

Adaptive Structuration and Post-COVID-19 Drivers of Cross-Border Consumer Purchase Intention: A PLS-SEM Study at Birgunj, Nepal

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Abstract

Cross broader business is a significant contributor to regional trade, but the consumers incur some problems like transportation inefficiency and difference in prices. The purpose of the study is to explore the influence on cross-border purchase intention of customers in business at Birgunj-border at Nepal especially after the COVID-19. The philosophy of research adopted was explanatory research design that was used to address the relationship between cross-border motivations and purchase intention. The research used the Adaptive Structuration Theory because of the conceptual model developed by Han and Kim. Research was conducted on 403 consumers, who bought items at Birgunj-border through convenient sampling and KOBO Toolbox. Both descriptive statistics and inferential ones were utilized, and PLS-SEM was applied to determine how hedonic, social, and utilitarian motivations affect the purchase intention. Protectionism is a prevalent issue beyond borders because cross-border shoppers face numerous difficulties in transportation management and affordable prices, and these difficulties can be solved by enhancing the activities of governments and business enterprises. The hedonistic and social cross-border motivation were identified as having a significant purchase intention, whereas utilitarian motivation did not indicate a significant effect. The research notes that consumer pleasure and social life are major stimulus of cross-border shoppers and to facilitate efficiency in trade, infrastructure and management should be improved. The policymakers and business operators must concentrate addressing the areas of streamlined transportation, setting fair prices, attracting cross border consumer activity to enhance trade flows and contribute to the economy.

Keywords: customer intention, hypothesis testing, survey method, empirical study of trade

1. Introduction

Commercial operations, such as the transfer of capital, products, and services between nations with diverse legal, cultural, or economic frameworks, are referred to as cross-border business (Ebabu et al., 2025; Lee et al., 2024). Driven by trade liberalization, technical developments, and globalization, it makes it possible for companies to function globally through better digital platforms, communication, and transportation (Kashin & Yankova, 2021). Cross-border trade, however, comes with difficulties like logistical problems, cultural disparities, and disparate legal frameworks, necessitating the development of tactics by enterprises to successfully negotiate this complexity. With the current globalization, international trade is the most significant aspect of business worldwide in terms of economic growth, diversity and competitiveness (Hameed et al., 2021). It helps nations to gain access to the bigger markets, access raw materials effectively and enjoy the benefits of the comparative advantage in production. In case of developing countries, cross border trade may help in both employment and generation, transfer of technology, and creation of infrastructure (Kathuria & Mathur, 2018). Internationally, it promotes this cultural exchange and improves diplomatic ties as well as regional integration (Nagarjun, 2025). Surrounding nations usually enjoy geographical vicinity, lower transportation prices, and historical or cultural traditions ties, and this helps in trade and investment. Moreover, the cross-border economic activities are part and parcel to the sustainable development where landlocked nations may access the international markets via their neighbors (Regmi & Kukreti, 2018; Taneja et al., 2020).

The cross-border business has considerable hindrances despite its potentialities. Trade flows can be hampered by some logistical problems that include customs delays, poor infrastructure, and regulatory complexities (Kashin & Yankova, 2021). The difference in economic growth and laws between trading partners can cause inequalities, trade disputes, and dependency issues (Bhattarai et al., 2021). Security issues such as cross-border terrorism, illicit arms trade, and influx of refugees could lead to destabilization of a region and developing frictions in diplomacy (Baral, 2018). Cross-border cooperation is hindered further by political instability, territorial disagreements, including environmental issues related to shared water, e.g. the effects of dams and embankments (Gupta, 2020; Nepal et al., 2021). Furthermore, poor industry in certain countries and few available jobs become the forces trying to push people toward migration and fancy illegal cross-border practices (Kirti, 2021).

Trade agreements and regional systems of cooperation as well as global supply chains determine cross-border business in the world. The emergence of technological advances and digital spaces has facilitated the contribution of small and medium enterprises (SMEs) to international markets in competition, to some degree, with multinational corporations. This cross-border trade has enabled many countries to realize faster economic revolutions that have ranged between the high-income economies integrating into sophisticated supply chains, as well as those on the lower end of the economic spectrum increasing their production of agricultural and manufactured exports (Kathuria & Mathur, 2018). The effectiveness of regional trade blocs like the European Union, ASEAN and NAFTA (later USMCA) have shown how harmonized policies can lower trade barriers, standardize regulations and encourage flows of investments. However, such flows could be disrupted by protectionism policies and geopolitical tensions or, lately, crises like those caused by pandemics, making strong systems of trade a necessity.

Nepal is mired, a landlock country located between 26-31 N with 80-89 E borders at the north with China and east, west, and south borders with India (Devkota et al., 2018; Regmi & Kukreti, 2018), mainly depend on agriculture such as cereals, cash crops, wheat, maize, and paddy (Adhikari, 2018). In the past, Nepal used to export rice to India and other countries prior to 1990 but now the condition has worsened, and the country continues to grow more dependent on supplies. India is the largest export market, the largest importer, the major foreign investor,

and the greatest aid donor of Nepal (Taneja et al., 2020), offering crucial transit cabinets to ports and supplying the electric power to subsidize the electric power production of Nepal (Ul-Haq et al., 2019). The bilateral relations have been developed out of the most important treaties and agreements, such as the recognition of Nepal as a sovereign state in 1923 (Bhattarai & Pulami, 2022), the Treaty of Peace and Friendship that determined special economic and political relations in 1950 (Bhatnagar & Shahab Ahmad, 2021), the Treaty of Trade and Transit in 1960 (Karki & Hari, 2020), and the opening of the MotihariAmle. However, in spite of the established relationships, cross-border business between Nepal and India is threatened with political blockades (Bohara, 2020), cross-border dispute, security challenges, and trade imbalances (Bhattarai et al., 2021). Nepal is economically and strategically dependent on the south, and such a relationship has been enhanced by cultural similarities and linguistic proximity, an open border, migration, informal trade, and social networks that promote integration (Davis et al., 2021; Timalsina, 2019; Gupta, 2020).

Although extensive literature has already been conducted about Nepal India relations, most literatures revolve on political history, treaties and macroeconomic indicators. Generally, little empirical analysis has been carried out on the dynamics of cross-border enterprises against the backdrop of the developing trade policy, infrastructural development, and new challenges including non-tariff barriers, energy collaboration, and digital trade implementation. Additionally, prior research work lacks the thorough study on the way socio-cultural factors, and geopolitical events interact and subsequently bring about the effects of trade flows and business strategies at microeconomic level, especially to SMEs that are in bordering territories. This research aims at exploring the dynamics of the modern business in an international market that Nepal interacts in. This research holds significance for policymakers, businesses, and development agencies.

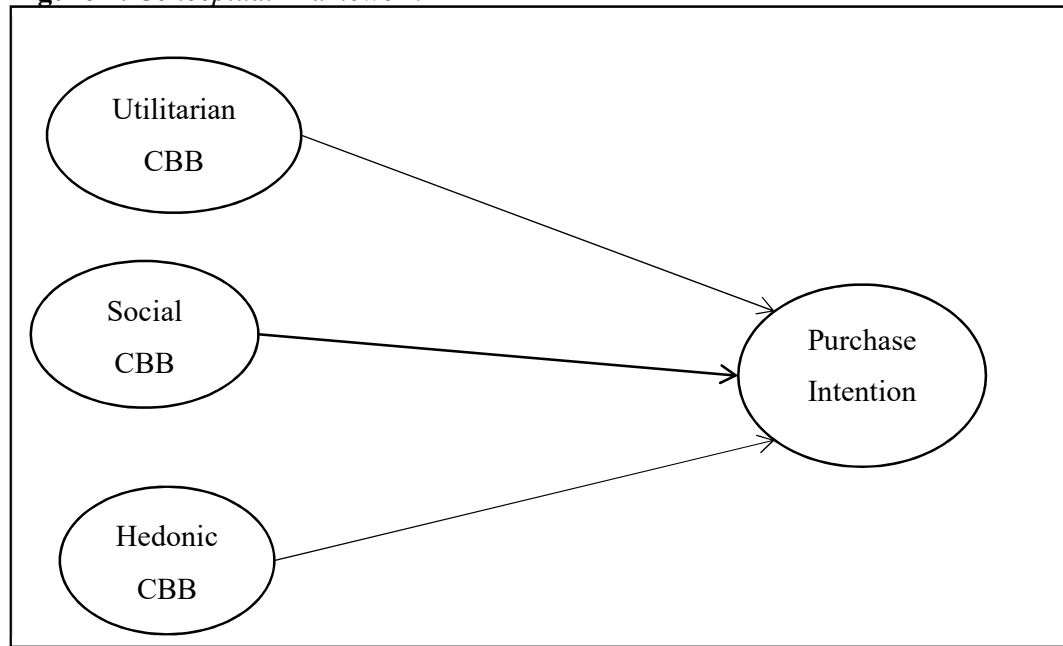
2. Theoretical Review and Conceptual Framework

This research reviewed five different theories. The theories are Flow Approach Theory (Mao et al., 2020), Stakeholder Theory (Bindabel, 2020), Resource Based Theory (Yuen et al., 2019), and Theory of planned behaviour (Radic et al., 2022) and Adaptive Structuration Theory (Barrett, 2018). These theories are very helpful to know the purchase intention of consumer in Cross border business. The Adaptive Structuration Theory was employed in this research since it may be used to examine how technology affects the dynamics of power and decision-making in Cross border trade. According to AST, technology shapes and is shaped by the social structures in which it is integrated, rather than just being a tool utilized by humans. Individuals and organizations may more successfully negotiate the challenges of cross-border collaboration by recognizing these aspects.

As this paper is based on Adaptive Structuration Theory, various studies under AST have been taken into consideration. The model taken into consideration are Han and Kim's Conceptual Framework (Han & Kim, 2019), Trapero Conceptual Framework (Trapero, 2018), Olowa et al Conceptual Framework (Olowa et al., 2022), Gebregziabher & Krauss Conceptual Framework (Gebregziabher & Krauss, 2012) and Wang et al Conceptual Framework (Wang et al., 2022). Han and Kim conceptual model is used in this study. Han and Kim (2019) Conceptual model has used the three steps. In first step it uses the motivation The CBEC's motivations and the exploitive /exploitative use of IT for information were given particular attention. AST was used to establish a connection between three CBEC incentives, IT use patterns, customer knowledge, and purchase intentions. In second step it uses the IT to determine the causes and effects of CBEC consumers' use of IT to become informed. In this study, AST is used to record various IT use patterns and showed how IT can play a crucial role in both exploitative and exploratory activities. This suggests that in addition to using current review websites or applications, vendors of niche or cultural goods that are primarily purchased

by social and hedonic motivated consumers may benefit from expanding their use of new information sources, such as SNS, online communities, new applications, and new methods/technologies (explorative IT use) (exploitive IT use).

Figure 1: *Conceptual Framework*



Source: *Modified and adopted from Han and Kim (2019)*

2.1 Utilitarian CBB motivation and purchase intention

Utilitarian consumers will begin with the mission or task prescriptions, and the advantages obtained are dependent on the fulfillment of the mission or the efficient execution of the mission through a certain method (Handayani, 2019). Purchasing is described as goal-oriented, effective, purposeful, and logical by the utilitarian motivation. Discounts, a money-back policy, hassle-free returns, and a wide selection of products all work to increase utilitarian CBB motivation. Goal-oriented customers seek to get what they want as soon as possible, without interruption (Kumar & Sadarangani, 2021). Utilitarian value is rationality-based and task-related because it depends on whether certain shopping demands are met successfully and efficiently. Although performing the shopping activity is of vital important, a purchase may not be necessary to receive utilitarian shopping value. Customers may gather the data they need for their upcoming purchase decision during the process, giving them the impression that their journey to the store was not a waste of time (Wu et al., 2018). In the article of Novela et al. (2020), it studies the relationship between Utilitarian CBB motivation and purchase intention which shows that this both effects positively. Similarly, in the article of Sharifi et al. (2019), it studies the relationship between Utilitarian CBB motivation and purchase intention which shows that there is significant affects between Utilitarian CBB motivation and the purchase intention.

H_1 : There is not significant affects between Utilitarian CBB motivation and the purchase intention.

2.2 Social CBB motivation and Purchase Intention

Social motivation is defined as the interaction of social acknowledgment and social influence (Khan et al., 2018). Social motivations are concerned with gaining the acceptance and respect of others, whereas normative motives are concerned with doing the right thing. The principles do not need to be (yet) integrated with social incentive, and compliance behavior is reliant on social pressure from other regulated enterprises, trade associations, advocacy groups, the media, family and friends, and inspectors (Lähteenmäki-Uutela et al., 2019). The value of establishing, fostering, and upholding connections with other customers as well as that of interacting and talking with them is known as social value. Customers value the opportunity to interact with others and form associations as they shop (Wu et al., 2018). An individual should adjust to social meanings while purchasing products and brands if they have a stronger social consumption motivation, according to the social consumption motivation construct. Additionally, it is claimed that by incorporating aspects of social influence and conformity, social consumption motivation is much more than impression management.; In the study of Yu et al. (2022) study the relationship between Social CBC motivation and the Purchase Intention and stated that customers purchase intention is positively impacted by social motivation. Similarly, in the study of Hidayah and Rodhiah, (2022), study the relationship between Social CBB motivation and the Purchase Intention and stated that customers purchase intention is positively impacted by social motivation.

H_2 : There is significant affects between Social CBB motivation and the Purchase Intention.

2.3 Hedonic CBB motivation and Purchase Intention

Whether or not the work is completed, the usage itself might satisfy hedonic value in a variety of ways (Wu et al., 2018). Hedonic motivation is the term used to describe the consumption driven by desires for more participation, escape, happiness, awakening, fantasy, enjoyment, and sensual arousal. Such consumption has experiential and emotional effects. The retail atmosphere, including things like color, music, odor, shelf organization, department placement, and crowd, boosts hedonic CBB motivation. Shoppers' visits to stores are mostly motivated by hedonistic factors (Kumar & Sadarangani, 2021). In the article of Sharifi et al. (2019), it studies the relationship between Hedonic CBB motivation and purchase intention which shows that there is significant affects between Hedonic CBB motivation and the purchase intention. In the article of Novela et al. (2020) stated that there is relationship between Hedonic CBB motivation and purchase intention and shows that there is significant affects between Hedonic CBB motivation and the purchase intention.

H_3 : There is significant affects between Hedonic CBB motivation and Purchase Intention.

2.4 Purchase Intention

The degree of a customer's eagerness to buy something from a shop is known as purchase intention (Pena Garcia et al., 2020). Purchase intention refers to the likelihood that a consumer will buy a specific product. The greater the purchase intention, the more likely the purchase behavior. As a result, purchase intent has emerged as an essential predictor of customer behavior (Lu et al., 2021). Although the shopping activity is necessary, a purchase may not be required to obtain utilitarian shopping value. Customers may gather the information they require for a forthcoming purchase choice during the process, giving them the feeling that their trip to the store was not in vain (Wu et al., 2018). According to the social consumption motivation construct, an individual should adjust to social meanings while acquiring products and brands if they have a stronger social consumption motivation. Hedonistic motivations influence most shoppers' visits to stores. ((Kumar & Sadarangani, 2021)

Understanding consumer behavior and cross-border commerce both depend on the link between social, hedonic, and utilitarian cross-border motivation and purchase intention.

Compared to local customers, cross-border consumers may have distinct driving forces behind their purchases. Businesses may better target these customers and increase their buy intent by understanding these factors and adapting their marketing strategy accordingly. Social motives, for instance, could be more significant to customers in particular cultures or geographical areas. Businesses may enhance their chances of success in these countries and boost their competitiveness in the global market by focusing their marketing efforts on the motives of cross-border consumers.

3. Variable and its Definition

Table 1: *Observed Variables and its Description*

Construct	Observed Variables	Indicator	Explanation
Utilitarian CBB Motivation (Han & Kim, 2019; Wagner et al., 2016)	Time saving	UCM_1	CBB helps to save time in purchasing products.
	Convenience	UCM_2	Purchasing the product from foreign market in a more convincing.
	Effort savings	UCM_3	Save effort in purchasing products in cross border market.
	Less expensive	UCM_4*	Shopping across the border is less expensive.
	Variety	UCM_5*	purchasing a product in foreign market gives me access to various types of products and brands I cannot acquire in my home country
	Fun	UCM_7	It is fun to shop in cross border market.
Social CBB Motivation (Han & Kim, 2019; Lee et al., 2015)	Personal relationship	SCM_1	By being involved in CBB, we have a chance to develop and extend personal relationships with others.
	Communication around similar interests	SCM_2	Being involved in CBB helps to share and exchange my interests and information with others who have similar interests.
	Leaving impression	SCM_3	Leaving the impression to others by purchasing and using unique products.
	Sense of belong	SCM_4	Feeling the part of a CBB consumer group by being involved in CBB.
	Influence behaviour	SCM_5*	Purchase the cross-border product who influence my behaviour
	Giving importance	SCM_6*	Giving importance to the view of people for purchasing the cross-border product.
Hedonic CBB Motivation (Han & Kim, 2019; Zhu et al., 2019)	New items/adventure	HCM_1	Feeling excitement about the hunt and adventure when shopping in foreign marketplace.
	Enjoyment	HCM_2	Enjoying international shopping for its own sake and fun, not just for the items that may purchase.
	Recreation	HCM_3*	Exploring/trying different products while shopping on international marketplaces.
	New trends/lifestyle	HCM_4	Shopping on international marketplaces to learn about and pursue trendy lifestyles.
	Shopping as goal	HCM_5	International shopping is a pleasant way to spend leisure time.

	Diversification opportunities	HCM_6*	International shopping offers an opportunity for diversion from the routine of daily life.
Purchase Intention (Han & Kim, 2019; Zhu et al., 2019)	Purchasing soon	PI_1	Purchasing required products from cross border markets soon.
	Recommendation	PI_2*	Recommending CBB to my peers, friends, and family
	Repurchase	PI_3*	Repurchase required products from cross border markets.
	Probability of purchase	PI_4	Probably buy products from cross border markets.
	Future purchase	PI_5	Intention to purchase the products from cross border market in the future.

Note: UCM_4, UCM_5, SCM_5, SCM_6, HCM_3, HCM_6, PI_2 and PI_3 variables are deleted.

4. Research Methods

4.1 Study Area and Population

The study area chosen for this study is Birgunj, Nepal. Birgunj is a sub-metropolitan municipality and border town in the Parsa District of Nepal's Narayani Zone. It is located 190 kilometers west of Kathmandu and two kilometers north of the Indian state of Bihar. It is also regarded as the gateway to Nepal since it serves as an access point to Nepal from the Indian cities of Patna and Calcutta (Paudel & Devkota, 2018). Raxual (India) - Birgunj (Nepal) is the most major commerce route for bilateral trade between India and Nepal, as well as Nepal's trade with other countries (third country trade). Birgunj is also Nepal's only rail- 6 connected dry port (Sirsiya Dry Port) with an inland clearance (container) depot capable of handling both break-bulk and containerized goods. Furthermore, the selected area is Birgunj border, so the data collection from Birgunj helps to know purchase intention of consumer in cross border business after the study population is customer who are purchasing goods from the birgunj border from whom the question was asked.

4.2 Sampling Technique

This study adopts non- probability sampling because the target population is unknown and non-probability sampling is commonly used in experimental or trial research, and it does not accurately represent the target population (Alrammaal et al., 2021). Convenience sampling is used for this research. It makes use of subjective judgment and a convenient selection of population units. It reduces the expense of human interview surveys; the resulting samples frequently resemble probability sample data (Ayhan, 2011). The formula $n_0 = z^2pq/l^2$ was used to derive the sample size (Neilson, 2011). The total population for the study $n_0 = z^2pq/l^2 = (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2 = 384.16$. Non-response error of 5% was added. Hence, the sample size taken for study was $= (384.16 + 19.2384.16 \times 5/100) = 403.36 (\approx 403)$

4.3 Research Instrument, Data Collection and Data Analysis

A structured questionnaire has been devised to conduct a survey to obtain primary data on consumer purchase intention in cross border business after Covid. The questionnaire was linked to the study's objectives by the researcher. The study used closed-ended questions to obtain the answer in an easy-to-understand format. Following the construction of the questionnaire, the research focused on the sequencing and arrangement of the questionnaire. The KOBO toolkit is used to collect data. A questionnaire will be loaded into the KOBO toolbox, and pilot testing for a few sample questions will be performed to ensure consistency

and accuracy. Data were gathered from 403 respondents. A pilot test is conducted on 15 samples to determine whether the questionnaire is well-fitted. The use of the KOBO toolbox is beneficial for data collection via both online and offline channels. It also helps to save money because data may be entered using a mobile device. Permission to collect the data from Birgunj border, a letter from the authority was signed. Data collection was start from Jan 20, 2023 to Feb 20, 2023. The interviews were conducted with customer of Birgunj border.

For the data analysis PLS- SEM is used because it combines partial least squares regression with SEM to examine complex relationships between variables (Hair & Alamer, 2022). It is accomplished using descriptive analysis (mean, median, and style analysis), as well as inferential analysis (Partial least squares structural equation modelling). PLS-SEM is extremely helpful when there are several variables present, some of which may be highly correlated (Purwanto & Sudargini, 2021).

5. Result and Analysis

5.1 Socio-Demographic Analysis

Talking about the socio-economic personal characteristics of the respondents, two-thirds (286, 70.97 percent) were male, with the females making up a quarter (117, 29.03 percent), indicating that the consumers of cross-border business among the people who visit Birgunj are mainly male. Underage bracket, the youngest age bracket (196, 48.64%) age bracket 20-30 years old and followed by age bracket (90, 22.33%) 16-20 years characterises the youthful population in cross-border commerce. The frequency regarding Nationality indicates that majority of the people are locals as compared to those with other nationalities. With bachelor's degree holders dominating the field (152, 37.72%), +2/intermediate (116, 28.78%), and SLC (99, 24.57%), most respondents were well-educated. Only one responder was illiterate (0.25%), and a smaller group had master's degrees (32, 7.94%). This implies that the Birgunj cross-border customer base is generally well-informed. The marital status was mainly unmarried (221, 54.84 percent) indicating that participants, especially young and single consumers are more involved in cross-border trade. Professionally, students (111, 27.54%) and businessmen (107, 26.55%) prevailed, and this shows that cross-border trade has appealed to both entrepreneur and learning sectors. More than half of the respondents resided in joint families (236, 58.56) and this can be a factor in influencing buying behavior since the purchasing decision is shared together. Monthly average income revealed that most people earned less than 20,000 NRs (240, 59.55%), implying the price sensitivity and appreciation of cheap products.

Table 2: *Socio-Demographic Variable*

Title	Category	Number	Percentage (%)
Gender	Male	286	70.97
	Female	117	29.03
Age	16-20	90	22.33
	20-30	196	48.64
	30-40	77	19.11
	40-50	22	5.46
	50 and Above	18	4.47
Nationality	Local	215	53.35
	Foreigner	188	46.65
Level of Education	Illiterate	1	0.25

	SLC	99	24.57
	+2/ Intermediate	116	28.78
	Bachelor	152	37.72
	Master	32	7.94
	Above masters	3	0.74
Marital Status	Married	179	44.42
	Unmarried	221	54.84
	Widow	2	0.5
	Others	1	0.25
Profession	Unemployed	14	3.47
	Student	111	27.54
	Government service	15	3.72
	Businessman	107	26.55
	Teaching	50	12.41
	Housewife	30	7.44
	Self employed	24	5.96
	Agriculture sector	8	1.99
	Technician	8	1.99
	Medical	7	1.74
	Engineering	5	1.24
	Banking	4	0.99
	Industry	1	0.25
	others	19	4.71
Family Type	Nuclear	165	40.94
	Joint	236	58.56
	Extended	2	0.5
Average Monthly Income (In NRs)	Below 20k	240	59.55
	20k-40k	125	31.02
	40k-60k	25	6.2
	60k-80k	9	2.23
	80k-100k	3	0.74
	100k and above	1	0.25

Generally, the demography is such that cross-border consumers in Birgunj are mostly of younger, educated males belonging to joint families with low income which can determine the consumption patterns and product preference.

5.2 General Prospective on Cross Border Trade

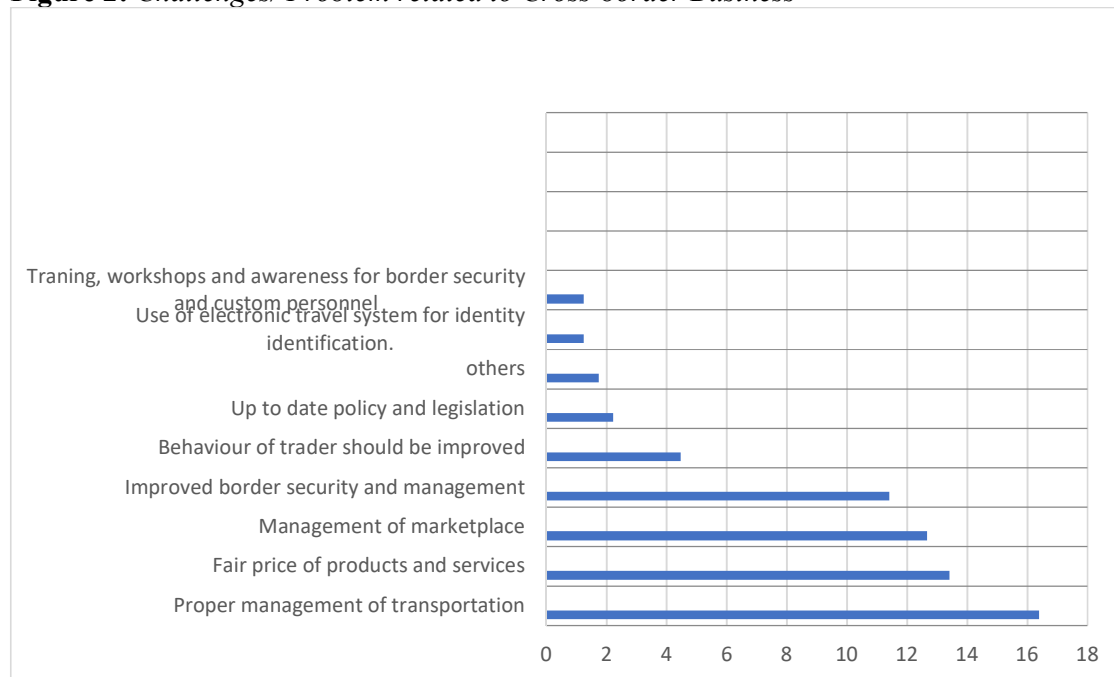
Clothes were the most popular item that purchased the most i.e (43.18%), according to the research. Price (34.74%) was the main motivator for buying cross-border goods. In the similar study conducted by Paudel et al., (2018), it shows the contradict result. While most buyers (63.52%) only sometimes made such purchases. Yet, most customers (94.29%) were happy with the service they received from the traders, and 44.67% thought it was excellent. Most customers (50.62%) did not need to exchange currency while buying things from

cross borders. Among them, the majority (47.15%) of the customer exchanged currency with locals. Most customers (96.77%) chose to pay in cash. It shows that majority of customers prefer to pay with cash. In the similar study conducted by Rahman et al., (2018) it shows the contradict result. While most consumers (23.82%) did not face issues with currency exchange, a significant proportion sometimes (12.16%), rarely (9.68%), or always (3.72%). The majority of customers (48.64%) were somewhat satisfied with the pricing of cross-border items, while a significant portion (35.24%) were completely satisfied, neutral (12.41%), not at all satisfied (2.73%), or somewhat unsatisfied (0.99%). In the similar study conducted by Huseynov and Yildirim (2016), it shows the contradict result.

5.3 Challenges/ Problem and Managerial Solution

According to the survey results, most customers (54.59%) had some problems or difficulties while making cross-border purchases. Transportation mismanagement was the most prevalent issue that consumers mentioned, as indicated by 17.62% of them. The lack of a fair price for all customers, market mismanagement, custom-related policy issues, security issues, improper trader behaviour, terrorists misusing trader behaviour, bribery-related issues, paperwork complexity, regulation and tax issues, language and currency exchange issues, and others are other issues that customers face.

Figure 2: *Challenges/ Problem related to Cross-border Business*



According to the survey's findings, most consumers (53.6%) think that the issues associated with purchasing items from other countries can be resolved, while the rest of the consumer don't feel that. 16.38% of customers who thought the problem could be solved said that managing transportation was the best way to do it, followed by fair pricing of goods and services (13.4%), managing the market (12.66%), improving border security and management (11.41%), improving the trader behavior (4.47%), and improving policy and legislation (2.23%). Consumers also offered a range of ways to improve their intention to use cross-border items, such as improving the management of the marketplace, increasing the variety of the products, fixing issues with customs-related policy, and using electronic travel systems for identity verification. However, a small percentage of consumers (1%) believe the problem will

never be resolved because of the government's negligence and the ineffective management of businesses by businessman. According to the survey, customers attribute the majority of the responsibility for the problem (32.51%) to the government, followed by businessmen (15.63%), police (2.73%), local people (1.99%), customers (0.5%), and cross-border communities (0.25%). These findings suggest that customers in Birgunj-border have come up with several solutions to the problem of cross-border trade after COVID-19. Nonetheless, it is primarily the government's job to address the problems and provide a favourable climate for cross-border commerce. Companies and other interested parties can also undertake the necessary improvements.

5.4 Inferential Analysis

5.4.1 Measurement Model

In measurement model, internal consistency reliability, convergent validity and discriminant validity were measured. In internal consistency reliability, cronbach's alpha and composite reliability were checked. Generally, the cronbach's alpha value should be greater than 0.7. However, Cronbach's alpha upto 0.6 is considered acceptable (Lawaju et al., 2024). In table 5 all the CA values are greater than 0.6 n CR values are greater than 0.7 indicating that there is no problem of internal consistency reliability (Magar et al., 2023). For the data to demonstrate convergent validity, it should satisfy the condition of AVE>0.50 (Kock, 2020). Table 5 shows that the condition for AVE has been satisfied. So, there is no issue of convergent validity in the study.

Table 3: Composite Reliability and Validity

Constructs	Indicator	Factor loading	Cronbach's Alpha	CR (rho_c)	AVE	Deleted Indicator
Utilitarian CBB Motivation	UCM_1	0.857	0.778	0.850	0.588	UCM_4 UCM_5
	UCM_2	0.693				
	UCM_3	0.750				
	UCM_6	0.760				
Social CBB Motivation	SCM_2	0.751	0.654	0.810	0.588	SCM_1 SCM_5 SCM_6
	SCM_3	0.826				
	SCM_4	0.720				
Hedonic CBB Motivatio	HCM_1	0.593	0.787	0.860	0.609	HCM_3 HCM_6
	HCM_2	0.837				
	HCM_4	0.839				
	HCM_5	0.825				
Purchase Intention	PI_1	0.682	0.582	0.770	0.531	PI_2 PI_3
	PI_4	0.628				
	PI_5	0.857				

5.4.2 Discriminate Validity

To test the discriminant validity, we look the Fornell-Larcker, cross-loading and the Heterotrait-Monotrait (HTMT). As per Fornell-Larcker test, the square root of AVE should be greater than correlation with any other construct (Hair et al., 2020). This criterion was met (Table 6). Similarly, in context of Cross loading, cross loading values in other structures must all be lower than the related construction's value for the outer loading indicator (A Kassem et al., 2020; Khadayat et al., 2024). The cross loading is shown in table 7. Moreover, the HTMT ratio should be less than 0.85 or 0.90. (Ab Hamid et al., 2017). The table 8 shows that HTMT

ratio in which HTMT values don't exceed the threshold value i.e. 0.85 and 0.90 for all constructs (Lawaju et al., 2024). So, there are no issues with discriminant validity.

Table 4: Fornell-Larcker Test

Variables	hcm	pi	scm	ucm
hcm	0.78			
pi	0.556	0.729		
scm	0.614	0.477	0.767	
ucm	0.635	0.332	0.526	0.767

Table 5: Cross Loading

	hcm	pi	scm	ucm
hcm_1	0.593	0.233	0.288	0.432
hcm_2	0.837	0.438	0.454	0.493
hcm_4	0.839	0.457	0.545	0.583
hcm_5	0.825	0.532	0.564	0.488
pi_1	0.292	0.682	0.288	0.141
pi_4	0.27	0.628	0.232	0.119
pi_5	0.566	0.857	0.463	0.377
scm_2	0.49	0.312	0.751	0.457
scm_3	0.503	0.44	0.826	0.374
scm_4	0.42	0.325	0.72	0.4
ucm_1	0.474	0.251	0.396	0.857
ucm_2	0.341	0.139	0.268	0.693
ucm_3	0.395	0.209	0.304	0.75
ucm_6	0.625	0.339	0.535	0.76

Table 6: HTMT

	hcm	pi	scm	ucm
hcm				
pi	0.724			
scm	0.825	0.705		
ucm	0.763	0.392	0.692	

5.4.3 Structural Model

The link between latent and unobserved constructs is addressed by the inner model, also known as the structural model (Rahma et al., 2022). Four crucial structural model elements, including the coefficient of determination (R^2), and (hypotheses testing) path coefficients, should be evaluated by researchers (Kusdibyo & Febuadi, 2019). The levels of various changing independent factors to the dependent variables are measured using the R-Square scores (Haudi et al., 2020). R^2 Values of 0.75 (Budinata & Susetyo, 2022), 0.50 (Siddiqui & Siddiqui, 2020), and 0.25 ((Lemos & Román-Calderón, 2019), are often regarded as strong, moderate, and weak, respectively. The figure 15 shows the weak predictive power of purchase intention (PI) which has R^2 value of 0.343. It indicates that only 34.3% variation in purchase intention (PI) is explained by the independent variable (Lemos & Román-Calderón, 2019). The Structural model is shown in figure15.

Figure 3: Structural Model

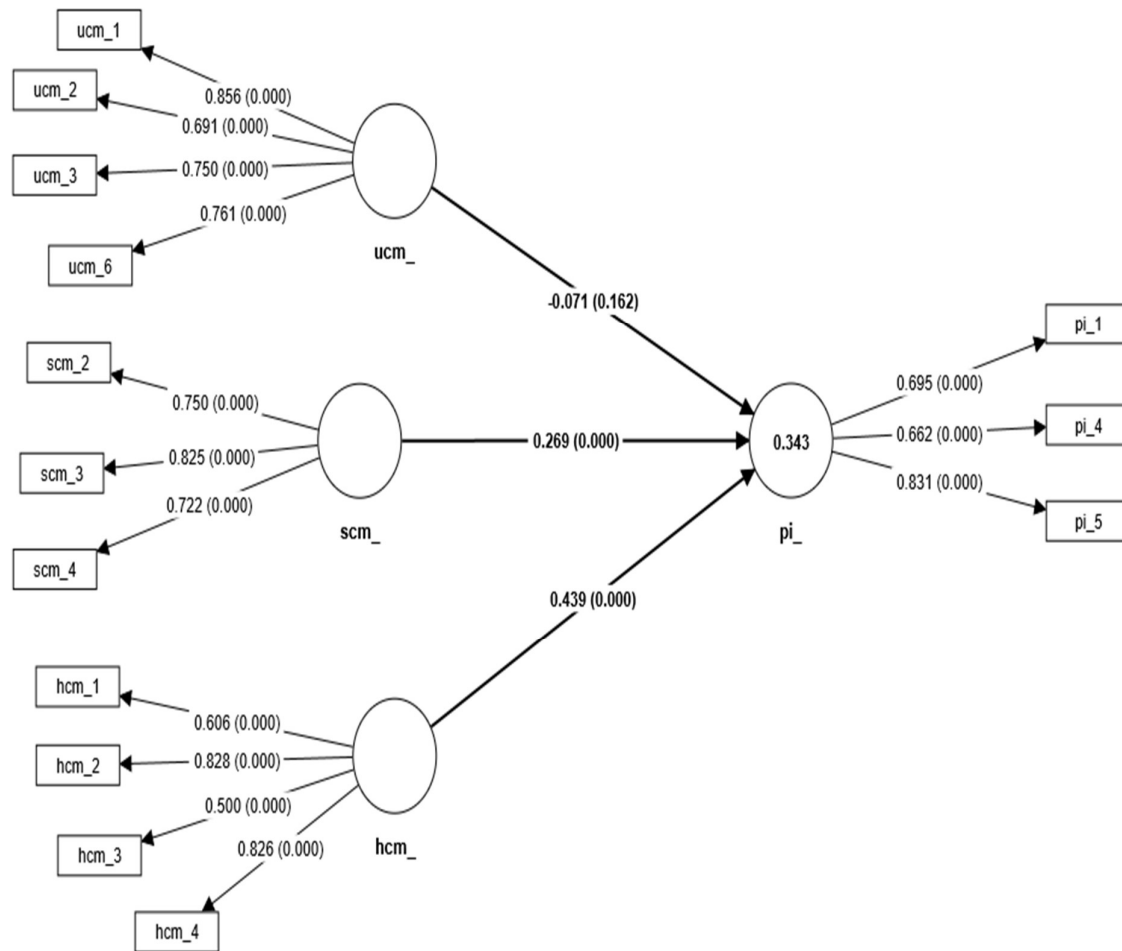


Table 7: Hypothesis Testing

	Beta (β)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STD EV)	P values	LL 2.50 %	UL 97.50 %	Result
hcm_ -> pi_	0.439	0.441	0.051	8.632	0	0.341	0.538	Supported
scm_ -> pi_	0.269	0.271	0.045	6.002	0	0.181	0.355	Supported
ucm_ -> pi_	-0.071	-0.067	0.051	1.397	0.162	-0.18	0.019	Not supported

Figure 3 and table 10 gives an overview of findings. The empirical data support the hypothesis H1(hcm_ -> pi_), H2 (scm_ -> pi_), and doesn't support the hypothesis H3 (ucm_ -> pi_), according to data analysis. The result shows that Purchase intention (pi) is significantly influenced by Hedonic CBB Motivation (hcm_) ($\beta=0.439$, p-value=0, $t=8.632$), Social CBB Motivation (scm_) ($\beta=0.269$, p-value=0, $t=6.002$) and Purchase intention (pi) is not significantly influenced by Utilitarian CBB Motivation (ucm_) ($\beta=-0.071$, p-value=0.162 $t=1.397$) and falls under upper limit and lower limit.

6. Discussion

To develop and test the link between construct, different reliability test and multiple linear correlation were utilized in the study. The study focuses on investigating the impact of Utilitarian cross border business motivation, social cross border business motivation, hedonic cross border business motivation on dependent variable Purchase Intention. The study reveals that majority of the customers faced challenges when buying cross-border products, with transportation management being the primary issue. However, a majority believed these problems could be resolved, with solutions focusing on improving transportation, fair pricing, and marketplace management. Yet, some expressed pessimism, citing government responsibility and business management as barriers to permanent solutions.

In the study three hypothesis were formulated where hypotheses 1 and 2 are accepted whereas hypothesis 3 is not accepted. Hypothesis 1 is accepted indicating that purchase intention is significantly influenced by hedonic cross border business motivation ($\beta=0.439$, $p\text{-value}=0$, $t=8.632$). This result is supported by the study of Novela et al. (2020) as it states that there is impact of hedonic motivation towards purchase intention. Sharifi et al. (2019) also states that hedonic cross-border business motivation plays crucial impact on purchase intention. The hedonic cross-border business motivation of pursuing joyful experiences also affects the purchase intention (Luo & ye, 2019). Similarly, hypothesis 2 is also accepted indicating that there is significant relationship between social CBB motivation and purchase intention. In other words purchase intention is significantly influenced by social cross border business motivation ($\beta=0.269$, $p\text{-value}=0$, $t=6.002$). Similar result is driven by Yu et al., (2022) as it also stated that customer's purchase intention is positively impacted by social motivation. Wu et al. (2018) also stated that consumers highly appreciate the chance to engage with others and establish connections while shopping (Wu et al., 2018). Finally, hypothesis 3 is rejected indicating that there is no significant relationship of utilitarian cross border business motivation with purchase intention as the empirical analysis does not support the required threshold of p value less than 0.05.

7. Conclusion

This study tries to determine the customer purchase intention in cross border business in Birgunj-border. In addition to examining the customer purchase intention in cross border business in Birgunj-border after Covid-19, to identify the challenges that affects the customer purchase intention in cross border business in Birgunj-border, and to recommend the managerial solution of cross border business commerce in Birgunj-border after Covid- 19.

The descriptive analysis guided us to the conclusion that most of the customers were young, male, local students who had earned bachelor's degrees and were unmarried. Joint families appeared to be the most common form of household among the customers. Most customers had incomes of at least twenty thousand, showing a reasonable level of purchasing power. The survey also showed that most cross-border transactions were made by customers for clothing, with pricing being the biggest factor. However, the customers experience problems because of inadequate management, poor pricing, and poor transportation management. Customers offered a variety of ideas to address these problems, such as market management, fair pricing for products and services, and control over transportation. The inferential based on PLS-SEM concludes that social cross border business motivation, hedonic cross border business motivation has significant impact on dependent variable Purchase Intention, but Utilitarian cross border business motivation play insignificant role in purchase intention. The findings can aid organizations and decision-makers in creating better strategies to satisfy consumer demands and expectations and enhance the cross-border purchasing experience. Customers are therefore more likely to decide to purchase from a cross border if they have a strong desire to interact with people and have fun when shopping from cross border.

References

1. A Kassem, M., Khoiry, M. A., & Hamzah, N. (2020). Assessment of the effect of external risk factors on the success of an oil and gas construction project. *Engineering, Construction and Architectural Management*, 27(9), 2767-2793. <https://doi.org/10.1108/ECAM-10-2019-0573>.
2. Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012163). IOP Publishing. Doi: 10.1088/1742-6596/890/1/012163
3. Adhikari, D. (2018). *Foreign Exchange Management in Nepal: Process, Assessment and Issues* (Doctoral dissertation, Maharaja Sayajirao University of Baroda (India)).
4. Alrammaal, H. H., Batchelor, H. K., Chong, H. P., Hodgetts Morton, V., & Morris, R. K. (2021). Prophylactic perioperative cefuroxime levels in plasma and adipose tissue at the time of caesarean section (C-LACE): A protocol for a pilot experimental, prospective study with non-probability sampling to determine interpatient variability. *Pilot and feasibility studies*, 7(1), 1-8.
5. Ayhan, H. Ö. (2011). Non-probability Sampling Survey Methods. *International encyclopedia of statistical science*, 14, 979-982.
6. Baral, T. N. (2018). Border disputes and its impact on bilateral relation: a case of Nepal-India international border management. *Journal of APF Command and Staff College*, 1(1), 28-36.
7. Barrett, A. K. (2018). Technological appropriations as workarounds: Integrating electronic health records and adaptive structuration theory research. *Information Technology & People*, 31(2), 368-387.
8. Bhatnagar, S., & Shahab Ahmed, Z. (2021). Geopolitics of landlocked states in South Asia: a comparative analysis of Afghanistan and Nepal. *Australian Journal of International Affairs*, 75(1), 60-79.
9. Bhattarai, G., & Pulami, M. J. (2022). Mapping Nepal's Foreign Policy Behaviour towards Great Power Politics: A Study of Nepal's Foreign Policy Response to the Russia-Ukraine Crisis. *Nepal Public Policy Review*, 2, 147-179.
10. Bhattarai, K., Conway, D., Bhattarai, K., & Conway, D. (2021). Impacts of economic growth, transportation, and tourism on the contemporary environment. *Contemporary Environmental Problems in Nepal: Geographic Perspectives*, 563-662.
11. Bindabel, W. (2020). M&A open innovation, and its obstacle: A case study on GCC region. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 138.
12. Bohara, D. (2020). *Indian Economic Blockade On Nepal: A Study Of Coercive Diplomatic Tactic* (Doctoral dissertation, Department Of International Relation & Diplomacy).
13. Budinata, T., & Susetyo, B. (2022). Quality in Housing Project: Examining the Relationship Towards Labour Productivity, Rework, And Customer Satisfaction Using PLS-SEM Approach. *Rekayasa Sipil*, 16(3), 156-162.
14. Davis, A. E., Gamble, R., Roche, G., & Gawne, L. (2021). International relations and the Himalaya: connecting ecologies, cultures and geopolitics. *Australian Journal of International Affairs*, 75(1), 15-35.
15. Devkota, N., Phuyal, R. K., & Shrestha, D. L. (2018). Perception, determinants and barriers for the adoption of climate change adaptation options among Nepalese rice farmers. *Agricultural Sciences*, 9(3), 272-298.
16. Ebabu, E. A., Yu, H., & Weikang, Z. (2025). Opportunities and challenges in cross-border e-commerce: strategic management within the legal context of BRI countries-A

- systematic literature synthesis and future research directions. *Technology Analysis & Strategic Management*, 1-20.
17. Gebregziabher, S., & Krauss, K. E. (2012). The Bi-directional Influence of Technology and Society: How M-PESA is shaping and is being shaped by business in Kenya. In *Proceedings of 4th International Conference on M4D Mobile Communication for Development* (p. 281).
 18. Gupta, S.(2020). Socio-economic and geo-political implications of the open border regime between India and Nepal.
 19. Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101-110.
 20. Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027.
 21. Hameed, K., Arshed, N., Yazdani, N., & Munir, M. (2021). On globalization and business competitiveness: A panel data country classification. *Studies of Applied Economics*, 39(2).
 22. Han, J. H., & Kim, H. M. (2019). The role of information technology use for increasing consumer informedness in cross-border electronic commerce: An empirical study. *Electronic Commerce Research and Applications*, 34, 100826.
 23. Handayani, N. (2019). The Relationship between product browsing on Instagram and shopping motivation, and its effects on purchase intention, word-of-mouth intention and impulse buying. *International Journal of Scientific and Engineering Research*, 10(1), 1234-1238.
 24. Haudi, H., Wijoyo, H., & Cahyono, Y. (2020). Effect of product innovation and marketing strategy on consumer purchase decisions in Indonesia's lightweight roof steel industry. *Journal of Critical Reviews*, 7(13).
 25. Hidayah, N., & Rodhiah, R. (2022). The Effect of Consumer Motivation (Social and Empowerment) on Online-Purchase Intention Mediated by the Trust Towards Retailers on Social Media. In *Tenth International Conference on Entrepreneurship and Business Management 2021 (ICEBM 2021)* (pp. 575-581). Atlantis Press.
 26. Karki, K. K., & Hari, K. C. (2020). Nepal-India relations: Beyond realist and liberal theoretical prisms. *Journal of International Affairs*, 3(1), 84-102.
 27. Kathuria, S., & Mathur, P. (2018). South Asia: A work in progress. *A Glass Half Full*, 127.
 28. Khadayat, A., Basyal, D. K., Lawaju, P., & Paudel, U. R. (2024). A study on the determinants of employee turnover in the academic institutions of Kathmandu Valley. *The Spectrum*, 2(1), 91-121.
 29. Khan, I. U., Hameed, Z., Yu, Y., Islam, T., Sheikh, Z., & Khan, S. U. (2018). Predicting the acceptance of MOOCs in a developing country: Application of task-technology fit model, social motivation, and self-determination theory. *Telematics and Informatics*, 35(4), 964-978.
 30. Kirti, K. (2021). Migration between India and Nepal: An Appraisal. *Demography India*, 50(1), 163-173.
 31. Kock, N. (2020). Harman's single factor test in PLS-SEM: Checking for common method bias. *Data Analysis Perspectives Journal*, 2(2), 1-6.
 32. Kumar, S., & Sadarangani, P. (2021). An empirical study on shopping motivation among generation Y Indian. *Global Business Review*, 22(2), 500-516.

33. Kusdibyo, L., & Februadi, A. (2019, November). The effect of electronic service quality on customers satisfaction and loyalty in online shopping. In *IOP Conference Series: Materials Science and Engineering* (Vol. 662, No. 2, p. 022036). IOP Publishing.
34. Lähteenmäki-Uutela, A., Yliskylä-Peuralahti, J., Repka, S., & Mellqvist, J. (2019). What explains SECA compliance: rational calculation or moral judgment? *WMU Journal of Maritime Affairs*, 18(1), 61-78.
35. Lawaju, P., Adhikari, S. U., & Devkota, J. (2024). Impact of AI in Education: An Evidence from Use of ChatGPT in Management Education in Nepal. *Quest Journal of Management and Social Sciences*, 6(3), 621-642.
36. Lawaju, P., & KC A, D. N. (2024). *Exploring post-COVID-19 travel intentions of foreign tourists in Nepal: An empirical study using structural equation modeling. Smart Tourism*. 2024; 5 (2): 2779. Age.
37. Lee, H. S., Yalcinkaya, G., & Griffith, D. A. (2024). Examining the relationship of country-level digital ad spend and cross-border e-commerce buyers under cultural and political globalization. *International Marketing Review*, 41(5), 1102-1117.
38. Lee, J. Y., Choo, H. J., & Lee, H. (2015). Fashion consumers' purchase intention on cross-border online shopping. *Fashion & Textile Research Journal*, 17(5), 741-753.
39. Lemos, M., & Román-Calderón, J. P. (2019). Potential therapeutic targets in people with emotional dependency. *International Journal of Psychological Research*, 12(1), 18-27.
40. Lu, C. W., Lin, G. H., Wu, T. J., Hu, I., & Chang, Y. C. (2021). Influencing factors of cross-border e-commerce consumer purchase intention based on wireless network and machine learning. *Security and Communication Networks*, 2021.
41. Luo, Y., & Ye, Q. (2019). The effects of online reviews, perceived value, and gender on continuance intention to use international online out shopping website: an elaboration likelihood model perspective. *Journal of International Consumer Marketing*, 31(3), 250-269.
42. Magar, S., Basyal, D. K., Lawaju, P., Paudel, U. R., & Poudel, D. K. (2023). Determinants of microfinance adoption, challenges encountered, and principal solutions: An empirical analysis using theory of planned behaviour. *Interdisciplinary Journal of Innovation in Nepalese Academia*, 2(2), 113-128.
43. Mao, Y., Yang, R., Bonaiuto, M., Ma, J., & Harmat, L. (2020). Can flow alleviate anxiety? The roles of academic self-efficacy and self-esteem in building psychological sustainability and resilience. *Sustainability*, 12(7), 2987.
44. Nagarjun, K. (2025). Religion as a diplomatic tool in international relations: A MULTIFACETED INFLUENCE. *The Social Science Review A Multidisciplinary Journal*, 3(1).
45. Neilson, T. (2011). King of charcoal: Japanese create new life for dying industry. *Inwood Magazine*, 96, 32-33.
46. Nepal, S., Neupane, N., Belbase, D., Pandey, V. P., & Mukherji, A. (2021). Achieving water security in Nepal through unravelling the water-energy-agriculture nexus. *International Journal of Water Resources Development*, 37(1), 67-93.
47. Novela, S., Sihombing, Y. O., Caroline, E., & Octavia, R. (2020, August). The effects of hedonic and utilitarian motivation toward online purchase intention with attitude as intervening variable. In *2020 International Conference on Information Management and Technology (ICIMTech)* (pp. 75-80). IEEE. Doi:10.1109/ICIMTech50083.2020.9211197.
48. Olowa, T., Witt, E., Morganti, C., Teittinen, T., & Lill, I. (2022). Defining a BIM-Enabled Learning Environment—An Adaptive Structuration Theory Perspective. *Buildings*, 12(3), 292.

49. Paudel, U. R., & Devkota, N. (2018). Socio-Economic influences on small business performance in Nepal-India open border: Evidence from cross-sectional analysis. *Economics & Sociology*, 11(4), 11.
50. Peña-García, N., Gil-Saura, I., Rodríguez-Orejuela, A., & Siqueira-Junior, J. R. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, 6(6), e04284.
51. Purwanto, A., & Sudargini, Y. (2021). Partial least squares structural equation modeling (PLS-SEM) analysis for social and management research: a literature review. *Journal of Industrial Engineering & Management Research*, 2(4), 114-123.
52. Radic, A., Quan, W., Koo, B., Chua, B. L., Kim, J. J., & Han, H. (2022). Central bank digital currency as a payment method for tourists: application of the theory of planned behavior to digital Yuan/Won/Dollar choice. *Journal of Travel & Tourism Marketing*, 39(2), 152-172.
53. Rahman, A. (2022). Revisiting the Relationship between E-Government and Corruption: An Empirical Investigation. *Athens Journal of Social Sciences*, 9, 1-16.
54. Regmi, R., & Kukreti, P. (2018). Socio Economic Impact of the Indonepal Blockade. Available at SSRN 3701803.
55. Sharifi Fard, S., Alkelani, A. M., & Tamam, E. (2019). Habit as a moderator of the association of utilitarian motivation and hedonic motivation with purchase intention: Implications for social networking websites. *Cogent Social Sciences*, 5(1), 1674068. <https://doi.org/10.1080/23311886.2019.1674068>
56. Siddiqui, T. A., & Siddiqui, K. I. (2020). FinTech in India: An analysis on impact of telecommunication on financial inclusion. *Strategic Change*, 29(3), 321-330.
57. Taneja, N., Prakash, S., Bimal, S., Garg, S., & Roy, R. (2020). Indo-Nepal trade and investment: An analysis. *India Quarterly*, 76(2), 243-275.
58. Timalisina, S. K. (2019). Nepal India Relations: People to People Contact. *International Journal of Innovative Science and Research Technology*, 4(3), 444-450.
59. Trapero, H. A. (2018). Investigating Individual's Engagement in Malleable IT within Adaptive Structuration Theory for Individuals.
60. Ul-Haq, A., Hassan, M. S., Jalal, M., Ahmad, S., Anjum, M. A., Khalil, I. U., & Waqar, A. (2019). Cross-border power trade and grid interconnection in SAARC region: Technical standardization and power pool model. *IEEE Access*, 7, 178977-179001.
61. Wagner, G., Schramm-Klein, H., & Schu, M. (2016). Determinants and Moderators of Consumers' Cross-Border Online Shopping Intentions. *Marketing: ZFP–Journal of Research and Management*, 38(4), 214-227.
62. Wang, L., Zhou, Y., & Zheng, G. (2022). Linking Digital HRM Practices with HRM Effectiveness: The Moderate Role of HRM Capability Maturity from the Adaptive Structuration Perspective. *Sustainability*, 14(2), 1003.
63. Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: the moderating role of experience. *Information Technology & People*.
64. Yu, F., Wenhao, Q., & Jinghong, Z. (2022). Nexus between consumer's motivations and online purchase intentions of fashion products: a perspective of social media marketing. *Frontiers in Psychology*, 13.
65. Yuen, K. F., Wang, X., Ma, F., Lee, G., & Li, X. (2019). Critical success factors of supply chain integration in container shipping: an application of resource-based view theory. *Maritime Policy & Management*, 46(6), 653-668.
66. Zhu, W., Mou, J., & Benyoucef, M. (2019). Exploring purchase intention in cross-border E-commerce: A three stage model. *Journal of Retailing and Consumer Services*, 51, 320-330.