

Building Trust through Reverse Logistics for Shaping Purchase Decision in E-commerce Platforms

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Abstract. This paper examines the mediating function of trust in the connection between online purchase decisions and reverse logistics capabilities. A structured questionnaire was used to collect data from 275 online shoppers as part of a descriptive-correlational study design applying structural equation modeling (SEM) for analysis of the research model. The study reveals strong reverse logistics capabilities impressively build customers trust, which in turn has a beneficial impact on online purchase decisions. The relationship between purchasing behavior and reverse logistics is found to be partially affected through trust, highlighting critical role of trust in bridging the gap between operational efficiency and consumer loyalty and satisfaction. Therefore, this study comes to the conclusion that e-commerce platforms need to show that their return policies are simple and that they can manage the full return process effectively if they want to maintain the trust of online consumers. The strategic significance of investing in reverse logistics to draw in and keep clients is highlighted by this study, which offers insightful information for Nepalese e-commerce platforms. By providing a dependable and consistent purchasing experience, companies may increase consumer trust and encourage positive buying behavior.

Keywords: Reverse Logistics, Trust, Purchase Decisions, E-commerce, Operational Efficiency

1. Introduction

Technology developments and convenience have led to a transformation in customer behavior with the rise of online shopping (Kasuma et al., 2020; Kawa & Pieranski, 2021; Jabar & Ogunsola, 2022). Customers expect easy-to-use tools for comparing products and safe payment methods, therefore businesses need to change to keep up with the times (Demangeot & Broderic, 2007). In addition to improving accessibility for a worldwide audience, this change brings to light important concerns including the need of online platform trust and the necessity of efficient reverse logistics (Jain & Malviya, 2021). Businesses looking to enhance purchasing decisions and cultivate client loyalty in the cutthroat world of e-commerce must comprehend these dynamics. Reverse logistics are therefore becoming an essential part of internet retail platforms (Kawa & Pieranski, 2021). Reverse logistics is a systematic procedure that aims to return goods or parts from the final consumers to the sellers (Agrawal et al., 2015; Anh & Khoa, 2024). A smooth return procedure is crucial to guaranteeing a satisfied customer experience in cases where products do not live up to expectations (Ozturk & Dundar, 2020). Online companies can have a competitive edge by implementing efficient returns management, which can increase customer happiness and loyalty (Kawa, 2019; Kumar, 2023).

The e-commerce industry in Nepal has observed substantial growth, especially after the post-pandemic, as online platform like; Daraz Nepal, Gyapu, Jeeve etc. grown in popularity. However, logistical issues and a lack of customer trust continue to be problems to progress. Research shows that strong return procedures and reverse logistics practices minimize perceived risk, promoting buyers' confidence in online platforms (Gefen et al, 2003; Rao et al., 2011; Dahal & Bista, 2020; Dhungana, 2024). Success in e-commerce depends on trust, particularly in developing nations like Nepal where customers are frequently afraid of online purchases because they fear fraud, inadequate after-sales support, and low-quality products (Devkota et al., 2021; Wang et al., 2023). Enabling efficient product returns, refunds, and exchanges, reverse logistics improve customer satisfaction and the trust of online platforms. Customers, many of whom are new to online buying, are less likely to be afraid to make purchases when a reverse logistics system is transparent and reliable (Paudel, 2021; Sharman & Singh, 2022). This research is extremely relevant since it discusses important aspects of Nepal's evolving e-commerce landscape. It gives stakeholders important information on how to use reverse logistics to increase customer trust and influence purchasing decisions.

In the intense online business, shopping experience of consumer is greatly influenced by prompt execution of the process of reverse logistics capabilities (Jain et al., 2020; Tandon et al., 2021). Ineffective reverse logistics can result in monetary losses, unhappy clients, and difficulties with operations (Liu, 2014; Ventre & Koble, 2020). Effectively handling product returns is essential for e-shopping platforms to increase consumer happiness and trust, which will ultimately help them establish a solid reputation (Kassim & Abdullah, 2008; Tandon et al., 2021). A well-designed return policy gives a business a competitive edge in a highly competitive marketplace by fostering customer trust and loyalty in addition to aiding in recovery from service issues (Ryba, 2027; Jalil, 2019; Khan et al., 2024). The ease of returns is becoming a top priority for customers, thus online retailers need to be more strategic in their approach to reverse logistics (Chaudhary et al., 2023; Chaudhary & Niraula, 2023; Khan et al., 2024). The degree to which e-commerce platforms manage the reverse journey from returns to possible recycling or resale can have a big impact on customer trust and happiness resulting overall success and recurring revenue of e-commerce platforms (Jalil, 2019; Kawa, 2019). A smooth, quick, and easy return policy promotes trust and favorable opinions about e-platforms (Abrar et al., 2021; Namweseza et al., 2024). Thus, gaining trust of customers requires a return policy that is flexible, equitable, and easy to use (Anh & Khoa, 2024; Salas-Navarro et al., 2024).

Recent innovations in technology and changing consumer behavior have led to a considerable growth and transition in the online shopping platform ecosystem (Jeffery, 2023). Simultaneously, reverse logistics has changed, which is crucial for handling product returns and improving sustainability in the

supply chain for online sellers (Plaza-Ubeda et al., 2020). In this context, it is essential to comprehend how reverse logistics affects customer satisfaction, trust, and purchase decisions (Panigrahi et al., 2018). Effectively handling product returns becomes essential to preserving customer satisfaction and trust as online platforms grow (Nguyen & Nguyen, 2020; Tzeng & Ertz, 2021). Building trust and improving customer satisfaction require a compassionate and easy return policy (Oghazi et al., 2018; Anh & Khoa, 2024).

Reverse logistics is a crucial component of online shopping that extends beyond simply handling product returns (Khan et al., 2024; Thu et al., 2024). It helps to facilitate changes, foster consumer trust, loyalty, and improve brand reputation to attract customers (Wang et al., 2021; Khan et al., 2024). A complex link is created between purchase intention and trust due to customer concerns about potential financial loss, product satisfaction, and privacy (Jain et al., 2020; Wang et al., 2022). Additionally, inconsistent reverse logistics may weaken customers' trust on a variety of online platforms, which discourages them from making purchases (Ventre & Koble, 2020). Research on reverse logistics capabilities and consumer experiences is still insufficient in developing economies (Anh & Khoa, 2024). The necessity of investing in reverse logistic abilities and analytics is emphasized by Appiah and Owusu-Bio (2024); Asghar and Mohmud (2020) stressing how these investments can improve corporate performance and solidify relations with consumers. Even though Nepalese e-commerce industry has grown significantly, there are still few thorough studies looking at how reverse logistics affects decisions to buy from a customer trust perspective. To fulfil the gap, this research tries to find reverse logistics mechanism and examine how they affect purchasing decisions through consumers trust towards e-commerce platforms.

2. Review of Literature and Hypothesis

The movement of goods from customers back to retailers or manufacturers is the focus of reverse logistics, and is essential to the e-commerce supply chain (Jainullabdeen et al., 2023). Effective reverse logistics services have grown in importance, particularly in the online industry, and are now a crucial differentiator for businesses (Grabara & Kolcun, 2014). This procedure includes a number of tasks, such as handling returns, processing refunds, maintaining unsold inventory, and product reconditioning (Jenkins, 2021). Reverse logistics is being used by businesses more and more to give them a competitive edge in the internet market. Managing product returns for e-commerce platforms caused by defective goods or failed deliveries aims to increase client happiness and boost loyalty (Jenkins, 2021).

The importance of logistics has grown as the growth of online commerce continues at a rapid pace. Online commerce platforms now include reverse logistics as a crucial element (Kawa & Pieranski, 2021). Customers demand a simple return procedure when something does not live up to their expectations in order to guarantee a satisfying purchasing experience (Ozturk & Dundar, 2020; Gopi & Nithya, 2022). Online firms can gain a competitive edge by implementing efficient returns management, which can improve customer happiness and loyalty (Kawa, 2019). Reverse logistics, often known as a reverse supply chain, is in charge of handling goods that consumers return or recycle. This procedure involves returning goods from the consumer to the manufacturer or merchant (Kumar, 2023). Many studies indicated reverse logistics is important for online purchasing since it affects customer pleasure, trust, and loyalty directly (Jalil, 2019). Zaiba (2023) asserts that efficient reverse logistics handling of product returns is essential for raising consumer happiness, streamlining the supply chain, and encouraging e-commerce development. Thus, in a situation where buyers are unable to physically inspect things before making a purchase, it is essential to provide simple and easy return procedures (Wanganoo, 2022).

Trust is a crucial link between reverse logistics and customer behavior (Hultman & Fohlin, 2019). It has a significant impact on how customers make purchases and maintain their interactions with online stores (Kim et al., 2008). Consumers are more likely to make additional purchase and refer other people to a platform when they have trust in its ability to process returns fairly and efficiently. Thus, the ability to develop and uphold customer trust is critical to the success of online shopping platforms and their logistical operations (Devkota et al., 2021). Customer trust is essential to the continue of businesses in the e-commerce space. This trust is a complex social phenomena shaped by a variety of behavioral, technological, social, psychological, and organizational elements. It encompasses a number of beliefs, attitudes, intentions, and the desire for participating in transactions (Salam et al., 2005). Furthermore, a key factor influencing consumers' buying intentions is trust. Analyzing the complex relationship between trust and consumers' propensity to purchase poses several challenges (Wang et al., 2022). Its wide-ranging and substantial effects highlight how important trust is in influencing consumer behavior (Wang et al., 2023).

A purchase decision involves evaluating multiple options and choosing one. It's a continuous, thoughtful process aimed at satisfying needs through consistent actions. Purchase decisions are further defined as a continuous and intentional process involving deliberate and consistent activities targeted at meeting needs. When people or families make personal consumption purchases, consumer behavior is visible, with specific actions in the decision-making process impacted by factors such as habit, brand, situation, and accessible alternatives. (Triani & Setiawan, 2019). For businesses involved in online shopping, retaining existing customers encouraging further purchases is becoming increasingly important (Wen et al., 2014). Convenience, cost, product availability, user feedback, and website usability are some of the variables that affect this decision-making process, and these variables play a vital role (Mican & Taut, 2020).

Trust is the main pillar for the online shopping business that drives customers to purchase something from the online (Miao et al., 2022). Trust becomes even more important in the context of reverse logistics since it handles the risks and unpredictability related to online purchases as per Olorunniwo & Li (2010). It implies that the lack of interaction with products in e-commerce increases the requirement for trust since consumers rely on the online platform to deliver as promised (Sharma & Bahl, 2018). Babarinde (2024) suggests that highlighting the part reverse logistics plays in building trust is crucial. Customers feel comfortable about the security of the e-commerce platform through efficient reverse logistics, which includes fair and transparent return rules, quick processing of refunds, as well as open communication. Kim et al. (2008) further explained that customers' perceived risks are decreased and their confidence in making purchases is increased when they believe they may return items without difficulty. This trust depends on clear return procedures, fast return processing, and effective communication throughout the return process (Ridwan et al., 2023).

Reverse logistics capabilities improved trust and influenced purchase decisions by providing accurate information on product returns and refunds (Triani & Setiawan, 2019). When customers shop online, they are more likely to believe e-commerce sites that protect their privacy, are safe, seem attractive, and offer high-quality content (Furi & Usman, 2021). The decision to purchase something online demonstrates the individual's purpose to make a transaction through that website (Salim, Hayu, & Agustintia, 2023). Trust in reverse logistics refers to a company's ability to efficiently manage returns, exchanges, and refunds (Jenkins, 2021). When consumers are assured that returning a product will be hassle-free and that their concerns will be promptly addressed, they are more likely to make a repurchase from the online stores (Mollenkopf, Rabinovich, & Laseter, 2007). Trust reduces the perceived risk associated with online shopping, particularly for items that might require returns (Kim et al., 2008). Reverse logistics systems that are effective not only improve consumer satisfaction but also purchase intention and loyalty (Ryba, 2017).

Reverse logistics capabilities are the internal resources and procedures of the company used to successfully and efficiently handle reverse flow activities (Zam, 2021), and according to Jack & Powers (2010), reverse logistics capabilities have an important impact on online consumers' purchasing decisions. As Effective reverse logistics, which include simple return policies, quick refunds, and effective product exchanges, become increasingly important considerations for consumers as they prioritize ease and flexibility in their purchasing decisions (Panigrahi et al., 2018). That's how improved reverse logistics allows businesses to stand out in the competitive online market, draw in additional customers, and promote repeat business, all of which enhance overall sales and profitability (Ogunleye, 2013). Thus, reverse logistics capabilities have grown in importance recently, along with an increase in the importance of online shopping (Rajagopal & Sundram, 2015). These literatures suggest that companies with strong reverse logistics capabilities such as accuracy, availability, timeliness, and usefulness will see a positive impact on their sales and customer loyalty.

The hypothesis suggests that trust significantly mediates the relationship between reverse logistics capabilities and consumer purchase decisions. Effective reverse logistics capabilities, such as efficient handling of returns, exchanges, and refunds, help to develop consumer trust by ensuring that post-purchase issues are resolved smoothly and consistently (Tyagi & Dhingra, 2021). In product return activities, sellers and customers have to maintain a balance between risk and trust (Hultman & Fohlin, 2019). Customers understand and decide where to make their purchases because of the convenience of returns, which is supported by clear return policies that they can trust easily (Panigrahi et al., 2018). Customers are more willing to make purchases when they have trust in a company's reverse logistics processes, believing that any possible issues will be handled effectively (Paula & Pagani, 2020). Therefore, trust acts as a crucial mediator, linking the operational effectiveness of reverse logistics to positive purchase behavior and customer loyalty (Hultman & Fohlin, 2019). Therefore, considering the literatures following research framework and hypothesis can be generated:

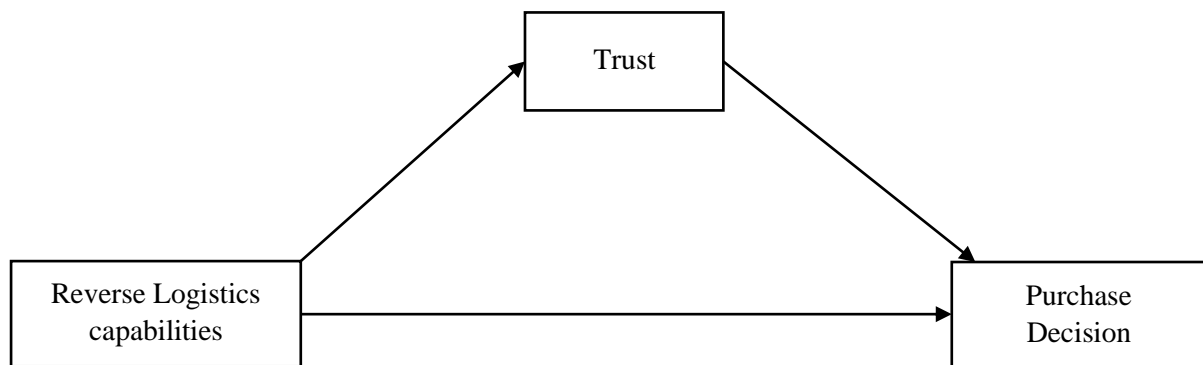


Fig.1: Research Framework

H1: Reverse logistics capabilities significantly affects trust.

H2: Trust significantly affects purchase decision.

H3: Reverse logistics capabilities significantly affects purchase decision.

H4: Trust significantly mediates the relationship between reverse logistics capabilities and purchase decision

3. Methodology

3.1 Research Design

The presented survey research is intended to examine the mediating role of trust between reverse logistic capabilities and purchase decision in online platforms. The paper used descriptive cum correlational research design to convey an overview of current position of reverse logistics capabilities in Nepalese

online shopping platforms. It also examines the connection among reverse logistics capabilities, trust and purchase decision. Deductive approach with quantitative technique is applied to fulfill the study objectives.

3.2 Population and Sampling

The trend and interest on online shopping in different e-shopping platforms is significantly growing in Nepal. Despite this fact there is scarce researches on reverse logistics capabilities and its impact on purchase decisions of online customers in developing economies like Nepal. Considering these literatures, present study's target population is all those peoples who had made purchases from online shopping platforms as well as had an experience of return process from the same platforms. Hence, this study attempted to reach the customers of Nepalese online shopping platforms like Daraz Nepal, Sastodeals, Hamrobazar, Jeeve etc. As, these platforms are well-known, trustworthy, dominant and mostly preferred e-shopping platforms in Nepal (Vaidya, 2019; Singh, 2021). However, it is very difficult to reach those peoples who had both the characteristics of online shopping and returning goods through same platforms as being sample for this study. Hence, snowball sampling technique is used to select sample for this study as recommended by Karadag & Gultekin (2023). Firstly, e-shopping customers of different online platforms were selected randomly then asked them whether they have any experience of returning goods through same platforms or not. If any of them found with these experience then they were considered as the sample for this study. Also, many of them referred their friends and relatives who have these two sampling characteristics for this study were also chosen as sample for this study. The study focuses on urban e-commerce consumers, especially those who live in places like Kathmandu and Lalitpur, Nepal. Where access to online platforms and internet connectivity is better; additionally, there are more online shoppers in these urban areas, e-commerce services are used more frequently, and return procedures may be appropriately handled than in rural areas facing internet connectivity service issues.

A sample size of 275 respondents was chosen to balance practical limitations such as cost, time, and accessibility with the reliability and validity of the results. This sample size follows Hair et al. (2019) recommendations, which advise studies using quantitative research methods to have a minimum sample size of 200–300, especially when analyzing multiple variables or performing sophisticated statistical tests. The adequacy of the sample size is further supported by power analysis, a statistical technique that establishes the minimum sample size necessary to detect an effect of a given size with a given level of confidence. Under the assumptions of a medium effect size ($f^2 = 0.15$), a power ($1-\beta$) of 0.80 (the standard threshold in social sciences), and a significance level (α) of 0.05, the sample size needed for regression analysis with up to five predictors would be roughly 160–200 participants (Cohen, 1988). With a sample size of 275, the study has more statistical power to identify significant effects and relationships.

3.3 Data Collection Procedure and Measurement Scales

Structured five point Likert scale questionnaire were distributed to the sampled e-shopping customers for collecting first hand data. To contact relevant sample customer for the study, data of e-shopping customers were requested from these e-shopping service providing organization. Random phone calls were made to the customers as data provided. If these customers comprise study sample characteristics, then final questionnaire were sent through email to collect the data. Similarly, the researcher also contacts sample customers through own networks and distributed hard copy of questionnaire as well. To explore the key factors of the study, questionnaires consist of 10 items extracted from Khan et al. (2024); Tandon et al. (2021) to measure the reverse logistics capabilities. While 10 items were brought from Fjelkner et al. (2006); Kassim & Abdullah (2008) and Lim (2015) to measure trust. Also, 10 items were obtained from Kassim & Abdullah (2008); Hong & Cha (2013); Tandon et al. (2021) to measure purchase decision in online platforms.

3.4 Data Analysis Procedure

The raw data collected from google form and hard copies of questionnaires were processed through MS-Excel and SPSS. To present recent position of reverse logistics capabilities in Nepalese e-commerce platforms, descriptive statistics are used. Likewise, SEM was applied to explore the connection among study variables. Also, the internal consistency of the scales used to measure the constructs was assessed using Cronbach's Alpha. Table 1 illustrated overall reliability of the scales used under this study.

Table 1: Result of reliability analysis

Variables	Cronbach's Alpha	No of Items
Reverse Logistics Capabilities	0.840	8
Trust	0.887	8
Purchase Decision	0.895	10

Source: Authors' own calculation

The Cronbach's alpha values in table 1 displays the scales used to measure the different constructs are greater than 0.7. Alpha values for reverse logistics is 0.840, for trust is 0.887 and for purchase decision is 0.895 which are considered to be acceptable for academic research and shows a good degree of internal consistency (Nunally, 1978; Taber, 2018).

4. Data Analysis and Results

Table 2: Respondents Profile

Respondent Profile	Specifications	Frequency	Percentage
Gender	Male	121	44.0
	Female	154	56.0
Age Group	Less than 20	20	7.3
	20-25	68	24.7
	25-30	89	32.4
	More than 30	98	35.6
Frequency of online shopping	Once or twice a month	134	48.7
	More than twice a month	59	21.5
	Once or twice a year	51	18.5
	More than twice a year	31	11.3
Frequency of return process	Once or twice a month	50	18.2
	More than twice a month	42	15.3
	Once or twice a year	121	44.0
	More than twice a year	62	22.5

Source: Survey, 2024

Table 2 illustrated demographic features and online shopping behavior of the respondents. Table shows skewed distribution towards numbers of female (56%) than of male (44%). It indicated that most of respondents were young adults. Table demonstrate that majority (48.7%) of the respondents likes online shopping 1-2 times every month. While least (11.3%) of the respondents do online shopping more than 2 times every year. This indicates, growing trend of online shopping habits among the youth of Nepal. Also, table displays, majority (44%) respondents engaged in online return process of the goods they bought 1-2 times every year. While, least (15.3%) respondents engaged in the same process more than two times every month. This specifies the importance of managing proper reverse logistics capabilities for online shopping platform service providing companies to retain their valued customers.

Table 3: Descriptive statistics and factor loadings

Constructs		Summated Mean	Summated Standard Deviation	Factors	Loadings
Reverse Capabilities	Logistic	3.44	0.97	RVL2	0.803
				RVL3	0.722
				RVL6	0.634
Trust		3.57	0.89	Tr1	0.687
				Tr2	0.748
				Tr4	0.774
				Tr5	0.663
				Tr6	0.707
				Tr7	0.729
				Tr8	0.760
				Tr8	0.760
Purchase Decision		3.79	0.83	PD1	0.725
				PD3	0.715
				PD4	0.739
				PD5	0.633
				PD7	0.796
				PD7	0.796
				PD8	0.714
				PD8	0.714

Source: Authors' own calculation

The summated mean (3.44) and S.D. (0.97) indicate decent position of reverse logistic capabilities in Nepalese e-commerce platforms. However, every facet of reverse logistic capabilities is not in same status. Similarly, summated mean (3.57) and S.D. (0.89) for trust specify that majority of respondents had trust in their respective online shopping platforms. Additionally, summated mean (3.79) and S.D. (0.83) for purchase decision state that majority of the respondents are positive towards their purchase decision in online shopping in Nepal.

The factor loadings for every item were evaluated as part of the confirmatory factor analysis process. Low factor loadings (<.50) led to the removal of eight items (from the construct reverse logistic capabilities: RVL1, RVL4, RVL5, RVL7, RVL8; trust: Tr3; from purchase decision: PD2, PD6, PD9, PD10). The sixteen items are kept in consideration of their factor loadings more than 0.50 as per Hair et al. (2016).

Table 4: Convergent and Discriminant Validity

Constructs	CR	AVE	MSV	Trust	Reverse Logistics	Purchase Decision
Trust	0.886	0.526	0.308	0.725		
Reverse Logistics	0.765	0.523	0.299	0.509	0.723	
Purchase Decision	0.867	0.521	0.308	0.555	0.547	0.722

Source: Authors' own calculation

Composite Reliability (CR) values (0.886, 0.765, and 0.867) are higher than the suggested values of 0.7. Also, CR values are higher than average variance extracted (AVE) values. It is proven that the constructs used in this investigation have convergent validity (Fornell and Larcker, 1981; Hair et al.,

2016). Similarly, discriminant validity of constructs was established considering Fornell and Larckers' (1981) criteria as the square root of AVE (shown by bold digits: 0.725, 0.723, and 0.722) for all three constructs being greater than its correlation coefficient.

Table 5: Model Fit Indicators

Fit Indicators	Authors	Recommended Value	Observed Values
CIMIN/DF	Hair et al.(2010)	< 3	2.036
GFI	Hair et al.(2010)	> 0.90	0.915
IFI	Hair et al.(2010)	> 0.90	0.947
TLI	Bentler, 1990	> 0.90	0.937
CFI	Bentler, 1990	> 0.90	0.947
RMR	Hair et al.(2010)	< 0.08	0.042
RMSEA	Hu and Bentler (1998)	< 0.08	0.061

Source: Authors' own calculation

A structural equation model created using AMOS was used to examine the relationship between the constructs. A proposed model fit is approved if the AMOS calculated values of CMIN/DF, goodness-of-fit indices (GFI), Tucker & Lewis (1973) index (TLI), confirmatory fit index (CFI) (Bentler, 1990), RMR, and RMSEA met the threshold values (Hair et al., 2010). The fit indices for the model displayed in table 4.3 (CMIN/DF = 2.036, GFI = 0.915, TLI = 0.937, CFI = 0.947, RMR = 0.042, and RMSEA = 0.061) all fell within the acceptable range.

Table 6: Test of Hypothesis

Hypotheses	Standardized Beta (β)	P values	Decisions
Direct Effects			
H1. RVL ---> Trust	0.468	0.000	Supported
H2. Trust ---> PD	0.316	0.000	Supported
H3. RVL ---> PD	0.278	0.000	Supported

Source: Authors' own calculation

The path model illustrated in table 6 shows the association among the constructs under the study model. The result supported H1, indicating that reverse logistics has a significant positive effect (direct effect) on trust (RVL ---> Trust: $\beta = 0.468$, $p < 0.05$). The result also supported H2, showing trust has a significant positive effect (direct effect) on purchase decision (Trust ---> PD: $\beta = 0.316$, $p < 0.05$). Similarly, the results revealed that reverse logistics has a significant positive effect (direct effect) on purchase decision (RVL ---> PD: $\beta = 0.278$, $p > 0.05$). Hence, H3 is supported.

Table 7: Mediation Analysis Summary

Relationship	Direct Effect	Indirect Effect	Confidence Interval		P-Value	Conclusion
			Lower Limit	Upper Limit		
H4. RVL---> Trust - --> PD	0.278 (0.000)	0.148	0.096	0.280	0.000	Partial Mediation

Source: Authors' own calculation

A significant indirect effect of reverse logistics capabilities on purchase decision through trust is demonstrated by the results in table 7 (RVL ---> Trust ---> PD: $\beta = 0.148$, $p = 0.000 < 0.05$). Furthermore, the findings indicate that, in the presence of the mediator (trust), there is also a visible direct relationship between reverse logistics capabilities and purchase decision ($\beta = 0.278$, $p = 0.000$). The relationship between reverse logistics capabilities and the purchase decision is partially mediated by trust, as indicated by this result, which also supported H4

Result indicated that trust acts as a partial mediating factor in the relationship between online purchase decisions and reverse logistics capabilities. Customers' desire to make purchases online is greatly influenced by their level of trust since they need to know that their exchange or return requests will be processed quickly. The findings showed that reverse logistics is not the only factor influencing online buying decisions. Other factors include delivery time, cost, and product quality perceived organizational performance, perceived risk, perceived technology, and perceived ease of use of online platforms etc. The decision-making process may be somewhat mediated by confidence in the platform's reputation and overall service. Customers are more inclined to trust the platform and complete their purchase if it has a reputation for providing excellent customer care and dependable reverse logistics.

5. Discussion & Conclusions

The purpose of this research is to inspect the level of reverse logistics capabilities in Nepalese e-commerce platforms. It also looks at how trust functions as a mediator in the interaction between these online platforms' reverse logistics capabilities and consumers' purchasing decisions. The paper revealed, Nepalese online buyers have perceived a decent position of reverse logistics capabilities are compiled by these platforms. Paper also exposed a positive effect of reverse logistics capacity of the trust of online customers. This finding align with studies of Tandon et al. (2021); Oghazi et al. (2018); Pei et al. (2014); Li et al. (2013) and Griffis et al. (2012) indicating a positive relationship between reverse logistics capabilities and trust. Reverse logistics' success is impacted by a number of important elements, such as customer service, return processing time, cost, policies, and product quality following a return process (Thu et al., 2024; Davidaviciene & Majzoub, 2021). These results highlight how important it is for e-commerce platforms to have strong reverse logistics capabilities in order to build trust and satisfaction across globe. It suggests that in order to win over their online customers' trust, e-commerce platforms need to be able to persuade them of the simplicity of their return policies and their capacity to efficiently handle the complete return procedure.

This paper found a strong effect of trust on purchase decisions on online platforms. Similar to this, numerous studies have shown that trust in online shopping is a prerequisite for making an online purchase (Gefen et al., 2003; Kim & Park, 2013). Trust is essential to a customer's complete online shopping experience, as customers cannot directly inspect products and online fraud (Mahliza, 2020). Thus, trust in buying goods online ought to encourage a desire to make regular purchases. Likewise, Prabowo et al. (2014) confirmed a notable positive correlation between trust and the intention to repurchase. Research from several studies has revealed that trust significantly influences decisions made while making online purchase decision (Mahliza, 2020; Musliikh & Hidayati, 2017; Akbar et al., 2020). Brand image, perceived danger, and security are factors that affect trust (Mahliza, 2020). Furthermore, decisions to make online purchases are positively impacted by ease, service excellence, and customer happiness (Irawan, 2018; Musliikh & Hidayati, 2017). A few other factors that influence online purchasing decisions are price, process ease, and information availability (Akbar et al., 2020). On the other hand, another study by Akbar et al. (2020) claimed that safety had a large beneficial influence on online purchase decisions, while Irawan (2018) revealed that security had a negative and insignificant effect. These studies highlighted the complex connections between several elements that impact trust and online purchase decisions.

The paper validates research hypothesis, showing positive effect of reverse logistics capabilities on online purchase decision. Further, this finding is supported by Riley & Klein

(2019) indicating online buying attitudes and intents of millennials are influenced by logistics capabilities such as carrier reputation, delivery speed, and tracking provided by businesses. Also, Reverse logistics implementation, especially in the retail industry, can result in more sales, lower supply chain costs, and better profit margins (Padmanabh & Jeevananda, 2019). Furthermore, reverse logistics capabilities improve business profitability and performance (Vlachos, 2016; Lee, 2013). Additionally, recent studies shown environmental, economic, and social issues all have a major impact on reverse logistics procurement sustainability (Letunovska et al., 2023). Also, the propensity to make an online purchase is significantly influenced by return policies and practices (Tandon et al., 2021). Overall, the capacity to do reverse logistics is critical to enhancing business performance, customer satisfaction, buying decisions, and environmental sustainability in contemporary supply chains.

The paper signifies trust has partial mediation between reverse logistics capabilities and purchase decisions in Nepalese online platforms. Supporting to this, Paul and Pagani (2020) suggested that when consumers feel confident that a company's reverse logistics procedures will efficiently address any potential problems, they are more inclined to make purchases. Furthermore, reverse logistics capabilities that are efficient in managing returns, substitutions, and refunds contribute to the development of consumer trust by guaranteeing that concerns that arise after a purchase are settled easily and reliably (Tyagi & Dhingra, 2021). Thus, trust serves as a critical mediator between positive purchase behavior and customer loyalty and the operational efficacy of reverse logistics (Hultman & Fohlin, 2019). In addition, research by Tandon et al. (2021), Chiu et al. (2012), and Khalifa & Liu (2007) showed that habit serves as a moderating factor linking trust and repurchase intention. It suggests that strong habits, when paired with increased levels of trust, may lessen reticence to make online purchases, which would increase the likelihood that a customer will make another purchase.

The present study concludes through looking at the important role of reverse logistics capabilities in improving customer trust and affecting purchase decisions on Nepalese e-commerce platforms. Results indicate that effective reverse logistics processes have an important effect on online customers' desire to make purchases as well as building trust among them. These findings emphasize to the Nepalese e-commerce platforms to put priority on customer service, efficient return procedures, and efficient return handling to build consumer trust. As trust becomes a crucial mediator, it strengthens the dependability of reverse logistics is essential to a satisfying buyers. For improving the entire consumer experience and encourage greater levels of satisfaction on e-commerce platforms, reverse logistics procedures must be managed effectively. Finally, in order to fulfill consumer expectations and trust, reverse logistics processes need to be prioritized. It concludes that, to attract and retain customers by offering a consistent and reliable shopping experience, Nepalese e-commerce platforms strategically invest in their reverse logistics capabilities.

6. Implications

The study's findings significantly advance the body of prior research providing a thorough analysis of the connection between reverse logistics capabilities, trust, and online platform purchase decisions. This realization improves our comprehension of how crucial reverse logistics services are in determining the trust and happiness of e-commerce customers. Owners and managers of e-commerce businesses can use the study findings to develop strategies that will enhance the effectiveness of reverse logistics services in Nepal. The findings of the research provide Nepalese e-commerce platforms with insightful information to enhance their service portfolios. E-shopping platforms may foster trust and raise the possibility of successful transactions by proactively instructing clients about their reverse logistics services and capabilities during the online shopping process. This will ultimately improve customer satisfaction and improve the entire e-commerce experience.

Managers of marketing and operations might take advantage of these results in order to obtain a competitive edge through the application of reverse logistics techniques. The result reveals a strong and vital role that reverse logistics capabilities play to influence buyer purchase decisions. Policymakers

and practitioners can enhance their competitive position and maximize operational efficiency by reinventing their current plans to adapt to a dynamic marketplace by utilizing the insights provided. The framework it establishes will be useful for both practical applications and further research into reverse logistics practices. It emphasizes the transformative prospective of e-platform by highlighting the mediating role of trust as a potential strategic benefit that supports long-term sales. This study adds substantially to the academic community and improves the current scholarly dialogue. Thus, the study offered a thorough examination and assessment of the importance of reverse logistics capabilities in online business. It also produced valuable insights for professionals in the field and made a notable academic contribution that may facilitate further research in the area of reverse logistics practices.

7. Limitation & Area for Future Research

The effect of reverse logistics capabilities on online purchasing decisions were examined in this study. It adds to the body of literature and supports established hypothesis, but its particular cultural setting may restrict how broadly applicable its conclusions can be. It suggests future research to examine reverse logistics capabilities' effects on offline purchasing intention. Also, more mediating and predicting variables should be included in future research to improve their longevity. A more thorough knowledge may be obtained by taking a wider range of variables into consideration, which can result in better strategies for enhanced reverse logistics processes. Investigating diverse situations in different professional settings may yield deeper understandings. More statistically significant results would be obtained by enlarging the dataset and changing the target population from a smaller, uniform group to a more diversified one. More significant findings could be produced by applying sophisticated statistical analytic methods, which would be made possible by a bigger sample size. Although a cross-sectional strategy was used in this study, a longitudinal approach could be used in further research to observe changing trends over time. While the study concentrated on online business platforms in Nepal, specifically in the urban areas, future research could cover other sub-urban and rural areas of Nepal and analyze the effects of reverse logistics practices in other emerging economies and businesses.

The study's capacity to draw broad conclusions about reverse logistics in Nepal's e-commerce industry is limited by its urban-only sample, particularly when considering rural customers who may have different experiences with online shopping and returns. Future studies would be more valid and generalizable if they addressed a variety of demographic parameters and expanded the sample to include rural regions, reflecting the diverse customer base. Moreover, future researcher could explore the moderating effects of categorical variables like; age, gender and frequency of online shopping in further studies to find out broader insights.

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