

Questionnaire Designing for a Survey on Reason for Product Return and Reverse Logistics Performance on Customer Satisfaction in Online Shopping

Dr. S. Saravanan¹, Dr. A. Jainullabdeen² Sirajudeen J³

¹Assistant professor, Department of Management Studies, Anna University, Trichy.

²Assistant professor, Jamal Institute of Management, Jamal Mohamed College (Autonomous), Trichy.

³Student, Department of Management Studies, Anna University, Trichy.

Date of Submission: 20-03-2023

Date of Acceptance: 30-03-2023

ABSTRACT:

A questionnaire is an essential instrument in a research study, Since it helps the researcher to compile significant data regarding the research topic. It is essential to ensure that the design of the questionnaire is optimised to minimise errors. However, due to problems with usage, presentation, and content, creating a successful questionnaire can be challenging for researchers. This can lead to unreliable and biased results. This paper will outline the essential processes for creating a questionnaire for a study of reverse logistics in online shopping. After deciding on the survey type and the questions to ask, the procedure then moves on to writing the questions and developing the questionnaire's construct using the variables found in the various publications. Also, it makes pre-testing and finalising more necessary.

Keywords: Questionnaire, Research Methodology, Reverse logistics, Online shopping, Return reasons, Customer satisfaction, Framework.

I. INTRODUCTION

Reverse logistics is necessary to assist e-commerce businesses in handling product returns. By satisfying consumer demands through reverse logistics, or the return policy in e-commerce, online retailers can enhance online shoppers' buying confidence, customer satisfaction, and reputation. The capability of the return policy to assist in recovering and managing service failures including substandard product quality and erroneous goods can help retain consumers, increase customer satisfaction, and nurture loyalty. In a highly competitive online environment, it can also be used to gain competitive advantages that can satisfy the consumer and win the customer's loyalty.

Reverse logistics refers to the systematic management of the flow of raw materials, in-process inventory, finished products, and relevant information from the point of consumption back to the point of origin. This process involves planning, implementing, and controlling the movement of goods and information in a cost-effective manner, with the aim of creating or recapturing value or ensuring proper disposal.

(Source: Alfonso-Lizarazo et al 2017).

A questionnaire is the main technique used to collect quantitative primary data. A questionnaire is required to gather quantitative data consistently, internally consistent, and coherently for analysis. Every questionnaire should have a clear purpose that is related to the objectives of the study, and it should be stated up front how the data will be used.

A questionnaire is used when there are limited resources because it is relatively inexpensive to design and administer, and time is a valuable resource that a questionnaire uses to the fullest extent. It is also used to confirm other findings because questionnaires can help confirm other studies because participants will only respond honestly if their identities are kept secret and confidentiality is upheld.

(source: S Roopa, MS Rani 2017)

II. REVIEW OF LITERATURE

S. Roopa and M.S. Rani, (2012), The article focuses on the process of questionnaire design for a survey. It provides guidance on how to design a questionnaire that is clear, concise, and effective in collecting the desired information from survey respondents.

Vida Davidaviciene, Mohamed AL Majzoub (2021), have found out the factors that impact

Reverse logistics, demographic variables and performance indicators of Reverse logistics and its variables are identified in this article.

PanousopoulouPagona, Manthou, Vicky (2016), found that Performance Indicators (PIs) are a valuable tool for management to compare actual results with predetermined targets and measure deviations. PIs are crucial for both forward logistics and reverse logistics operations, and are particularly important for companies and third-party providers of reverse logistics services. However, the use of performance indicators in the field of reverse logistics has not been extensively discussed in literature. In order to evaluate the effectiveness of reverse logistics channels or chains, companies need to identify and assess suitable performance indicators. By utilizing innovative reverse logistics services in conjunction with these metrics, organizations can become more responsive.

Jyoti, Neetu Gupta (2020), the researchers examined several aspects related to e-commerce returns. These included identifying the reasons behind returns, determining the overall percentage of returns, as well as the percentage of returns during sales periods. The study also investigated the challenges associated with liberal e-commerce policies, as well as the financial losses incurred due to returns. Moreover, the researchers identified variables related to return reasons in their study.

Dr. S. Saravanan, Dr. A. Jainullabdeen, Sirajudeen. J (2023). This study proposed the conceptual framework of reverse logistics in online shopping. The customer buying and return behaviour with return reasons in online shopping and the reverse logistics performance on customer satisfaction variables are identified.

OBJECTIVES:

- To construct the data collection statement using the theoretical framework's variables.
- To determine the psychographic and demographic variables.
- Using scaling techniques to create appropriate statements and gather data,
- To determine whether the question was validly posed

III. RESEARCH METHODOLOGY

The respective study is based on the secondary data collected from the previous article "A conceptual framework for reverse logistics in

online shopping". The questionnaire will be framed by the variables mentioned in the articles.

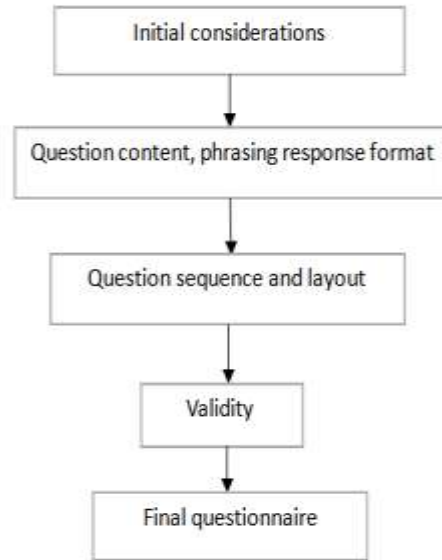


Figure 1 Framework for questionnaire design

Initial consideration:

Figure 2: Variables for product return reasons

VARIABLES	STATEMENT
:	
1. Defective product	Product has defects.
2. Incorrect product	The wrong product has been delivered.
3. Size issue	The size of the product is too big or too small
4. Multi size order	Ordering many sizes of the same product with the intention to keep only one
5. Damaged product& box	Both product and shipping box damaged
6. Found cheaper price	The product is found for a cheaper price from another outlet
7. Found faster delivery	The product is found faster from another outlet
8. Style mismatch	The product does not match the customer's style
9. Quality issue	Poor quality
10. No longer needed	The need for the product has faded away

	(These statements are framed in questionnaire as check box question format to find out the which return reason is most influenced by online shoppers)
--	--

(Source: Dr. S. Saravanan, Sirajudeen. J (2023))

Figure 3: Variables for customer satisfaction on reverse logistics performance

VARIABLES	SCALE USED TO MEASURE
1. Competitive pricing	Likert 5 point scale and matrix (Grid) is used to measure the statement of these variables. The scale can range from "Very Unlikely" to "Very Likely." "Highly Dissatisfied" to "Highly satisfied." "Strongly Disagree" to "Strongly Agree."
2. Delivery	
3. Service quality	
4. Customer loyalty	
5. Quick service	

(Source: Dr. S. Saravanan, Sirajudeen. J (2023))

Question content

Types of survey question

1. General Survey Questions
2. Categorical (Nominal) Questions
3. Interval (Ratio) Questions

1. General Survey Questions

a) Open-ended questions:

When open-ended survey questions are utilized, respondents are provided with unstructured prompts that allow them to freely express their thoughts, emotions, and understanding in an open-text format. Unlike closed-ended questions, these types of queries do not limit respondents to a set number of predetermined options.

Examples:

- **Short answer**

Short answers in open-ended questions are characterized by providing a brief and concise response to the inquiry, often using one or two words or short phrases. These responses may lack detail or elaboration but can serve as a useful summary of the respondent's overall viewpoint.

• **Long answer**

Long answers to open-ended questions are distinguished by their comprehensive and descriptive nature, offering a greater amount of information and context. These responses may contain personal anecdotes, examples, or explanations, providing a deeper understanding of the respondent's viewpoint. Though they may require more time to analyze, these detailed answers can provide valuable insights into the respondent's experience or perspective.

2. Categorical (Nominal) Questions

a) Multiple choice questions:

A multiple choice question provides respondents with a set of answer options to choose from, with the possibility of selecting a single answer or multiple answers. This type of survey question is commonly used to gather information from participants.

b) Checkbox Questions:

A checkbox question provides the option for respondents to select multiple answer choices within a table's rows. This question type is useful when there are multiple sub-questions (rows) with standard answer options (columns). The results of this question type include the count of responses for each row and column combination, as well as the total response count for each row.

3. Interval (Ratio) Questions

a) Likert scale:

The Likert scale, also known as the Likert-type scale, is a commonly used rating scale. It involves asking respondents to indicate their level of agreement or disagreement with a given statement. This type of scale is particularly useful in measuring attitudes or behaviours, especially when dealing with sensitive topics.

b) Matrix (Grid) Question

The Matrix question format involves presenting a grid of multiple-choice questions that are organized in rows and columns. Each row represents a question posed to the respondent, while the columns provide a predetermined set of answer choices that correspond to each question in the row. Frequently, these answer choices are presented in a scale format.

By using these types of survey questions and scales I have framed the questionnaire for my survey.

Question Sequence:

A structured questionnaire was implemented in the design of this research study.

1. General Survey Question

Open ended question

- Short answer -1

2. Categorical (Nominal) Questions

- Multiple Choice Question-9
- Checkbox - 2

3. Interval or Ratio Questions

- Likert Scale- 10
- Matrix (Grid)-17

Validity

The extent to which a questionnaire collects the data that it set out to collect. The questionnaire is evaluated for four types of validity.

1. Content validity
2. Face validity
3. Criterion validity
4. Construct validity

Content Validity:

Content validity pertains to the extent to which an instrument accurately captures a particular social concept. To determine content validity, expert judgment is primarily employed rather than statistical tests. If the content validity is deemed satisfactory, face validity may be assessed next.

Face Validity:

This is an estimation of whether a questionnaire item appears to be appropriate, i.e., at first glance, is the response being received in the manner the researcher is trying to measure.

Two methods exist for establishing face validity:

Interview/probe method: In this case, we choose a random sample that represents between 5 and 10% of the total sample size and give them the questionnaire. The investigator will then have a thorough conversation with them about each subject, gauging their comprehension of each inquiry.

The final structure can be modified in any manner.

A bilingual approach is employed when the tool has been translated into a local language. Here, a multilingual expert fluent in both languages is used to evaluate the face validity.

Criterion Validity:

It shows how well the questionnaire predicts the results of what it is measuring. The responses to the questionnaire are compared to an external database as it is being constructed.

In order to assess the validity of a new survey, a direct and unbiased measurement of the targeted construct can be established through the use of a gold standard or criterion. This criterion can be measured concurrently or predictively. Concurrent measurement occurs when both the new survey and the criterion are utilized simultaneously, while predictive measurement occurs when a predictor tool is used initially and a new tool is subsequently added.

Construct Validity:

This refers to how closely a new questionnaire adheres to or supports pre-existing theories or hypotheses about the concepts or constructions it is intended to test.

IV. CONCLUSION

The questionnaire is a versatile research tool that can be applied in various types of research. For this research, a questionnaire consists of 39 questions on various dimensions indicating product return reasons and customer satisfaction in reverse logistics in online shopping. From this I could conclude my questionnaire design for the survey of product return reasons and performance of customer satisfaction in reverse logistics in online shopping, then I will proceed with the validity checking for that questionnaire by sending it to respondents then continue with reliability test and findings.

REFERENCE

- [1]. Roopa S, Rani MS. Questionnaire Designing for a Survey. *J Ind Orthod Soc* 2012;46(4):273-277.
- [2]. Vida Davidaviciene, Mohamed AL Majzoub (2021), Performance of reverse logistics in electronic commerce: A case study from LEBANON and SYRIA, *Transport*, Vol 36 Issue 3: 260-282.
- [3]. Panousopoulou, P., Eleni-Mariab, P., & Vickyc, M. (2011). Reverse Logistics Performance Indicators: A conceptual Framework for evaluating reverse logistics services. In *Annual Conference on Innovations in Business & Management London*, The Center for Innovations in Business and Management Practice (pp. 1-3).



- [4]. Jyoti, Neetu Gupta (2020), The commercial impacts of reverse logistics in E-Commerce in India, International Journal of Engineering and Advanced Technology(IJEAT),Volume 9 Issue-3.
- [5]. Dr. S. Saravanan, Dr. A. Jainullabdeen, Sirajudeen. J (2023), A conceptual framework for reverse logistics in online shopping, International Journal of Research Publication and Reviews (IJRPR),Volume 4, no.3, pp 1385-1393.