reliability

The reliability of each multi-item factor is evaluated through Cronbach's alpha. In other words, Cronbach's Alpha was computed to ensure internal consistency of items after cultural adaptation, as reliability can vary across samples and settings.

Cronbach's alpha value should be greater than .7 (Nunnally, 1978). In this study, the Cronbach's alpha value is more significant than .70 for each of the four factors. Reliability analysis shows that the internal consistency of multi-item measures is relatively high.

Validity

Discriminant validity is assessed through AVE scores. Discriminant validity shows that one factor is different from any other factor. The AVE value should exceed .50 (Hair et al., 2010). AVE values in this study are shown in Table 5.

Table 4. Factor Analysis of Independent Variables with Varimax Rotation (Extraction Method: Principal Component Analysis).

Variables	Face-saving	Reciprocity	Relationship	Intention
USA				
Face 1	.734			
Face 2	.816			
Face 3	.664			
Recp 1		.817		
Recp 2		.773		
Recp 3		.759		
Recp 4		.663		
Rela 1			.772	
Rela 2			.700	
Rela 3			.691	
Rela 4			.810	
Rela 5			.857	
Rela 6			.609	
Int 1				.780
Int 2				.636
Cronbach alpha	.783	.841	.880	.670
Bangladesh				
Face 1	.785			
Face 2	.770			
Face 3	.772			
Face 4	.747			
Recp 1		.749		
Recp 2		.856		
Recp 3		.586		
Recp 4		.615		
Rela 1			.737	
Rela 2			.702	
Rela 3			.705	
Rela 4			.913	
Rela 5			.800	
Rela 6			.723	
Int 1				.791
Int 2				.738
Cronbach alpha	.852	.799	.871	.738
Vietnam				
Face 1	.573			
Face 2	.638			
Face 3	.810			
Face 4	.589			
Recp 1		.773		
Recp 3		.800		
Recp 4		.830		

(Table 4 continued)

(Table 4 continued)

Variables	Face-saving	Reciprocity	Relationship	Intention
Vietnam				
Rela 1			.717	
Rela 2			.739	
Rela 3			.727	
Rela 4			.827	
Rela 5			.816	
Rela 6			.557	
Int 1				.804
Int 2				.873
Cronbach alpha	.751	.843	.875	.826

Table 5. Correlation Results.

Variables	Face-saving	Reciprocity	Relationship	Intention
Bangladesh				
Face-saving (4)	*.767*			
Reciprocity (3)	.191	*.709*		
Relationship (6)	.093	–.159	*.760*	
Intention (2)	.1341	.448	–.065	*.765*
USA				
Face-saving (3)	*.741*			
Reciprocity (4)	–.272	*.755*		
Relationship (6)	.270**	–.219	*.744*	
Intention (2)	–.310	.536	–.289**	*.709*
Vietnam				
Face-saving (4)	*.659*			
Reciprocity (3)	.071	*.801*		
Relationship (7)	.216**	–.002	*.736*	
Intention (2)	.066	.263**	.112	*.839*

Notes: Figures in italics represent the square root of AVE.
Figures in parentheses indicate the number of items measuring each construct.
$p \leq .05$.
**Correlation is significant at the .05 level (2-tailed).

Regression Analysis

Table 6 presents the detailed results of the multiple regression analysis across Bangladesh, the USA, and Vietnam. Reciprocity is the only consistent and significant predictor of customer intention in all three countries. Face-saving negatively predicts intention only in the USA, while relationships shows no significant influence in any country. Multiple regression analysis was used to test the impact of three facets on customers' behavioral intention. Statistical results derived from the collected data from all three countries show that the entire model is significant, as shown by the overall F-statistic ($p \leq .05$). The regression model

Table 6. Multiple Regression Results (Dependent Variable: Intention).

Variables	Unstandardized Coefficients	Standard Error	Standardized Coefficients	*t*-value	Sig (*p* < .05)
Bangladesh					
Constant	3.962	1.201	3.298	.002	
Face-saving	.017	.049	.041	.345	.731
Reciprocity	.218	.063	.411	3.462	.001
Relationship	–.001	.037	-.003	-.023	.982
Notes: $F_{3,}$ 62 = 4.413; $p \leq .05$; Adj R^2 = .136					
USA					
Constant	5.515	.985	5.599	.000	
Face-saving	-.121	.059	–.165	–2.058	.042
Reciprocity	.254	.044	.458	5.703	.000
Relationship	–.057	.031	–.145	–1.833	.069
Notes: F_3, 114 = 19.238; $p \leq .05$; Adj R^2 = .319					
Vietnam					
Constant	5.272	.913	5.774	.000	
Face-saving	.011	.044	.024	.241	.810
Reciprocity	.164	.062	.254	2.624	.010
Relationship	.036	.034	.106	1.074	.285

Notes: F_3, 99 = 2.791; $p \leq .05$; Adj R^2 = .050

shows that the independent variables explain 13.6%, 31.9%, and 5% of the variation of the dependent variable, intention, as shown in the R^2 value in Bangladesh, USA, and Vietnam, respectively. Multiple regression result shows that reciprocity has the most substantial positive impact on customer intention in all three countries shown [β (USA) = .458; β (Bangladesh) = .411; β (Vietnam) = .254]. Using data from the USA shows that face-saving has a negative impact on consumer intention (β = –.165; $p \leq .05$). However, we failed to find statistical significance of the relationship between face-saving and customer intention in Vietnam and Bangladesh (β = .041; $p \geq .05$ and β = .024; $p \geq .05$, respectively). Though weak, the relationship has a negative impact on consumer intention (β = –.145; $p < .10$) in the USA. The data collected from the USA shows that the relationship negatively impacts consumer intention. However, the independent variable, relationship, does not statistically support the dependent variable, intention, in both Bangladesh and Vietnam (β = –.003; $p \geq .05$ and β = .106; $p \geq .05$, respectively).

Discussion

We tested a model of customers' behavioral intentions with the data collected from the USA, Bangladesh, and Vietnam. The statistical results indicate that the model explains customers' intentions well. Findings suggest that a customer's intention is predicted by three significant variables: face-saving, reciprocity, and relationship. Therefore, managers should focus on these three critical predictors to instigate customers to purchase (Ding et al., 2017; Mende et al., 2013; Zhao & Zhang, 2020).

The standardized regression coefficients show that reciprocity is the most critical variable influencing customer intention in all three countries. Reciprocity has a more substantial positive influence on customer intention in the USA than in Vietnam and Bangladesh [β (USA) = .458; β (Bangladesh) = .411; β (Vietnam) = .254]. This finding is consistent with the study of Davies et al. (1995), which suggests that reciprocity is a universal norm influencing customer intention across cultures.

Face-saving has a negative influence on customers' intentions in the USA. This finding is consistent with the study of O'Malley and Tynan (2000), which suggests that face-saving is not a significant predictor of customer intention in Western cultures. However, in Asian cultures, face-saving is an essential predictor of customer intention (Siu et al., 2016; Wei & Sung, 2017). This finding suggests managers should be cautious when using face-saving strategies in Western cultures.

The relationship has a weak negative influence on customers' intentions in the USA. This finding is consistent with Li et al.'s (2008) study, which suggests that relationship is not a significant predictor of customer intention in Western cultures. However, in Asian cultures, relationship is an essential predictor of customers' intention. This finding suggests that managers should focus on building solid relationships with customers in Asian cultures.

Conclusion

In conclusion, this study provides insights into the predictors of customer intention in different cultures. The findings suggest that managers should focus on reciprocity, face-saving, and relationship to influence customers' intentions. The study also highlights the importance of understanding cultural differences when designing marketing strategies.

Theoretical and Managerial Implications

Understanding Quan He is essential for fostering business relationships in Vietnam, especially for Western entrepreneurs entering the Vietnamese market. This study stands as the inaugural comprehensive analysis of Quan He, offering these notable contributions:

1. Defining Quan He: Our research bridges the concepts of Chinese Guanxi and Western RM to define Quan He within the Vietnamese socio-economic landscape. We identified its three integral facets: The Dien (face-saving), Co Qua Co Lai (reciprocity), and Tinh Cam (affection).

2. Classifying Quan He: We delved into the advantages and disadvantages of the three facets of Quan He. This will expand the current knowledge in the fields of Guanxi and RM, offering insights into how and when to employ specific types of Quan He, depending on the business context.
3. Quan He in Asian Contexts: Since the rise of Guanxi studies initiated by Xin and Pearce (1996), its applicability in other Asian nations like Malaysia, Thailand, and Singapore has been explored. However, given that each nation's unique socio-political-economic backdrop shapes relationship-building, our study emphasizes Quan He is distinct role in Vietnam's dual-ideology economy.
4. Practical Guidelines for Western Businesses: Grasping the nuances of Quan He is pivotal for Western companies targeting the Vietnamese market. We provide actionable insights into managing the subtleties of The Dien, Co Qua Co Lai, and Tinh Cam to foster trust and enhance relationships with local entities. Given Vietnam's burgeoning economic potential, our guide illuminates the path for foreign investors looking to harmonize with local business practices.

In short, this exploratory study contributes by offering (a) a new construct, *Quan He*, that bridges Eastern and Western relationship paradigms; (b) a validated measurement model of its three facets; and (c) actionable insights for multinational firms entering Vietnam.

Limitations and Future Research

While this study offers a pioneering perspective on Quan He, it is not without its constraints. The data were collected from one university in each country, which limits generalizability. However, this exploratory study provides foundational insights for future research with broader, more representative samples.

We have pinpointed the commonalities and distinctions between Quan He, Guanxi, and RM. The tri-faceted nature of Quan He was explored in detail and compared with corresponding facets in Guanxi.

Our empirical evaluation compared the effects of these facets on consumer intent in Bangladesh (Eastern) and the USA (Western). However, the results from these two countries might be different. Future studies might consider other influencing elements like purchasing power or broaden the product scope beyond cosmetics. We advocate for expanding this model into diverse cultural landscapes to validate its generalizability.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Ngoc Cindy Pham https://orcid.org/0009-0004-3401-8695

Note

1. A shorter version of this paper was previously published in the Midwest Law Journal of the Academy of Legal Studies in Business (2024 Conference Proceedings) under the title "Three Facets of Quan-He (Vietnam) and Guanxi (China) Define Relationship Marketing in Asian Markets." This revised manuscript includes updated framing, an international business application, and expanded managerial implications.

References

Adler, P. S., & Kwon, S. W. (2000). Social capital: The good, the bad, and the ugly. In E. Lesser (Ed.), *Knowledge and social capital* (pp. 89–115). Academic Press.

Anderson, E., & Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research*, *29*(1), 18–34.

Anderson, J. C., & Gerbing, D. W. (1988). Structural modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423.

Anderson, J. C., & Narus, J. A. (1990). A model of distributor firm and manufacturer firm working partnerships. *Journal of Marketing*, *54*(1), 42–58.

Barbalet, J. (2021). Where does guanxi come from? Bao, *shu*, and *renqing* in Chinese connections. *Asian Journal of Social Science*, *49*(1), 31–37.

Bedford, O. (2011). Guanxi-building in the workplace: A dynamic process model of working and backdoor guanxi. *Journal of Business Ethics*, 104(1), 149–158.

Beresford, M. (2008). *Đổi Mới* in review: The challenges of building market socialism in Vietnam. *Journal of Contemporary Asia*, *38*(2), 221–243.

Burt, R. S. (2017). Structural holes versus network closure as social capital. In *Social capital* (pp. 31–56). Routledge.

Co qua co lai moi toai long nhau. (2010, November 12). *Báo Mới*. Retrieved, 8 March 2025, from http://www.baomoi.com/co-di-co-lai-moi-toai-long-nhau/c/5184628.epi

Davies, H., Leung, T. K. P., Luk, S. T. K., & Wong, Y. H. (1995). The benefits of "guanxi": The value of relationships in developing the Chinese market. *Industrial Marketing Management*, *24*(3), 207–214.

Ding, G., Liu, H., Huang, Q., & Gu, J. (2017). Moderating effects of guanxi and face on the relationship between psychological motivation and knowledge-sharing in China. *Journal of Knowledge Management*, *21*(5), 1077–1097.

Do, T., Quilty, M., Milner, A., & Longstaff, S. (2007). *Business culture issues in Vietnam: Case studies*.

Fan, Y. (2002a). Ganxi's consequences: Personal gains at social cost. *Journal of Business Ethics*, *38*(4), 371–380.

Fan, Y. (2002b). Questioning guanxi: Definition, classification and implications. *International Business Review*, *11*(5), 543–561.

GoinGlobal. (2015, February 21). *Vietnam: The concept of face*. Retrieved, 8 March 2025, from http://www.goinglobal.com/articles/1500/

Granovetter, M. S. (1977). The strength of weak ties. In *Social networks* (pp. 347–367). Academic Press.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Pearson.

Hampden-Turner, C. M., & Trompenaars, F. (2002). A mirror-image world: Doing business in Asia. In N. Bhagat & R. Steers (Eds.), *Managing across cultures: Issues and perspectives* (2nd ed., pp. 143–167). Thomson.

Hwang, K. K. (1987). Face and favor: The Chinese power game. *American Journal of Sociology*, *92*(4), 944–974.

Inkpen, A. C., & Tsang, E. W. K. (2005). Social capital, networks, and knowledge transfer. *Academy of Management Review*, *30*(1), 146–165.

Kadushin, C. (2004). *Introduction to social network theory* (Working paper).

Krause, J., Croft, D. P., & James, R. (2007). Social network theory in the behavioural sciences: Potential applications. *Behavioral Ecology and Sociobiology*, *62*, 15–27.

Le, N. T., & Nguyen, T. V. (2009). The impact of networking on bank financing: The case of small and medium-sized enterprises in Vietnam. *Entrepreneurship Theory and Practice*, *33*(4), 867–887.

Leung, A. K. Y., & Cohen, D. (2011). Within- and between-culture variation: Individual differences and the cultural logics of honor, face, and dignity cultures. *Journal of Personality and Social Psychology*, *100*(3), 507.

Li, J. J., Poppo, L., & Zhou, K. Z. (2008). Do managerial ties in China always produce value? Competition, uncertainty, and domestic vs. foreign firms. *Strategic Management Journal*, *29*(4), 383–400.

Liu, W., Sidhu, A., Beacom, A. M., & Valente, T. W. (2017). Social network theory. In *The international encyclopedia of media effects* (pp. 1–12). Wiley.

Luo, J. D. (1997). The significance of networks in the initiation of small businesses in Taiwan. *Sociological Forum*, *12*(2), 297–317.

Mende, M., Bolton, R. N., & Bitner, M. J. (2013). Decoding customer–firm relationships: How attachment styles help explain customers' preferences for closeness, repurchase intentions, and changes in relationship breadth. *Journal of Marketing Research*, *50*(1), 125–142.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, *58*(3), 20–38.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and organizational advantage. *Academy of Management Review*, *23*(2), 242–266.

Ndubisi, N. O., & Wah, C. K. (2005). Factorial and discriminant analyses of the underpinnings of relationship marketing and customer satisfaction. *International Journal of Bank Marketing*, *23*(6/7), 542–557.

Nguyen, T. V. (2005). Learning to trust: A study of inter-firm trust dynamics in Vietnam. *Journal of World Business*, *40*(2), 203–221.

Nguyen Hau, L., & Viet Ngo, L. (2012). Relationship marketing in Vietnam: An empirical study. *Asia Pacific Journal of Marketing and Logistics*, *24*(2), 222–235.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.

O'Malley, L., & Tynan, C. (2000). Relationship marketing in consumer markets: Rhetoric or reality? *European Journal of Marketing*, *34*(7), 797–816.

Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis. *Journal of Marketing*, *70*(4), 136–153.

Park, S. H., & Luo, Y. (2001). Guanxi and organizational dynamics: Organizational networking in Chinese firms. *Strategic Management Journal*, *22*(5), 455–477.

Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, *43*(3), 486–501.

Pham, H. N. (2014). How do the Vietnamese lose face? Understanding the concept of face through self-reported face loss incidents. *International Journal of Language and Linguistics*, *2*(3), 223–231.

Pham, N. C. (2024). Three facets of Quan-He (Vietnam) and Guanxi (China) define relationship marketing in Asian markets. Midwest Law Journal of the Academy of Legal Studies in Business, Conference Proceedings.

Shaalan, A. S., Reast, J., Johnson, D., & Tourky, M. E. (2013). East meets West: Toward a theoretical model linking guanxi and relationship marketing. *Journal of Business Research*, *66*(12), 2515–2521.

Sin, L. Y. M., Tse, A. C. B., Chan, H., Heung, V. C. S., & Yim, F. H. K. (2006). The effects of relationship marketing orientation on business performance in the hotel industry. *Journal of Hospitality & Tourism Research*, *30*(4), 407–426.

Sin, L. Y. M., Tse, A. C. B., Yau, O. H. M., Chow, R. P. M., Lee, J. S. Y., & Lau, L. B. Y. (2005). Relationship marketing orientation: Scale development and cross-cultural validation. *Journal of Business Research*, *58*(2), 185–194.

Siu, N. Y. M., Kwan, H. Y., & Zeng, C. Y. (2016). The role of brand equity and face saving in Chinese luxury consumption. *Journal of Consumer Marketing*, *33*(4), 245–256.

Smith, E. D., Jr., & Pham, C. (1996). Doing business in Vietnam: A cultural guide. *Business Horizons*, *39*(3), 47–52.

Tang, W., & Cheng, Q. (2012). *How business guanxi affects a firm's performance: A study on Chinese small and medium-sized construction companies*. (Master's thesis, Uppsala University). DiVA. https://www.diva-portal.org/smash/get/diva2:534510/FULLTEXT01.pdf

Wang, C. L. (2007). Guanxi vs. relationship marketing: Exploring underlying differences. *Industrial Marketing Management*, *36*, 81–86.

Wei, X., & Jung, S. (2017). Understanding Chinese consumers' intention to purchase sustainable fashion products: The moderating role of face-saving orientation. *Sustainability*, *9*(9), 1570.

Xin, K. K., & Pearce, J. L. (1996). Guanxi: Connections as substitutes for formal institutional support. *Academy of Management Journal*, *39*(6), 1641–1658.

Yen, D. A., Abosag, I., Huang, Y. A., & Nguyen, B. (2017). Guanxi GRX (ganqing, renqing, xinren) and conflict management in Sino-US business relationships. *Industrial Marketing Management*, *66*, 103–114.

Yen, D. A., Barnes, B. R., & Wang, C. L. (2011). The measurement of guanxi: Introducing the GRX scale. *Industrial Marketing Management*, *40*(1), 97–108.

Zhang, H. E., & Wang, Q. G. (2007). The extension of strong reciprocity theory. *China Industrial Economy*, *3*, 17–24.

Zhao, H., & Zhang, M. (2020). The role of guanxi and positive emotions in predicting users' likelihood to click the like button on WeChat. *Frontiers in Psychology*, *11*, 1736.

Zhou, M., & Bankston, C. (1998). *Growing up American: How Vietnamese children adapt to life in the United States*. Russell Sage Foundation.

Article

From Impulse to Intention: Examining Sustainable Online Purchases in the Age of Programmatic Advertising

BIMTECH Business Perspectives
6(2) 124–142, 2025
© The Author(s) 2025
DOI: 10.1177/25819542251379946
bsp.bimtech.ac.in

Hera Zaidi[1], Anusha Suhail[1] and Asif Ali Syed[2]

Abstract

The rapid advancement of digital technology has transformed marketing, providing businesses with opportunities to leverage data-driven insights for effective consumer targeting. 'Programmatic Advertising' (PA), known for its automated ad placements powered by big data, has become a cornerstone of digital advertising by delivering personalised content to consumers in real time. While effective in driving engagement, PA also raises environmental concerns due to its high energy consumption and potential to encourage impulsive buying behaviour (IBB). This conceptual study, based entirely on secondary sources and theoretical analysis, explores the relationship between PA and Sustainable Online Purchase Decisions (SUPD) in the emerging Indian market, focusing on how PA-induced impulsive buying can be influenced by environmental knowledge (EK). Drawing on the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), and the Stimulus-Organism-Response (S-O-R) framework, this study proposes a model wherein PA attributes act as stimuli triggering impulsive buying, with EK functioning as a moderating variable that redirects these tendencies toward sustainable consumer choices. Theoretical insights from this framework suggest

[1] Department of Business Administration, Faculty of Management Studies, Aligarh Muslim University, Aligarh, Uttar Pradesh, India
[2] Department of Business Administration, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

Corresponding author:
Anusha Suhail, Research Scholar, Department of Business Administration, Faculty of Management Studies, Aligarh Muslim University, Aligarh, Uttar Pradesh 202002, India.
E-mail: ge7381@myamu.ac.in

how EK may foster a positive consumer attitude toward sustainable shopping, ultimately contributing to more conscious purchase decisions. This study aims to guide future empirical work, inform policymakers and businesses on incorporating environmental awareness into digital advertising strategies, while also addressing gaps in understanding PA's cognitive and behavioural impact within emerging markets.

Keywords

Sustainability, programmatic advertising, online shopping, impulsive buying behaviour, environmental knowledge, sustainable online purchase decisions

Introduction

Technology has revolutionised marketing in the digital age, with the internet transforming e-commerce into the new marketplace (Hollensen, 2004). The widespread use of mobile devices has made online shopping more accessible (Joines et al., 2003), prompting marketers to adopt diverse digital strategies to engage increasingly online consumers (Kiran & Arumugam, 2020). Among these, the use of big data has propelled programmatic advertising (PA)—a method enabling highly targeted, automated ad placements that enhance consumer engagement (Bush, 2014). The Interactive Advertising Bureau (IAB, 2014) defines PA as 'a digital advertising method that involves automated buying and selling using algorithms, data, and software'. PA enables organisations to bid for personalised ads shown to specific audiences at the optimal time and place, streamlining campaigns and optimising budgets (Samuel et al., 2021). In the US, PA spending accounted for 65% of total digital ad expenditure in 2018, with expectations of reaching 84% by 2022 (Malthouse et al., 2019), highlighting its growing importance for businesses seeking to connect with consumers on the go.

Existing research has examined how PA can trigger impulsive buying behaviours (IBB) by targeting consumers in real time with persuasive content (Boerman et al., 2017; Dhandra, 2019; Turel et al., 2011). However, there remains a significant research gap regarding the intersection of PA and sustainable consumption behaviours, particularly in emerging economies such as India, where digital adoption is accelerating but sustainability considerations are still evolving. While the link between advertising and impulsivity has been explored, the role of psychological and cognitive factors—such as environmental knowledge (EK)—in moderating this relationship has received limited scholarly attention (Turel, 2019). Furthermore, the ethical and social dimensions of PA, including its potential to either reinforce hyper-consumption or encourage sustainable purchasing decisions (SUPD), are often overlooked in the literature (Deuze, 2016; Hu et al., 2019; Kadic-Maglajlic et al., 2019).

Most studies on sustainable consumption have focused on environmentally friendly behaviours related to specific products or packaging (Ha & Janda, 2017; Prakash & Pathak, 2017) but have not sufficiently examined the influence of digital marketing tactics like PA on broader sustainable consumption choices, especially through cognitive-behavioural models. In particular, the moderating role of EK—which shapes individuals' attitudes, cognitive processes, and decision-making towards sustainable consumption—remains underexplored in the context of PA (Joshi & Rahman, 2019; Schmuck et al., 2018; Yadav & Pathak, 2016).

In response to these gaps, this study investigates how PA influences consumers' attitudes towards online shopping and sustainable purchases, with a specific focus on impulse buying as moderated by EK. By doing so, it seeks to reveal the psychological mechanisms underpinning SUPD, a dimension largely absent from current discussions.

This study presents several distinctive contributions to the literature:

1. It examines the impact of PA on online consumer behaviour within a developing country context (India)—where digital marketing is on the rise but its association with sustainable purchase decisions remains insufficiently explored (Majeed et al., 2022).
2. It introduces EK as a novel moderator in the relationship between PA and impulsive buying, an area rarely investigated in previous studies (Ashfaq et al., 2022; Yuen et al., 2022; Zha et al., 2022).
3. It offers practical insights for policymakers and businesses, demonstrating how digital advertising can potentially encourage sustainable purchasing behaviours rather than merely driving consumption.

The study is grounded in the Theory of Reasoned Action (TRA), which posits that individuals deliberate before acting (Ajzen & Fishbein, 1980), and the Theory of Planned Behaviour (TPB), which extends this by considering perceived behavioural control (PBC). Additionally, the Stimulus-Organism-Response (S-O-R) framework offers a valuable lens for understanding how external stimuli such as PA can shape internal psychological responses, ultimately influencing behaviour (Eroglu et al., 2001; Vonkeman et al., 2017; Zafar et al., 2020).

By applying these theories to the context of sustainable online purchasing, this research not only broadens the theoretical understanding of consumer behaviour in the digital era but also highlights actionable strategies for promoting eco-friendly consumption through digital marketing tools like PA.

Theoretical Background, Research Model and Hypotheses Development

Sustainable Online Shopping Decisions

Ongoing environmental degradation poses serious threats to sustainability, making sustainable purchasing behaviour a vital approach to addressing these challenges. As Cacho et al. (2020) explain, when consumers use sustainability as a guiding criterion to evaluate and select products online, they engage in what is known as a SUPD. This process involves conscious consideration of environmental impacts in online shopping, leading to choices that align with green purchase intentions (Dhandra, 2019). Green purchase intention captures a consumer's inclination to choose eco-friendly products (Yadav & Pathak, 2016), while socially conscious purchasing reflects preferences for products that uphold labour rights and benefit society (Pepper et al., 2009). Prior research (Pagiaslis & Krontalis, 2014) has shown that positive environmental attitudes are linked to increased green buying behaviour.

Sustainable consumption is shaped by multiple psychological and social factors such as social norms, environmental concern, self-identity, consumer values, and social marketing (Dhandra, 2019; Grebitus et al., 2017; Kadic-Maglajlic et al., 2019; Yadav & Pathak, 2016). These factors foster green purchase intentions and conscientious consumer choices, which together define SUPD. However, while these drivers of sustainability have been studied, there is limited understanding of how contemporary digital marketing tools, particularly PA, interact with these behaviours—especially in emerging markets where online shopping is rapidly expanding but sustainability awareness and infrastructure are still developing.

This study focuses on the role of PA—a data-driven, automated advertising approach—in influencing consumer decisions, particularly by triggering IBB. Impulse buying refers to the sudden, spontaneous urge to purchase a product without prior planning (Beatty & Ferrell, 1998). Techniques such as personalised ads, parasocial interactions, celebrity endorsements, time-limited offers, and social proof create an environment that can heighten impulsivity (Chen et al., 2016; Zafar et al., 2020; Zhang et al., 2018). IBB, driven by emotional triggers, may conflict with the deliberation required for sustainable consumption decisions (Song et al., 2015).

While existing literature has explored sustainable consumption and impulse buying separately, there is a notable gap in understanding how PA shapes the intersection between these behaviours—a gap that is particularly pronounced in emerging markets, where digital transformation and sustainability adoption coexist but are unevenly integrated. This study adopts a novel perspective by examining how PA influences SUPD in such contexts, considering cognitive and emotional factors that may either support or undermine sustainable choices.

Overview of PA

PA is strategically designed to deliver personalised product and service information to users on social media by tailoring content according to their demographics and preferences (Dehghani & Tumer, 2015; Thompkins, 2019). This targeted approach seeks to address user needs with high precision, aiming to reduce information overload by focusing on relevancy (Chen & Hsieh, 2012; Deuze, 2016; Liang et al., 2006; Thompkins, 2019). The PA system integrates interactions among key stakeholders: adopters of PA, platform developers, and end consumers (White & Samuel, 2019). This coordination enables real-time ad delivery that aligns with consumers' interests at moments when they are most likely to engage with or purchase a product, effectively facilitating retailers' connection to potential customers at critical points in their purchasing journey (Palos-Sanchez et al., 2019; Yang et al., 2017).

As a data-driven marketing approach, PA emphasises a personalised experience, leveraging users' online behaviours and interests to present targeted ads that resonate more profoundly with them (McGuigan, 2019). This strategy is commonly employed by companies seeking to shape user behaviour on social media platforms like Facebook, Instagram, and YouTube, where interactive features help boost brand image, foster loyalty, and build brand equity (Dehghani & Tumer, 2015; Dehghani et al., 2018; Dix et al., 2012). Through the integration of interactivity and user attachment, PA becomes a catalyst for purchase behaviour of the consumer (Hollebeek et al., 2014). Significant levels of customisation and relevance in advertisements allow marketers to present product information that aligns closely with consumers' unique shopping needs, promoting an engaging and effective advertising experience (Komiak & Benbasat, 2006). Sundar et al. (2017) proposed that PA acts as an environmental trigger, prompting cognitive shortcuts regarding the content viewed, which in turn affects consumers' purchasing choices (Kim et al., 2014). This study applies the Stimulus-Organism-Response (S-O-R) model, positioning PA as a stimulus that has the potential to impact an organism, that is, IBB. Conceptualising IBB as the organism, this article posits that exposure to PA may systematically stimulate individuals' impulsive buying tendencies in the following hypothesised manner:

Thus, we hypothesise that:

H_1: PA significantly and positively influences IBB.

Attributes of PA

Personalisation

Ad personalisation customises marketing based on consumer data, making ads more relevant and appealing (Montgomery & Smith, 2009; Tran, 2017). Advances in technology allow precise tracking, enhancing the impact of personalised ads, especially in mobile contexts (Kim et al., 2014). Research suggests that once a consumer encounters ad personalisation, it positively stimulates consumers' attitudes toward online ads, making them buy more products impulsively without considering the effect on the environment. Therefore, when consumers perceive programmatic ads as personalised, it can increase their tendency for impulse purchases, as they feel the product or service is directly aligned with their preferences and current needs (Rana et al., 2022).

Thus, we hypothesise that:

H_{1a}: Ad personalisation significantly and positively influences IBB.

Relevance

Relevance in advertising refers to how closely content aligns with an individual's interests and needs, making it significant and engaging (Blom, 2000; Merriam-Webster, 2018). In PA, relevance is enhanced through personalisation, which uses user data, like preferences, browsing history, and behaviour, to tailor ads for each viewer (Zhang et al., 2014). This customisation increases the likelihood of consumer engagement, as personalised ads feel more applicable and meaningful, creating a sense of self-relevance (Kreuter & Wray, 2003; Petty et al., 2009). When consumers perceive ads as personally relevant, they engage more deeply with the content, which can stimulate impulse buying by appealing directly to their current desires and needs (Celsi & Olson, 1988; Xia & Bechwati, 2008). Studies confirm that perceived ad relevance significantly influences consumer responses and increases the effectiveness of personalised advertising (Hayes et al., 2020; Kim & Huh, 2017; Liu-Thompkins, 2019; Tam & Ho, 2005). Therefore, relevance not only enhances user engagement but also plays a critical role in triggering unplanned purchasing behaviour.

Thus, we hypothesise that:

H_{1b}: Ad Relevance significantly and positively influences IBB.

Novelty

To break through traditional advertising clutter, online retailers increasingly use innovative strategies like location-based, personalised, and mobile social media advertising to capture consumer attention in dynamic and engaging ways (Ketelaar et al., 2017; Unni & Harmon, 2007; Wu, 2016; Xu et al., 2009). Central to these strategies is the perception of novelty and relevance in personalised ads, which enhances consumer engagement by making messages feel fresh and tailored, even if the product or brand is familiar (Carpenter et al., 1994; Kalyanaraman & Sundar, 2006). Novelty in personalisation identifies consumer needs in advance and presents relevant options, stimulating impulsive purchases by offering something new and unexpected (Sharma et al., 2010). As Hausman (2000) noted, novelty fuels hedonic desire, which in turn drives impulse buying. Thus, the combination of personalisation and novelty creates a powerful trigger for unplanned purchases by fulfilling latent desires through surprising and relevant content.

Thus, we hypothesise that:

H_{1c}: Ad Novelty significantly and positively influences IBB.

Impulsive Buying Behaviour

IBB is widely recognised as a spontaneous, pleasure-driven reaction to online stimuli, often triggered without prior planning or conscious intent (Beatty & Ferrell, 1998; Rook, 1987; Zhang et al., 2018). Rather than being a stable personality trait, IBB is shaped by situational and contextual cues such as personalised advertisements, social influences, and digital media exposure (Chen et al., 2016; Xiang et al., 2016; Zafar et al., 2019, 2020), making it a crucial factor in understanding online shopping behaviour.

This study conceptualises IBB within the S-O-R framework, where PA serves as the stimulus, IBB functions as the organism, representing the consumer's internal cognitive and emotional state, and SUPDs constitute the response. Impulsive purchases are typically associated with affective, spontaneous reactions that bypass deliberate cognitive evaluation, which can conflict with rational, reflective processes such as environmental decision-making (Leong et al., 2017; Verplanken & Sato, 2011).

In this context, EK is not treated as an outcome of IBB—which would contradict established findings that impulsive behaviours often diminish reflective thinking (Baumeister, 2002; Dittmar et al., 1995)—but rather as a moderating variable that influences the relationship between impulse-driven reactions and SUPD. Consumers with higher levels of EK are more likely to regulate impulsive tendencies and make environmentally responsible choices, even when exposed to persuasive PA. Conversely, low EK may amplify the likelihood of impulsive, less sustainable consumption. Thus, EK plays a crucial role in shaping whether spontaneous online buying can be steered towards more sustainable outcomes (Eysenck, 1983; Leong et al., 2017; Sherman et al., 1997).

Thus, we hypothesise that:

H_2: IBB negatively influences attitude towards Adoption of Sustainable Online Shopping.

The Moderating Role of EK

EK plays a pivotal role in shaping individuals' environmental attitudes and behaviours, particularly in areas such as climate change, recycling, and sustainability (Scott & Ellis, 2014; Shahzad et al., 2019). Defined as individuals' awareness of environmental issues, their impacts, and the shared responsibilities for sustainable development (Fryxell & Lo, 2003), EK enables informed decision-making across diverse ecological concerns (Kaplan, 1991). Research has consistently shown that EK fosters eco-friendly behaviours, with Wang et al. (2014) confirming its significance in promoting sustainable actions. Climate-related knowledge, particularly among young graduates, has been linked to increased environmental responsibility (Whitmarsh & O'Neill, 2010). Furthermore, EK is a key determinant of consumer attitudes toward green products and purchasing decisions (Lu & Sinha, 2019; Matthes et al., 2014), as well as a driver of green consumption behaviour (Joshi & Rahman, 2019; Peattie & Belz, 2010). Ultimately, EK serves as a foundational factor influencing consumers' intentions and readiness to engage in eco-friendly purchasing practices (Yadav & Pathak, 2016).

Thus, we hypothesise that:

H_3: EK significantly affects attitude towards Adoption of Sustainable Online Shopping.

Individuals tend to avoid actions when they feel inadequately informed, and varying levels of ENVK can significantly shape sustainable consumption decisions (Haron et al., 2005; Joshi & Rahman, 2019; Kearney & Young, 1995; Matthes et al., 2014).

Limited ENVK often results in hesitation or inconsistency in eco-friendly behaviours like recycling (Schmuck et al., 2018). This study suggests that differing degrees of ENVK influence individuals' engagement with sustainable actions. While programmatic ads on shopping apps may trigger IBB, consumers with higher environmental awareness are more likely to consider the ecological impact before making a purchase. Thus, ENVK is proposed as a moderating factor that shapes the link between IBB induced by personalised advertising and attitudes toward adopting Sustainable Online Shopping.

Thus, we hypothesise that:

H_4: EK moderates the relationship between IBB and attitude towards the Adoption of Sustainable Online Shopping [Negative (positive) effect of IBB is weaker (stronger) for individuals with high (less) EK].

Consumer's Attitude Towards the Adoption of Sustainable Online Shopping

Consumer attitudes toward sustainable shopping are increasingly shaped by online forums and communities that share information on environmental impact, product reviews, and price comparisons (Ghouri et al., 2021; Nuseir, 2020). These platforms help consumers make informed decisions, especially in the absence of physical product interaction (Nam et al., 2020). Forums focused on environmental issues offer valuable insights into product use and eco-benefits, promoting quicker and more informed purchases (Lee et al., 2022). Online Environmental Platform Services (OEPS) further support sustainable buying by providing resources and guidance, raising awareness, and regulating impulsive buying triggered by programmatic ads, ultimately fostering more conscious and eco-friendly shopping behaviour (Gunawardena & Dhanapala, 2023).

Thus, we hypothesise that:

H_5: Consumers' attitude towards the Adoption of Sustainable Online Shopping significantly and positively affects Sustainable Online Shopping Purchase Decisions.

Theory of Reasoned Action

Past research has utilised either the TRA (Fishbein & Ajzen, 1975) or the TPB (Ajzen, 1991) to develop conceptual models for analysing consumers' green and sustainable behaviour (Garay et al., 2019; Han, 2020). Both theories have been widely used to explain various behavioural domains.

According to the TRA, attitude combined with social influences contributes to forming a behavioural intention, the immediate precursor of actual behaviour (Ajzen & Kruglanski, 2019; Fishbein & Ajzen, 2010; Meng et al., 2020). In this theory, attitude is defined as a mix of beliefs about the behaviour, its possible consequences, and evaluations of those outcomes, judging them as either favourable or unfavourable. Meanwhile, subjective norms refer to perceived social support or opposition to a particular behaviour, shaped by normative beliefs (expectations of others) and the individual's motivation to comply (Moon, 2021). Initially, the TRA was applied in contexts such as health, social behaviour and consumer intentions. Over time, it evolved into the TPB with the addition of PBC, which addresses instances where external factors may hinder or enable the behaviour (Ajzen, 1991).

Theory of Planned Behaviour

Introduced by Icek Ajzen in 1985, the TPB enhances the understanding of how actual behaviours emerge from intentions, especially in situations where individuals may feel they lack complete control over outcomes. Central to TPB is the intention to act, influenced by three components: attitude, subjective norms, and PBC (Ajzen, 1991). This addition has positioned TPB as one of the most impactful frameworks for explaining and predicting human behaviour across various areas, including health, organisational behaviour, and consumer decision-making (Fishbein & Ajzen, 1975). PBC specifically addresses an individual's sense of capability in performing a behaviour, based on perceived control over internal or external factors. PBC recognises that people may intend to act but might feel constrained by certain barriers or limitations. Since its inception, TPB has been widely applied across fields to study behaviours related to environmental protection, exercise commitment, and purchasing decisions, proving its adaptability and effectiveness across cultural settings (Ajzen, 1991).

Stimulus-Organism-Response

The research is primarily structured around the S-O-R framework (Mehrabian & Russell, 1974). The stimuli include external environmental factors, such as advertising, social interactions, and peer recommendations (Xiang et al., 2016; Zhang et al., 2018). These stimuli evoke cognitive and affective reactions within the organism, representing the 'mental processes that take place in an individual's mind upon interacting with the stimulus' (Eroglu et al., 2001). These reactions can be perceptual, emotional, impulsive, goal-oriented, or utilitarian (Vonkeman et al., 2017; Zafar et al., 2020). The response refers to the individual's final action or choice, influenced by internal cognitive and emotional processes (Sherman et al., 1997).

Within the S-O-R model, EK functions as an internal aspect of the organism (O). Consumers with higher EK are better equipped to interpret the stimuli presented through PA (Tanner & Kast, 2003). They can identify genuinely sustainable products and understand the broader environmental impact of their purchases. This knowledge shapes their attitudes toward sustainable shopping and aids them in managing impulsive buying more effectively. For example, when presented with a persuasive advertisement, environmentally knowledgeable consumers may critically assess the ad's claims, enabling them to make more informed purchasing choices that align with their sustainability values (Paul & Rana, 2012).

Our research model integrates the TPB, the TRA and the S-O-R framework developed by Mehrabian and Russell (1974). The framework proposed that PA attributes, IBB and EK influence attitude and perceived behaviour control. The attributes of PA, IBB and EK can influence attitudes and can play a significant role in controlling the behaviours of customers by offering them knowledge about the environment, availability, persuasion, information about the process, and so forth. Knowledge and persuasion are essential sources of shaping consumers' attitudes (Zeynalova & Namazova, 2022). According to Choi and Lee (2020) and Zeynalova and Namazova (2022), green strategies can be utilised to protect the physical environment, including air, water, and soil. By instilling green attitudes and behaviours among energy consumers, the environment can be further nurtured.

Within this model, external stimuli like PA and EK serve as triggers that influence consumers' cognitive and emotional responses—the 'organism' phase of the S-O-R model. Here, PAD functions as a stimulus that encourages impulsive buying tendencies, which are further moderated by EK, influencing the consumer's internal cognitive and emotional processing. These internal responses then shape the ultimate 'response', where individuals make SUPD based on their attitudes and perceived control over behaviour (Sherman et al., 1997). Green strategies, as indicated by previous research, can effectively protect critical environmental resources such as air, water, and soil (Choi & Lee, 2020; Zeynalova & Namazova, 2022), suggesting that fostering green attitudes and behaviours among consumers contributes to broader environmental preservation efforts. This study thus formulates hypotheses grounded in existing literature to explore these relationships and their impact on sustainable consumer choices.

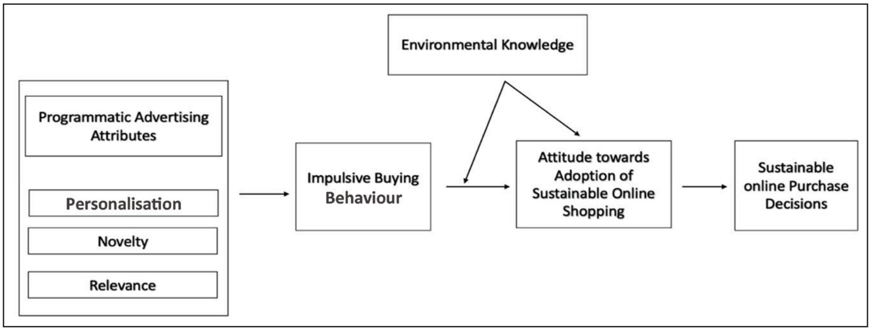
Conceptual Framework

This study presents a conceptual framework based on an extensive literature review of factors influencing SUPDs. A research model is developed to examine how attributes of programmatic advertising (PAD) drive impulsive buying, moderated by different levels of EK, which ultimately fosters an attitude towards Sustainable Online Shopping and leads to SUPDs.

Using the TRA, the TPB, and Mehrabian and Russell's (1974) S-O-R framework, the model illustrates how external stimuli, like PAD, engage with consumers' cognitive and emotional states (the 'organism' phase) to influence their eventual behavioural responses. PA serves as a stimulus that triggers IBB, while EK acts as a moderating factor, channelling these impulses into a more sustainable mindset.

This approach links PA (independent variable), IBB, attitude towards Sustainable Online Shopping, and SUPDs (dependent variables), with EK as a moderating variable.

Proposed Conceptual Model



Source: Proposed by the researchers.

Proposed Hypotheses

The above model led to the formulation of the following hypotheses:

H_1: PA significantly and positively influences IBB.
H_{1a}: Ad personalisation significantly and positively influences IBB.
H_{1b}: Ad Relevance significantly and positively influences IBB.
H_{1c}: Ad Novelty significantly and positively influences IBB.
H_2: IBB negatively influences attitude towards Adoption of Sustainable Online Shopping.
H_3: EK significantly affects attitude toward Adoption of Sustainable Online Shopping.
H_4: EK moderates the relationship between IBB and attitude towards Adoption of Sustainable Online Shopping.
H_5: Consumers' attitude towards the Adoption of Sustainable Online Shopping significantly and positively affects Sustainable Online Shopping Purchase Decisions.

Research Methodology

This study adopts a blend of exploratory and descriptive research designs, incorporating an extensive literature review and secondary data collection from diverse sources, including online platforms, academic articles, and prior research studies. The secondary data, specifically focused on SUPDs, was gathered from theses, research papers, and institutional articles published over the past several years. The primary objective is to develop a theoretical conceptual framework that explains how PA influences consumer behaviour, particularly by triggering impulsive buying tendencies, and how EK moderates this relationship.

The exploratory aspect of the research is used to investigate and expand upon existing theories and concepts surrounding sustainable consumer behaviour, particularly in the context of digital advertising. It allows the study to explore emerging constructs, such as the role of personalisation, novelty, and relevance in advertising, and their psychological impact on consumers. Meanwhile, the descriptive component provides a structured examination of the collected data, summarising insights from the literature to support the conceptual model. This structured synthesis supports the formulation of the proposed conceptual model, clarifying the pathways through which impulsive buying can either hinder or support sustainable online purchasing, depending on the level of consumer environmental awareness. By integrating insights from multiple theoretical perspectives—such as the S-O-R framework, the TPB, and literature on impulse buying and sustainability—the study offers a comprehensive understanding of how advertising-driven impulses can be redirected towards eco-friendly consumption, provided there is adequate EK.

This dual approach enriches the theoretical foundation of sustainable online purchasing by integrating insights from multiple theoretical frameworks, ultimately aiming to capture the complex interactions that shape consumers' sustainable purchasing behaviour in online settings.

Expected Findings and Discussions

The dynamic interplay between IBB and SUPD is especially complex in the context of personalised and real-time PA. On one hand, PA stimulates impulsive purchases by appealing to consumers' immediate desires; on the other hand, it risks undermining long-term sustainability goals. The inclusion of EK as a moderating factor adds depth to this analysis by introducing a cognitive filter that influences how consumers interpret and act upon programmatic stimuli. Consumers with higher levels of EK are more capable of critically assessing the sustainability implications of their purchases—even in the presence of persuasive, impulse-inducing ads. This heightened cognitive awareness acts as a protective mechanism, guiding consumers toward more responsible consumption. As previous studies suggest (Dhandra, 2019; Yadav & Pathak, 2016), sustainable purchase intentions are shaped by a combination of emotional triggers and cognitive reasoning, underscoring the need for informed decision-making in the digital marketplace. Incorporating EK into PA design could help marketers strike a balance between engagement and ethical responsibility. This study draws on three foundational theories to deepen its conceptual insights: the TRA, the TPB, and the S-O-R model. TRA emphasises the influence of consumer attitudes and subjective norms on behavioural intentions, making it relevant for understanding how PA shapes attitudes toward sustainable consumption. TPB expands on this by introducing PBC, which reflects consumers' confidence in their ability to make sustainable choices—especially when informed by EK. The S-O-R framework frames PA as the external stimulus, the consumer as the organism, and their behaviour—whether impulsive or sustainable—as the response. Here, EK serves as a key moderating factor, influencing how consumers cognitively process advertising stimuli. When environmental awareness is high, cognitive evaluations align more with green purchase intentions, thereby reducing the likelihood of impulsive consumption. By integrating these theoretical perspectives, the article finds that PA can either reinforce or undermine sustainability goals based on its design and perceived message. When crafted thoughtfully, PA can include cues that encourage mindful consumption—such as emphasising eco-friendly product features or tapping into social norms that favour green behaviours (TRA). Moreover, it can enhance PBC (TPB) by offering transparent, accessible information about sustainable alternatives. This approach not only aligns consumer behaviour with sustainability objectives but also supports more ethical digital marketing practices.

Implications

Implications for Stakeholders

First, the framework developed here shows that PA serves as a stimulus that can lead to IBB, while EK modulates how consumers process and react to these influences. These internal cognitive and emotional responses significantly determine whether individuals adopt sustainable purchasing behaviours or not. Several studies have sought to identify sustainable consumption behaviours, such as using energy-efficient products (Ha & Janda, 2017) and environmentally friendly packaging (Prakash & Pathak, 2017). The influence of psychological factors on sustainable online purchasing decisions is still not well understood, nor is the effect of PA on sustainable consumption (Turel, 2019). This study is distinguishable from them in terms of the identification of PA's attributes significantly influencing consumer attitudes and behaviours, creating IBB, particularly in an environment marked by rapid digital growth and evolving consumer expectations. It not only drives impulsive buying but also shapes attitudes toward sustainability when moderated by EK. This moderating role of EK proves crucial, as it informs consumers' cognitive processing and fosters more environmentally responsible decision-making. This insight emphasises the importance of educational and informational efforts that enhance consumer awareness.

Second, this framework demonstrated actionable strategies for companies to adopt by integrating environmental messaging into PA, guiding them on how to influence consumer behaviour toward more sustainable choices. By embedding eco-conscious cues in targeted advertisements, companies can subtly but effectively encourage consumers to prioritise environmentally responsible products. This strategy not only capitalises on consumers' growing awareness and preference for sustainable products but also positions the brand as a proactive player in environmental stewardship. Moreover, the framework suggests that companies go beyond advertising by actively investing in the development and promotion of green products that satisfy both consumer demands and ecological considerations. This dual focus ensures that products not only meet consumer expectations for quality and utility but also align with environmental values, fostering a deeper and loyal customer base that appreciates the company's dedication to sustainability. This shift not only supports broader environmental conservation efforts but also aligns with national sustainability objectives, contributing to pollution reduction and progress toward a more sustainable economy.

Third, this framework provides insights into how EK can generate benefits across consumer, societal, and corporate levels—an emerging area of interest in business research. This study is among the first to explore how EK can mediate the relationship between IBB and consumer attitudes toward Sustainable Online Shopping. By promoting sustainable product choices, EK fosters consumer benefits; it contributes to environmental conservation as a social benefit and encourages the adoption of eco-friendly advertising strategies as a corporate benefit. Overall, this study underscores the dual capacity of PA to drive impulsive consumption while also serving as a catalyst for sustainable decision-making when aligned with informative, environmentally oriented strategies. These insights offer a strategic pathway for leveraging digital marketing in ways that encourage sustainable consumer behaviour, carrying substantial implications for marketing tactics and environmental policy development.

Implications for Research

This research offers a significant theoretical contribution by validating and expanding the TPB, TRA, and S-O-R frameworks in the context of environmental behaviour and digital marketing. By integrating TPB, TRA, and the S-O-R framework, the study offers a holistic perspective on how external stimuli—such as programmatic advertising—impact consumer cognition and emotions, ultimately leading to SUPD. These insights address a critical gap in the literature by demonstrating the relevance of TPB, TRA, and S-O-R frameworks in analysing sustainable consumption behaviours influenced by PA. Furthermore, the findings support existing research, underscoring that environmentally oriented strategies play an essential role in protecting crucial resources like air, water, and soil (Choi & Lee, 2020; Zeynalova & Namazova, 2022). This reinforces the importance of encouraging eco-friendly attitudes and behaviours as a pathway to fostering consumer choices that benefit environmental sustainability.

Limitations and Future Research Directions

This research is conceptual in nature and does not include empirical validation through primary data collection, which may limit the generalizability of the findings. Future studies could strengthen the conclusions by employing quantitative or qualitative research methods to test the proposed relationships. Cross-cultural comparisons and platform-specific analyses (e.g., social media vs. e-commerce) can offer insights into contextual influences on PA's impact. Additionally,

Second, the study focuses primarily on psychological and emotional factors influencing sustainable consumption but does not fully account for contextual variables such as cultural differences, economic constraints, and regulatory frameworks that often shape consumer behaviour in emerging markets. Moreover, integrating psychological constructs such as digital fatigue, privacy concerns, and eco-guilt may deepen understanding of consumer responses. Future work can investigate green AI and ethical ad technologies to align PA strategies with environmental sustainability goals.

Lastly, the rapid evolution of digital advertising technologies, including PA, means that consumer responses may change over time. The findings and theoretical implications presented here should be revisited periodically to ensure continued relevance in the face of technological advancements and shifting consumer values.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors received no financial support for the research, authorship and/or publication of this article.

ORCID iD

Anusha Suhail https://orcid.org/0009-0003-6091-2511

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Prentice-Hall.

Ajzen, I., & Kruglanski, A. W. (2019). Reasoned action in the service of goal pursuit. *Psychological Review, 126*(5), 774–786. https://doi.org/10.1037/rev0000155

Ashfaq, M., Tandon, A., Zhang, Q., Jabeen, F., & Dhir, A. (2022). Doing good for society! How purchasing green technology stimulates consumers toward green behaviour: A structural equation modelling–artificial neural network approach. *Business Strategy and the Environment*, *32*(4), 1274–1291. https://doi.org/10.1002/bse.3188

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research, 28*(4), 670–676.

Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, *74*(2), 169–191. https://doi.org/10.1016/s0022-4359(99)80092-x

Blom, J. (2000). Personalization: A taxonomy. Paper presented at CHI'00 Extended Abstracts on Human Factors in Computing Systems, Seattle. https://dl.acm.org/doi/abs/10.1145/633292.633483

Boerman, S., Kruikemeier, S., & Borgesius, F. (2017). Online behavioral advertising: A literature review and research agenda. *Journal of Advertising*, *46*(3), 363–376. https://doi.org/10.1080/00913367.2017.1339368

Bush, O. (2014). *Programmatic advertising: The successful transformation to automated, data-driven marketing in real-time* (Business & Management). Springer.

Cacho, O. J., Moss, J., Thornton, P. K., Herrero, M., Henderson, B., Bodirsky, B. L., Humpenöder, F., Popp, A., & Lipper, L. (2020). The value of climate-resilient seeds for smallholder adaptation in sub-Saharan Africa. *Climatic Change*, *162*, 1213–1229.

Carpenter, G. S., Glazer, R., & Nakamoto, K. (1994). Meaningful brands from meaningless differentiation: The dependence on irrelevant attributes. *Journal of Marketing Research*, *31*(3), 339–350.

Celsi, R. L., & Olson, J. C. (1988). The role of involvement in attention and comprehension processes. *Journal of Consumer Research*, *15*(2), 210–224.

Chen, J. V., Su, B. C., & Widjaja, A. E. (2016). Facebook C2C social commerce: A study of online impulse buying. *Decision Support Systems*, *83*, 57–69.
Chen, P. T., & Hsieh, H. P. (2012). Personalized mobile advertising: Its key attributes, trends, and social impact. *Technological Forecasting and Social Change*, *79*, 543–557. https://doi.org/10.1016/j.techfore.2011.08.011
Choi, S., & Lee, S. (2020). Eco-packaging and its market performance: UPC-level sales, brand spillover effects, and curvilinearity. *Sustainability*, *12*(21), 9061–9065.
Dehghani, M., Niaki, M. K., Ramezani, I., & Sali, R. (2018). Evaluating the influence of YouTube advertising for attraction of young customers. *Computers in Human Behavior, 59*, 165–172. https://doi.org/10.1016/j.chb.2016.01.037
Dehghani, M., & Tumer, M. (2015). Research on the effectiveness of Facebook advertising in enhancing the purchase intention of consumers. *Computers in Human Behavior*, *49*, 597–600. https://doi.org/10.1016/j.chb.2015.03.051
Deuze, M. (2016). Living in media and the future of advertising. *Journal of Advertising*, *45*, 326–333. https://doi.org/10.1080/00913367.2016.1185983
Dhandra, T. K. (2019). Achieving triple dividend through mindfulness: More sustainable consumption, less unsustainable consumption and more life satisfaction. *Ecological Economics*, *161*, 83–90.
Eroglu, S. A., Machleit, K. A., & Davis, L. M. (2001). Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business Research*, *54*, 177–184. https://doi.org/10.1016/S0148-2963(99)00087-9
Fryxell, G., & Lo, C. (2003). The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of Business Ethics*, *46*. https://doi.org/10.1023/A:1024773012398
Grebitus, C., Printezis, I., & Printezis, A. (2017). Relationship between consumer behavior and success of urban agriculture. *Ecological Economics*, *136*, 189–200. https://doi.org/10.1016/j.ecolecon.2017.02.010
Ha, H. Y., & Janda, S. (2017). Predicting consumer intentions to purchase energy-efficient products. In C. L. Campbell (Ed.), *The Customer is NOT Always Right? Marketing Orientations in a Dynamic Business World* (Developments in Marketing Science). Springer, Cham. https://doi.org/10.1108/07363761211274974
Hausman, A. J. (2000). A multi-method investigation of consumer motivations in impulse buying behavior. *Journal of Consumer Marketing*, *17*(5), 403–426.
Hayes, J. L., Golan, G., Britt, B., & Applequist, J. (2020). How advertising relevance and consumer–brand relationship strength limit disclosure effects of native ads on Twitter. *International Journal of Advertising*, *39*(1), 131–165. https://doi.org/10.1080/02650487.2019.1596446
Hollensen, S. (2004). *Global marketing: A decision-oriented approach*. Prentice Hall.
Joines, J. L., Scherer, C. W., & Scheufele, D. A. (2003). Exploring motivations for consumer Web use and their implications for e-commerce. *Journal of Consumer Marketing*, *20*(2), 90–108. https://doi.org/10.1108/07363760310464578
Joshi, Y., & Rahman, Z. (2019). Consumers' sustainable purchase behaviour: Modeling the impact of psychological factors. *Ecological Economics*, *159*, 235–243.
Kadic-Maglajlic, S., Arslanagic-Kalajdzic, M., Micevski, M., Dlacic, J., & Zabkar, V. (2019). Being engaged is a good thing: Understanding sustainable consumption behavior among young adults. *Journal of Business Research*, *104*, 644–654. https://doi.org/10.1016/j.jbusres.2019.02.040
Kalyanaraman, S., & Sundar, S. S. (2006). The psychological appeal of personalized content in web portals: Does customization affect attitudes and behavior? *Journal of Communication*, *56*(1), 110–132.

Ketelaar, P. E., Bernritter, S. F., van't Riet, J., Hühn, A. E., van Woudenberg, T. J., Müller, B. C., & Janssen, L. J. (2017). Disentangling location-based advertising: The effects of location congruency and medium type on consumers' ad attention and brand choice. *International Journal of Advertising*, *36*(2), 356–367.

Kim, H., & Huh, J. (2017). Perceived relevance and privacy concern regarding online behavioral advertising (OBA) and their role in consumer responses. *Journal of Current Issues and Research in Advertising*, *38*(1), 92–105. https://doi.org/10.1080/10641734.2016.1233157

Kim, J., Yoo, J., & Han. (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in Human Behavior*, *33*, 256–269.

Kiran, K. U., & Arumugam, T. (2020, December). Role of programmatic advertising on effective digital promotion strategy: A conceptual framework. *Journal of Physics: Conference Series*, *1716*(1), 012032. IOP Publishing.

Kreuter, M. W., & Wray, R. J. (2003). Tailored and targeted health communication: Strategies for enhancing information relevance. *Journal of Health Behavior*, *27*(1), 227–232.

Lee, P. T. Y., Feiyu, E., & Chau, M. (2022). Defining online to offline (O2O): A systematic approach to defining an emerging business model. *Internet Research, 32*(5), 1453–1495. https://doi.org/10.1108/INTR-10-2020-0563

Liu-Thompkins, Y. (2019). A decade of online advertising research: What we learned and what we need to know. *Journal of Advertising*, *48*(1), 1–13. https://doi.org/10.1080/00913367.2018.1556138

Majeed, M. U., Aslam, S., Murtaza, S. A., Attila, S., & Molnár, E. (2022). Green marketing approaches and their impact on green purchase intentions: Mediating role of green brand image and consumer beliefs towards the environment. *Sustainability*, *14*(18), 11703. https://doi.org/10.3390/su141811703

Malthouse, E. C., Hessary, Y. K., Vakeel, K. A., Burke, R., & Fudurić, M. (2019). An algorithm for allocating sponsored recommendations and content: Unifying programmatic advertising and recommender systems. *Journal of Advertising*, *48*(4), 366–379, https://doi.org/10.1080/00913367

McGuigan, L. (2019). Automating the audience commodity: The unacknowledged ancestry of programmatic advertising. *New Media & Society*, *21*(11/12), 2366–2385. https://doi.org/10.1177/1461444819846449

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press.

Merriam-Webster. (2018). Definition of relevance. Retrieved, 17 September 2019, from https://www.merriam-webster.com/dictionary/relevance

Montgomery, A. L., & Smith, M. D. (2009). Prospects for personalization on the Internet. *Journal of Interactive Marketing*, *23*(2), 130–137.

Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: Environmental concern, knowledge, and beliefs. *Psychology & Marketing*, *31*, 335–348. https://doi.org/10.1002/mar.20698

Palos-Sánchez, P., Saura, J. R., & Martín-Velicia, F. (2019). A study of the effects of programmatic advertising on users' concerns about privacy over time. *Journal of Business Research*, *96*, 61–72. https://doi.org/10.1016/j.jbusres.2018.10.059

Petty, R. E., Barden, J., & Wheeler, S. C. (2009). The elaboration likelihood model of persuasion: Developing health promotions for sustained behavioral change. *Emerging Theories in Health Promotion Practice and Research, 2*, 185–214.

Rana, A., Bhat, A. K., & Rani, L. (2022). E-marketing mix variables to create online brand equity in the Indian context. *International Journal of E-Business Research (IJEBR)*, *18*(1), 1–25.

Samuel, A., White, G. R., Thomas, R., & Jones, P. (2021). Programmatic advertising: An exegesis of consumer concerns. *Computers in Human Behavior*, *116*, 106657. https://doi.org/10.1016/j.chb.2020. 106657

Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect–reason–involvement account of greenwashing effects in environmental advertising. *Journal of Advertising*, *47*, 127–145. https://doi.org/10.1080/00913367.2018.1452652

Scott, L., & Ellis, D. (2014). Consumer understanding, perceptions and behaviours with regard to environmentally friendly packaging in a developing nation. *International Journal of Consumer Studies*, *38*. https://doi.org/10.1111/ijcs.12136

Sharma, P., Sivakumaran, B., & Marshall, R. J. (2010). Impulse buying and variety seeking: A trait-correlates perspective. *Journal of Business Research*, *63*(3), 276–283.

Sherman, E., Mathur, A., & Smith, R. B. (1997). Store environment and consumer purchase behavior: Mediating role of consumer emotions. *Psychology & Marketing*, *14*, 361–378. https://doi.org/10.1002/(SICI)1520-6793(199707)14:4<361::AID-MAR4>3.0.CO;2-7

Song, H. G., Chung, N., & Koo, C. (2015). Impulsive buying behavior of restaurant products in social commerce: The role of serendipity and scarcity message.

Tam, K. Y., & Ho, S. Y. (2005). Web personalization as a persuasion strategy: An elaboration likelihood model perspective. *Information Systems Research*, *16*(3), 271–291.

Tran, T. P. (2017). Personalized ads on Facebook: An effective marketing tool for online marketers. *Journal of Retailing and Consumer Services*, *39*, 230–242.

Turel, O. (2019). Potential "dark sides" of leisure technology use in youth. *Communications of the ACM*, *62*, 24–27. https://doi.org/10.1145/3306615

Turel, O., Serenko, A., & Giles, P. (2011). Integrating technology addiction and use: An empirical investigation of online auction users. *MIS Quarterly*, *35*, 1043–1061. https://doi.org/10.17705/1atrr.00002

Unni, R., & Harmon, R. (2007). Perceived effectiveness of push vs. pull mobile location based advertising. *Journal of Interactive Advertising*, *7*(2), 28–40.

Vonkeman, C., Verhagen, T., & van Dolen, W. (2017). Role of local presence in online impulse buying. *Information & Management*, *54*, 1038–1048.

Wang, Z., Zhang, D., & Lei, L. (2014). Gender differences in problematic internet use and psychological well-being among Chinese adolescents. *Computers in Human Behavior, 29*(5), 1870–1876. https://doi.org/10.1016/j.chb.2013.05.017

Whitmarsh, L., & O'Neill, S. (2010). Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. *Journal of Environmental Psychology*, *30*(3), 305–314. https://doi.org/10.1016/j.jenvp.2010.01.003

Wu, L. (2016). Understanding the impact of media engagement on the perceived value and acceptance of advertising within mobile social networks. *Journal of Interactive Advertising*, *16*(1), 59–73.

Xia, L., & Bechwati, N. N. (2008). Word of mouth: The role of cognitive personalization in online consumer reviews. *Journal of Interactive Advertising*, *9*(1), 3–13.

Xiang, L., Zheng, X., Lee, M., & Zhao, D. (2016). Exploring consumers' impulse buying behavior on social commerce platforms: The role of parasocial interaction. *International Journal of Information Management*, *36*, 333–347.

Xu, H., Oh, L.-B., & Teo, H.-H. (2009). Perceived effectiveness of text vs. multimedia location-based advertising messaging. *International Journal of Mobile Communications*, *7*(2), 154–177.

Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, *135*, 732–739. https://doi.org/10.1016/j.jclepro.2016.06.120

Yuen, K. F., Ng, W. H., & Wang, X. (2022). Switching intention in the online crowd-sourced delivery environment: The influence of a platform's technological characteristics and relational bonding strategies. *Technology in Society*, *72*, 102167. https://doi.org/10.1016/j.techsoc.2022.102167

Zafar, A. U., Qiu, J., & Shahzad, M. (2020). Do digital celebrities' relationships and social climate matter? Impulse buying in f-commerce. *Internet Research*, *30*, 1066–2243.

Zafar, A.U., Qiu, J., Li, Y., Wang, J., & Shahzad, M. (2019). The impact of social media celebrities' posts and contextual interactions on impulse buying in social commerce. *Computers in Human Behavior*, 115, 106178.

Zeynalova, Z., & Namazova, N. (2022). Revealing consumer behavior toward green consumption. *Sustainability*, *14*(10), 5806. https://doi.org/10. 3390/su14105806

Zha, Y., Li, Q., Huang, T., & Yu, Y. (2022). Strategic information sharing of online platforms as resellers or marketplaces. *Marketing Science*, *42*(4), 659–678. https://doi.org/10.1287/mksc.2022.1397

Zhang, K. Z. K., Xu, H., Zhao, S., & Yu, Y. (2018). Online reviews and impulse buying behaviour: The role of browsing and impulsiveness. *Internet Research*, *28*, 522–543.

Zhang, W., Yuan, S., & Wang, J. (2014). *Optimal real-time bidding for display advertising* [paper presentation]. The 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, New York, NY.

Article

The Role of Bank Lending in Driving Economic Growth: Evidence from Sri Lanka

BIMTECH Business Perspectives
6(2) 143–165, 2025

DOI: 10.1177/25819542251379960
bsp.bimtech.ac.in

Ravinthirakumaran Navaratnam[1] and Sasikala Weerasinghe[2]

Abstract

This study investigates the role of bank lending in fostering economic growth in Sri Lanka over the period 1991–2023. As a critical financial intermediary, bank lending facilitates the allocation of capital toward productive investment and economic development. Despite its importance, empirical evidence on the causal impact of bank credit on Sri Lanka's economic performance remains limited. Using the Autoregressive Distributed Lag (ARDL) Bounds Testing approach, the study examines the short-run and long-run dynamics between Gross Domestic Product (GDP) growth and key financial and macroeconomic variables, including bank lending rates (BLR), private-sector credit, credit-deposit ratio (CDR), inflation (INF), labour force participation, trade openness, and gross capital formation. The findings reveal that credit to the private sector (CPS) unidirectionally drives GDP growth (GDPG), while the reverse relationship is not significant, confirming that bank lending is a key driver of economic expansion rather than merely responding to growth. Other variables, such as trade openness, the CDR, and labour force participation, exhibit bidirectional causality with GDP, highlighting complex feedback mechanisms within the economy. These results underscore the importance of enhancing access to credit and improving the efficiency of lending mechanisms. The study concludes with policy recommendations aimed at reinforcing the banking sector's role in promoting sustainable and inclusive economic growth in Sri Lanka.

[1] Department of Business Economics, University of Vavuniya, Northern Province, Sri Lanka
[2] Independent Researcher, Vavuniya, Northern Province, Sri Lanka

Corresponding author:
Ravinthirakumaran Navaratnam, Department of Business Economics, University of Vavuniya, Northern Province 43000, Sri Lanka.
E-mail: navaraviecon@vau.ac.lk

Keywords
ARDL bound test, bank lending, economic growth, private-sector credit, Sri Lanka

Introduction

Bank lending plays a vital role in economic development by mobilising savings and channelling credit into productive sectors. It supports investment, entrepreneurship, and consumption, thereby influencing both the pace and structure of economic growth. A well-functioning banking system contributes to efficient capital allocation, risk diversification, and liquidity provision. According to Levine (2005) and Levine et al. (2000), economies with more developed banking sectors tend to experience higher and more inclusive growth, as financial intermediation fosters productive investment and enhances economic efficiency.

In Sri Lanka, bank credit constitutes the largest share of domestic financial intermediation and serves as a primary source of finance for households and firms. As the country continues to face persistent challenges—including sluggish Gross Domestic Product (GDP) growth, mounting public debt, inflationary pressures, and the lingering effects of the COVID-19 crisis—the importance of bank lending in reviving economic activity has become increasingly significant. Historically, credit flows from the banking system have supported capital formation and investments in agriculture, industry, infrastructure, and services (Central Bank of Sri Lanka, 2022). Small and medium-sized enterprises (SMEs), which account for over 52% of GDP and provide the majority of private-sector employment, are particularly reliant on bank loans for expansion and sustainability (Asian Development Bank, 2020).

Empirical research examining the credit-growth nexus in Sri Lanka provides mixed evidence. Edirisuriya (2007) noted that despite financial sector reforms since the late 1970s, structural inefficiencies in the banking sector limited its contribution to growth. Similarly, Perera and Liyanage (2012) found that bank lending did not exert a statistically significant impact on GDP growth (GDPG) once other macroeconomic variables were considered, suggesting that the influence of credit may be indirect or hindered by inefficiencies. In contrast, recent evidence from Ganepola and Jayasinghe (2023) shows a strong positive relationship between private-sector credit and economic growth, underscoring the potential role of bank lending in stimulating economic activity. These divergent findings highlight the need for further empirical investigation.

This ambiguity underscores a critical research gap, particularly in the Sri Lankan context, namely the direction of causality between bank lending and economic growth—whether bank lending drives growth or economic growth stimulates credit demand. Addressing this gap, the present study empirically examines the relationship between bank lending and economic growth in Sri Lanka over the period 1991–2023. Specifically, the analysis explores both short- and long-run dynamics, incorporating key macroeconomic indicators such as GDPG, private-sector credit, lending rates, inflation (INF), labour force participation, trade openness, and gross capital formation.

The study is guided by two hypotheses developed from theoretical and empirical insights: the first proposes that bank lending has a significant positive impact on economic growth in the short run, as increased access to credit enhances investment, stimulates aggregate demand, and supports productive activity; the second extends this relationship to the long run, suggesting that sustained bank lending contributes to capital formation, industrial expansion, and structural transformation, thereby promoting stable economic growth.

The findings confirm that private-sector credit, labour force participation, and trade openness positively and significantly influence economic growth in both the short run and the long run. The error correction mechanism indicates a stable long-run equilibrium relationship, while diagnostic tests validate the reliability and robustness of the estimated models. By empirically testing these hypotheses, the study contributes to the broader discourse on financial intermediation and growth, offering policy-relevant insights into how the structure and direction of bank lending can support inclusive and sustainable development in Sri Lanka.

The Granger causality results from our study indicate that private-sector credit unidirectionally drives GDPG, whereas the reverse effect is not statistically significant. This confirms that bank lending in Sri Lanka acts as a key driver of economic expansion rather than merely responding to growth. In addition, variables such as trade openness, credit-deposit ratio (CDR), and labour force participation exhibit bidirectional causality with GDP, highlighting complex feedback mechanisms in the economy. These findings provide clear evidence of the causal role of bank lending in facilitating investment, capital formation, and productive activity, supporting GDPG over the study period.

The remainder of this article is structured as follows: The second section provides a comprehensive review of the theoretical and empirical literature relevant to the relationship between bank lending and economic growth. The third section examines the trends and patterns of bank lending in Sri Lanka over the study period. The fourth section describes the econometric methodology employed in the analysis, while the fifth section presents and interprets the empirical results. Finally, the sixth section concludes the study by summarising the key findings and discussing policy implications.

Literature Review

Theoretical Literature

Bank lending plays a crucial role in economic development by mobilising savings and directing credit to productive sectors, thereby fostering investment, entrepreneurship, and consumption. This relationship is well-grounded in key economic theories such as financial intermediation theory, endogenous growth theory, and the various finance-growth causality hypotheses.

According to the financial intermediation theory, banks serve as intermediaries by channelling funds from savers to borrowers, facilitating efficient capital allocation, reducing transaction costs, and managing risks. This role is fundamental in supporting productive investments that drive economic growth (Boyd & Prescott, 1986; Diamond, 1984). In developing economies like Sri Lanka, the effectiveness of bank lending strongly influences the flow of capital to sectors critical for economic expansion.

The endogenous growth theory (Lucas, 1988; Romer, 1986) highlights how financial sector improvements enhance growth by increasing investment efficiency, supporting innovation, and channelling savings into productive uses. Banks are instrumental in financing projects that improve human capital and technological progress, especially relevant to Sri Lanka's ongoing industrial and infrastructure development (Levine, 2005).

The relationship between financial development and growth is further explored through three causality hypotheses: The supply-leading hypothesis posits that financial sector development, especially bank lending, initiates economic growth by providing credit essential for investment and productivity gains (McKinnon, 1970; Shaw, 1973). The demand-following hypothesis argues that economic growth drives financial development, as expanding economies create greater demand for credit (Robinson, 1952). The feedback hypothesis suggests a bidirectional relationship where finance and growth mutually reinforce each other (Awdeh, 2012; Patrick, 1966).

The Wicksellian theory adds that the relationship between interest rates and economic growth is mediated by credit availability, emphasising the central bank's role in maintaining equilibrium via monetary policy (Wicksell, 1936). The credit channel theory also underscores how monetary policy influences economic activity by affecting bank lending conditions (Bernanke & Gertler, 1995). Finally, financial liberalisation is theorised to enhance banking efficiency, increase competition, and improve credit access, thereby fostering growth (Bumann et al., 2013; Shaw, 1973). Sri Lanka's financial liberalisation reforms have been critical in expanding credit and modernising banking services.

Empirical Literature

The relationship between bank lending and economic growth has long been a focus of empirical investigation. Early foundational studies provided strong evidence of a positive linkage between financial development and economic performance. King and Levine (1993) demonstrated that financial deepening, particularly measured through private-sector credit as a percentage of GDP, significantly enhances long-term economic growth. Building on this, Arestis and Demetriades (1997) argued that financial development improves resource allocation by directing credit to high-productivity sectors, fostering sustained economic expansion. Levine (2005) further reinforced these findings, emphasising that banks, as core financial intermediaries, facilitate savings mobilisation, risk diversification, and efficient capital allocation—key ingredients for economic development.

During the 2000s, empirical attention turned toward specific country contexts and methodologies. Mishra et al. (2009) studied India's financial sector using a

VAR framework and Granger causality tests, revealing a dynamic relationship where economic growth stimulated credit market development. Rexiang and Rathanasiri (2011), focusing on Sri Lanka, found that credit flow to the private-sector contributed positively to economic growth. However, the study cautioned that inefficiencies and non-performing loans (NPLs) in the banking sector undermined this relationship.

In the early 2010s, country-specific and regional studies continued to support the role of bank lending in promoting economic activity. Zhang et al. (2012) examined China's financial development and concluded that conventional indicators like deposits and savings supported growth, while a higher proportion of corporate deposits had a dampening effect. Chirwa and Odhiambo (2016) reported similar findings for sub-Saharan Africa, where access to private-sector credit was found to be a key determinant of economic growth, especially in the presence of well-functioning financial institutions. In Sri Lanka, International Monetary Fund (2023) emphasised that while credit expansion contributed to growth, operational inefficiencies and high NPLs in state-owned banks continued to restrict the full impact of lending.

The late 2010s saw an increased focus on financial inclusion and institutional efficiency. Asian Development Bank (2020) stressed the importance of expanding access to banking services in Sri Lanka, especially for SMEs, to strengthen the link between credit and growth. Khan (2008) applied the Autoregressive Distributed Lag (ARDL) model to Pakistan and confirmed that bank lending positively influences GDP in both the short and long term. These studies collectively highlighted that the short-run impact of credit tends to be more prominent, though long-term gains depend on institutional quality and credit allocation efficiency.

Entering the 2020s, researchers and international institutions increasingly stressed that Sri Lanka's banking sector, while central to credit expansion and growth, remained constrained by structural weaknesses and governance challenges. Ramya et al. (2021) used data from 1989 to 2018 and observed a strong positive relationship between bank lending and GDPG in Sri Lanka, particularly during the economic recovery period. Similarly, Levine (2021) found that financial depth and efficiency, particularly measured by private credit to GDP, are strongly associated with long-run economic growth. However, Rathnayake and Dissanayake (2022) cautioned that persistent inefficiencies, especially within state-owned banks and rising levels of NPLs, continued to constrain the growth potential of bank credit. Further, Ganepola and Jayasinghe (2023) used ARDL models to confirm both short- and long-run relationships between Sri Lanka's financial development and economic output. Their findings emphasised the role of efficient capital allocation in sustaining growth.

The International Monetary Fund (2023) Governance Diagnostic Assessment reported that state-owned banks continue to face high NPLs, weak credit risk management, and political interference, which limit their developmental contribution. Similarly, the International Monetary Fund (2024a) Article IV Consultation noted that Sri Lanka's banks face elevated credit risks in private loan portfolios, narrowing net interest margins, and heavy exposure to the public sector, all of which undermine financial intermediation and growth. To address these issues, reforms have been initiated, including bank recapitalisation plans, new legislative frameworks for bank resolution, and governance reforms mandating state banks to operate with greater independence and professional oversight. These efforts are intended to restore banking stability and strengthen the role of credit in supporting long-term economic growth.

The Trends and Patterns of Bank Lending in Sri Lanka

Over the past three decades, Sri Lanka's bank lending landscape has undergone notable transformations, shaped by economic liberalisation, financial crises, and technological innovation. Bank lending—particularly credit to the private sector—has exhibited cyclical fluctuations, mirroring the broader economic environment and the evolving capacity of the banking sector. One of the key indicators of financial sector performance, private-sector credit as a percentage of GDP, has seen significant changes during this period.

In the early 1990s, Sri Lanka's bank lending to GDP ratio remained relatively low, largely due to a nascent financial system and limited access to credit outside urban centres. Financial intermediation was underdeveloped, and credit allocation was constrained by regulatory barriers and limited banking outreach. However, structural reforms and liberalisation during the late 1990s and early 2000s led to rapid expansion in the banking sector. With increased competition, product innovation, and enhanced financial access, private-sector credit rose steadily. By 2015, Sri Lanka's private-sector credit stood at approximately 41.5% of GDP, reflecting the growing importance of bank finance in supporting economic activities (World Bank, 2021).

The period from 2010 to 2017 marked a high-growth phase for bank lending, driven by favourable interest rates, rising consumer demand, and an expanding middle class. During this time, private-sector credit peaked at around 45%–46% of GDP. However, this upward trajectory began to reverse due to macroeconomic pressures, including fiscal instability, weakening investor confidence, and mounting public debt. The situation worsened after 2019 as Sri Lanka faced a severe economic downturn, intensified by the COVID-19 pandemic. Businesses and households became risk-averse, while banks tightened lending criteria due to growing credit risk. Consequently, lending activity slowed significantly, and the NPLs ratio escalated, reflecting deteriorating asset quality across the sector.

By 2022–2023, signs of stabilisation began to emerge following interventionist policies and international financial assistance. Structural reforms and monetary tightening by the Central Bank, combined with debt restructuring negotiations, began to restore market confidence. As a result, private-sector lending began to recover in 2024. According to the Central Bank of Sri Lanka (2024), commercial banks expanded credit to the private sector by LKR 146 billion in the first half of 2024. This represented a marked turnaround compared to the LKR 733 billion contraction observed between June 2022 and May 2023, during which firms aggressively deleveraged in response to the currency crisis and high INF (International Monetary Fund, 2023).

The improvement in credit flows was supported by the appreciation of the Sri Lankan Rupee and more stable monetary conditions. At the same time, credit to the government increased by LKR 354 billion in the first half of 2024, down from LKR 1,043 billion in the same period of 2023. This reduction is partly attributed to the LKR 517 billion allocated for restructuring the debt of State-Owned Enterprises (SOEs) (World Bank, 2024). Furthermore, the total government and SOE debt rose by LKR 293 billion in early 2024—less than the LKR 405 billion increase in the previous year—indicating improved fiscal discipline. Credit to SOEs also declined by LKR 60 billion, highlighting ongoing restructuring and reduced reliance on public credit channels (Central Bank of Sri Lanka, 2024).

A notable development in recent years is the rapid growth of digital lending platforms, which are revolutionising credit access in Sri Lanka. The number of users of online loan applications increased from just 10,600 in August 2021 to over 1.3 million by November 2023—a 125-fold growth in just over two years (Financial Stability Review, 2024). This surge reflects a growing shift towards fintech-driven financial inclusion, especially among underserved segments and informal sector participants.

On the asset quality front, there has been a significant improvement in recent months. The NPL index dropped sharply from 7.2 in Q2 2024 to –44.5 in Q3 2024, indicating a substantial decline in default rates. This positive shift is attributed to the Central Bank's introduction of flexible repayment options, lower interest rates, and the broader economic recovery (Central Bank of Sri Lanka, 2024).

In summary, bank lending in Sri Lanka has followed a dynamic path, shaped by structural reforms, economic shocks, and technological advancements. The recent rebound in private-sector lending, decline in NPLs, and the exponential rise in digital credit solutions signal an improving financial landscape. While challenges remain—particularly in terms of SME access to credit and banking sector governance—the overall trajectory suggests that bank lending is once again positioned to support sustained economic recovery and growth in Sri Lanka.

Econometrics Methodology

Data and Analytical Framework

Annual time series data on GDPG, bank lending rate (BLR), credit to the private sector, CDR, trade openness, INF, labour force participation rate, and gross capital formation, during the period 1991–2023, have been used in this study. All the data has been gathered from the official database of the International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024), and the annual report of the Central Bank of Sri Lanka (2024).

Numerous econometric studies have been conducted using different techniques to analyse the role of bank lending in driving economic growth. However, this article uses the ARDL bounds test for cointegration developed by Pesaran et al. (2001). Due to the low power and further problems associated with other test methods, the ARDL approach to cointegration has become popular in recent years

(Ravinthirakumaran, 2014; Ravinthirakumaran & Ravinthirakumaran, 2018). Further, this approach is accommodating variables that are stationary at either level I(0) or first difference I(1), but not second difference I(2). Unlike traditional cointegration techniques, the ARDL model can be applied to datasets with mixed integration orders I(0) and I(1)), making it a flexible and reliable tool for analysing long-run relationships (Pesaran et al., 2001). Therefore, this study utilises the ARDL cointegration bounds test to examine the role of bank lending in driving economic growth in Sri Lanka.

The econometric model for this study is formulated as follows to analyse the role of bank lending in driving economic growth in Sri Lanka:

$$GDPG = \beta_0 + \beta_1 BLR + \beta_2 CPS + \beta_3 CDR + \beta_4 TO + \beta_5 INF + \beta_6 LFPR + \beta_7 GCF + \varepsilon \quad (1)$$

where:

- *GDPG* represents GDP growth,
- *BLR* denotes the bank lending rate,
- *CPS* refers to credit to the private sector,
- *CDR* represents the credit-to-deposit ratio,
- *TO* stands for trade openness,
- *INF* indicates inflation,
- *LFPR* represents the labour force participation rate,
- *GCF* denotes gross capital formation, and
- ε is the error term.

This model captures the relationship between key financial and economic variables to assess the influence of bank lending on economic growth in Sri Lanka. All variables in the model are transformed into their natural logarithms for standard statistical reasons, except for GDPG, the BLR, CDR, and INF. This transformation helps stabilise variance, improve normality, and interpret coefficients as elasticities, enhancing the robustness of the econometric analysis.

$$GDPG = \beta_0 + \beta_1 BLR + \beta_2 lnCPS + \beta_3 CDR + \beta_4 lnTO + \beta_5 INF + \beta_6 lnLFPR + \beta_7 lnGCF + \varepsilon \quad (2)$$

Unit Root Test

This research applies the ARDL model through a structured series of steps. The first step involves conducting a stationarity test to determine whether the variables are integrated at order 0 (I(0)) or order (I(1)). To achieve this, the study employs the Augmented Dickey-Fuller (ADF) test.

As a preliminary step in the empirical analysis, this study conducts unit root tests to assess the stationarity properties of the variables included in the model. In this research, the ADF test is employed to determine the order of integration of each variable -that is, whether a variable is stationary at level [I(0)], or becomes stationary after first differencing [I(1)]. This step is particularly important because the ARDL bounds testing approach developed by Pesaran et al. (2001) requires that none of the variables be integrated of order two [I(2)] or higher. The ARDL model is uniquely suited to analyse relationships among a mix of I(0) and I(1) variables, allowing for both short-run dynamics and long-run equilibrium relationships to be captured within a single estimation framework.

ARDL Bound Test for Cointegration

Following the confirmation of the stationarity properties of the variables, the next step involves investigating the existence of a long-run equilibrium relationship among the selected macroeconomic variables. This is achieved through the ARDL bounds testing approach to cointegration, as proposed by Pesaran et al. (2001). This approach is particularly advantageous in small sample settings and in models involving a mix of stationary and first-difference stationary variables. It allows for the estimation of both short-run dynamics and long-run relationships within a single reduced-form equation.

The ARDL model for the standard log-linear functional specification of long-run relationships among the dependent and independent variables may follow as:

$$\begin{aligned}\Delta GDPG_t = {} & \beta_0 + \alpha_1 GDPG_{t-1} + \alpha_2 BLR_{t-1} + \alpha_3 lnCPS_{t-1} + \alpha_4 CDR_{t-1} + \\ & \alpha_5 lnTO_{t-1} + \alpha_6 INF_{t-1} + \alpha_7 lnLFPR_{t-1} + \alpha_8 lnGCF_{t-1} + \\ & \sum_{i=1}^{p} \beta_{1i}\, \Delta GDPG_{t-i} + \sum_{j=0}^{q1} \beta_{2j}\, \Delta BLR_{t-j} + \sum_{j=0}^{q2} \beta_{3j}\, \Delta lnCPS_{t-j} + \\ & \sum_{j=0}^{q3} \beta_{4j}\, \Delta CDR_{t-j} + \sum_{j=0}^{q4} \beta_{5j} \Delta lnTO_{t-j} + \sum_{j=0}^{q5} \beta_{6j}\, \Delta INF_{t-j} + \\ & \sum_{j=0}^{q6} \beta_{7j}\, \Delta lnLFPR_{t-j} + \sum_{j=0}^{q7} \beta_{8j}\, \Delta lnGCF_{t-j} + \varepsilon_t \end{aligned} \tag{3}$$

Where,

Δ is the first-difference operator
P: Lag orders of the dependent variable
q: Lag orders of the regressors (explanatory variable)

The coefficients α_s represent the long-run relationships, while the β_s parameters capture the short-run dynamics of the model. The structural lags p, q_1, q_2, q_3, q_4, q_5, q_6, q_7 are determined by selecting the lag length that minimises the Schwarz Bayesian Criterion (SBC), ensuring that the model is both efficient and robust.

The ARDL bounds testing approach to cointegration involves three main steps to examine the existence of a long-run relationship among variables. In the first step, the ARDL model is specified and estimated using Ordinary Least Squares (OLS), ensuring that the optimal lag structure for each variable is selected based on the SBC. This step prepares the model in the form of an Unrestricted Error Correction Model (UECM), which includes both lagged level terms and first-differenced terms. The second step involves conducting the bounds test for cointegration, where an *F*-statistic is computed to test the joint significance of the lagged level variables. The null hypothesis of no cointegration is tested against the alternative that a long-run relationship exists. The null hypothesis H_0 assumes that the coefficients are all zero ($\alpha_1 = \alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = \alpha_6 = \alpha_7 = 0$), against the alternative hypothesis H_1, which posits that at least one of the coefficients is different from zero ($\alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \alpha_4 \neq \alpha_5 \neq \alpha_6 \neq \alpha_7 \neq 0$). The decision rule is based on comparing the *F*-statistic to the critical values provided by Pesaran et al. (2001): if the statistic exceeds the upper bound, cointegration is confirmed; if it falls below the lower bound, there is no cointegration; and if it lies between the bounds, the result is inconclusive. Upon establishing cointegration, the third step involves estimating the long-run coefficients of the ARDL model and the associated short-run dynamics using an Error Correction Model (ECM). The ECM includes an error correction term that captures the speed of adjustment toward the long-run equilibrium, which should be negative and statistically significant to confirm a stable long-run relationship.

The Error Correction Model

The ECM constitutes the third and final step in the ARDL bounds testing approach, capturing the short-run dynamics and adjustment mechanism of the variables toward long-run equilibrium. After establishing the existence of a long-run relationship among variables, the ECM is estimated to understand how short-term deviations are corrected over time. The coefficient of the ECM plays a crucial role in indicating the speed at which the dependent variable, such as GDPG, adjusts to any disequilibrium resulting from a shock. A negative and statistically significant ECM coefficient confirms that any short-run divergence from the long-run equilibrium is corrected in subsequent periods, validating the presence of a stable system. In essence, the larger the absolute value of this coefficient, the faster the system returns to equilibrium. Additionally, the inclusion of short-run coefficients in the ECM allows for analysis of the immediate effects of changes in independent variables, making the model a powerful tool to distinguish between short- and long-term impacts. Overall, the ECM bridges short-run volatility and long-run stability in the dynamic relationship among variables.

The ECM for the short-run dynamics is specified as follows:

$$\Delta GDPG_t = \beta_0 + \varphi u_{t-1} + \sum_{i=1}^{p} \beta_{1i}\, \Delta GDPG_{t-i} + \sum_{j=0}^{q_1} \beta_{2j}\, \Delta BLR_{t-j} + \sum_{j=0}^{q_2} \beta_{3j}\, \Delta lnCPS_{t-j} + \sum_{j=0}^{q_3} \beta_{4j}\, \Delta CDR_{t-j} + \sum_{j=0}^{q_4} \beta_{5j}\, \Delta lnTO_{t-j} + \sum_{j=0}^{q_5} \beta_{6j}\, \Delta INF_{t-j} + \sum_{j=0}^{q_6} \beta_{7j}\, \Delta lnLFPR_{t-j} + \sum_{j=0}^{q_7} \beta_{8j}\, \Delta lnGCF_{t-j} + \varepsilon_t \quad (4)$$

Where:

- $\Delta GDPG_t$ is the change in GDP growth at time *t*,
- β_0 represents the intercept term or constant in the short-run dynamic equation

- φ represents the coefficient of the error correction term, which measures the speed of adjustment,
- μ_{t-1} is the lagged error correction term,
- $\beta_{1i}, \beta_{2j}, \ldots, \beta_{8j}$ are the short-run dynamic coefficients for each variable,
- Δ denotes the change in the respective variable,
- ε_t is the error term.

This equation captures how each of the variables (BLR, credit to the private sector, CDR, trade openness, INF, labour force participation rate, and gross capital formation) adjusts over time in response to changes, while also adjusting to restore the long-term equilibrium relationship, as indicated by the ECM.

Granger Causality Test

The Granger causality test is a vital econometric tool for this study as it allows us to empirically determine the direction of causality between bank lending and economic growth, as well as other key macroeconomic and financial variables. Unlike correlation analysis, which only measures the strength of association, Granger causality identifies whether past values of one variable provide statistically significant information in predicting the future values of another variable. In the context of Sri Lanka, where the causal link between bank lending and GDPG has been debated, this test helps clarify whether credit expansion drives economic growth or whether growth itself stimulates increased demand for credit. By establishing the direction of influence, the test provides deeper insights into the dynamics of financial intermediation, trade openness, labour participation, and capital formation.

Diagnostic and Stability Tests

Diagnostic and stability tests are crucial to validate the reliability and robustness of the econometric model. The Breusch-Godfrey serial correlation LM test is used to detect whether the residuals from the regression are correlated across time, as serial correlation violates key regression assumptions and can lead to biased standard errors. The normality test, such as the Jarque-Bera test, checks whether the residuals follow a normal distribution, which is important for the validity of hypothesis testing, especially in small samples. Heteroskedasticity tests examine whether the variance of residuals remains constant; heteroskedasticity can cause inefficient estimates and unreliable inference if present.

To ensure the model's parameters remain stable over the sample period, the cumulative sum (CUSUM) and cumulative sum of Squares (CUSUMSQ) tests are applied; these assess whether there are any structural breaks or changes in the relationship among variables. If the tests indicate stability, it means the model's coefficients do not vary significantly over time, supporting the consistency and validity of the long-run and short-run estimates. Together, these tests provide confidence that the model is correctly specified and that the estimated relationships are robust and dependable for policy analysis.

Empirical Results

Unit Root Test Results

The results of the ADF test, presented in Table 1, show that GDPG, BLR, and INF are stationary at level [I(0)], while all other variables become stationary after first differencing [I(1)]. These findings satisfy the underlying assumptions of the ARDL model and confirm its suitability for the analysis in this study. Ensuring that no variable is I(2) helps avoid invalid test statistics and supports the robustness of the ARDL bounds test results.

The ARDL Bound Test Results

The bound test statistics presented in Table 2 indicate that the *F*-statistic for the ARDL model is 17.86, which exceeds the critical value of the upper bound at the 1% significance level. This result confirms the existence of a long-run cointegration relationship among the variables, suggesting that they move together over time. It further implies a stable and enduring equilibrium relationship between bank lending and economic growth in Sri Lanka, supporting the notion that these variables are interconnected in the long run.

Table 1. Unit Root Tests.

	In Level		In First Difference		
Variables	*t*-statistics	*p* Value	*t*-statistics	*p* Value	I(d)
GDPG	–3.42	.02	–		I(0)
BLR	–3.19	.03	–		I(0)
lnCPS	1.06	.06	–5.41	.00	I(1)
CDR	–2.15	.27	–6.72	.00	I(1)
lnTO	0.21	.96	–9.21	.00	I(1)
INF	–3.79	.01	–		I(0)
lnLFPR	–1.54	.50	–8.59	.00	I(1)
lnGCF	–0.29	.91	–4.51	.00	I(1)

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

Table 2. *F*-statistic of Cointegration Relationship.

F-statistic Value	Lag Length	Significant Level	Bound Critical Values I(0)	I(1)
17.86	2	1%	2.73	3.90
		5%	2.17	3.21
		10%	1.92	2.89

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

The ARDL Long-run Results

In the second step, after establishing cointegration, the conditional ARDL long-run model for ln(GDPG) is estimated. The estimated long-run coefficients are presented in Table 3. The results indicate that several factors significantly influence bank lending outcomes. Credit to the private sector exerts a positive and statistically significant effect, implying that a 1% increase in credit to the private sector raises the bank lending response by 0.06 units, highlighting the role of inclusive finance in promoting lending. The finding aligns closely with previous research in the South Asian context. For instance, Kharel et al. (2024) found that credit to the private sector positively influences GDPG in Nepal, using a similar ARDL framework. The consistency in results reinforces the view that enhancing access to credit is crucial for stimulating investment and economic activity in emerging economies.

Trade openness also positively affects lending, with a 1% increase associated with a 0.16 unit rise, suggesting that greater integration with global markets encourages credit expansion. This is consistent with findings by Sharma (2021), who argued that trade liberalisation positively impacts growth in developing countries by facilitating technology transfer and capital inflows.

Similarly, higher labour force participation significantly boosts lending, reflecting the stimulatory impact of a more active workforce on financial demand. This is in line with the endogenous growth theory, which stresses the role of labour quality and availability.

In contrast, the CDR has a strong negative effect, indicating that excessive lending relative to deposits may constrain the banking sector's responsiveness. INF and gross capital formation show negative but statistically insignificant impacts, suggesting that short-term macroeconomic fluctuations and investment levels do not strongly determine bank lending in this model. Overall, the findings emphasise the importance of balanced credit growth, efficient financial intermediation, and favourable structural conditions in enhancing the banking sector's contribution to economic activity.

Overall, the study's findings not only corroborate the supply-leading hypothesis that bank credit stimulates growth but also highlight the multidimensional nature of economic expansion, influenced by both domestic financial policies and

Table 3. Long-run Results Using the ARDL Model.

Variables	Coefficient	*SE*	*t*-statistics	*p*
BLR	0.12	0.10	1.15	.27
lnCPS	0.06	0.02	2.17	.05**
CDR	–0.62	0.10	–6.01	.00*
lnTO	0.16	0.04	3.48	.01*
INF	–0.13	0.08	–1.60	.14
lnLFPR	1.08	0.36	2.99	.01*
lnGCF	–8.37	6.07	–1.38	.19

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

Note: *, ** and *** denote the statistical significance at 1%, 5% and 10% levels, respectively.

Table 4. Short-run Results Using the ARDL Model.

Variables	Coefficient	*SE*	*t*-statistic	*p*
ΔBLR	0.09	0.05	1.83	.09***
$\Delta BLR(-1)$	–0.25	0.05	–5.16	.00*
$\Delta lnCPS$	–0.04	0.01	–3.09	.01*
ΔCDR	–0.04	0.05	–7.96	.00*
$\Delta CDR(-1)$	0.30	0.06	5.42	.00*
ΔINF	–0.01	0.03	–0.05	.61
$\Delta lnLFPR$	1.22	0.15	8.22	.08***
$\Delta lnGCF$	1.96	5.59	3.50	.00*
$\Delta lnGCF(-1)$	2.40	5.96	4.23	.00*
ECM (-1)	–1.28	0.07	–17.11	.00*
R^2	0.96			
$\bar{R}^2$	0.94			
S.E. of regression	0.69			

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).
Note: *, ** and *** denote the statistical significance at 1%, 5% and 10% levels respectively.

external economic conditions. Policymakers should consider these interconnections when designing interventions aimed at fostering sustainable growth in Sri Lanka.

The ECM Results

The short-run dynamic coefficients are reported in Table 4. The optimal lag length for the ARDL model is determined using the SBC. This criterion helps identify the lag length that minimises the information loss while ensuring the model's efficiency and accuracy in capturing short-term dynamics. The coefficient on the lagged error correction term (ECT) is statistically significant at the 1% level and carries the expected negative sign, further confirming the results from the bounds test for cointegration.

The estimated value of the ECT is –1.28, indicating that the speed of adjustment to equilibrium after a shock is approximately 128% of the previous year's shock. This implies that the system adjusts quickly, correcting itself at a pace faster than the shock itself. In other words, the variables involved move back toward their long-run equilibrium relatively rapidly following any deviation, ensuring a swift return to balance in the model.

Granger Causality Test Results

Table 5 presents the results of the Granger causality analysis, which examines the direction and significance of relationships between bank lending, macroeconomic indicators, and GDPG in Sri Lanka over the period 1991–2023. The Granger causality analysis reveals nuanced interrelationships among macroeconomic and financial variables in Sri Lanka. GDPG is significantly influenced by credit to the

Table 5. Granger Causality Test Results.

Variable	*GDPG*	*BLR*	*lnCPS*	*CDR*	*lnTO*	*INF*	*lnLFPR*	*lnGCF*
GDPG	–	6.417** (0.040)	1.656 (0.436)	6.775** (0.033)	6.957** (0.031)	1.342 (0.511)	3.192 (0.202)	3.192 (0.202)
BLR	1.219 (0.269)		0.056 (0.972)	6.900** (0.048)	0.401 (0.818)	1.743 (0.418)	1.396 (0.497)	5.303*** (0.070)
lnCPS	9.750* (0.007)	0.587 (0.745)		4.654*** (0.091)	7.253** (0.027)	6.315** (0.043)	5.836*** (0.054)	11.120* (0.004)
CDR	6.001** (0.045)	1.525 (0.466)	5.631*** (0.059)		8.963** (0.011)	2.827 (0.243)	7.115** (0.028)	5.175*** (0.075)
lnTO	9.349* (0.008)	7.216** (0.027)	6.238** (0.044)	6.415** (0.040)		5.822** (0.022)	9.118** (0.010)	0.341 (0.842)
INF	1.543 (0.214)	0.182 (0.913)	0.739 (0.690)	8.336** (0.015)	1.773 (0.412)		6.546** (0.047)	1.184 (0.553)
lnLFPR	9.115* (0.010)	1.690 (0.429)	4.927*** (0.085)	0.619 (0.733)	6.377** (0.041)	6.218** (0.019)		6.270 (0.027)
lnGCF	4.698*** (0.080)	8.324** (0.015)	3.175 (0.204)	4.917*** (0.085)	13.614* (0.001)	4.624*** (0.096)	6.742** (0.034)	

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

Note: *, ** and *** denote the statistical significance at 1%, 5% and 10% levels, respectively.

private sector and labour force participation rate in a unidirectional manner, while showing bidirectional causality with gross capital formation and trade openness; its relationship with BLR is unidirectional from GDPG to BLR, and with gross capital formation, it is not significant. BLR is unidirectionally affected by the CDR, while its connection with gross capital formation is insignificant. Credit to the private-sector exerts a unidirectional effect on GDPG and is influenced by gross capital formation, while demonstrating bidirectional linkages with trade openness and a weak bidirectional association with INF.

CDR and INF exhibit mutual bidirectional causality, reflecting the interplay between monetary conditions and credit allocation. Trade openness has bidirectional relationships with GDPG, credit to the private sector, CDR, and labour force participation rate, but is unidirectionally affected by INF. Labour force participation rate shows bidirectional links with trade openness, INF, and gross capital formation but unidirectionally influences GDPG. Gross capital formation is unidirectionally influenced by BLR and trade openness, unidirectionally affects credit to the private sector, and shares a bidirectional relationship with labour force participation rate. These results underscore the complex feedback mechanisms between financial, trade, labour, and macroeconomic variables in shaping Sri Lanka's economic dynamics.

Diagnostic and Stability Tests Results

Breusch-Godfrey Serial Correlation LM Test Results

The Breusch-Godfrey serial correlation LM test was employed to examine whether the residuals of the regression model are serially correlated, which is a crucial diagnostic check to ensure the validity of the model's estimates.

As presented in Table 6, the *F*-statistic is 1.05 with a corresponding *p* value of .39, while the χ^2 statistic is 6.05 with a *p* value of .05. The *F*-test result, which is generally more reliable in small samples, suggests that the null hypothesis of no serial correlation cannot be rejected, as the *p* value exceeds the conventional significance levels. This implies that the residuals are independent and not correlated over time. Although the χ^2 test yields a *p* value that lies exactly on the 5% significance threshold, the stronger support from the *F*-test allows us to conclude that there is no substantial evidence of serial correlation in the model. Hence, the regression results can be considered robust in terms of error independence, enhancing the credibility of the estimated coefficients.

The Breusch-Pagan-Godfrey Test Results

The Breusch-Pagan-Godfrey test was conducted to assess the presence of heteroskedasticity in the residuals of the estimated model, which is essential for ensuring that the variance of the error terms remains constant across observations.

As shown in Table 7, the *F*-statistic is 1.48 with a corresponding probability (Prob. *F*) of 0.27, while the Obs × R^2 value is 21.07 with a *p* value of .28. Additionally, the Scaled Explained Sum of Squares (SS) yields a value of 1.15 with a *p* value of 1.00. Since all *p* values are well above the conventional significance levels (i.e., 0.05 or 0.10), we fail to reject the null hypothesis of homoskedasticity. This indicates that there is no significant evidence of heteroskedasticity in the model, meaning that the variance of the residuals is constant. As a result, the model satisfies the classical linear regression assumption of homoskedasticity, supporting the reliability of standard errors and statistical inference.

Normality Test Results

As illustrated in Figure 1, the model successfully passes the key diagnostic tests at both the level and first-difference stages. The results indicate no evidence of serial correlation, confirming that the residuals are not autocorrelated. Additionally, the model satisfies the normality assumption, as shown by the results of the Jarque-Bera test.

The test yields a statistic of 1.72 with a *p* value exceeding the .05 threshold, implying that the residuals follow a normal distribution. This supports the overall

Table 6. Summary of Results for Breusch-Godfrey Serial Correlation LM Test.

Teats	Test Statistic	*p* Value
F-test	1.05	.39
χ^2 test	6.05	.05

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

Table 7. Summary of Results for Breusch-Pagan Godfrey Heteroscedasticity Test.

F-statistics	1.48	Pro. *F* (18.10)	0.27
Obs × R^2	21.07	Prob. χ^2 (18)	0.28
Scaled explained SS	1.15	Prob. χ^2 (18)	1.00

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

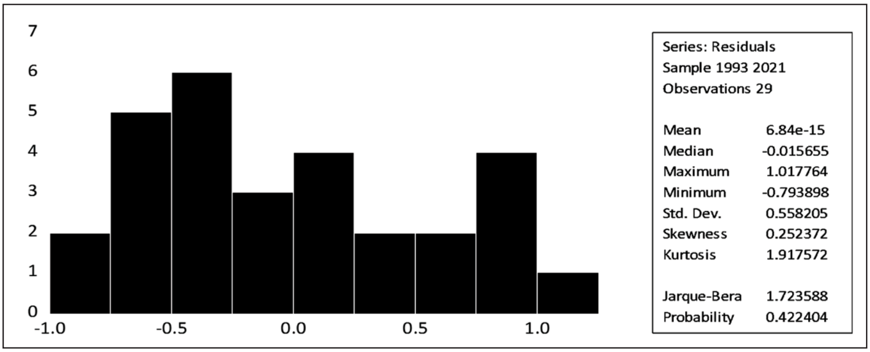


Figure 1. Histogram and Normality Test.

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

robustness and reliability of the model, as the underlying assumptions of classical linear regression—particularly regarding the normality of error terms—are not violated.

CUSUM and CUSUMSQ Tests Results

Figures 2 and 3 visually illustrate the results of the CUSUM and CUSUM of Squares (CUSUMSQ) tests, which are essential for assessing the stability of the estimated parameters over time. These figures display the cumulative sum of recursive residuals and their squares, plotted alongside the 5% critical bounds, represented by the straight lines.

In both cases, the test statistics remain well within these bounds throughout the sample period. This outcome strongly suggests the absence of structural instability or any significant break in the underlying data-generating process of the GDPG equation. The stability of the coefficients over time reinforces the reliability and robustness of the model. In practical terms, this implies that the model's estimated parameters do not fluctuate erratically due to changes in the underlying economic structure, making it suitable for both short-run and long-run policy analysis. The confirmation of parameter stability through these tests enhances confidence in the empirical findings and supports the validity of the conclusions drawn from the model.

Conclusion and Policy Implications

Conclusion

This study investigated the role of bank lending in driving economic growth in Sri Lanka over the period 1991–2023 using the ARDL model to capture both short- and long-term dynamics, complemented by Granger causality analysis to determine the direction of relationships. The Granger causality test results indicate a unidirectional causal relationship from credit to the private sector to GDPG, suggesting that financial sector development plays an important role in driving

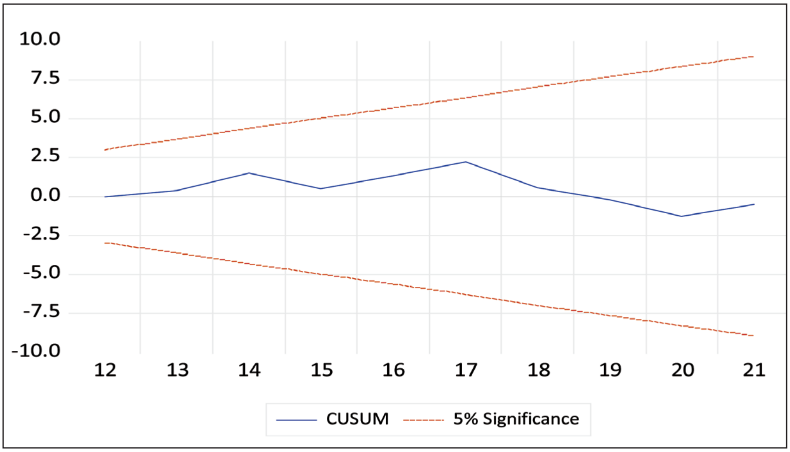


Figure 2. Plot of Cumulative Sum of Recursive Residuals.

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

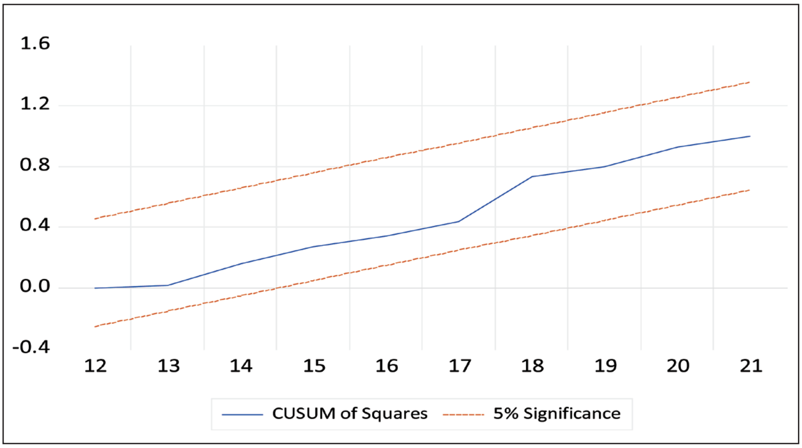


Figure 3. Plot of Cumulative Sum of Squares of Recursive Residuals.

Sources: Central Bank of Sri Lanka (2024), International Labour Organization (2024), International Monetary Fund (2024b), World Bank (2024).

the real economy. This finding is consistent with the finance-led growth hypothesis and supports evidence from Sri Lanka's post-liberalisation period, where credit expansion was found to significantly stimulate investment and output growth (Ganepola & Jayasinghe, 2023). However, our result differs from Perera and Liyanage (2012), who argued that bank lending had a limited role in influencing GDP once broader macroeconomic factors were controlled for. This divergence can be attributed to methodological differences, as our study employs dynamic causality testing, which better captures the directionality of relationships and the short-run versus long-run dynamics often overlooked in static regression models. The results also reveal a bidirectional causal relationship between trade openness and GDPG, underscoring the mutually reinforcing role of global integration and domestic economic expansion. This finding echoes international evidence from Shan and Jianhong (2006), who identified similar bidirectional dynamics in emerging economies. In the Sri Lankan context, this result highlights how greater trade integration both supports and is supported by economic growth, reflecting the importance of export-oriented industrialisation and global value chain participation in sustaining development.

Another important result is the strong interaction between labour force participation and GDPG, which emphasises the role of human capital in driving long-term growth. This is in line with the Asian Development Bank (2020), which highlighted that South Asian economies derive significant growth dividends from higher female and youth labour participation. In Sri Lanka, where labour market underutilisation remains a challenge, this finding reinforces the argument that structural reforms in education, skills development, and gender equality are essential to fully unlock growth potential.

Interestingly, the study found no significant long-run causal relationship between BLR, gross capital formation, and GDPG. This result suggests that inefficiencies in capital allocation, coupled with structural rigidities in the financial system, may constrain the effectiveness of these variables in stimulating growth. This observation resonates with Edirisuriya (2007), who warned that financial deepening in Sri Lanka may not automatically lead to growth if credit is misallocated or tied to non-productive activities. The absence of strong causality from GCF to GDP also challenges traditional growth theories, implying that capital accumulation alone is insufficient without complementary improvements in productivity, institutional quality, and innovation capacity.

The CDR and INF also display bidirectional relationships with GDP, reflecting complex feedback mechanisms in the economy. Although empirical studies directly examining bidirectional Granger causality between CDR, INF, and GDP remain limited—particularly in Sri Lanka—our findings resonate with broader macro-financial evidence. For instance, Miguel et al. (2022) studied in sub-Saharan Africa documented two-way causal dynamics between INF and bank credit, suggesting similar interactions in other developing contexts.

Taken together, these findings reinforce the importance of credit-driven growth while highlighting the need for complementary reforms in trade, labour markets, and financial sector governance. By comparing our results with existing literature, the study not only validates the finance-growth nexus in Sri Lanka but also provides new evidence that contextual factors, such as institutional quality and labour participation, shape how financial development translates into sustained economic growth.

Policy Recommendations

To enhance the contribution of bank lending to sustainable growth, several measures are essential. First, expanding access to productive credit—particularly for SMEs, agriculture, and underserved regions—can maximise the growth effects of inclusive finance. Second, strengthening credit risk management and improving lending efficiency will reduce NPLs and enhance sector resilience. Third, maintaining macroeconomic and interest rate stability ensures that credit growth translates into real economic gains. Finally, integrating credit policies with broader national development goals, including employment creation and industrial upgrading, ensures that financial deepening contributes to sustainable growth.

Policy Implications

The findings of this study highlight that sustained economic growth in Sri Lanka requires coordinated policy measures that extend beyond simple credit expansion. While credit provision contributes positively to growth in the short term, the evidence suggests that its long-run effectiveness depends heavily on the quality of institutions, the efficiency of resource allocation, and the stability of the macroeconomic environment. This underscores the need for policies that strengthen financial intermediation while simultaneously addressing structural weaknesses in the economy.

The bidirectional linkages between GDP, trade openness, and labour force participation point to the necessity of harmonised economic strategies. Liberal trade policies and export diversification are critical for enhancing competitiveness and reducing vulnerability to external shocks, while investments in education, skills training, and labour market reforms—particularly targeting women and youth—are essential for unlocking human capital potential. Credit, trade, and labour policies must therefore be coordinated within a unified framework that balances immediate growth stimuli with long-term structural transformation.

For the financial sector, the study emphasises the importance of directing credit toward productive sectors rather than consumption-driven borrowing. Expanding access to affordable finance for SMEs, agriculture, and technology-based industries could yield stronger multiplier effects on growth. At the same time, regulatory reforms that reduce NPLs, strengthen risk management, and enhance financial inclusion will help ensure that credit contributes to sustainable development.

Finally, the results suggest that Sri Lanka's growth strategy must move from short-term, credit-driven cycles to a more resilient and inclusive growth path. This requires embedding credit policy within a broader development agenda that incorporates industrial policy, infrastructure development, and digital financial innovation. By strategically aligning bank lending with national development priorities, Sri Lanka can foster an inclusive financial ecosystem that supports economic diversification, enhances resilience to shocks, and drives sustainable growth.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors received no financial support for the research, authorship and/or publication of this article.

ORCID iD

Ravinthirakumaran Navaratnam https://orcid.org/0000-0002-8885-1015

References

Arestis, P., & Demetriades, P. O. (1997). Financial development and economic growth: Assessing the evidence. *The Economic Journal*, *107*(442), 783–799.

Asian Development Bank. (2020). *Enhancing Small and Medium-Sized Enterprises finance project*. Retrieved, 25 September 2025, from https://www.adb.org/projects/50349-002/main

Awdeh, A. (2012). Banking sector development and economic growth in Lebanon. *International Research Journal of Finance and Economics*, *100*, 53–62.

Bernanke, B. S., & Gertler, M. (1995). Inside the black box: The credit channel of monetary policy transmission. *Journal of Economic Perspectives*, *9*(4), 27–48.

Boyd, J. H., & Prescott, E. C. (1986). Financial intermediary-coalitions. *Journal of Economic Theory*, *38*(2), 211–232.

Bumann, S., Hermes, N., & Lensink, R. (2013). Financial liberalization and economic growth: A meta-analysis. *Journal of International Money and Finance*, *33*, 255–281.

Central Bank of Sri Lanka. (2022). *Annual report 2021*. Retrieved, 25 September 2025, from https://www.cbsl.gov.lk/

Central Bank of Sri Lanka. (2024). *Annual report 2023*. Retrieved, 25 September 2025, from https://www.cbsl.gov.lk/

Chirwa, T. G., & Odhiambo, N. M. (2016). Macroeconomic determinants of economic growth: A review of international literature. *South East European Journal of Economics and Business*, *11*(2), 33–47.

Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies*, *51*(3), 393–414.

Edirisuriya, P. (2007). Effects of financial sector reforms in Sri Lanka: Evidence from the banking sector. *Asia Pacific Journal of Finance and Banking Research*, *1*(1), 45–64.

Financial Stability Review. (2024). *Digital financial inclusion in Sri Lanka*. Central Bank of Sri Lanka Research Division. https://www.cbsl.gov.lk/en/publications/economic-and-financial-reports/financial-system-stability-review

Ganepola, G., & Jayasinghe, P. (2023). The impact of financial sector development on economic growth: Evidence from Sri Lanka. *Vidyodaya Journal of Management*, *9*(2), 28–56.

International Labour Organization. (2024). *ILOSTAT database: Labour force participation rate*. Retrieved, 25 September 2025, from https://ilostat.ilo.org/

International Monetary Fund. (2023). *Governance diagnostic assessment in: IMF staff country report – Sri Lanka* (Issue 340). https://www.elibrary.imf.org/view/journals/002/2023/340/002.2023.issue-340-en.xml

International Monetary Fund. (2024a). *Sri Lanka: 2024 Article IV consultation and second review under the extended fund facility, request for modification of performance criterion, and financing assurances review* (Asia and Pacific Dept., IMF Staff Country Report No. 2024/161). Retrieved, 25 September 2025, from https://doi.org/10.5089/9798400279478.002

International Monetary Fund. (2024b). *International financial statistics*. Retrieved, 25 September 2025, from https://www.imf.org/en/Data

Khan, M. A. (2008). Financial development and economic growth in Pakistan: Evidence based on autoregressive distributed lag (ARDL) approach. *South Asia Economic Journal*, *9*(2), 375–391.

Kharel, K., Poudel, O., Upadhyaya, Y., & Nepal, P. (2024). Effect of private sector credit on economic growth in Nepal. *Financial Markets, Institutions and Risks*, *8*(1), 142–157. http://doi.org/10.61093/fmir.8(1).142-157.2024.

King, R. G., & Levine, R. (1993). Finance and growth: Schumpeter might be right. *The Quarterly Journal of Economics*, *108*(3), 717–737.

Levine, R. (2005). Finance and growth: Theory and evidence. In P. Aghion & S. N. Durlauf (Eds.), *Handbook of economic growth* (Vol. 1, pp. 865–934). Elsevier.

Levine, R. (2021). Finance, growth, and inequality [IMF Working Paper No. 2021/164]. Retrieved, 25 September 2025, from https://ssrn.com/abstract=4026360

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of Monetary Economics*, *46*(1), 31–77.

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, *22*(1), 3–42.

McKinnon, R. I. (1970). *Money and capital in economic development*. Brookings Institution Press.

Miguel, Á. T., Víctor, H. T., & Francisco, V. (2022). Inflation and bank credit. *Investigación Administrativa*, *51*(129), 1–20.

Mishra, P. K., Das, K. B., & Pradhan, B. B. (2009). Credit market development and economic growth in India. *Middle Eastern Finance and Economics*, *5*, 92–106.

Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries. *Economic Development and Cultural Change*, *14*(2), 174–189.

Perera, S., & Liyanage, S. (2012). An empirical investigation of the twin deficit hypothesis: Evidence from Sri Lanka. *Staff Studies*, *41*(1–2), 41–87.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, *16*(3), 289–326.

Ramya, S., Kengatharan, L., & Luxan, K. (2021). Impact of commercial banks' lending on economic growth: Evidence from Sri Lanka. In *Proceedings of the 6th International Conference on Contemporary Management*. University of Jaffna.

Rathnayake, R. M. S. S., & Dissanayake, D. M. R. U. (2022). Determinants of non-performing loans: Evidence from Sri Lanka. *South Asian Journal of Finance*, *2*(1), 14–27.

Ravinthirakumaran, K., & Ravinthirakumaran, N. (2018). The impact of foreign direct investment on income inequality: A panel autoregressive distributed lag approach for the Asia-Pacific Economic Cooperation developing economies. *Asia-Pacific Development Journal*, *25*(1), 56–83.

Ravinthirakumaran, N. (2014). Applicability of openness-led growth hypothesis in Sri Lanka. *South Asia Economic Journal*, *15*(2), 241–263.

Rexiang, W., & Rathanasiri, R. A. (2011). Financial intermediation and economic growth: A lesson from Sri Lanka. In *International Conference on Business and Information 2011*. Faculty of Commerce and Management, University of Kelaniya.

Robinson, J. (1952). The generalization of the general theory. In *The rate of interest and other essays*. Macmillan.

Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, *94*(5), 1002–1037.

Shan, J., & Jianhong, Q. (2006). Does financial development lead economic growth? The case of China. *Annals of Economics and Finance*, *1*, 197–216.

Sharma, H. (2021). Trade liberalization and economic growth on Indian economy using ARDL model. *International Journal for Research Publication and Seminar*, *12*(1), 139–146.

Shaw, E. S. (1973). *Financial deepening in economic development*. Oxford University Press.

Wicksell, K. (1936). *Interest and prices*. Macmillan.

World Bank. (2021). *Domestic credit to private sector by banks (% of GDP) – Sri Lanka*. Retrieved, 25 September 2025, from https://data.worldbank.org/indicator/FD.AST.PRVT.GD.ZS?locations=LK

World Bank. (2024). *World development indicators (WDI)*. Retrieved, 25 September 2025, from https://databank.worldbank.org/source/world-development-indicators

Zhang, J., Wang, L., & Wang, S. (2012). Financial development and economic growth: Recent evidence from China. *Journal of Comparative Economics*, *40*(3), 393–412.

Article

Social Networks in Migration

BIMTECH Business Perspectives
6(2) 166–186, 2025

DOI: 10.1177/25819542251364639
bsp.bimtech.ac.in

Aijaz Ahmad Turrey[1]

Abstract

The Valley of Kashmir is a key geographic and administrative region within the Union Territory of Jammu and Kashmir, located in the northernmost part of India. Nearly every resident, especially in the Valley of Kashmir, continues to face a number of security concerns and issues throughout the year. This also applies to in-migrants. When it comes to commercial and industrial facilities, the Valley is essentially a blank canvas with a nearly pastoral feel. In terms of industrialisation, it is at the bottom. Even so, the Valley of Kashmir is home to countless numbers of in-migrants from nearly every Indian state and union territory. There has also been an increase in the number of in-migrants from 709,004 in 2001 to 1,146,368 in 2011, as reported by the Census of India. How the migrants reach and work in a conflicted zone is an important question and is widely missed by the available literature? The network linkages have played an important role in this migration process. Due to the conflict situation in Kashmir, all the in-migrants use information through different types of information sources available at both the origin and destination. Approximately 93% of in-migrants to Kashmir reported repeated migration, with a significant share in the 30–49 age group. Migration was largely facilitated through informal social networks—friends, relatives, agents, and even strangers—highlighting the central role of network-based information and support in shaping migration patterns. The article is an attempt to find these network information sources and their importance in migrant's livelihood strategies in Kashmir Valley and will be the first of its kind. There is very little information on migration and its trends in the Valley. The study has been carried out using well-structured, scheduled questionnaires in all ten districts of the Valley among in-migrants and local labourers. A total of 300 samples of in-migrants and 50 samples of local labourers, based on stratified random sampling, have been selected for the purpose of data collection through interviews.

[1] Akal University, Bathinda, Punjab, India

Corresponding author:
Aijaz Ahmad Turrey, Akal University, Bathinda, Punjab 151302, India.
E-mail: aijaz_eco@auts.ac.in

Keywords

Kashmir valley, in-migrant workers, livelihood development, poverty and insecurity, network information, sources of network

Introduction

Migration of labour from one place to another is an important survival strategy and is a decision-making process. Migration has several economic, social and political impacts on the socio-economic life of migrants. The decision to migrate mainly depends on the extent to which the migrant is connected to ethical and social groups at home and in the terminus. Home network plays an important role in this regard. Migrant networks, as defined by Poros (2011), are

> interpersonal ties linking kin, friends, and community members in their places of origin and destination. But other kinds of social ties also exist for migrants. A social network is made up of individuals and organizations, often called nodes, which are tied together by different sorts of relationships, such as friendship, economic exchange, influence, and common interests.

Her work examines how migration processes influence the formation, enactment, and sustainability of migrant social movements, as well as their capacity for effective claim-making. Factors such as the selectivity of migration flows, the structure of migrant networks in the nations of origin and destination, and the patterns of movement between home and host countries play a critical role in shaping the stability and continuity of the networks involved in these movements and in their engagement with the state (Poros, 2008). Network is a source of sharing information about migration risks, security, job opportunities, employment structure, support system, etc. Network structures also help in establishing social values among agents and workers, which in turn affect migration decisions (Blumenstock & Tan, 2017). If network chains are available, the movement becomes easier, simpler and much comfortable. Migration social networks are used throughout by community members, family, friends, agencies, relatives and organisations. The networks may be strong among some while casual among others. According to their research, the average immigrant derives greater social capital from interconnected networks that offer social support, rather than from far-reaching linkages primarily designed for efficient information transmission (Blumenstock et al., 2023). Social capital refers to the benefits and resources that individuals gain through their social connections—such as trust, mutual assistance, emotional support, and access to job opportunities or housing. For migrants, especially in unfamiliar or conflict-affected destinations like Kashmir, social networks provide more than just logistical information; they offer a sense of belonging, reduce uncertainty, and enhance coping mechanisms. These networks serve as a form of embedded capital that migrants rely on to navigate challenges, find employment, and secure basic needs. Unlike large but impersonal networks that focus mainly on information flow, tightly-knit and interconnected networks often deliver greater social capital by fostering trust-based relationships and reciprocal support, which are vital for migrant well-being and long-term settlement. Such interconnected networks have been found to be of greater importance during the survey.

Migration, driven by push or pull factors, often stems from poverty, insecurity, and limited opportunities. While it may offer better livelihoods, wages, and security, success largely depends on access to reliable information and support. Migration networks play a vital role—reducing social, psychological and economic costs (Nayan & Ullah, 2021), easing adaptation, and improving job access—though their impact varies by region and group. When informed by these networks, migration can help alleviate poverty, reduce exploitation, and enhance migrants' socio-economic conditions. Existing studies highlight how aspirations and capabilities to migrate are shaped by perceived geographical opportunity structures. The spatial patterns of migration offer insights into how movement is linked to achieving specific goals in both rural and urban settings—a dynamic explored in this article with particular reference to the Kashmir Valley (Haas, 2021; Schürmann et al., 2022).

Based on the place of last residence (POLR), the 2011 census data shows that a greater or lesser percentage of in-migrants from nearly every Indian state and union territory dwell in the Kashmir Valley. Unfortunately, no information is accessible (Turrey, 2020). There is a great deal of variance in the inflow of migrants in the various districts of the Valley since different migrants pick different places to stay. How do the migrants hear about the jobs in Kashmir, how do they come, where do they stay, and how do they contact the workplaces are the questions left blank by the existing literature and are answered by the current article.

Pattern of Migration Networks

Migration and development are often used simultaneously, as migration has mostly resulted in livelihood development. The network linkages have played a positive role in this perspective. The networks in migration have been successful in shaping constraints to favourable conditions for positive development impacts of migration. The network linkages have helped in boosting not only the incomes of individuals but also of groups, communities and members of the family, especially in Kashmir Valley. Earlier, migration was largely limited to individual movers, with minimal benefits for non-migrants and limited remittances, aligning with the Neo-Classical Theory, which views migrants as atomistic actors focused solely on maximising personal utility. However, with the emergence of strong social linkages, the motivations for migration have evolved—shifting from purely individual utility maximisation to a broader emphasis on social relations involving households, families, friends, and communities. This also resulted in the increased diffusion of new ideas, knowledge, skills and entrepreneurial attitudes (Haas, 2010).

The connection between spatial and economic mobility in India is profoundly dependent upon the idea of movement by span. In the momentary seasonal migration streams commanded by the more unfortunate sections of the Indian populace towards reaping activities and development work, settlements are rare, investment funds are constrained, obligations are high, and the financial returns of movement are low. As per Deshingkar and Farrington (2009), a spearheading scientist on Indian relocation, these movements are for endurance or methods for dealing with stress, while semi-changeless round movements through social networks are examples of accumulative migration. In light of broad field work crosswise over numerous parts of India, her examination indicated that, on balance, movement was a significant course out of destitution through business broadening. The verifiable proof of the Great Indian Migration Wave additionally indicates a similar conclusion and shows a positive role of linkages in accumulative migrations in the long run (Tumbe, 2018).

However, the role of networks becomes even more critical in contexts marked by conflict and instability, such as the Kashmir Valley. Unlike other regions where migration is often voluntary and economically driven, Kashmir has witnessed significant forced out-migrations—initially of Kashmiri Pandits and more recently of local Muslim households—driven by persistent unrest, violence, and human rights violations. This conflict-induced out-migration has resulted in both internal displacements within Kashmir and across state borders (Rather, 2013). The Kashmir unrest from time to time has resulted in growing hostility towards in-migrants. Additionally, the army's presence in the Valley raises many worries about intrusion and insecurity for everyone and makes it difficult to do any task. A number of atrocities have also been added to the history of in-migrants in Kashmir as a result of the conflict there. Mass fleeing of in-migrants was also seen many times. New Economics of Labour Migration (NELM) helps explain why economically motivated migration from rural or underdeveloped areas (including parts of Kashmir not directly affected by conflict) may occur even when wages are not significantly higher in the destination. Migration, in these cases, is a deliberate household strategy to stabilise income, hedge against uncertainties, and improve long-term welfare. The CMIE (2018–2019) report states that the state of Jammu and Kashmir is ranked second only after Kerala in terms of the wage rates for skilled labourers (₹592.8) and unskilled labourers (₹337.4). In contrast, Cumulative Causation Theory, as developed by Douglas Massey and others, explains how migration becomes a self-sustaining process over time. Each act of migration alters the social and economic context in both origin and destination areas, thereby increasing the likelihood of future migration. For example, as more individuals migrate from a particular region, social networks expand, information flows improve, and the cost of migration decreases—creating a feedback loop. This theory is particularly useful for understanding how both economic and conflict-induced migration can evolve into larger-scale movements, even when the initial drivers (e.g., violence or poverty) subside. In Kashmir, for instance, earlier waves of conflict-induced displacement have created dispersed networks that now facilitate subsequent migrations, regardless of whether the new migrants are fleeing violence or seeking economic opportunity. Despite the drawbacks, the Valley has seen an increasing trend from 2001 to 2011, and migration networks seem to be playing a crucial role in this process. No doubt the wages in Kashmir are high, but migrants always have a feeling of anxiety and fear and having family linkages and connections in this case is a great source of reverence to them. An important aspect of labour migration in Kashmir, as found during the survey, is its livelihood-providing strategy. Migrants in Kashmir are mainly from rural poor and disguised areas who usually come in search of better work and higher wages. Most of the migrants responded work and employment as the core causes for immigration during the survey. It clearly reflects that migration to Kashmir is economically driven that typically involves voluntary movement by individuals or households seeking improved livelihood opportunities, higher wages, job security, or better living standards. In such cases, migration decisions are strategic and often informed by access to social networks, remittance potential, and long-term economic planning. Network structures here tend to be proactive and well-established, offering support systems. Although several factors affect their demand in the Valley, skill level and experience are given more importance. As such, the unskilled migrant workers may be subject to economic and social marginalisation. They may be employed in dangerous, dirty and degraded jobs. Kumar (2014) also revealed that migrants are the subjects of human rights violations. They do not earn much and have a hard life. They do not have proper access to most of the amenities as they face problems in communication, language, culture, occupation and religion and do not meet the demand properly.

Hussain (2012), in a study of the migrant labour force in Kashmir, examined that migrants who are mainly from Bihar, Orissa, West Bengal and Uttar Pradesh do not have bargaining power. They are fragmented and do not have communication channels, and thus cannot bargain and are motivated only in self-interest. Although they are earning much resulting in a large outflow of finance from the Valley in the form of remittances, but their individual earnings are affected. Lack of skill and education is also affecting the demand for labour and makes them vulnerable to risks. Migrants in this context are frequently displaced without adequate preparation, and the network structures they rely on are usually fragmented or emergent. These migrants face heightened vulnerability, limited resources, and constrained mobility options, often relocating not out of choice but as a means of survival. But only a small number of migrants are affected, as most of the migrants were found migrating in groups through proper network channels. These migrants reported a positive change in their living and have more bargaining power. Hussain (2012) and Haque (2014) also observed a positive satisfactory change in life of in-migrants in Kashmir than ever before due to presence of communication and network linkages. They are sending their families comparatively more remittances now that their wages have increased. It was previously impossible for them to send their kids to school, but now they can. They can now build their own homes due to their increased savings and daily consumption. They have been able to eliminate the negative impact of migration on the supply of labour. The migrants having social networks get jobs earlier without wasting time, work in high-wage regions and are able to adjust others and bargain through information already available using communications. Most of the in-migrants in Kashmir came through established network channels. Table 1 provides information regarding migration networks in Kashmir.

Migrant social networks influence and reflect broader social and economic structures, shaping migration outcomes for individuals and households. Migration is the movement of either individuals or groups of individuals or both. Studies,

Table 1. Percentage Distribution of In-migrants in the Valley Based on Network Channels.

Migration Through		Network Information: Migrants Using Network	Migrants Not Using Network	Percentage of Migrants Using Network
Single	72	72	0	100.00
Group	228	228	0	100.00

Source: Computed by the author based on the primary survey 2020.

Bhugra and Becker (2005) have found that single people who move experience various anxieties that can affect their psychological prosperity, including the deficiency of social standards, strict traditions, and social emotionally supportive networks, acclimation to another culture and changes in character and idea of self. Whereas integrated group migration benefits everyone in the group and has a positive impact, even in disadvantaged neighbourhoods, by revitalising demand for local business, bringing migrants of different origins together around work centres and diversifying the cultural activities for all. This also helps in spreading the good practice material among the members of that group (OECD, 2018).

Group migration has also been the main form of in-migration in Kashmir. About 76% of the immigrants prefer to move in groups. The main reason for group migration to Kashmir is the conflicted image regarding the region, as responded by the migrants. Most of the migrants who come in groups stay together at a single location. But if there are more members in the group, they prefer to stay at different locations in small groups to grab more work opportunities. Migrants also reported that staying in groups is more secure than individually, especially when you are staying miles away, and that also in a conflicted region. This also helps them in saving more money as they have to pay small amounts toward accommodation rents. Migrants also benefit from the groups by sharing work opportunities when there is a scarcity of work at some locations. The remaining 24% of migrants reported travelling to Kashmir individually. For most among them, it was not a new experience, as they had been working in the region for 10–12 years and had gradually built strong local network ties. Table 2 provides information regarding migrant experiences in Kashmir for the first time and repeated workers.

Table 2. Distribution of In-migrant Using Networks Based on Type of Migrants—New and Repeated and Age of First Migration.

Age of First Migration			Type of Migrant			
Age	Number of Migrants	Percent	New	Percent	Repeat	Percent
10–29	200	66.67	12	4.00	198	66.00
30–49	91	30.33	7	2.33	62	20.67
50+	9	3.00	2	0.67	19	6.33

Source: Computed by the author based on the primary survey 2020.

Table 2 clearly highlights that most of the migrants in the Valley are in the age group of 10–29 years, whose migration experience is new and repeated. About 66% of the in-migrants in this age group are repeat migrants who have a long migration history in Kashmir. About 20.67% of the repeated migrants were in the age group of 30–49 years, and the rest 6.33% were 50 years of age and above. Overall, 93% of the total in-migrants in the Valley reported repeated types of migration during the interviews. Only 7% of the in-migrants reported a new experience as first-time migrants in the Valley. Out of these 7% about 4% were in the age group of 10–29 years, followed by 2.33% and 0.67% in the age group of 30–49 years and 50 and above years, respectively.

A typical finding in this movement study was that people who move in an earlier period are bound to move in a resulting period than people with no earlier relocation experience. This example can be credited to the selectivity of migrants, just as the significance of involvement in affecting ensuing conduct. Migrants who were coming to Kashmir for quite a long time were less danger loath than non-migrants or the first run through migrants and have more prominent monetary portability aspirations. Experienced migrants in a few work environments were likewise more ready to adapt to the vulnerabilities and problematic behaviour, and along these lines are in a superior situation to attempt migration. In spite of desires, it was likewise discovered that both repeated/pioneer and first-time/adherent migrants were about similarly prone to have had earlier internal migration involvement with the time of their first trip to Kashmir. Around 90% of pioneer and adherent migrants had internal migration experience with different states before making their first Kashmir trip. Lindstrom and Ramirez (2010) have also carried out a similar study at a global level with almost the same results. Pioneer migrants, who are in a stronger position than arrivals or first-time migrants, are daring risk-takers with high hopes for economic mobility because they are aware of the job hurdles. Whether migrating for the first time or returning, migrants consistently rely on social networks to access jobs, navigate risks, and secure basic needs like housing. For instance, Andrabi and Amin (2021) provide a poignant example: 'Like Sah, 62-year-old Mohamad Hasbul, a labourer from Malda, West Bengal, looked distressed as he sat in front of a shop in Kulgam. The father of seven daughters, Hasbul has been coming to Kashmir for decades'. 'Last night, the villagers came to us and offered their houses. Some said, we will stay with you if you're feeling unsafe and that response dispelled all of our fears', said Talha and Azad, migrant labourers from Kolkata. Unemployment at the origin acts as a strong push factor, but established contacts at the destination ease the transition. Even those with limited skills or education find work quickly through these support systems. These networks, rooted in trust and shared experience, serve as lifelines, guiding migrants safely and efficiently into Kashmir's labour landscape.

Source of Network Information

During the survey, it came to the picture that migration to the conflicted region is enlivened by the way that organisations assume a significant part in finding work or being separated in the occupation market. Along these lines, if a network character goes about as an unfavourable (positive) signal, individuals from that network ought to secure more (less) abilities and wages than the prerequisite for something important to make up for the sign emerging from their local personalities. However, the network signals are established throughout the migrants, as found during the survey, but it is still limited to selected regions and communities. The migrant interviews reflected that Bihar and West Bengal have mostly used the migration networks and have been successful in engaging their relatives and friends in different kinds of work. Many migrants from these states have brought their families also and are working together as found in brick kilns, cement factories and joinery mills (Nayan & Ullah, 2021). This is also a reason that most of the in-migrants in Kashmir are currently married status.

The migrant workers have come to Kashmir using different types of sources of information. Every migrant relied on some form of network for information, even in the absence of formal structures. These informal ties built through kinship, friendship, or shared experience served as essential guides in navigating migration to Kashmir. Even the agents are working informally. This informal network plays the entire role in the migration of workers to Kashmir. All the respondents migrated to Kashmir through information and help from different sources, as shown in Figure 1.

Figure 1 shows that four types of assistance are available to in-migrants in Kashmir Valley for obtaining information. These sources of network information include friends, family/relatives, agents and strangers. The figure also shows that migrant workers are the key providers of information. In-migrants most often relied on friends in Kashmir to obtain information. About 68.67% of the in-migrants reflect that they entirely depend on friends at home and destination for obtaining information regarding workplaces, work opportunities, wage rates, required skills, accommodation rents and cheap travel routes to Kashmir Valley. During the interviews with migrants, it was observed that most migrants who were from villages have maintained a cordial relationship with other workers at

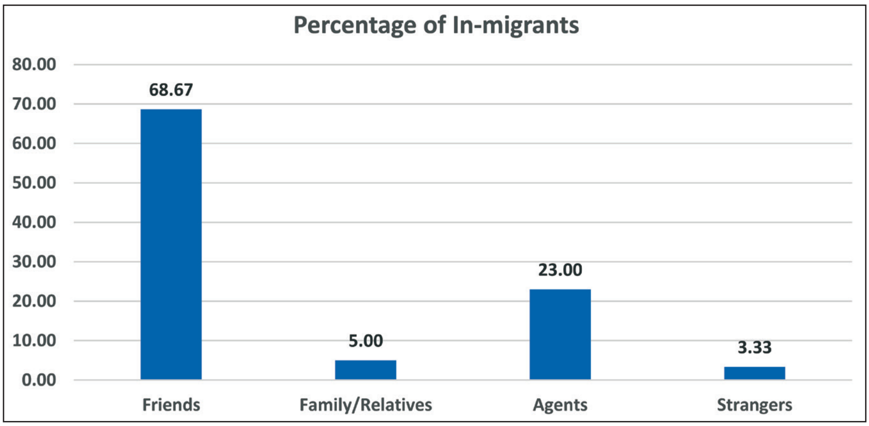


Figure 1. Showing the Different Types of Migration Networks Used by In-migrants as ources of Information in Kashmir Valley.

Source: Computed by the author based on the primary survey 2020.

home and remain always ready to help their fellow workers. Migrants view their shared presence not as competition, but as a collective asset to their community. Yet, many choose to work at separate sites, valuing independence while still drawing strength from the broader social network. The second important source of information is informal agents providing information to about 23.00% of the in-migrants. This is the only source of information where migrants have to pay for obtaining information. However, this is not a responsible one and charges only small amounts from the in-migrants. Only a few migrants responded that they paid more during their first visit, but it covered their travel costs from origin to destination. The main reason for lacking agents in Kashmir is the conflicted image about Kashmir. The migrants reported that there are many agents who charge more, likely one-month salary, at home and other states and provide responsible employment at destinations. But when it comes to Kashmir, we have to look for social networks rather than professional networks.

Family members and relatives also provide an important role in providing information to migrants and are one of the commonly used sources by most of the migrants. In fact, type of assistance is considered the most relevant, reliable and authentic source of information (Meeteren & Pereira, 2018). About 5% of the in-migrants in Valley used family and relatives as network sources for information assistance in Kashmir. These include family members, family relatives, and kith and kin and are usually accommodated within the personal residence as found during the primary survey and also reported by Nayan and Ullah (2021). Another, but small source of information is other sources including such as strangers. About 3.33% of the in-migrants reflect this source of information. These usually include migrants who do not have any friends and relatives outside at destination, and neither can they pay, fund or hire agent services. They collect information from unknown persons who may have visited or not visited the place of work. These strangers only suggest the work and do not guarantee its availability of work. They might have heard it from anywhere, as reported by the in-migrants. But this source is not as prominent as one might expect. In general, sources of assistance past the migrant organisation are less significant wellsprings of help than sources inside the migrant organisation. The significance of sources beyond the migrant network depends on the type of support they provide. It is also evident that different sources, depending on their location (origin or destination), offer varying types of information, as illustrated in Table 3 below.

Table 3. Distribution of In-migrants Based on Location of Source of Information.

Sources of Network/ Information Actors	Origin (%)	Destination (%)	Total (%)
Friends	69 (33.50)	137 (66.50)	206 (68.67)
Family/relatives	9 (60.00)	6 (40.00)	15 (5.00)
Agents	47 (68.12)	22 (31.88)	69 (23.00)
Strangers	10 (100.00)	0 (0.00)	10 (3.33)

Source: Computed by the author based on the primary survey 2020.

Interesting differences in information sources are observable at the origin and destination. Generally, in-migrants who progressed to Kashmir more often pursued information at destination (Kashmir) than origin. Almost 55% of the in-migrants sought information at destination, and friends played the most important role as information actors. The rest 45% of the in-migrants obtained information at origin mostly from friends, followed by agents. It is also important to see that friends as a source of information played a majority role at destination only, whereas family or relatives, agents and strangers have played majority roles at origin from where the migrants come. Strangers played no role at destination as all of them were found providing information at the origin. Family members and relatives are providing information with little differences at source and destination. These include return seasonal migrants who went back to home after every summer to spend winters at home because of scarcity of work availability in Kashmir during this season. But they return immediately after the winter season to grab more work opportunities. There are migrants who work throughout the year, but they are only a few in number. It was found during the survey that 92.00% of the migrants are seasonal workers only in the summers from March to October, and only 24.00% of the migrants were found working throughout the year in Kashmir. From a theoretical standpoint, this seasonal pattern, no doubt, raises critical issues related to precarity, labour market segmentation, and temporary integration and also faces instability consistent with concerns raised in labour migration literature about exploitation and vulnerability in informal labour markets. Although there are laws in place all over the world to protect the rights of migrant workers, most migrants are unaware of them, and they are rarely enforced. The absence of formal labour rights frameworks for these workers exacerbates their vulnerability, especially in a conflict-prone context like Kashmir (Hussain, 2012). Cyclical migration is driven by both environmental and economic factors. For instance, harsh winters in Kashmir halt most outdoor economic activity, leading to limited or no work availability. Conversely, summers bring high labour demand and better wages, especially in sectors like construction, horticulture, and tourism, incentivising seasonal in-migration (Turrey, 2024). When seasonal migrants return back to Kashmir for work, they make their all efforts to bring family members and relatives with them to work together. As the wage rates in Kashmir are high, this source of information helps boost family incomes within no time. When members of the family and relatives work together, they do not have to rely on others for group formation and distribution of income. Besides, those who are return migrants have knowledge about the work opportunities, wages, accommodations and places of work and thus do not face difficulties in finding work in Kashmir. That is why most of the migrants reported that this is the most authentic and reliable source of network, especially when it comes to household migration rather than individual migration.

The family or relational and individual network linkages are the most appropriate measurement, including the financial status of out-migrants and returned migrants, as contrasted with the status of potential migrants. Such micro-level aberrations in status are normally considered as a rousing power for movement. Effective migrants serve as good examples for yearning non-migrants, as failed return migrants may lessen the stream or divert it to elective areas. In this connection, Boyd (1989) underlined that 'Family, friendship and community networks underlie much of the recent migration to industrial nations. Current interest in these networks accompanies the development of a migration system perspective and the growing awareness of the macro and micro determinants of migration'. Initially, migrants work on guidance provided to them by the information agents and after getting familiar with the local environment, they become decision-makers regarding their employment choices. This shift in agency is reflected in their work patterns: while many start with contract-based jobs, others engage in daily or task-based labour. Over time, as they gain knowledge about local skills, wage structures, and job locations, their employment nature evolves accordingly.

Nature of Work: Employment Based on Network Information

Greater parts of the interstate migrant workforces who move occasionally looking for a business are commonly poorly educated due to poverty. A large part of the work accessible to them is manual in nature, or they are occupied with occupations that require insignificant abilities. In the best-case scenario, they are engaged in helping a skilled individual and gain proficiency with their abilities at work in the long run to deal with talented/skilled work. Many long-term experienced migrants are skilled and engage other workers as work assistants to form separate groups and work together. The migrant labourers arrive at specific destinations dependent on their sources, organisations, work conditions, expertise levels, etc. Industry may require explicit sort of labourers and they want to get labourers according to their specifications. However, many migrants who are already working in the industries and have established their base involve their new fellow workers on request also (Turrey, 2020). But most of the migrants were found working separately, forming their own groups. These groups are network-based and mostly from similar communities as found during the survey. There are various kinds of agreements that can be made between employers and workers at the destination (Jeyaranjan, 2017). In Kashmir, usually these in-migrants are absorbed in the informal sector at the initial stage. Their nature of work employment mostly remains limited to contract-based work. Besides, they get absorbed on a daily basis and in task-based work, also. Figure 2 provides information about the nature of work employment of the in-migrants using network linkages as a source of information.

When the data about the likely objective is accumulated and the choice is made to move, the following stage in the coordination is to search for work/employment. The rest of the facilities are almost already arranged by the fellow workers present at destination. Most of the migrants, about 62.00% were absorbed in the contract-based work. About 22.00% of the migrant workers were working on a daily wage basis, and the rest 16.00% were engaged in task-based work. Utilising the labourers in a roundabout way through the temporary contractors is the current pattern in Kashmir and is the most widely recognised one, as found during the primary survey. In fact, even well-organised modern units use contractors to hire a sizable portion of their labour force. For such businesses, a group of contractors

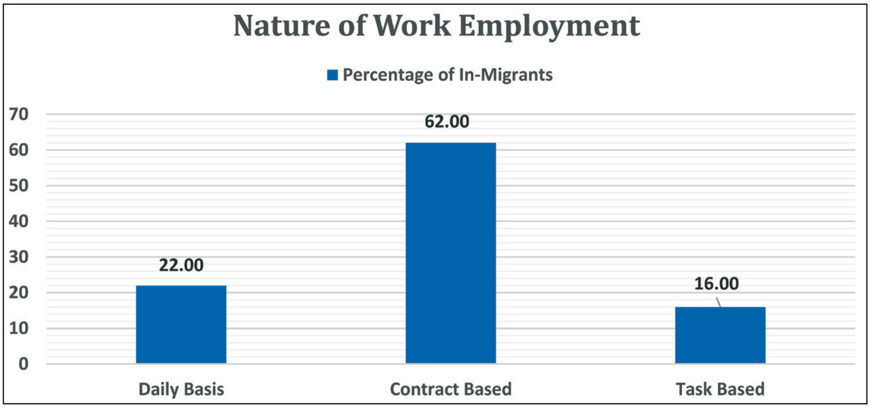


Figure 2. Percentage Distribution of In-migrants in the Valley for Nature of Work Employment Based on Information Source.

Source: Computed by the author based on the primary survey 2020.

flexibly supply the required number of workers. The employer and the real worker are not directly or immediately connected. The contractors receive the wages, and they either pay the employees directly or through lower-level middlemen. These contractors are a mix of immigrants and natives. At the same time, a contract is established solely between the business employer and the contractor. Neither the contractor and the employer nor the contractor and the actual worker has a documented agreement. The agreement is just verbal. The primary survey data collected shows that 100% of the respondents have stated that they do not have any written agreement.

The daily-base workers are those who mostly engage in self-employed work. They mostly do not work under the contractors but form their individual groups and work separately. Their bargaining power is more than those working under contractors, but they have to find the work themselves. They directly contact the work providers and employers and decide about the working conditions and wage rates. These workers, in turn, obtain wages as per the terms and conditions of the daily or periodic work and charge extra for overtime. The daily-base workers hesitate in doing contract jobs, as many of them reported that contracts involve risk and hard work. Migrants often work overtime, yet rarely receive additional compensation for the extra hours. The daily-base works are time-bound and easier, and we also get time to relax. Few migrants responded that they work with the contractors, but their wages are based on the number of days involved and not on the contracts, and there are also differences in the working hours of contract workers and daily base workers. As in numerous regions, the main admittance to work is through contractual agreements or contractors. Work is gotten by these contract-based workers on an everyday schedule or daily basis when there is a shortage of labourers working on contracts. However, the daily-base workers do not have access to regular daily work and have to compromise by living in small and overcrowded rooms.

The task-based in-migrant workers are fewer in number but contribute significantly to the local labour market in Kashmir. Task-based work is a contractual employment arrangement between one employer and one or more migrant workers characterised by a limited duration or a pre-specified event to end the task. There is no fixed wage rate for these task-based works, and they differ from district to district and even within a district in the Valley. The task-based work is a type of very short-term contract ranging from one to two days only. The migrants in this type of work were mostly found working in the agriculture sector. Hiring workers according to a task-based working system has proved many times costly for an employer and the workers in the event of a dispute. The problem arises when the task work is not properly discussed and selected. A worker cannot demand additional payment if work beyond the normal hours is a result of the nature of the tasks that are not assigned to the worker, but is a question of the worker's own choice, miscommunication or inadequate skill. Importantly, it is important for tasks assigned to a worker or workers to be performed during the working time provided. Although the contract works may last long or finish early. Task-based work usually does not require any specific skills like digging of land, tunnelling of latrine trenches, cutting of grass and paddy, etc. Whereas contract-based works are long-term and require specific skills like cementing of buildings, construction of houses, etc., the daily-based works usually include assistance works like assisting a mason, carpenter, etc. These are the main types of work where the in-migrants were found working in large numbers from different states and union territories of India.

Areas of Origin of the In-migrants

Social and economic transformations are ever-present in any society. Different societies have varying rates of growth. People move around as a result of these phenomena, differences between regions and societies, and this trend is growing. The Economic Survey of India (2017) estimates that inter-state migration in India was approximately 9 million per year between 2011 and 2016, while the 2011 Census places the total number of internal migrants in the country (representing both intra- and inter-state development) at an astounding 139 million. Uttar Pradesh and Bihar are the biggest source states, followed closely by Madhya Pradesh, Punjab, Rajasthan, Uttarakhand, Jammu and Kashmir and West Bengal; the main target states are Delhi, Maharashtra, Tamil Nadu, Gujarat, Andhra Pradesh and Kerala (Sharma, 2017). Kashmir Valley is also receiving in-migrants in large numbers. The 2011 census data reflected an increase from 709,004 migrants in 2001 to 1,146,368 in-migrants in 2011. A significant portion of Kashmiri society has been made up of migrants. They mostly come from Punjab, West Bengal, Bihar, Uttar Pradesh, and other Indian states (Singh, 2013). According to studies, the Valley's inflow of migrants primarily comes from underdeveloped and underprivileged areas, including Bihar, Orissa and Uttar Pradesh. Although migration in India is mostly limited to short distances, migrants in Kashmir are from far-away areas travelling long distances, and social networking played a vital role in this process (Bhagat, 2011).

Based on POLR, the 2011 census data shows that a greater or lesser percentage of in-migrants from nearly every Indian state and union territory dwell in the

Kashmir Valley. Due to the extremely low intake from certain states and union regions, less than 10 migrants, such as Sikkim, Arunachal Pradesh, Nagaland, Mizoram, Tripura, Meghalaya, Andaman & Nicobar Islands, Dadar and Nagar Haveli and Puducherry, that individually contribute less than 0.1% and consequently, these regions are not displayed here. These immigrants have been discovered dispersed across the Valley, coming from all around the nation. There is a great deal of variance in the inflow of migrants in the various districts of the Valley since different migrants pick different places to remain.

Table 4 gives an account of the in-migrant population from major Indian states and union territories in the various districts of the Kashmir Valley, with the exception of local intra-district and inter-district migrants within the state of Jammu and Kashmir. Despite the fact that the 2011 census data includes migrants from several Indian states and union territories, it has put most of the in-migrants in 'Last residence within India' category. These are in-migrants, no doubt from within India, whose original or last place of residence has not been clearly mentioned. This category alone occupies about 98% of the in-migrants shown in Table 4. No reason has been provided by the census, even on being asked, for putting these in-migrants in an unknown category. During the primary survey, I got responses from all the in-migrants regarding their area of origin from which they migrated. Only one or two percent of the in-migrants initially hesitate in revealing their regional identity, but when I revealed the purpose of my interview, they responded honestly. So, why the census has not categorised the in-migrants regionally raise questions on the authenticity of the census data.

If we look at the in-migration proportions from states and union territories only as given in Table 4, it can be seen that most of the in-migration has taken place from West Bengal, followed by Bihar and Uttar Pradesh. These three states account for about 67.22% of the total in-migration, with West Bengal accounting for 35.84%, Bihar 16.53% and Uttar Pradesh 14.85%. However, it was found during the primary survey that most of the in-migrants were from Bihar, followed by West Bengal, Uttar Pradesh and Punjab. The census data also put Punjab at fourth place with 5.24% of in-migrants. The bold values in Table 4 indicate the highest number of in-migrants in each district from various Indian states, providing a clear understanding of migrant preferences regarding their destination. A district-wise picture reflects that overall, Srinagar district has been the favourite place of destination for in-migrants from most of the states and union territories. Whereas most migrants from a few states choose other districts of the Valley as their destination, like most in-migrants from Bihar and Jharkhand prefer Kulgam district as their destination. Similarly, most in-migrants from West Bengal and Chhattisgarh preferred Baramulla as their favourite destination. Figure 3 provides an overall picture of the Valley in terms of the percentage of in-migration flows from major states and union territories of India.

The lowest number of in-migrants was from Manipur, followed by Goa and Chandigarh. These three states account for only about 0.56% of the total immigrants in the Valley. Although this is not the entire picture, as already mentioned. The in-migration trend has changed in the Valley from 2001 to 2011. The 2001 census data showed most of the in-migrants in the Valley from Uttar Pradesh, followed by Punjab, Bihar and West Bengal. Although these four states

Table 4. Distribution of In-migrants on the Basis of Origin, Place of Last Residence (POLR) and All Durations, Major States.

	Destination										
Origin	Kupwara	Badgam	Baramula	Bandipore	Srinagar	Ganderbal	Pulwama	Shupiyan	Anantnag	Kulgam	Total
Himachal Pradesh	49	13	57	23	85	64	14	8	40	21	374
Punjab	55	39	99	39	**291**	92	57	18	94	53	837
Chandigarh	0	5	15	0	**18**	1	1	0	4	1	45
Uttarakhand	5	3	38	25	**44**	0	1	2	9	4	131
Haryana	29	29	64	8	**126**	60	33	7	53	68	477
NCT of Delhi	2	3	0	1	**290**	0	0	0	1	5	302
Rajasthan	9	10	82	21	**286**	115	8	0	14	5	550
Uttar Pradesh	183	101	220	107	**889**	340	71	13	339	109	2,372
Bihar	182	160	208	84	491	160	118	196	471	570	2,640
Manipur	0	2	1	0	**13**	0	0	0	0	0	16
Assam	20	11	26	8	**73**	0	4	1	9	9	161
West Bengal	596	922	**1,090**	440	1,009	147	523	221	555	221	5,724
Jharkhand	54	15	73	64	60	8	14	8	19	**105**	420
Odisha	7	**39**	30	6	**39**	0	2	17	4	22	166
Chhattisgarh	0	2	**45**	0	12	0	1	0	2	1	63
Madhya Pradesh	15	13	52	4	**118**	3	3	2	15	3	228
Gujarat	4	2	24	1	**31**	1	0	1	3	5	72
Maharashtra	23	18	88	12	**139**	6	12	2	32	19	351
Andhra Pradesh	5	14	54	3	**65**	0	8	3	18	5	175
Karnataka	13	6	35	8	**64**	6	6	8	16	27	189
Goa	0	0	8	0	**18**	0	0	0	1	1	28
Lakshadweep	9	6	13	1	**28**	22	1	2	19	0	101
Kerala	2	2	14	11	**51**	1	0	0	9	0	90
Tamil Nadu	1	6	35	2	**362**	1	1	3	41	5	457
Last residence within India outside Kashmir	115,430	99,094	192,300	57,257	**194,740**	70,005	114,860	50,607	180,880	71,195	1,146,368

Source: Computed by the author based on the Census of India 2011.

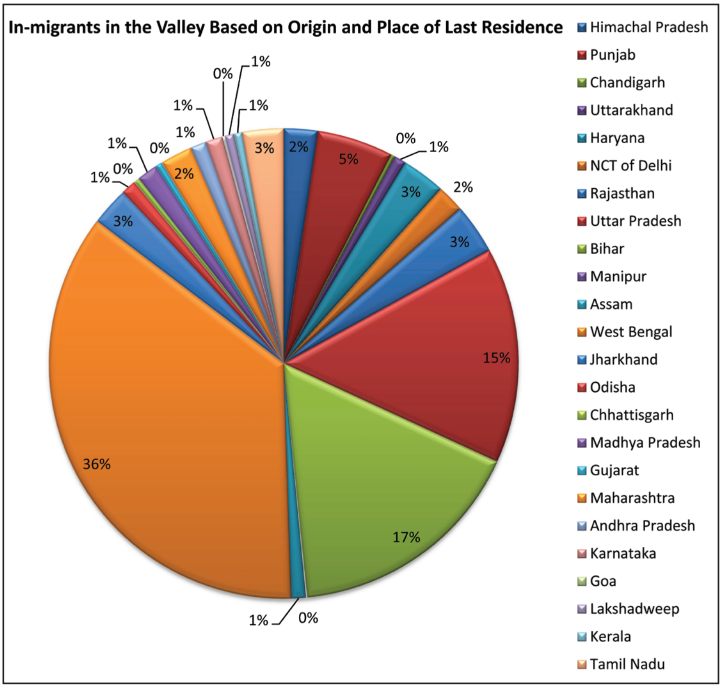


Figure 3. Percentage Distribution of In-migrants in the Valley on the Basis of Origin and Place of Last Residence (POLR), Major States.

Source: Computed by the author based on the Census of India 2011.

have maintained their top position in the 2011 census data, their contributions have changed, with West Bengal on top, followed by Bihar, Uttar Pradesh and Punjab. Punjab alone accounts for about 5.24% of the in-migrants.

Conclusion

Despite low urbanisation, limited industrialisation, and the ongoing conflict, the Kashmir Valley continues to attract a significant volume of work-related migration. This phenomenon underscores the importance of informal social networks in sustaining labour mobility into regions that are otherwise marked by precarity and instability. Migration to the Valley has resulted in a range of positive outcomes for in-migrants, including livelihood opportunities and economic security, particularly for those from rural areas. The migration patterns reveal a clear rural-to-rural and urban-to-urban stream, driven largely by skill compatibility and spatial familiarity. Most in-migrants are repeat migrants who rely heavily on established social networks for access to jobs, housing, and initial support. These networks—comprising friends, family, agents, and even strangers—serve as critical sources of both instrumental and relational social capital, aiding in the navigation of unfamiliar socio-economic landscapes. From a theoretical perspective, the findings affirm the relevance of network theory and NELM by demonstrating how migration decisions are implanted in societal relationships and are not merely outcomes of individual economic rationality. The reliance on social ties over formal institutions points to the persistence of informal structures in labour market integration, especially in conflict-affected and peripheral economies like Kashmir.

In terms of policy implications, there is a need to recognise and complement these informal networks with institutional support mechanisms. This could include developing migrant resource centres at source and destination locations, facilitating safe housing, ensuring access to legal aid, and providing skill certification for better job-matching. Moreover, gender-sensitive policies should be framed to address the specific vulnerabilities and contributions of female migrants. In sum, the role of social networks in shaping migration trajectories and outcomes in Kashmir highlights the need for migration governance frameworks that are grounded in local realities and responsive to the informal mechanisms that underpin mobility.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author received no financial support for the research, authorship and/or publication of this article.

ORCID iD

Aijaz Ahmad Turrey https://orcid.org/0000-0001-7337-4212

References

Andrabi, K., & Amin, Z. (2021, October 22). *Remain hungry or die far from home: The life-vs-livelihood dilemma of Kashmir's migrant workers*. Article 14. Retrieved, 28 July 2025, from https://article-14.com/post/remain-hungry-or-die-far-from-home-the-life-vs-livelihood-dilemma-of-kashmir-s-migrant-workers-6171a59b8f951

Bhagat, R. B. (2011). Internal migration in India: Are the underprivileged migrating more? *Asia-Pacific Population Journal*, *25*(1). https://doi.org/10.18356/b748277d-en

Bhugra, D., & Becker, M. A. (2005). Migration, cultural bereavement and cultural identity. *World Psychiatry*, *4*(1), 18–24.

Blumenstock, J., Chi, G., & Tan, X. (2023). *Migration and the value of social networks* (G²LM|LIC Working Paper No. 60). IZA Institute of Labor Economics.

Blumenstock, J., & Tan, X. (2017). *Social networks and internal migration* (IZA Discussion Paper). IZA Institute of Labour Economics.

Boyd, M. (1989). Family and personal networks in international migration: Recent developments and new agendas. *International Migration Review*, *23*(3), 638–639.

Centre for Monitoring Indian Economy. (2018–2019). *Key employment related indicators: All regions*. Retrieved, 28 July 2025, from https://statesofindia.cmie.com/kommon/bin/sr.php?kall=wshreport&tabcode=001101011000000&regid=100&oporder=0&effdt=20161001&frequency=A&colno=1&repcode=520001001000000000000000000000000000000000&repformat=SOI&regcd=001000000&year=20170331

Deshingkar, P., & Farrington, J. (2009). *Circular migration and multilocational livelihoods strategies in rural India*. Oxford University Press.

Haas, H. (2010). Migration and development: A theoretical perspective. *International Migration Review*, *44*(1), 249–255.

Haas, H. (2021). A theory of migration: The aspirations-capabilities framework. *Comparative Migration Studies*, *9*(1), Article 8.

Haque, S. (2014). Causes and consequences of labour migration in Kashmir. *IRC's International Journal of Multidisciplinary Research in Social and Management Sciences*, *2*(3), 1–4.

Hussain, M. M. (2012). Problem of migrant work force and protection of human rights in Jammu & Kashmir State. *Indian Journal of Innovations and Development*, *1*(9), 670–672.

Jeyaranjan, J. (2017). *The life and times of migrant workers in Chennai* (Research Report). National Institute of Rural Development and Panchayati Raj. Retrieved, 28 July 2025, from http://www.nirdpr.org.in/nird_docs/srsc/srsc-rr-090518-7.pdf

Kumar, A. (2014). 457 industrial units are sick in Jammu and Kashmir, says government. *India Today.* Retrieved, 28 July 2025, from http://indiatoday.intoday.in/story/sick-industries-in-jammu-and-kashmir-militancy-jammu-and-kashmir-government/1/343031.html

Lindstrom, D. P., & Ramírez, A. L. (2010). Pioneers and followers: Migrant selectivity and the development of U.S. migration streams in Latin America. *The Annals of the American Academy of Political and Social Science*, *630*(1), 53–77. https://doi.org/10.1177/0002716210368103

Meeteren, M. V., & Pereira, S. (2018). Beyond the 'migrant network'? Exploring assistance received in the migration of Brazilians to Portugal and the Netherlands. *Journal of International Migration & Integration*, *19*, 925–944. https://doi.org/10.1007/s12134-018-0578-9

Nayan, H. M. B. H., & Ullah, A. K. M. (2021). Indian migrants in Brunei: The role of social networks. *Migration Letters*, *18*(6), 697–709.

OECD. (2018). *Working together for local integration of migrants and refugees*. http://dx.doi.org/10.1787/9789264085350-en

Poros, M. V. (2008). A social networks approach to migrant mobilization in Southern Europe. *American Behavioral Scientist*, *51*(11), 1611–1626. https://doi.org/10.1177/0002764208316360

Poros, M. V. (2011). *Migrant social networks: Vehicles for migration, integration, and development.* Migration Policy Institute. Retrieved, 28 July 2025, from https://www.migrationpolicy.org/article/migrant-social-networks-vehicles-migration-integration-and-development

Rather, A. F. (2013). Armed conflicts in J&K and its impact on society: A case study of Kashmir Valley. *International Journal of Scientific and Research Publications*, *3*(2), 1–3.

Schürmann, A., Kleemann, J., Teucher, M., Fürst, C., & Conrad, C. (2022). Migration in West Africa: A visual analysis of motivation, causes, and routes. *Ecology and Society*, *27*(3), 6–9.

Sharma, K. (2017, October 1). India has 139 million internal migrants. They must not be forgotten. *World Economic Forum*. Retrieved, 28 July 2025, from https://www.weforum.org/agenda/2017/10/india-has-139-million-internal-migrants-we-must-not-forget-them/

Singh, R. (2013, August 6). Migrant workers in the Kashmir Valley. *Dilip Simeon*. Retrieved, 28 July 2025, from https://dilipsimeon.blogspot.in/2013/08/rashmi-singh-migrant-workers-in-valley.html

Tumbe, C. (2018). *India moving: A history of migration.* Penguin Random House India.
Turrey, A. A. (2020). Migrant workers. *World Economics*, *21*(2), 365–378.
Turrey, A. A. (2024). Migrant labour movements and market impacts. *Indian Journal of Economics*, *414*(104), 2–4.

Appendix

Field Questionnaire for Migrants

Date: __________________ Schedule Number: _________

Place of Interview: _____________________________________

Name of Interviewer: _____________________________________

Section 1: Profile of In-migrants

S. No.	Particulars	Specify
1.	Name	
2.	Age (in completed years)	
3.	Sex (male-1, female-2, other-3)	
4.	Religion	
5.	Caste (1. SC, 2. ST, 3. OBC, 4. GEN)	
6.	Current marital status (single-1, married-2)	
7.	Number of family members	
8.	If married, no. of children	
9.	Years of schooling	
10.	Vocational degree	
11.	Languages known (hindi-1, working knowledge of kashmiri-2, others-3)	
12.	De facto state and district	District State

Section 2: Migration Networks and Wages

13.	Age of first migration	
14.	Individual migration through	1. Single 2. Group 3. Any other
15.	How did you know about a job in Kashmir?	1. Social network (relatives, friends) 2. Agents 3. Close kin 4. Others
16.	Is this your first job here?	1. Yes 2. No
17.	Mode of employment	1. Daily basis 2. Contract-based 3. Task-based
18.	Mode of recruitment	1. Contractor 2. Employer 3. Self-employed 4. Agents 5. Others

(Appendix continued)

(Appendix continued)

19.	If 3 in 28, nature of self-employment	1. Own enterprise 2. Employer 3. Both
20.	Performance particulars	1. Size of the unit 2. Number of workers 3. Family worker 4. Other migrant workers 5. Other local workers
21.	If, through agents, did you receive any advance payment?	1. One-month salary 2. Small amount
22.	Do you have to pay the agent for the job?	1. Yes 2. No
23.	Working time per day	From.......... To…......... (…Hours)
24.	Daily wage rate	1. Piece rate (Rs…....) 2. Time rate (Rs…....)
25.	Do you get paid for overtime work?	1. Yes 2. No
26.	How often do you receive your wages?	1. Daily 2. Weekly 3. Monthly
27.	Do you take a loan from the employer?	1. Yes 2. No
28.	Do you remit money back home?	1. Yes 2. No
29.	If 'yes' in 28, % of salary Mode of sending (banks-1, private individuals-2, others-3)	
30.	How many days do you work in a year?	1. Yes 2. No
31.	Do you get sick leave?	1. Yes 2. No
32.	If 'no' in 31, what do you do? If 'yes' in 31, how many days?	
33.	Do you get paid leave?	1. Yes 2. No
34.	Do you have a labour union?	1. Yes 2. No
35.	Do you have bargaining power?	1. Yes 2. No
36.	Do you have negotiation networks with other immigrants?	1. Yes 2. No
37.	If yes, how do the networks help	
38.	Do you have regularity and security in your work?	1. Yes 2. No
39.	Do you have a fixed workplace?	1. Yes 2. No
40.	Industry of work?	

(Appendix continued)

(Appendix continued)

Section 3: Impact on Labour Market and Support System in Conflict		
41.	Do you participate in social functions here?	1. Yes 2. No
42.	How do you communicate with local workers?	1. Very little communication 2. No communication 3. Has learned the local language
43.	How do the local people treat you?	1. Welcomed 2. Hated 3. Both
44.	How is your relationship with the local labourers?	1. Satisfactory 2. Unsatisfactory 3. Both
45.	Do you work with local workers	1. Yes 2. No
46.	Do you indulge in conflict with the local workers?	1. Yes 2. No
47.	Do you face difficulties in finding work due to local workers?	1. Yes 2. No
48.	Are you blamed for stealing jobs?	1. Yes 2. No
49.	Do local unions approach you?	1. Yes 2. No
50.	Are you aware of any migrant workers' collective/organisation?	1. Yes 2. No
51.	Did you register yourself anywhere?	1. Yes 2. No
52.	Do you get help in times of conflict?	
53.	What type of help do you get? How do you cope with conflict situations?	

Review Essay

Governing Responsible Innovation: A Systematic Review Using TCCM Framework

BIMTECH Business Perspectives
6(2) 187–207, 2025

DOI: 10.1177/25819542251366086
bsp.bimtech.ac.in

Ashwaria Mahajan[1] and Sunil Kumar[1]

Abstract

In the era of rapid technological advancement, there is a pressing need for adopting responsible innovation (RI) practices due to technology's adverse impact on society. RI, being a novel concept, provides innovative solutions for addressing ethical, social, and sustainable development (SD) issues. Organizations, due to intractable societal challenges, resort to RI for creating value for stakeholders and establishing governance mechanisms for achieving SD goals. To attain this, a systematic literature review is conducted with an analysis of 48 research articles obtained from the Scopus database between 2003 and 2024. The study uses the Theory–Characteristics–Context–Methodology review framework along with PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The study identifies key theories such as the extended resource-based view, stakeholder theory, and principal-agent theory. Moreover, the study discusses the antecedents' mechanism and its potential outcomes, offering insights to direct enterprises achieve ethical and social integrity with improvement in sustainable performance. Our study contributes to the existing literature and also provides future research directions to expand the available knowledge.

Keywords

Responsible innovation, sustainability, ethics, stakeholder engagement, organization

[1] Department of Commerce, University of Jammu, Jammu and Kashmir, India

Corresponding author:
Ashwaria Mahajan, Department of Commerce, University of Jammu, Baba Saheb Ambedkar Road, Jammu Tawi, Jammu and Kashmir 180006, India.
E-mails: mahajan9457@gmail.com; ashwaria.mahajan3@jammuuniversity.ac.in

Introduction

With the strong emphasis on major grand challenges such as poverty, environmental responsibility, climate crisis, and others, the firms are facing alarming situations which hamper their existence. Economic benefits alone are not adequate, and the responsibility of firms toward society is equally essential. These grand challenges cause socio-ecological damage which needs broad mechanisms and involvement of a variety of stakeholders to successfully overcome these challenges. Realizing these intricacies, the United Nations (UN), a global organization has released their agenda of 2030 where they listed 17 Sustainable Development Goals (SDGs), among them SDG 9 which is "Industry, Innovation, and Infrastructure" and SDG 12 which is about "Responsible Production and Consumption" works on the responsible and innovative nature of firms to achieve sustainability. Following this, the European Commission (EC) has propounded two terms, "Responsible Research and Innovation" (RRI) and "Responsible Innovation" (RI) during the innovation program Horizon 2020 to widen their participation in "Science with and for Society," which addresses both societal and environmental issues (Owen, Pansera et al., 2021). Beginning with the work of von Schomberg (2012) with EC and development of RI framework by Stilgoe et al. (2013) has progressively implemented elements of inclusion, reflexivity, and ethical orientation in innovation practices. In extension to this, Stilgoe also introduces a four-dimensional framework including anticipation, inclusion, responsiveness, and reflexivity, while Burget et al. (2017) added two more dimensions, that is, sustainability and care. In other words, to solve both problems and challenges of sustainability, innovation with responsibility, that is, RI is put forward as a solution (Tan & Yamada, 2018).

Although the concept of RI is not so new, it has its roots in science and technology, where ethical issues such as leakage of information are more serious. Similarly, this interdisciplinary concept gets ignited with the emergence of "grand societal challenges" and "ethical concerns" of technology usage that need to be addressed for societal development and sustainability. According to RI researchers, the innovation mechanism should be highly focused on social and ethical aspects of innovation rather than the economic aspects of innovation. Additionally, innovation dimensions should be employed in the way in which innovations impact privacy, environment, safety, and associated values (Brand & Blok, 2019). Despite a plethora of studies and sufficient definitions on RI, there is still a dearth of knowledge that addresses the applicability of RI in industrial sector and its impact on firm performance. This ambiguity makes firms reluctant to adopt RI practices (Ko et al., 2020). Furthermore, the relationship between RI and a firm's sustainability is also underexplored. However, the previously existing literature specifically centered around the drivers and motivations of RI (Iqbal & Ahmad, 2021). It is only in recent years that RI has started to embark on its journey in the business world, which aims at ensuring economic sustainability and social acceptance of innovation outcomes by enhancing RI capabilities, including increasing productivity and enhancing R&D activities (Wang, 2021). Similarly, many academicians were driven to study RI at industrial level because firms are perceived as the prime source of innovation and employment, having requisite resources that help to address the public issues of sustainability by considering RI as their social responsibility (Schrempf, 2012). However, another reason to analyze RI is because majority of organizations focus only on economic aspect, and there is little research on ethical, social, and environmental aspects, whereas it is very crucial to understand the numerous ethical principles that are essential to perform and strategize RI practices. In the same vein, businesses are unaware of what and how to do, so that firms can accomplish their RI objectives. Nevertheless, these conditions are not only obstructing large organizations, but other small- and medium-scale enterprises (SMEs) are also dealing with impeding situations. Large enterprises, due to their huge portfolios of resources and capabilities, can easily manage to implement RI, whereas SMEs, due to turbulent external environment, face serious issues (Do & Shipton, 2019). Moving a step ahead, RI is also perceived as a governance mechanism where economic aspects meet the societal progress of the economy (von Schomberg & Blok, 2021). Scholars of innovation have proposed that the process of RI is capable of creating values which are sustainable and mutually desirable, with the joint efforts of both organizations and stakeholders (von Schomberg, 2012). Despite this, there is no clear mechanism which demonstrates what stakeholder engagement actually means to the RI. This reinforces the call for engagement of societal actors or stakeholders in the RI activities of the business contexts.

Although the notion of RI has gained significant attention in management literature, there is still a notable gap in systematically addressing the integration of ethical, societal, and sustainability factors into business and innovation practices in an extensive and coherent manner. In contrast, the existing review articles have explored the aspects of RI but with a narrow scope as they focused on a few geographic countries with restricted number of organizational types or industries. These reviews have primarily concentrated on conceptual analysis, antecedents, and policies for SD (Christofi et al., 2022; Di Vaio et al., 2024; Thapa et al., 2019) or presented a framework particularly for large organizations only (Memon & Ooi, 2023). Additionally, the aforementioned publications provide a scattered analysis. However, clarity regarding the interplay between these dimensions is required, which is demonstrated by the current study that imparts directions for defining and implementing RI. Therefore, to address this gap, the present SLR is highly beneficial as it offers valuable insights in this domain with four main objectives. First, it provides a comprehensive assessment of earlier published articles to understand the evolution of RI over time, by comprehending the several policy frameworks and definitions given by various authors. Second, to identify the ethical and social values that will be used to design practices and processes of RI by implementing different models of normative ethics. The third objective is to highlight the significance of sustainability goals that foster RI, sustainable competitive advantage and eventually sustainable performance, including economic, social, and environmental performance. The fourth objective is to involve stakeholders so that the firm can identify the risks and opportunities for both current and future generations.

Analyzing the importance and contributions of RI in business sector, the present review will promote the knowledge with the involvement of all stakeholders by addressing the following research questions using Theory–Characteristics–Context–Methodology (TCCM) framework:

RQ1 How has the concept of RI developed over time?
RQ2 How do ethical and social considerations play a crucial part in the context of RI?
RQ3 How does RI impact SD of business organizations?
RQ4 What stakeholder engagement does for RI?

The study is divided into different sections. In the first section, the study provides an introduction to the concept; second, the methodology adopted in the review; third, the section discusses the findings of the study; fourth, presents the discussion and conclusion; and the fifth section illustrates the future research agendas.

Methodology

The methodology followed to conduct this review is based on systematic literature review (SLR), which is replicable, transparent, and scientific process. SLR is superior to other methods as it follows detailed analysis and synthesis of studies from designated databases with the aim of minimizing biases, having higher quality and validity of antecedents and outcomes due to its nature of replicability. The step-by-step procedure followed by SLR requires defining its search strategy. In particular, the first step followed here is to select a reputable database for identifying extensive literature relevant to our research topic; the next step followed is to define the search formula with a set of appropriate keywords, which will help to extract the desired results from the selected database for title, abstract, and keywords. Furthermore, the process of screening and selecting the articles is done by following the inclusion and exclusion criteria (Tranfield et al., 2003).

Search Strategy

To present a broader understanding of the existing research on RI and its related concepts, the Scopus database is used as the primary source. Scopus is the highest reviewed and organized abstract and index database providing extensive coverage for variety of stakeholders such as industries, government, and research scholars (Elsevier, 2022). This article presents an extensive review on the subject matter with new research insights and avenues for future research. The review started by running a relevant set of keyword search formulas on titles, abstracts, and subject terms (Christofi et al., 2017). To collect keywords used in existing literature an initial scoping study is conducted related to RI. The keyword search formula was made up of two terms "Responsible Innovation" OR "Responsible Research and Innovation." Since the term RI first emerged in the 2003 US act, the search articles published in the time period from 2003 to 2024 were included in this review. Further inclusion/exclusion criterion was carried out by including manuscripts published in top-ranked journals of the Australian Business Deans Council (ABDC) journal quality list 2022, and also articles screened in the *Journal of Responsible Innovation* were included, and articles written only in the English language were considered, see Table 1. The review focuses on the concepts of RI

Table 1. Distribution of Articles in Leading Journals.

S. No.	Name of the Journal	No. of Articles	ABDC Ranking
1.	*Journal of Responsible Innovation*	22	Not ranked
2.	*Asia Pacific Journal of Management*	4	A
3.	*Business Strategy and the Environment*	4	A
4.	*Learning Organization*	2	C
5.	*Technological Forecasting and Social Change*	3	A
6.	*Science and Public Policy*	2	C
7.	*Journal of Management Studies*	2	A*
8.	*Journal of Cleaner Production*	1	A
9.	*Asian Journal of Business Ethics*	1	C
10.	*Technovation*	1	A
11.	*Creativity and Innovation Management*	1	C
12.	*IEEE Transactions on Engineering Management*	1	A
13.	*Journal of Business Ethics*	1	A
14.	*Business and Professional Ethics Journal*	1	C
15.	*Research Policy*	1	A*
16.	*Philosophy of Management*	1	C
	Total	**48**	

and its importance in industrial sector. Only academic articles were included in the review, and gray literature was excluded to conduct quality research.

The following Boolean research query was used for searching relevant data in Scopus database, which can be copied by other researchers:

TITLE-ABS-KEY ("Responsible Innovation" OR "Responsible Research and Innovation") AND PUBYEAR > 2002 AND PUBYEAR < 2025 AND (LIMIT-TO(SRCTYPE, "j")) AND (LIMIT-TO (SUBJAREA, "BUSI") OR LIMIT-TO (SUBJAREA, "SOCI")) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (EXACTKEYWORD, "Responsible Innovation") OR LIMIT-TO (EXACTKEYWORD, "Responsible Research and Innovation")).

Articles Screening

Figure 1 depicts the PRISMA flow chart. Initially, 1,003 articles were gathered after putting filters; a total of 599 documents were extracted, for which abstract reading was done. Articles having no keywords (RI or RRI) were deleted, and 459 articles were left. Again, assessment was done on the remaining abstracts and studies having no relationship with industrial/business sector or articles concerned with artificial intelligence, medical science, agriculture, and education were omitted. The abstracts selected then were 61, for which again careful examination was done, and after reading full-text articles, 13 articles were found trivial for the review, which were discarded, and we returned to 48 studies as our final sample, which we found suitable for our study.

After an in-depth examination, Figure 2 will show a total of 48 articles published on RI or RRI during the time period between 2013 and 2024 that are

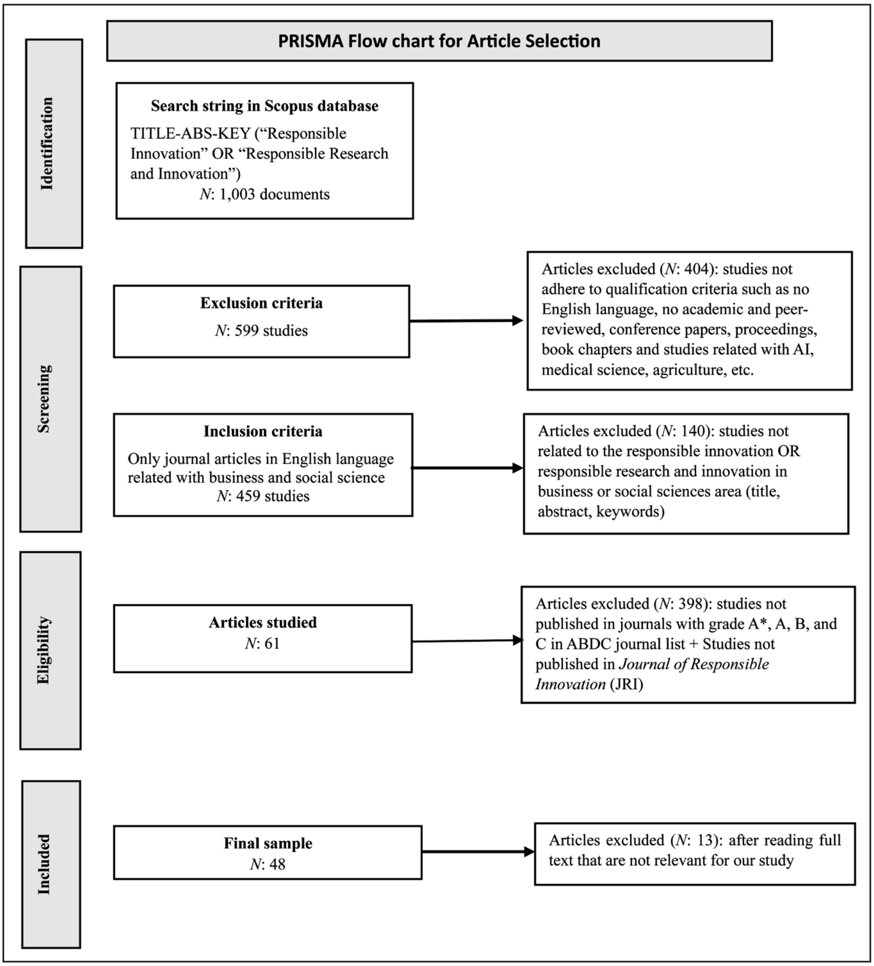


Figure 1. PRISMA Framework.

taken in this review. The majority of articles published in the year 2023 and most of the articles are from the *Journal of Responsible Innovation*. It was only after 2020 when RI gained popularity and an upward trend in the number of publications. The increased interest of academicians/researchers has been found during the last four years, from 2020 to 2024, when 76% of the articles have been published.

Theories, Context, Characteristics, and Methodology Framework-based Analysis of Literature Review

The incorporation of TCCM framework with systematic reviews deepens the analytical scope of study by examining prevailing theories, contextual elements,

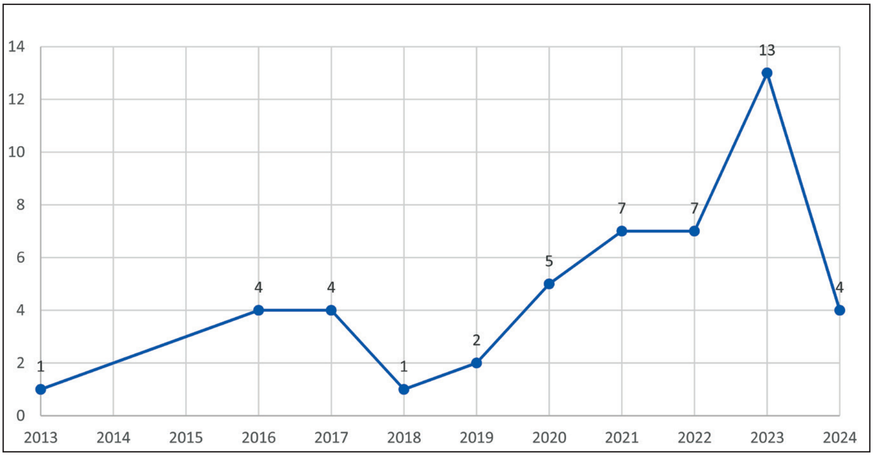


Figure 2. Publications by Each Year.

characteristics, and methods in the existing literature. Thus, expanding on the work of Paul et al. (2021), this study employs TCCM to organize its analysis and suggests directions for future research that tackle identified knowledge gaps.

TCCM: "Theories"

Table 2 specifies the major theories evolved during this review. Many of the studies incorporated in the review adopted dynamic capability theory, which is an extension of resource-based view (RBV). It signifies the use of both internal and external resources/capabilities of the organization and also developing new ones to respond to the changes in the dynamic environment (Teece et al., 1997). Similarly, extended resource-based view highlights that for achieving sustainable business, performance firms not only require to make efficient use of internal resources but also connecting themselves with a wide range of external business networks for exchange of resources and capabilities. Both theories are extended versions of RBV and due to the characteristics of innovativeness and environmental dynamism, and RI requires firms to be fully competent to adjust according to the

Table 2. Evolving Theories in Responsible Innovation Literature.

Theory	Key Publications
Critical theory	Stahl (2024)
Stakeholder theory	Adomako and Tran (2021), Bacq and Aguilera (2022), Cha and Park (2023)
Dynamic capability theory	Adomako and Nguyen (2023), Zhang et al. (2023)
Extended resource-based view	Xie et al. (2024)
Principal-agent theory	Bolz (2017)
Contingency theory	Zhang et al. (2023)

evolving nature of external environment, which is not completely overcome by the static nature of RBV. In addition to this, contingency theory stresses that the effectiveness of firms' strategies depends upon various external factors. RI, on the other hand, emphasizes the ethical and social acceptance of innovation by adjusting its strategies in response to the changing technological and market conditions. Furthermore, the stakeholder theory emphasizes the role of stakeholders in pursuing RI practices for societal betterment. All stakeholders, whether having direct or indirect relations with the organizations contribute to the literature of RI. Stakeholder theory posits that by involving stakeholders in innovation activities, firms can improve the transparency and trust, which eventually leads to sustainable social performance of firms. Critical theory, being a prominent approach in technology aspect of innovation, has its interest in societal phenomena and power dynamics. It asserts that how RI integrates with technology-enabled social events is shaped, accepted, and realized by examining the variety of ideologies and social structures. Next, principal-agent theory, in which science is regarded as an agent of government; however, not only science being the agent for developing new technologies, but society and entrepreneurship should also be regarded as agents for generating innovations that are adopted by all-encompassing stakeholders. Similarly, mechanisms of rewarding incentives are created to encourage more individuals to innovate in socially responsible manner.

TCCM: "Context"

Geographically, most of the research in this review was conducted in developing countries, particularly in Asia, with a large number of regulations and policies. The study took into account the manufacturing sector, specifically SMEs, to explore the sustainable practices, socio-ethical regulations, and stakeholder engagement that affect RI implementation.

TCCM: "Characteristics"

The framework in Figure 3 represents the summary of antecedents and outcomes majorly covered in this systematic review from past literature. Zhang et al. (2023), Adomako and Nguyen (2023), Adomako and Tran (2021), Cha and Park (2023), Zahoor et al. (2024), Lythreatis et al. (2022), and Chatterjee et al. (2021) are few research studies that illustrate how these variables have an impact on RI, particularly in manufacturing sector. As a result of this, firms are able to achieve superior firm performance.

TCCM: "Methods"

Table 3 showcases that the research methods used in the analyzed studies indicate diverse approaches.

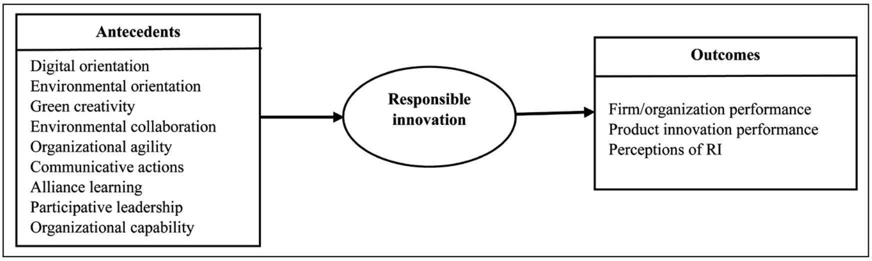


Figure 3. Antecedent-outcome Model.

Table 3. Research Design.

Method	Count
Conceptual/theoretical	28
Survey	8
Case study/interview/reports/ethnographic study	7
Mixed method	1
Literature review	4

Findings

Responsible Innovation

Regarding RQ1, "How the concept of RI developed over time?" it is crucial to study its origin. The history of RRI officially begins with the EC publication, "White Paper on governance," during the Fifth Framework Program (FP5, 1998–2002) stated an intention of uniting democratic institutions with European citizens (EC, 2001). Furthermore, a program titled "Science and Society" was developed during the Sixth Framework Program (FP6, 2002–2006) aims at bringing research and society together (Owen, von Schomberg et al., 2021). The current connotation of RRI first emerged as "responsible development" in the Nanotechnology Research and Development Act (Public Law 108–153 [2]) of the USA in 2003. The idea of responsible development is narrow, as it is concerned more about risk mitigation of negative impacts from different technologies, while the term RRI has a broader implication, which includes innovation policy regime also (Stahl, 2013). RRI also appeared as a policy-driven framework gained prominence due to the urgency of "societal grand challenges," such as economic well-being and growth, unemployment, and others, aiming of aligning them with the values and desires of society (Kuhlmann & Rip, 2014). The following definition is how the EC describes RRI:

> Responsible research and innovation are an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation.

> Responsible Research and Innovation (RRI) implies that societal actors (researchers, citizens, policy makers, business, third sector organizations, etc.) work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of society.

Another conference held in Europe in 2012, titled "Responsible Research and Innovation" that support the 8th Framework program labeled "Horizon 2020," characterizing RRI as an intersecting concept and defined RRI as:

> Research and innovation must respond to the needs and ambitions of society, reflect its values and be responsible … our duty as policy makers [is] to shape a governance framework that encourages responsible research and innovation.

In addition to this, the EC sponsored a conference at Rome on November (2014) subtitled: "Science, Innovation and Society – achieving Responsible Research and Innovation," which endeavored to reflect the future of innovation, society and science in Europe (Rome Declaration, 2014). Furthermore, in its program of research funding, "Horizon 2020" EC presents five and sometimes six policy keys: gender, ethics, societal engagement, open access, and science education also including governance as a key with broader RRI approach emphasizing the responsiveness to societal values. Framing of these RRI keys reflected with "Science in Society" and "Science with and for Society" work programs.

However, the most widely used and working definition of RRI is:

> [T]ransparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view on the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society). (von Schomberg, 2012, p. 9)

In addition to this, Stilgoe et al. (2013) developed a four-dimensional framework including anticipation, reflexivity, inclusion, and responsiveness. Among them, to reduce the potential negative innovation results, anticipation refers to the systematic thinking of various possible innovation results. Reflexivity refers to an enterprise's continuous monitoring of innovation activities and its commitment to innovation processes and products. Inclusion implies that enterprises make use of multi-stakeholder relationships and involve partners in innovation activities. Responsiveness reflects that enterprises adjust their behavior patterns in the innovation process to adapt to the changing environment and the new demands of stakeholders.

However, he defined RI as: "taking care of the future through the collective stewardship of science and innovation."

In addition to this, there exist different perspectives of innovation between legislative and operational level, which makes RI an ambiguous concept that exceed toward weak and strong RI. Weak RI generally applies ethical considerations to the techno-economic innovation, which oriented toward private realm where essence of innovation is missing, that is, serving the public domain. Strong RI, on the other hand, forms a transformative approach which covers a broader aspect of innovation rather than inadequate techno-economic philosophy and benefiting the public domain by providing a political vision of innovation. Therefore, strong RI does justice to the founding fathers' political ambitions of RI, which they first brought into attention through EU policy circles by uniting itself with the mainstream economic tradition of innovation (von Schomberg & Blok, 2023). Against this backdrop, RI is conceived as a political concept where democratization of innovation procedures, that is, "change the world," eventually interwoven the politics with RI frameworks. Thus, RI appears as a political and more complicated phenomenon, especially for worldwide concerns such as climate change (Stilgoe, 2019).

Ethical and Social Considerations in RI

Concerning RQ2, the technology and science outcomes have certain adverse consequences, which pose the urgency to integrate potential ethical principles into science and technology structures, which directs the RRI framework. However, the second part of the 20th century witnessed the attempts to incorporate normative factors into the governance mechanism of research, science, and innovation (Landeweerd et al., 2015). The 4th European Research Framework Program laid the foundation when Ethical, Legal, and Social Aspects (ELSA) of Research and Innovation originated in 1994 has received an upsurge in attention. Meanwhile, the creation of ELSA labs, which were designed for addressing ethical and social aspects of modern developing technologies, is different from technical laboratory design (Ryan & Blok, 2023). The labs work to ensure human and societal values by taking into consideration approaches such as "pathways to impact" and "societal readiness levels" (Van Veenstra et al., 2021). However, the Horizon 2020 of the EU framework strived to integrate technology assessment with ethical, political, and social legitimacy. It not only defines that what responsibility is, but it also lays down the three normative strategies that form the basis for responsibility in the RI literature (Pellé, 2016). The first strategy is called as proceduralist, which involves procedures/processes of innovation and research that require to be satisfied. It lacks formal rules as it is based on certain conditions that should be followed. To fulfil this, authors put forward five and sometimes four conditions: anticipation, responsiveness, inclusion, reflexivity, and transparency that they have to be complied with (Stahl et al., 2013). The second type is being propounded as consequentialist, which is outcome-oriented, that defines the objectives for RI practices clearly by utilizing utilitarianism approach. The third and last category of moral reasoning is derived from virtues or dispositions of RI actors, systems, and institutions that help to understand the normative dimension of responsibility by focusing on the element of care and virtues. Furthermore, the concept of RI gained momentum with two key definitions, with majority of authors citing work of von Schomberg (2012) and Owen et al. (2013). The definition of von Schomberg takes into account the values and principles that guide the innovation activities, whereas Stilgoe's definition focuses on the idea of collective responsibility of stakeholders, which barely discusses any values. Therefore, to form a practice-based approach to values, three interwoven attributes were highlighted, such as values as lived realities, values as interactive, and of a dynamic nature with which issues regarding value identification are enquired rather than value justification. Following this, Pellé (2016) identifies a third category by reviewing the literature on RI, which she relates with care and virtue ethics by grinding it with the traditional strategies. Similarly, Pellé and Reber (2015) aligned mainstream traditions of moral philosophy with main responsibility perspectives—deontology, utilitarianism, and aristotelism (virtues) and presented virtue ethics as RI method. Shannon Vallor was the first who advocate the framework of virtue ethics for the deployment and development of technologies, particularly novel technologies that will impact values of humans and society at large (Vallor, 2016). Virtue ethics are believed to be tendencies or qualities which might be developed by individuals through physical workout (Van Tongeren, 2020). There exist two clusters of virtues: "Responsible-side of RI" which includes justice, perspective, anticipation, inclusion and responsiveness, compassion, empathy, and care and "innovation-side of RI" which oriented toward dedication, commitment, collaboration or cooperation, creativity, and others. Furthermore, legitimation is assessed to be a significant element in the normative foundation of RI, where normative ethics require to justify specific values, actions, and norms. For this reason, Cortina (2000) developed civic ethics as a normative legitimation indicator. By integrating a sense of grinding human activity with the complexity of the real world and responsibility for the future, civic ethics tries to overcome the limitations of virtue ethics, which also emphasizes the deontological aspect of normative foundation (Cortina, 2014). Freedom, solidarity, equality, dialogue, and respect are some of the vital values of civic ethics. Another significant framework that is generated during the advancement of RI literature is value sensitive design which aims to analyze the societal values and initiate to explore how RI process might result in both ethical acceptable and socially desirable outcomes (Van den Hoven, 2013). Though this framework is very advantageous in tackling the dynamic global challenges, still there is a lack of correlation with the business administration literature and this disconnection drive toward the development of RI methods that are not practically applied in business processes because the notion of organizational capabilities is missing by which firms are unable to innovate (Friedman et al., 2021). Thus, with the intention of bridging the gap between RI and business management literature, concept of "values" is employed and Value-sensitive Absorptive Capacity approach was developed, having three organizational capabilities. This new capability-based framework integrates knowledge absorption with organizational values in business and values in design. Garst et al. (2019) outline three dimensions of societal values in line with sensitivity; they are Value Receptivity, Value Articulation, and Value Reflexivity.

Sustainable Development and RI

Considering RQ3, the Rio+20 conference held at the United Nations on SD ended in a voluntary declaration by multiple nations to originate a list of 17 SDGs, which they later amalgamated with Millennium Development Goals framework (United Nations, 2012). The reason behind this commitment emanates from the awareness to guarantee a healthy future for the earth and the people inhabiting it, which requires the attention of mankind living there. Though the concept “Sustainable development” has numerous interpretations, but more specifically, it is conceptualized as the firms’ ability to comply with the demands of their stakeholders with the fusion of economic prosperity, societal progress, and environmental protection (Iqbal & Ahamd, 2021). Scholars also intended that it is the social responsibility of the organizations to address the global as well as public issues concerning sustainability because business organizations are key source of innovation, having requisite resources with ability to take action (Schrempf, 2012). Therefore, in order to contribute successfully toward SD, firms need to consider three-dimensional framework of RI that assists business organizations, policy-makers, and practitioners. These dimensions subsumed under three headings—first, “responsibility to avoid harm,” which indicates that organizations ensure that their innovation processes, products, and services are responsibly developed and executed without harming the environment and people. Second, “responsibility to do good,” which states that in order to enhance environmental sustainability and reduce emissions, organizations should provide with incentives to make their innovation practices more sustainable (Stahl & Sully de Luque, 2014). Third, “governance-responsibility,” which facilitates the first and the second dimension of RI by following global governance structures. Therefore, a holistic review of these dimensions assists organizations to foster SD as they have a social responsibility to address the public issues (Schrempf, 2012). In addition to this, RI four-dimensional framework, including anticipation, inclusion, responsiveness, and reflexivity, helps to access sustainable performance. Anticipation enables organizations to evaluate the negative and positive impacts of innovation outcomes and provide solutions to the problems by making firms competent in predicting the extraneous variables’ threats and opportunities, which ultimately enhance the sustainable performance and innovation capacities of firms. Reflexivity is concerned with organization’s own reflection of values and behaviors that shape innovation practices and procedures to fulfill its goals by representing ethical and social responsibilities, which in return improve the reputation of the firm that ensure long-term sustainability. Inclusion, being another dimension of RI involves a variety of stakeholders who come up with new ideas, inputs and resources to enhance RI activities, whereas responsiveness, the last dimension, responds to the demands and needs of the stakeholders by adjusting the behavior patterns according to stakeholders. However, the participation of stakeholders and responding to their demands helps the firms to fulfill their sustainability goals. Thus, by following this framework, firms perform their social and environmental responsibilities while improving their sustainable performance by simultaneously sustaining economic development (Xie et al., 2024). Similar to above, extant studies highlight the role of corporate sustainability, which affects businesses, both externally through stakeholders’ pressure and internally by organization’s ethical and cultural values, which in return guarantees that business strategies provide solutions to socio-environmental problems through public open reporting (Opferkuch et al., 2021). According to Hahn et al. (2014), by incorporating sustainability principles into organization's procedures and systems, corporate sustainability ensures progress while satisfying the stakeholders' demands. As a result, involvement of stakeholders strengthens RI relationship with corporate sustainability and organizational outcomes.

Stakeholder Engagement and RI

With subject to RQ4, the two perspectives of RRI, first, by von Schomberg (2014) who described RI as an interactive and transparent process that brings together sustainability, ethical, and social acceptability of innovation and second, by Engineering and Physical Sciences Research Council (EPSRC, 2016) of UK who defined RI as a process that nurtures innovation and increase opportunities with broader societal impacts that will benefit the public. Both definitions lay stress on the engagement of societal participants in the innovation process. The prominent publication of Valdivia and Guston (2015, pp. 2–3), "Responsible Innovation: A Primer for Policymakers" contended that the conception of RI "seeks to imbue the actors of innovation system a more robust sense of individual and collective responsibility" by following a "governance of innovation where that choice is more consistent with democratic principles." The traditional view where the judgments regarding desirability of innovation and division of labor were governed by consumers or the market, and government has to intervene if these innovations have an adverse impact on society. To overcome this limitation, RI proponents argue to shift this focus from government to innovators, including societal actors. In this vein, Burget et al. (2017) defined RRI as "an essential attempt to govern research and innovation which include all the stakeholders and the public in the preliminary stages of research and development." Similarly, organizations with good stakeholder management mechanisms produce value for their potential stakeholders in a viable and desirable manner that can smoothly succeed their RI objectives. Here, "stakeholder governance" at organizational level is defined as the structural mechanism that directs interactions of organization with numerous stakeholders, including employees, shareholders, consumers, suppliers, etc., by assigning rights, duties, and responsibilities to them (Bridoux & Stoelhorst, 2020). Thus, for establishing a relationship between RI and stakeholder governance, "value-based strategy" study to examine the value generated within the organizations, which later created a model named, value creation and appropriation (Lieberman et al., 2017). This model works on elements such as value creation and value capture for creating value that is appropriate for stakeholders. According to this model, stakeholders have been given two powers, coercive and utilitarian, and by using them they enforce their rules on organizations and dominate the success and failure of activities generating value. Furthermore, the extant literature and the mechanism of stakeholder governance create a relationship between deliberation and inclusion principle of RI and emerged a new concept, that is, "deliberative engagement" with the aim of not just consulting stakeholders and public but also involving and engaging them throughout the innovation process.

Similarly, RI in the business sector applies various approaches where stakeholder engagement and deliberation are most common. Thus, for value creation, distribution and appropriation among various stakeholders, follows three main processes of deliberation: first, it defines a group of stakeholders and their desires by answering what value and for whom it is generated. Second, integration of these stakeholders for achieving RI goals, and last, following the guidelines of fairness and openness, all the procedures of RI are readily accepted by all stakeholders (Bacq & Aguilera, 2022).

Discussion and Conclusion

This study advances both the theoretical and practical knowledge of practitioners by comprehending the concept of RI with other constructs comprises including SD, ethical, social considerations, and stakeholder engagement. The primary objective of this research is to ascertain the strong impact of RI practices at the organizational level, with other domains where evidence is lacking. RI is previously adopted as a policy framework with strong governance mechanisms, which has been later applied in other sectors such as agriculture, cloud computing, medical field, and there is limited adoption in the industrial sector. Thus, with the comprehensive evaluation of conceptual analysis, development, and deployment of RI in all areas, as well as in manufacturing sector, gets worth as organizations are able to understand the value of responsible production and consumption. RI, with its characteristics of an ethical and socially acceptable framework, tries to address the challenges posed by the innovation outcomes with the aim of gathering information that what are the positive and negative consequences of innovations. Virtues and values generated in individuals conjointly in organization's structure highlight a variety of extremely important principles to be adopted for the ethical and normative foundation of RI. Also, the growing interest in positive sustainability outcomes inspired the firms to implement RI strategies at every stage by involving academics, organizations, and government. Sustainability impacts the firm's overall performance by serving the triple bottom line, that is, economic, social, and environmental. Furthermore, with the creation of responsible labs, firms can closely understand the problems associated with emerging technologies, as these labs are considered living labs. RI also analyzes the deliberative engagement of all stakeholders who actively participate in the innovation process and exchange information and resources for creating environmental and social value. With the involvement of the stakeholders' firms, make decisions which are readily acceptable to society.

To conclude, it is important to put stress on the need to design RI strategies and mechanisms that focus on all stages of research and innovation with the involvement of all stakeholders, with a robust system of societal participation mechanisms with the aim of integrating societal actors into organization's innovation process. Similarly, apart from profit maximization, firms must put their efforts toward societal welfare and environmental sustainability.

Practical Implications

The review presents several practical implications for policy-makers and managers. First, by understanding the concept and definition of RI, the study aids managers of manufacturing units on how to design their policies and frameworks for innovating new products, technology, and processes that have no negative consequence on society as well as employees working in the organizations. Second, for articulating innovation strategies, organizations should involve diverse stakeholders *through advisory boards, co-creation sessions or workshops, for the smooth adoption* of sustainable business models that can address the needs of present and future generations. Further, firms along with stakeholders should also collaborate with government to implement action-related programs and policies that *aligns with our finding that stakeholder engagement improves transparency and trust in innovation outcomes. Third, this study also assists managers to establish dedicated 'responsible innovation' teams or labs (similar to ELSA labs in Europe) that* offers ethical and social considerations to adopt sustainable processes, green and clean technologies that ensures well-being of workers. By adopting these values managers can proactively addresses the societal and environmental challenges. Last, with the emergence of grand societal challenges, our study highlights the importance of sustainable development where firms should maintain a proper balance between their resource allocation to respond to these challenges in innovative and responsible manner.

Future Research Avenues

The inferences drawn from the current research have a few limitations that present multiple future research opportunities. One major limitation is relying solely on Scopus database for conducting this review, with a limited number of publications focusing on specific fields such as social science, business research, through which some significant research articles may be omitted; thus, it is suggested to consider other databases for more objective choices of articles. While previous research studies relied on resource-based and stakeholder theories, future researchers will explore alternative theoretical perspectives such as systems thinking, quadruple helix, and resource dependency theories that will yield useful insights into the dynamic mechanisms of RI. Similarly, better understanding of the factors influencing the adoption and implementation of RI by various organizations should employ other potential antecedents such as organizational agility, resilience under varying market conditions. Furthermore, despite conducting cross-sectional studies, future scholars may conduct longitudinal studies that shed more light on the domain of RI during a period of time. Future scholars could carry out comparative studies across different industries (manufacturing, technology, healthcare) of different sizes (micro, SMEs, and large) to find differences between their drivers and outcomes. However, to gain more practical and reliable insight, adoption of mixed-methods approach is suggested, including quantitative metrics (sustainability outcomes) and qualitative insights (stakeholders' narratives). In addition to this, researchers can also examine the governance mechanisms that effectively reflect societal values and may also analyze previous models for adopting virtue and civic ethics that reshape the RI practices and processes. Future researchers can also explore the extent of deployment of co-creation models that combine academics, industry, and government to address SD issues through RI. Finally, RI can also be studied in technology-driven sectors, including artificial intelligence, blockchain, and renewable sector, to implement innovation principles in rapidly evolving fields.

Acknowledgments

Both the authors have contributed equally.

Author Declaration

We here by declare that the submitted manuscript is original and has not been previously published or submitted for publication elsewhere in any form.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Ashwaria Mahajan https://orcid.org/0009-0008-3776-7033

References

Adomako, S., & Nguyen, N. P. (2023). Green creativity, responsible innovation, and product innovation performance: A study of entrepreneurial firms in an emerging economy. *Business Strategy and the Environment*, *32*(7), 4413–4425. https://doi.org/10.1002/bse.3373

Adomako, S., & Tran, M. D. (2022). Environmental collaboration, responsible innovation, and firm performance: The moderating role of stakeholder pressure. *Business Strategy and the Environment*, *31*(4), 1695–1704. https://doi.org/10.1002/bse.2977

Bacq, S., & Aguilera, R. V. (2022). Stakeholder governance for responsible innovation: A theory of value creation, appropriation, and distribution. *Journal of Management Studies*, *59*(1), 29–60. https://doi.org/10.1111/joms.12746

Brand, T., & Blok, V. (2019). Responsible innovation in business: A critical reflection on deliberative engagement as a central governance mechanism. *Journal of Responsible Innovation*, *6*(1), 4–24. https://doi.org/10.1080/23299460.2019.1575681

Bridoux, F., & Stoelhorst, J. W. (2020). Stakeholder governance: Solving the collective action problems in joint value creation. *Academy of Management Review*, *47*(2), 214–236. https://doi.org/10.5465/amr.2019.0441

Burget, M., Bardone, E., & Pedaste, M. (2017). Definitions and conceptual dimensions of responsible research and innovation: A literature review. *Science and Engineering Ethics*, *23*(1), 1–19. https://doi.org/10. 1007/s11948-016-9782-1

Cha, H., & Park, S. M. (2023). Organizational agility and communicative actions for responsible innovation: Evidence from manufacturing firms in South Korea. *Asia Pacific Journal of Management*, 1–28. https://doi.org/10.1007/s10490-023-09883-8

Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2021). Antecedents and consequence of frugal and responsible innovation in Asia: Through the lens of organization capabilities and culture. *Asia Pacific Journal of Management*, 1–25. https://doi.org/10.1007/s10490-021-09797-3

Christofi, M., Khan, H., & Iaia, L. (2022). Responsible innovation in Asia: A systematic review and an agenda for future research. *Asia Pacific Journal of Management*, 1–43. https://doi.org/10.1007/s10490-022-09839-4

Christofi, M., Leonidou, E., & Vrontis, D. (2017). Marketing research on mergers and acquisitions: A systematic review and future directions. *International Marketing Review*, *34*(5), 629–651. https://doi.org/10.1108/imr-03-2015-0100

Cortina, A. (2000). Civil ethics and the validity of law. *Ethical Theory and Moral Practice*, *3*(1), 39–55. https://doi.org/10.1023/A:1009958315067

Cortina, A. (2014). Four tasks for forward-looking global ethics. *Journal of Global Ethics*, *10*(1), 30–37. https://doi.org/10.1080/17449626.2014.896574

Di Vaio, A., Hassan, R., D'Amore, G., & Tiscini, R. (2024). Responsible innovation and ethical corporate behavior in the Asian fashion industry: A systematic literature review and avenues ahead. *Asia Pacific Journal of Management*, *41*(3), 1129–1173. https://doi.org/10.1007/s10490-022-09844-7

Do, H., & Shipton, H. (2019). High-performance work systems and innovation in Vietnamese small firms. *International Small Business Journal*, *37*(7), 732–753. https://doi.org/10.1177/0266242619863572

Elsevier. (2022). *What is Scopus about?* Retrieved, 2 August 2025, from https://service.elsevier.com/app/answers/detail/a_id/15100/supporthub/scopus/related/1/

Engineering and Physical Sciences Research Council. (2016). *Framework for responsible innovation*. Retrieved, 2 August 2025, from https://www.epsrc.ac.uk/index.cfm/research/framework/

European Commission. (2001). *European governance: A white paper*. Commission of the European Communities. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0428:FIN:EN:PDF

Friedman, B., Harbers, M., Hendry, D. G., van den Hoven, J., Jonker, C., & Logler, N. (2021). Eight grand challenges for value sensitive design from the 2016 Lorentz workshop. *Ethics and Information Technology*, *23*(1), 5–16. https://doi.org/10.1007/s10676-021-09586-y

Garst, J., Blok, V., Branzei, O., Jansen, L., & Omta, O. S. W. F. (2019). Toward a value-sensitive absorptive capacity framework: Navigating intervalue and intravalue conflicts to answer the societal call for health. *Business and Society*, *60*(6), 1349–1386. https://doi.org/10.1177/0007650319876108

Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, *39*(4), 463–487. https://doi.org/10.5465/amr.2012.0341

Iqbal, Q., & Ahmad, N. H. (2021). Sustainable development: The colors of sustainable leadership in learning organization. *Sustainable Development*, *29*(1), 108–119. https://doi.org/10.1002/sd.2135

Ko, E., Yoon, J., & Kim, Y. (2020). Why do newly industrialized economies deter to adopt responsible research and innovation? The case of emerging technologies in Korea. *Journal of Responsible Innovation*, *7*(3), 620–645. https://doi.org/10.1080/23299460.2020.1824667

Kuhlmann, S., & Rip, A. (2014). *The challenge of addressing Grand Challenges: A think piece on how innovation can be driven towards the "Grand Challenges" as defined under the prospective European Union Framework Programme Horizon 2020*. https://research.utwente.nl/files/5140568/The_challenge_of_addressing_Grand_Challenges.pdf

Landeweerd, L., Townend, D., Mesman, J., & Van Hoyweghen, I. (2015). Reflections on different governance styles in regulating science: A contribution to "Responsible Research and Innovation." *Life Sciences, Society and Policy*, *11*(1). https://doi.org/10.1186/s40504-015-0026-y

Lieberman, M. B., Garcia-Castro, R., & Balasubramanian, N. (2017). Measuring value creation and appropriation in firms: The VCA model. *Strategic Management Journal*, *38*(6), 1193–1211. https://doi.org/10.1002/smj.2565

Lythreatis, S., El-Kassar, A. N., Smart, P., & Ferraris, A. (2022). Participative leadership, ethical climate and responsible innovation perceptions: Evidence from South Korea. *Asia Pacific Journal of Management*, 1–28. https://doi.org/10.1007/s10490-022-09856-3

Memon, K. R., & Ooi, S. K. (2023). Responsible innovation and resource-based theory: Advancing an antecedent-outcome model for large manufacturing firms through structured literature review. *Asian Journal of Business Ethics*, *12*(2), 441–467. https://doi.org/10.1007/s13520-023-00181-6

Opferkuch, K., Caeiro, S., Salomone, R., & Ramos, T. B. (2021). Circular economy in corporate sustainability reporting: A review of organizational approaches. *Business Strategy and the Environment, 30*(8), 4015–4036. https://doi.org/10.1002/bse.2854

Owen, R., Bessant, J. R., & Heintz, M. (2013). *Responsible innovation: Managing the responsible emergence of science and innovation in society*. John Wiley & Sons. https://doi.org/10.1002/9781118551424

Owen, R., Pansera, M., Macnaghten, P., & Randles, S. (2021). Organisational institutionalisation of responsible innovation. *Research Policy*, *50*(1), 104132. https://doi.org/10.1016/j.respol.2020.104132

Owen, R., von Schomberg, R., & Macnaghten, P. (2021). An unfinished journey? Reflections on a decade of responsible research and innovation. *Journal of Responsible Innovation*, *8*(2), 217–233. https://doi.org/10.1080/23299460.2021.1948789

Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, *45*(4). https://doi.org/10.1111/ijcs.12695

Pellé, S. (2016). Process, outcomes, virtues: The normative strategies of responsible research and innovation and the challenge of moral pluralism. *Journal of Responsible Innovation*, *3*(3), 233–254. https://doi.org/10.1080/23299460.2016.1258945

Pellé, S., & Reber, B. (2015). Responsible innovation in the light of moral responsibility. *Journal on Chain and Network Science*, *15*(2), 107–117. https://doi.org/10.3920/jcns2014.x017

Rome Declaration. (2014). *Rome Declaration on Responsible Research and Innovation in Europe*. Retrieved, 2 August 2025, from https://ec.europa.eu/research/swafs/pdf/rome_declaration_RRI_final_21_November.pdf

Ryan, M., & Blok, V. (2023). Stop re-inventing the wheel: Or how ELSA and RRI can align. *Journal of Responsible Innovation*, *10*(1). https://doi.org/10.1080/23299460.2023.2196151

Schrempf, J. (2012). A social connection approach to corporate responsibility: The case of the fast-food industry and obesity. *Business and Society*, *53*(2), 300–332. https://doi.org/10.1177/0007650312449577

Stahl, B. C. (2013). Responsible research and innovation: The role of privacy in an emerging framework. *Science and Public Policy*, *40*(6), 708–716. https://doi.org/10.1093/scipol/sct067

Stahl, B. C. (2024). Critical responsible innovation: The role(s) of the researcher. *Journal of Responsible Innovation*, *11*(1). https://doi.org/10.1080/23299460.2023.2300162

Stahl, B. C., Eden, G., & Jirotka, M. (2013). Responsible research and innovation in information and com munication technology: Identifying and engaging with the ethical implications of ICTs. In R. Owen, M. Heintz, & J. Bessant (Eds.), *Responsible innovation: Managing the responsible emergence of science and innovation in society* (pp. 199–218). John Wiley and Sons. https://doi.org/10.1002/9781118551424.ch11

Stahl, G. K., & Sully de Luque, M. (2014). Antecedents of responsible leader behavior: A research synthesis, conceptual framework, and Agenda for future research. *Academy of Management Perspectives*, *28*(3), 235–254. https://doi.org/10.5465/amp.2013.0126

Stilgoe, J. (2019). Shared space and slow science in geoengineering research. In *International Handbook on Responsible Innovation* (pp. 259–270). Edward Elgar Publishing. https://doi.org/10.4337/9781784718862.00026

Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a framework for responsible innovation. *Research Policy*, *42*(9), 1568–1580. https://doi.org/10.1016/j.respol.2013.05.008

Tan, K. H., & Yamada, T. (2018). A conceptual framework for responsible innovation. *Journal of Japanese Management*, *3*(1), 22–29. https://doi.org/10.60321/jfmra.3.1_22

Thapa, R. K., Iakovleva, T., & Foss, L. (2019). Responsible research and innovation: A systematic review of the literature and its applications to regional studies. *European Planning Studies*, *27*(12), 2470–2490. https://doi.org/10.1080/09654313.2019.1625871

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *14*(3), 207–222. https://doi.org/10.1111/1467-8551.00375

United Nations. (2012). *The millennium development goals report 2012*. Retrieved, 2 August 2025, from https://doi.org/10.18356/32f1e244-en

Valdivia, W. D., & Guston, D. H. (2015). *Responsible innovation: A primer for policymakers*. The Brookings Institution.

Vallor, S. (2016). *Technology and the virtues: A philosophical guide to a future worth wanting*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190498511.001.0001

Van den Hoven, J. (2013). Value sensitive design and responsible innovation. In *Responsible innovation: Managing the responsible emergence of science and innovation in society* (pp. 75–83). https://doi.org/10.1002/9781118551424.ch4

Van Tongeren, P. (2020). *The art of living well: Moral experience and virtue ethics*. Bloomsbury Publishing.

Van Veenstra, A. F., van Zoonen, E. A., & Helberger, N. (2021). ELSA Labs for human centric innovation in AI. *Netherlands AI Coalition.* https://www.readkong.com/page/elsa-labs-for-human-centric-innovation-in-ai-nederlandse-6969863

Von Schomberg, L., & Blok, V. (2021). Technology in the age of innovation: Responsible innovation as a new subdomain within the philosophy of technology. *Philosophy and Technology*, *34*(2), 309–323. https://doi.org/10.1007/s13347-019-00386-3

Von Schomberg, L., & Blok, V. (2023). It takes two to tango: Toward a political concept of responsible innovation. *Journal of Responsible Innovation*, *10*(1). https://doi.org/10.1080/23299460.2023.2264616

von Schomberg, R. (2012). Prospects for technology assessment in a framework of responsible research and innovation. In M. Dusseldorp & R. Beecroft (Eds.), *Technikfolgen abschätzen lehren*. VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-93468-6_2

von Schomberg, R. (2014). The quest for the "right" impacts of science and technology: A framework for responsible research and innovation. In J. van den Hoven, N. Doorn, T. Swierstra, B. J. Koops, & H. Romijn (Eds.), *Responsible innovation 1* (pp. 33–50). Springer. https://doi.org/10.1007/978-94-017-8956-1_3

Wang, C. (2021). Monopoly with corporate social responsibility, product differentiation, and environmental R&D: Implications for economic, environmental, and social sustainability. *Journal of Cleaner Production*, *287*, 125433. https://doi.org/10.1016/j.jclepro.2020.125433

Xie, X., Wu, Y., & Tejerob, C. B. G. (2024). How responsible innovation builds business network resilience to achieve sustainable performance during global outbreaks: An extended resource-based view. *IEEE Transactions on Engineering Management*, *71*, 12194–12208. https://doi.org/10.1109/tem.2022.3186000

Zahoor, N., Khan, H., Khan, Z., & Akhtar, P. (2024). Responsible innovation in emerging markets' SMEs: The role of alliance learning and absorptive capacity. *Asia Pacific Journal of Management*, *41*(3), 1175–1209. https://doi.org/10.1007/s10490-022-09843-8

Zhang, X. E., Teng, X., Le, Y., & Li, Y. (2023). Strategic orientations and responsible innovation in SMEs: The moderating effects of environmental turbulence. *Business Strategy and the Environment*, *32*(4), 2522–2539. https://doi.org/10.1002/bse.3283

Luxury Goods Market in India: A Brief Analysis of its Trends and Patterns

BIMTECH Business Perspectives
6(2) 208–219, 2025

DOI: 10.1177/25819542251375548
bsp.bimtech.ac.in

Kanupriya[1]

Abstract

This perspective seeks to elucidate the trends and patterns in India's luxury goods market. The country has seen a rise in its youth population over the past decade. In addition, economic prosperity has increased. This bodes well for the prospects of the country's luxury goods industry. However, the same has not happened. On the contrary, using data and analysis from Statista and ITC Trade Map for select categories of luxury goods, namely, luxury leather goods, luxury watches and jewellery, luxury fashion (high-end apparels and footwear), luxury eyewear, luxury cosmetics and fragrances, including select skin care products, it is evident that India's luxury goods market could perform better in terms of revenue generation, market footprint and trends in trade. Desirable outcomes on this front could be attained if certain policy stances of the likes of making the luxury markets less overcrowded and more spacious, curbing the flow of counterfeits from domestic markets, reducing import duties and taxes on luxury goods, upgrading the managerial skills of staff involved in day-to-day supervisory operations and embracing sustainable practices are adopted.

Keywords

India, luxury, luxury goods, patterns, trends

[1] Department of Economics, Indian Institute of Foreign Trade, Delhi, India

Corresponding author:
Kanupriya, Department of Economics, Indian Institute of Foreign Trade, Delhi 110016, India.
E-mail: Kanupriya@iift.edu

Introduction

Luxury could be defined as 'the comfort provided by expensive and beautiful belongings, surroundings and food or something enjoyable and expensive but not necessary for human survival' (Cambridge Dictionary, 2024). The fundamental principle for comprehending luxury lies in the notion of exclusivity. This exclusivity is primarily upheld through elevated prices, alongside a deliberate restriction of sales volumes and distribution channels. According to Statista, luxury goods consist of exceptionally exclusive personal items that reflect the tastes and status of their owners (Statista, 2024).

Currently, in India, the Northern region leads the market, possessing a substantial market share of approximately 35.45% in 2024–2025. This market growth is propelled by rising disposable incomes, an expanding middle and upper class, and an increasing consumer interest in premium experiences. Furthermore, the heightened demand for personalised luxury, along with shifting consumer preferences towards exclusivity and customisation, is contributing to the market's growth, rendering luxury goods more accessible and appealing throughout India. Additionally, the swift expansion of e-commerce platforms has opened new avenues for luxury brands to connect with tech-savvy urban consumers, thereby enhancing the market share of luxury goods in India (IMARC, 2025).

The consistent increase in disposable incomes among Indian consumers is a crucial element that positively influences the market. With the Indian economy expanding and wages on the rise, consumers are equipped with more disposable income to allocate towards discretionary products. According to an industry report, Indian private consumption has nearly doubled to USD 2.1 trillion in 2024, reflecting robust growth in consumer purchasing power (Business Standard, 2025; IMARC, 2025; Press Trust of India, 2025). This trend is leading to a heightened demand for premium goods and services, particularly in urban regions. Furthermore, the rise in income levels is driven by the expansion of key sectors such as information technology, finance, and manufacturing, where salary scales and career opportunities are continually improving. Additionally, government initiatives that promote economic growth, along with the rapidly expanding middle class, are significant contributors to the increase in disposable income. The result of this growing disposable income is the emergence of a consumer class that is now financially positioned to indulge in luxury items such as designer apparel, fine dining, high-end automobiles, and premium travel (IMARC, 2025).

Broadly, the luxury goods market is divided into the following five segments. First, luxury leather goods encompass a range of products, including handbags, suitcases, briefcases, and smaller items such as wallets (Statista, 2024). Second, luxury watches and jewellery, often referred to as 'hard luxury', are distinguished from fashion and accessories, which utilise relatively 'soft' materials. This segment's definition aligns broadly with the Consumer Market Insights Watches and Jewellery Segment within the Accessories market, focusing solely on the sales of luxury brands (McKinsey, 2025; Statista, 2024). Third, luxury fashion comprises luxury apparel and footwear, which includes designer clothing and accessories that are produced as 'ready-to-wear', along with leather shoes, athletic footwear, sneakers, textile shoes, sandals and other types of footwear. The definition of this segment is consistent with the Consumer Market Insights Apparel and Footwear markets, concentrating exclusively on the sales of luxury brands (Statista, 2024). Fourth, luxury eyewear includes both eyewear frames and sunglasses. The market definition adheres to the Consumer Market Insights Eyewear market, with a focus on the super-premium to luxury price range, excluding lenses and contact lenses (Statista, 2024). Fifth, Prestige Cosmetics and Fragrances consist of prestige skin care, prestige fragrances and prestige cosmetics, which include subcategories for Eyes, Face and Lips, all related to decorative cosmetics. The market definition aligns with the Consumer Market Insights Beauty and Personal Care Cosmetics and Skin Care markets, emphasising only the super- and ultra-premium ranges, while excluding hair care, oral care and personal hygiene products (Statista, 2024).

Of late, the global luxury goods market is reeling under shifting macroeconomic headwinds, fluctuating client preferences and unattractive value propositions. Year 2025 is marked by the luxury goods segment being hit hard by the impending global slowdown, thanks to a host of unfavourable macroeconomic factors. Some of these could be listed as follows. Price hikes have hit a peak, and elevated prices are adversely impacting demand from aspirational luxury consumers. Macroeconomic challenges—particularly in the crucial Chinese market—are significantly burdening the sector. At the same time, the luxury clientele is becoming increasingly diverse, and their relationship with luxury goods is more intricate than ever before. It is crucial to have a distinct value proposition that resonates with this varied client base, especially in light of the expected low-growth climate. Moreover, clients are showing a growing interest in luxury experiences rather than merely luxury products. This shift introduces new trade-offs for clients to evaluate, necessitating that personal-luxury-goods brands surpass the heightened expectations of clients to secure spending on luxury travel and wellness experiences, for instance. However, the challenges facing the luxury industry are also somewhat self-inflicted. The sector's swift growth over the last 5 years has resulted in overexposure, undermining the industry's commitment to exclusivity, creativity, and craftsmanship. While brands have raised prices, some have not adequately adjusted their creative strategies and supply chains to accommodate the new scale of demands, thereby diluting their core value proposition and ultimately failing to fulfil their commitments to clients, leaving behind a trail of dissatisfied customers (McKinsey, 2025).

In light of the discussion so far, this perspective seeks to discuss the trends and patterns in India's luxury goods market, a fad with the changing socio-economic contours of the country. An increasingly aspirational and prosperous populace seeks to purchase those goods and services that were seemingly out of their reach earlier, thanks to the exclusivity and selectiveness associated with them. Upward mobility is one of the major factors responsible for the growing demand for luxury goods in India.

This article is divided into the following segments. The first section introduces the focus theme. The second explains the key highlights of the luxury goods market in India. The third explicates the trends and patterns of exports and imports in India's luxury goods segment. The last section concludes this study and lists its future policy implications.

The next segment lists the key highlights of the luxury goods market in India.

Key Highlights of the Luxury Goods Market in India

Any market could chiefly be defined in terms of a few attributes such as revenue and average revenue per capita, company shares and sales channels. On the basis of these factors, some of the prominent players in the international luxury goods segment are LVMH Moët Hennessy-Louis Vuitton SE, Kering SA, Compagnie Financière Richemont SA, The Estée Lauder Companies Inc. and Chanel Limited (Statista, 2024). These players have been shown as part of the competitive landscape and have a revenue of more than USD 150 million per year. All data pertaining to markets and companies' shares always refer to the retail value (including sales taxes) (Statista, 2024).

In India, the luxury goods market could be characterised by the following trends.

First, a consistent increase in disposable incomes among consumers in India is a crucial element that positively influences the market. With the Indian economy expanding and wages on the rise, consumers now possess greater disposable income to allocate towards discretionary items. According to an industry report, private consumption in India has nearly doubled to USD 2.1 trillion in 2024, indicating robust growth in consumer purchasing power. This trend is leading to a heightened demand for premium goods and services, particularly in urban regions. Furthermore, the rise in income levels is driven by the expansion of key sectors such as information technology, finance, and manufacturing, where salary scales and career opportunities are continually improving. Additionally, government initiatives that promote economic growth, along with the rapidly expanding middle class, are significant contributors to the increase in disposable income. The result of this growing disposable income is the emergence of a consumer class that is now financially equipped to indulge in luxury items such as designer apparel, fine dining, high-end automobiles, and premium travel experiences (IMARC, 2025).

Second, the swift development of India's middle and upper classes serves as a significant factor driving the growth of the luxury goods market in India. As the economy continues to rise, an increasing number of individuals are moving into the middle-income bracket, thereby enhancing the overall market for luxury products. Enhanced access to education, career opportunities, and lucrative employment has empowered these consumers with the financial means to purchase luxury items such as high-end fashion, luxury vehicles, and designer accessories. Additionally, the emergence of the 'upper middle class', characterised by individuals with higher incomes and assets, further reinforces this trend. An industry analysis predicts that the share of India's middle class will nearly double to 61% of the population by 2047, indicating a long-term structural shift in consumer demographics that favours luxury expenditure. The expansion of the middle and upper classes is also encouraging luxury brands to launch more affordable yet premium products, targeting this expanding demographic (IMARC, 2025).

Third, the rapid growth of e-commerce platforms is transforming the way luxury goods are marketed and purchased in India, which is creating a positive Indian luxury goods market outlook. Online shopping offers Indian buyers unmatched access to a vast array of luxury products, bypassing geographic barriers and providing convenience at their fingertips. As consumers in urban and semi-urban regions increasingly adopt online shopping, luxury brands are using digital platforms to connect directly with a technologically savvy audience. It is particularly effective for the younger generations, who find it convenient and flexible to buy luxury products online. As per industry reports, the e-commerce market in India is projected to reach USD 163 billion by 2026, with a CAGR of 27%. This strong growth presents luxury brands with a great chance to increase their market coverage through e-commerce, leveraging an increasing base of digitally connected consumers. As Indian consumers increasingly adopt e-tailing, it is likely to keep reshaping the luxury goods market, offering brands a powerful means of addressing changing consumer desires (IMARC, 2025).

As Figure 1 shows, per capita consumer spending in India shows (and is also expected to show) a discernible upward trend from 2000 to 2040 as per Statista (2024). The same would translate into higher purchases of luxury goods, with increasing disposable incomes and a dynamic, young population (Statista, 2024). Another key indicator of luxury, international tourism expenditure, also shows an upward trend, based on actual and extrapolated values for 2000–2040 (Statista, 2024). The same depicts affluence in the Indian society. Figure 2 shows the graph for international tourism expenditure in the country.

Major Categories of Luxury Goods in India

The luxury goods market in India is diverse and comprises segments of the likes of luxury leather goods, luxury watches and jewellery, luxury fashion (high-end apparel and footwear), luxury eyewear, luxury cosmetics and fragrances, including select skin care products (Statista, 2024).

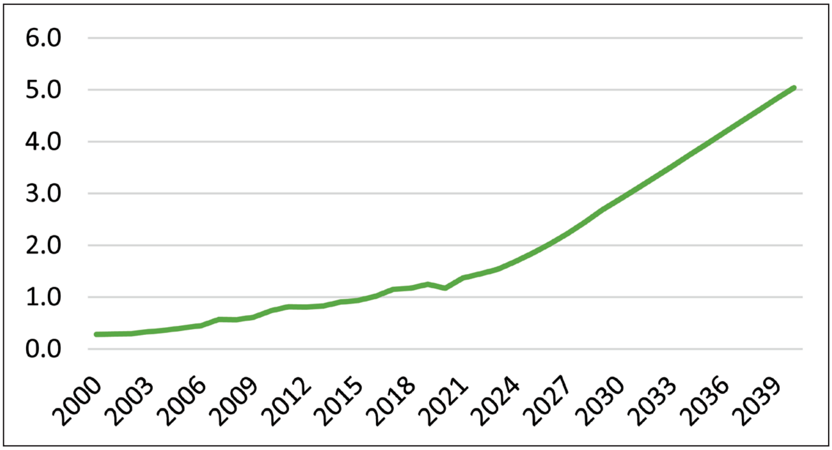


Figure 1. Consumer Spending (per Capita) in India (Thousand USD).

Source: Statista (2024).

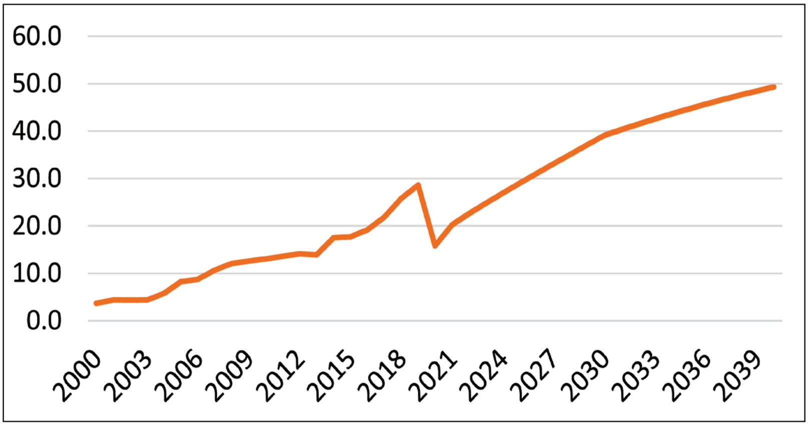


Figure 2. International Tourism Expenditure by Indians (Billion USD).

Source: Statista (2024).

Major Takeaways from India's Luxury Goods Market

There are certain features/achievements in the country's luxury goods market. First, in 2024, revenue in the luxury goods market would amount to USD 17.67 billion. This market is expected to grow annually by 3.17% (when calculated on the basis of compounded annual growth rate, CAGR from 2024 to 2029). Second, the largest segment in luxury goods is of luxury watches and jewellery with a market volume of USD 11.32 billion in 2024. Third, 1% of total revenue would be generated through online sales by 2024–2025 in the luxury goods market in India. Fourth, India is still a relative laggard when it comes to revenue generation through the luxury goods segment, especially in comparison to China, where more than USD 100 billion in revenue is expected to be generated by the end of 2024–2025. Fifth, in relation to total population figures, per person revenues of USD 12.26 are expected to be generated in 2024–2025 (Statista, 2024).

The succeeding segment discusses the trends and patterns of trade in India's luxury goods market.

Trends and Patterns of Exports and Imports in India's Luxury Goods Market

Prior to ascertaining conclusive trends and patterns in India's luxury goods market, it is imperative to study the export–import trends in the same, for they constitute an important factor in the growth potential of the country's luxury goods market. For the purpose of this analysis, data from ITC Trade Map is utilised for all the major categories of luxury goods in India (luxury leather goods, luxury watches and jewellery, luxury fashion [high-end apparels and footwear], luxury eyewear, luxury cosmetics and fragrances, including select skin care products, represented variously by HS codes at 2-digit levels, 41, 91, 71, 61, 62, 64, 90 and 33, respectively) (ITC Trade Map, 2024).

As Figure 3 depicts, over the 5-year period 2019–2023, India's exports of HS 33 (broadly corresponding to luxury cosmetics and fragrances) outweigh imports of the same.

As Figure 4 depicts, over the 5-year period 2019–2023, India's exports of HS 41 (broadly corresponding to luxury leather goods) outweigh imports of the same.

As Figure 5 depicts, over the 5-year period 2019–2023, India's exports of HS 61 (broadly corresponding to the knitted or crocheted sub-category of luxury apparel) outweigh imports of the same.

As Figure 6 depicts, over the 5-year period 2019–2023, India's exports of HS 62 (broadly corresponding to neither knitted nor crocheted sub-category of luxury apparel) outweigh imports of the same.

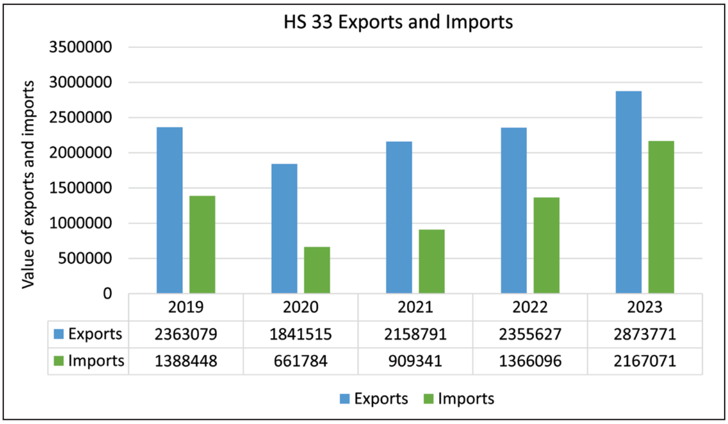


Figure 3. India's Export–Import Trends in HS 33 (Luxury Cosmetics and Fragrances).

Source: ITC Trade Map (2024).

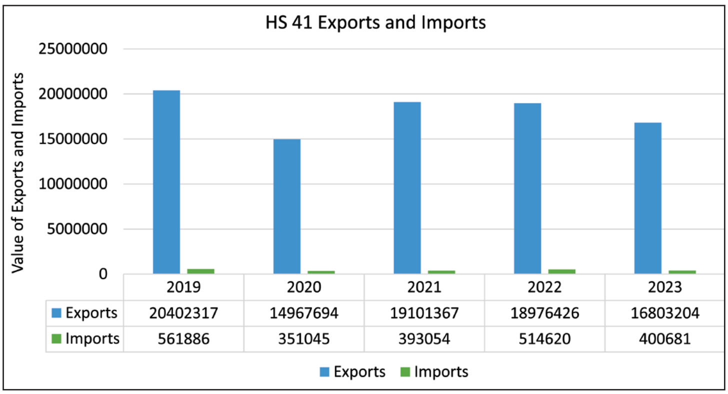
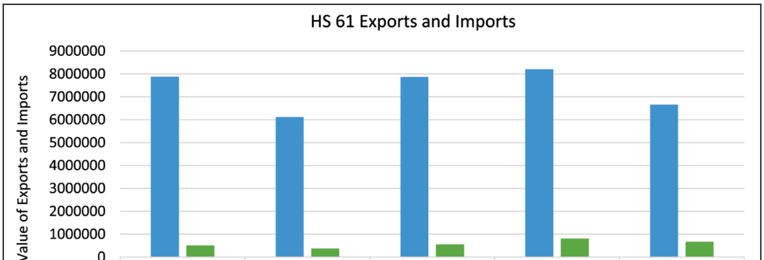


Figure 4. India's Export–Import Trends in HS 41 (Luxury Leather Goods).

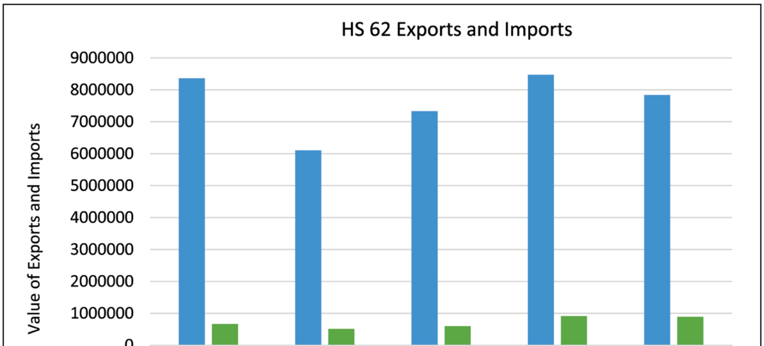
Source: ITC Trade Map (2024).



	2019	2020	2021	2022	2023
Exports	7879612	6120311	7870323	8203850	6664204
Imports	509623	376423	556908	810486	672087

Figure 5. India's Export–Import Trends in HS 61 (Articles of Clothing and Apparel, Knitted or Crocheted; a Sub-category of Luxury Apparel).

Source: ITC Trade Map (2024).



	2019	2020	2021	2022	2023
Exports	8362199	6104559	7332885	8473393	7840486
Imports	665330	512848	601398	915084	892357

Figure 6. India's Export–Import Trends in HS 62 (Articles of Clothing and Apparel, Not Knitted or Crocheted; a Sub-category of Luxury Apparel).

Source: ITC Trade Map (2024).

As Figure 7 depicts, over the 5-year period 2019–2023, India's exports of HS 64 (broadly corresponding to the footwear and gaiters sub-category of luxury footwear) outweigh imports of the same.

As Figure 8 depicts, over the 5-year period 2019–2023, India's exports of HS 71 (broadly corresponding to the category of luxury jewellery) outweigh imports of the same.

As Figure 9 depicts, over the 5-year period 2019–2023, India's exports of HS 90 (broadly corresponding to the category of luxury eyewear) outweigh imports of the same.

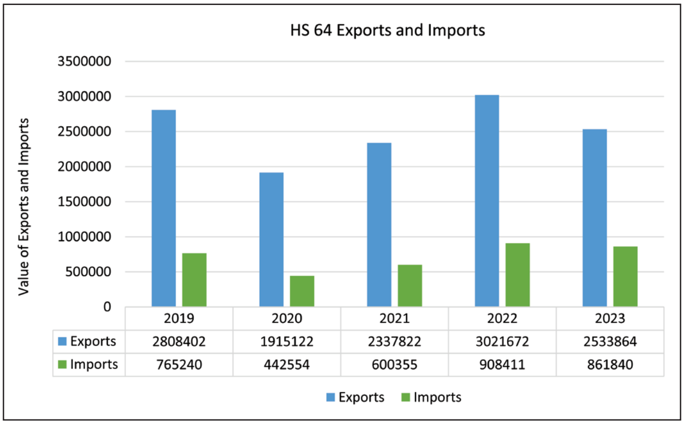


Figure 7. India's Export–Import Trends in HS 64 (Luxury Footwear).

Source: ITC Trade Map (2024).

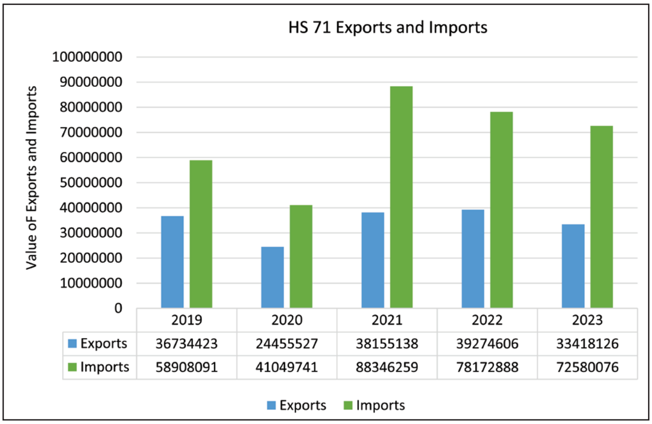


Figure 8. India's Export–Import Trends in HS 71 (Luxury Jewellery).

Source: ITC Trade Map (2024).

As Figure 10 depicts, over the 5-year period 2019–2023, India's exports of HS 91 (broadly corresponding to the category of luxury watches) outweigh imports of the same.

The performance on the front of exports for these luxury goods categories (or proxies of the same) is satisfactory. However, when it comes to imports, the same is less than adequate, despite a steady rise in the number of ultra-high net worth individuals (UHNIs) and a brand-conscious youth population, owing to a number of reasons. First, the country's luxury markets are overcrowded and lack exclusivity. Second, counterfeits pose another major challenge to stakeholders in this industry. These impede the whole-hearted development of the niche luxury goods market in the country. Third, high import duties and taxes on luxury goods discourage their large-scale consumption-cum-penetration in India. Fourth, there

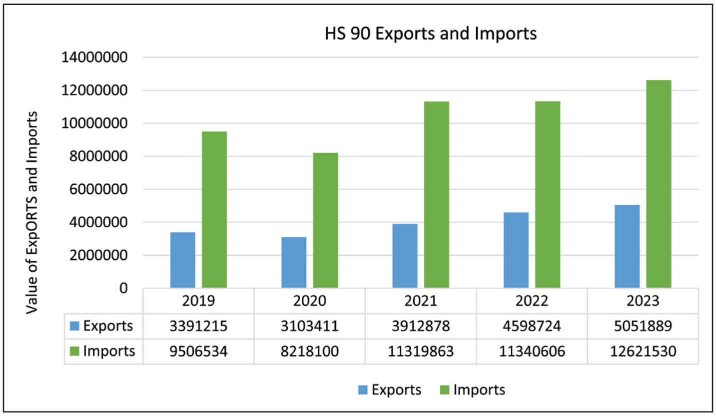


Figure 9. India's Export–Import Trends in HS 90 (Luxury Eyewear).
Source: ITC Trade Map (2024).

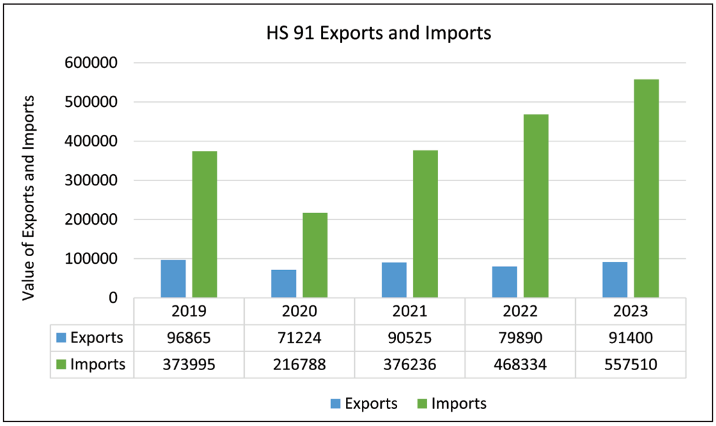


Figure 10. India's Export–Import Trends in HS 91 (Luxury Watches).
Source: ITC Trade Map (2024).

is a persistent lack of suitable and spacious infrastructure, along with low-skilled managers who are ill-equipped to handle luxury goods marketing effectively. These challenges are acting as an impediment to the success of the country's luxury goods markets (Singh & Gupta, 2019).

The next section concludes this perspective and lists its future policy implications.

Conclusion & Future Policy Implications

The luxury market holds tremendous potential in India, both for domestic and homegrown brands.

This is on account of impressive revenue growth in the country, brought about by a young, dynamic population with larger disposable incomes and online sales. However, India is still a relative laggard when it comes to revenue generation through the luxury goods segment, especially in comparison to China, where more than USD 100 billion in revenue is expected to be generated by the end of 2024–2025. There is scope for further market expansion and penetration, especially in relation to total population figures. Per-person revenues of USD 12.26 are expected to be generated in 2024–2025 as per current trends (Statista, 2024).

Despite the promise shown by luxury goods in terms of revenue generation, market footprint and trends in exports and imports, there are a few challenges that must be effectively met to ensure the success of the premium goods segment in India. Likewise, policymakers and stakeholders in this sector must focus on the following. First, the country's luxury markets should be made less overcrowded by locating them on the outskirts of the city, as is done in Europe and the USA. Second, counterfeits should be discouraged from the domestic markets. For this purpose, stricter enforcement of rules and regulations must be the norm. Third, import duties and taxes on luxury goods should be slashed to encourage their large-scale adoption by the affluent classes. Fourth, the managerial skills of staff involved in day-to-day supervision of luxury goods markets should be upgraded in line with prevalent global practices in this domain. Last, the country's luxury goods industry must seek to adopt sustainable practices to keep pace with changing customer tastes and preferences, while also carving a special place in India's markets (Ahmad & Dubey, 2024; Kapferer & Michaut-Denizeau, 2015, 2019).

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author received no financial support for the research, authorship and/or publication of this article.

ORCID iD

Kanupriya https://orcid.org/0000-0002-4186-4070

References

Ahmad, G., & Dubey, S. K. (2024). Sustainable luxury fashion in India: A case of Grassroot by Anita Dongre. *Emerging Economies Cases Journal*, *6*(1), 48–58.

Business Standard. (2025, February 27). India's private consumption almost doubles to $2.1 trillion in 2024: Report. Retrieved, 22 August 2025, from https://www.business-standard.com/india-news/india-s-private-consumption-almost-doubles-to-2-1-trn-in-2024-report-125022700698_1.html

Cambridge Dictionary. (2024). *Luxury*. Retrieved, 22 August 2025, from https://dictionary.cambridge.org/us/dictionary/english/luxury

IMARC. (2025). *India luxury goods market size, share, trends and forecast by product type, distribution channel, end user and region, 2025–2033*. Retrieved, 22 August 2025, from https://www.imarcgroup.com/india-luxury-goods-market

ITC Trade Map. (2024). *Trade statistics for international business development*. Retrieved, 22 August 2025, from https://www.trademap.org/Index.aspx?AspxAutoDetectCookieSupport=1

Kapferer, J. N., & Michaut-Denizeau, A. (2015). Luxury and sustainability: A common future? The match depends on how consumers define luxury. *Luxury Research Journal*, *1*(1), 3–17.

Kapferer, J. N., & Michaut-Denizeau, A. (2019). Are millennials really more sensitive to sustainable luxury? A cross-generational international comparison of sustainability consciousness when buying luxury. *Journal of Brand Management*, *27*(1), 35–47.

McKinsey. (2025). *The state of luxury: How to navigate a slowdown*. Retrieved, 22 August 2025, from https://www.mckinsey.com/industries/retail/our-insights/state-of-luxury

Press Trust of India. (2025, February 27). India private consumption at $2.1 trillion, set to be 3rd largest consumer market by 2026: Report. *Outlook Business*. Retrieved, 22 August 2025, from https://www.outlookbusiness.com/economy-and-policy/india-private-consumption-at-21-trillion-set-to-be-3rd-largest-consumer-market-by-2026-report

Singh, S., & Gupta, V. (2019). Luxury brand market in India: Recent trends, challenges and opportunities. *Asian Journal of Managerial Science*, *8*(2), 104–107. https://www.trp.org.in/wp-content/uploads/2019/05/AJMS-Vol.8-No.2-April-June-2019-pp.-104-107.pdf

Statista. (2024). *Luxury goods in India*. Retrieved, 22 August 2025, from https://www.statista.com/outlook/cmo/luxury-goods/india

Book Review

BIMTECH Business Perspectives
6(2) 220–223, 2025
© The Author(s) 2025
DOI: 10.1177/25819542251381000
bsp.bimtech.ac.in

Jyoti Sankar Das and Arun Mittal, *The Luxe Dip: A Glimpse into the Basics of Luxury*, 2025, 188 pp., White Falcon Publishing. ISBN: 978-9349311336

Reviewed by: Sachin Jain, *World Gold Council Delhi, India.* E-mail: sachin.jain@gold.org

Having had the pleasure of working alongside Dr Jyoti Sankar Das at the Swatch Group, I have seen firsthand the depth of insight and clarity he brings to every subject he engages with. In the LUXE DIP, he brings that same academic rigor, curiosity and elegance to the world of luxury—a space often misunderstood as superficial, while this book approaches the subject with academic depth and intelligence. The book is a compelling introduction to the fundamentals of luxury—what it is, how it has evolved and why it matters. The authors strip away the cliches and present a nuanced, accessible and thoughtful exploration of luxury as a cultural, social and economic force.

Whether you are a student, a brand strategist or simply someone curious about what lies beneath the surface of luxury, The Luxe Dip could be a valuable guide. What makes this book extremely engaging is the author's ability to blend academic insight with real-world experience, making complex ideas feel relatable and relevant. The Luxe Dip is more than a book; it is an invitation to rethink how we define and engage with luxury in the modern world. It is an excellent resource for anyone looking to deepen their understanding of this fascinating and ever-evolving domain.

India is today at a sweet spot where the world's youngest population meets a rising disposable income, globe-trotting individuals and a developing taste for the finest things that life offers. No wonder, therefore, the luxury industry has been growing at a strong double-digit rate over the last few years. While most of the global population is aging, India's growing Gen Z & Alpha is raring to go. The country is projected to have 370 million Gen Z by 2030. The millennials, along with the Gen Z, will be the driving force behind India's growing luxury consumption, with Gen Alpha being the largest growing influencers in the families.

This book, therefore, emerges from a relevant time and context and is a boon for all those management students, sales & retail marketing students, luxury & fashion retail staff, new corporate entrants and all those youngsters who do not have much knowledge of the luxury goods industry and are keen to make it a career choice.

The authors have probably used a storytelling approach with fictional characters and anecdotes to explain the theoretical luxury concepts and the industry in general. Personal industry experiences, secondary and primary research have gone into the writing of this enthralling book. Luxury brands are known for their history, heritage and brand stories. The uniqueness and originality of the book lie in its narration, wherein two fictional characters, one who heads a luxury brand in the country and the other, his friend from academia. Their friendship and contribution to each other's knowledge domains are an eye-opener for both academia and industry. The authors have demonstrated how collaborative work can result in success and help in adequately training our young future managers to transition to the corporate world smoothly.

Also, our retail managers and store staff are not adequately trained in the nuances of selling luxury. This book could be a ready reckoner for those who want to be self-trained and step into the mysterious world of luxury. In order to make the book interesting and easily readable, the authors have kept it less bulky and woven it around lots of heritage luxury stories and anecdotes to sustain the interest of the readers. The objective appears to be to enhance the knowledge of luxury and build in the required skill and mindset to sell.

The authors have divided the book into eight chapters, which together go on to introduce luxury to all those readers who want to dive into this fascinating world of luxury. The flow of the chapters is sequential, and a reader who begins with the first chapter would be curious to move into the second one and so on and so forth. Dr Jyoti S Das, who is now an Associate Professor of Practice at Birla Institute of Management Technology (BIMTECH), has been a seasoned industry professional, having worked in the luxury industry for 17 years, apart from contributing 11 long years to the FMCD industry. He, along with Dr Arun Mittal, who happens to be an academician, has woven an excellent and practical way of explaining the theoretical concepts around luxury and fashion.

Chapter 1 begins with the understanding of luxury. The definition of luxury is extremely fluid, and there is no consensus on it either in literature or in the real world. This chapter describes the meaning and definition of luxury, but more importantly, it integrates fictional anecdotes revolving around the two central fictional characters with true brand stories. These stories convey the meaning of luxury. The authors have attempted to explain the understanding of luxury by describing true brand stories. For readers who want to know and understand luxury, it becomes far easier and more interesting if it is explained through stories.

Chapter 2 sweeps the readers across civilisations in our global historical timeline, wherein the genesis of the usage of luxury goods traces back thousands of years to the Paleolithic age of human history, where luxury had a spiritual veil. The materialistic culture began in the Mesopotamian and Chinese civilisations, wherein owning palaces, rare statues, ornaments, and precious stones became the symbol of status and wealth. The discovery of grain granaries, rare artifacts, the swimming pool and the bronze statue of a dancing girl reveals the wealth and luxury during the Indus Valley civilisation. The Egyptian civilisation is known for its Pyramids, where Pharaohs were mummified and kept for posterity along with their luxuries of life, as they believed in life after death. The authors in “A brief history of luxury” use a storytelling approach to explain the history of luxury and its evolution through the evolving civilisations, from the Mesopotamian to the Egyptian and Roman civilisations up to recent times. Some nice stories, which are the outcome of some personal experiences, make the journey of this chapter very interesting. Fictional anecdotes integrated with true stories would make it interesting for readers to discover the history of luxury and its evolution. This evolution is perhaps the first I have found in many luxury books I have read. Though interesting, it seems a little far-fetched.

Chapter 3 beautifully explains the differences between luxury goods and consumer goods marketing. The authors felt that it is important to bring out a differential perspective between mass consumer goods and luxury items. This would help in the understanding of luxury simply. One of the authors, Dr Jyoti Sankar Das, has in fact worked in both industries and therefore was in a better position to contribute to this chapter with real-life research examples. This chapter would be very insightful for all those youngsters who are students or working and can relate to the many examples cited in this chapter. While consumer goods offer functional value and some degree of emotional connect, the luxury products are known for their high performance, high quality and craftsmanship. The luxury consumers exhibit a very deep emotional connection with the brands. The authors correctly explain the added luxury value (ALV) in the form of exclusivity, status signalling, snob value, and bandwagon value. They also add that an extreme value at every touchpoint of a customer journey and lifecycle is critical for the survival of luxury brands in the near future.

What would help most to the luxury management students, retail managers, and luxury custodians is a new concept that the authors have come up with in Chapter 5 in the form of “A five-senses approach” to sell and retail luxury. The five-senses approach is the author’s original contribution based on their primary and secondary research. The chapter explains how important it is for luxury retail managers and staff to keep in mind the five-senses approach while framing and implementing their luxury retail strategies. Many examples and stories would make this chapter interesting. It is beautifully explained how luxury selling can go notches up if it is driven by a multi-sensory approach. Emporio Armani launched their café and Louis Vuitton their signature restaurant to reach the consumer’s heart through their taste buds. The visual merchandising we see in luxury stores is an example of triggering the sense of sight. One can see this in all the Forever Mark stores or even a visit to the Emporio Mall in New Delhi, with luxury stores showcasing their best visual merchandising trends. “A thing of beauty is indeed a joy forever”, as rightfully quoted by John Keats.

Luxury has always been traditionally marked by history and heritage. But in this emerging era of Artificial Intelligence and Machine Learning, can luxury stay away? The authors rightfully disagree, and therefore Chapter 6 provides an introduction to it by describing “How artificial intelligence and blockchain technology are reshaping the luxury goods industry?”

Considering that AI and blockchain are now reshaping the industry, it was felt important to include this chapter, which will be extremely informative and interesting for the youngsters. A lot of examples from the luxury goods industry are cited to show their growing importance.

With numerous luxury brands having either entered India or being in a queue to do so, a huge job market for trained manpower is waiting to explode. The authors have struck the right timing and would surely have an early momentum to begin with. The industry requires trained personnel who are well-groomed for pursuing a career in luxury. Chapter 7, therefore, focuses on a conversation for Luxury Grooming and Career Guide advisory.

Most youngsters in India who are either working in the luxury or fashion industry or are aspiring to work are sadly not very well trained. This chapter is a kind of Quick grooming tips compiled in a few pages and can help as a reference and self-training guide. It also depicts a Career Guide chart, which gives an idea of a career path in the luxury goods industry in the Indian context.

Luxury can best be learned and understood by knowing about its history and heritage from the large number of fascinating stories woven around it. Therefore, the art of selling luxury lies in brand storytelling and all management and retail students who aspire to work in this industry must develop the art of storytelling. This last chapter is purely an outcome of secondary research. A short summary of brand history and accompanying brand stories is compiled for many luxury brands. These stories are in the public domain and on the brand's websites. Just that the authors have made a short summary of each brand and written it so that the readers can read the "shorts" more effectively. Luxury brand history and stories are always very interesting, and this chapter, I am sure, will be very informative and equally interesting for all readers.

Saying this, I must also add that though this book is a fine introduction to the basic concepts of luxury, it missed out some higher-order concepts of luxury, which the authors could introduce in their next book. The book also delves more into the global context of luxury and less into the Indian scenario. It is a good book to introduce luxury to students and people who have little knowledge of luxury, but I would request Dr Das to come out with another book diving deep into the industry's potential for the Indian market.

In conclusion, I can only say that this book must be a prescribed introductory textbook in all management schools, for it explains the luxury concepts in a storytelling, anecdotal and fictional mode. The new generation, which is averse to reading serious books, will find this interesting as it feels like reading a novel and at the same time, one keeps learning serious luxury concepts. I found the book extremely useful and knowledge-driven. My best wishes to Dr Jyoti Sankar Das and Dr Arun Mittal, and I am looking forward to reading many more books authored by them.

BIMTECH Business Perspectives: Guidelines for Authors

Manuscript submission

- The preferred format for your manuscript is MS Word.
- The journal does not consider a paper that has been published elsewhere or that is under submission to another publisher. Authors must attest to this at the time of submission. It is also author's responsibility to disclose any potential conflict of interests regarding their submitted papers.
- Authors will be provided with a copyright form once the contribution is accepted for publication. The submission will be considered as final only after the filled-in and signed copyright form is received.

Basic formatting of the manuscripts

The journal publishes the following article types:

- Original article – 6000–8000 words. This must be accompanied by an abstract of up to 150 words, and 4–6 keywords
- Review essay – 6000–8000 words
- Perspective/viewpoint – 3000–5000 words
- Interview – 2000–3000 words
- Book review – 2000–3000 words

Please refer to the Submission Guidelines on the journal website for details on formatting.

Spelling and numerical usages

- Consistent use of either British or American spelling is advised, but not both at the same time.
- Spell out numbers from one to nine, 10 and above to remain in figures. However, for exact measurements use only figures (e.g. 3 km, 9%). Please use 'thirteenth' instead of '13th century'; use '1960s' instead of 'nineteen sixties'.

Quotations, notes, tables and figures

- British English uses single quotation marks to indicate quotations or dialogue, double quotation marks for quotation inside quotation (nested quotation). American English flips that method and uses double quotation marks to indicate quotations or dialogue, and single quotation marks for nested quotations. Either British or American punctuation patterns should be used and it should not be a mix.
- Notes should be numbered serially and presented at the end of the article. Notes must contain more than a mere reference.
- Tables and figures must be cited in the text, and indicated by number separately (Table 1), not by placement (see Table below). Source details for figures and tables should be mentioned irrespective of whether or not they require permissions.
- All photographs and scanned images should have a resolution of minimum 300 dpi and 1500 pixels, and their format should be TIFF or JPEG. Due permissions should be taken for copyright-protected photographs/images.

References and their text citations

- References and their citations should be given in accordance with APA 7th edition.
- Please ensure that all references mentioned in the reference list are cited in the text and vice versa.

For detailed style guidelines, please visit https://www.bsp.bimtech.ac.in/