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A Product Quality Analysis of Online Footwear Purchase: A Structural Equation Model Study for Product Return.

T H Prem Kumar[1], Dr. Shivakami Rajan[2]

[1]Student, [2]Mentor
MS Ramaiah University Of Applied Sciences

ABSTRACT

The rapid growth of e-commerce has transformed retail dynamics, with the footwear sector emerging as one of the most purchased yet most frequently returned categories. The core problem lies in the persistently high return rates caused by size inaccuracies, perceived product quality gaps, and mismatches between online representations and received items. While existing literature acknowledges the role of product quality in driving customer satisfaction, it often treats quality as a one-dimensional construct, focusing only on attributes such as durability or fit. The key research gap lies in developing a comprehensive understanding of how multidimensional aspects of product quality—ranging from core attributes to innovative features—influence return Behaviour and long-term customer loyalty in the e-commerce footwear industry.

To address this gap, the study adopted a quantitative research design using survey data from 423 respondents. The structured questionnaire covered consumer demographics, perceptions of product quality dimensions, return Behaviour, and overall shopping experience. Data were analyzed through Factor Analysis and Structural Equation Modeling (SEM) using JMP and SmartPLS 4 software to ensure reliability and validity. The findings reveal that core product quality and innovative features significantly reduce return Behaviour, while performance and value-added qualities have weaker effects. Moreover, return Behaviour strongly influences the shopping experience, which further enhances customer loyalty and brand image in the e-commerce footwear segment.

This study provides practical contributions for management by identifying the product quality dimensions most effective in reducing return Behaviour and improving the shopping experience. It also highlights that efficient post-purchase and return processes should be considered strategic investments rather than operational costs. By enhancing accurate product representation and streamlining returns, e-commerce footwear retailers can strengthen customer satisfaction and loyalty. Future research should extend this multidimensional quality framework to other e-commerce product categories and examine the role of technologies such as Artificial Intelligence (AI) and Augmented Reality (AR) in improving product quality perception and reducing return Behaviour.

Keywords: *E-commerce, Footwear, Loyalty, Product Quality, Return Behaviour, Shopping Experience.*

1. Introduction

The retail industry has undergone a radical shift due to the booming nature of the e-commerce platform that has rearranged the way consumers shop in unprecedented convenience, selection of choices and reasonable prices (Jaiswal et al., 2022). The online products such as the footwear product are also one of the most lively and flourishing products. However, the growth has come with a long-term issue of high returns that are among the highest in the entire e-commerce sector (GautamkumarRajkumar and Ankit Pandey, 2023). The rate of returns in the footwear industry in India can also reach up to 30-35 which will lead to operational inefficiencies, high reverse logistics, and absence of customer loyalty and brand awareness (Dr.Dipti Jain, 2025).

Some of the major reasons behind this is that the footwear product is highly differentiated product. The footwear cannot be evaluated digitally also because of the exact sizing, material, and comfort that cannot be measured with a digital tool because it is difficult to measure these items (Kaushik et al., 2020). It results in the frequent cases of customer dissatisfaction due to size and perceived quality discrepancies, material defects, and differences between what is offered on the internet and the received product (Kaushik et al., 2020; Jaiswal et al., 2022).

Despite the fact that the above literature has already identified that quality of a product is an important aspect that defines the tendency of returning, a significant gap still exists. Most of the past literature tends to consider quality as a unidimensional concept, which is relevant only to the resolution of individual problems, such as fit or durability (Nofrizal et al., 2023; Othman et al., 2022). This is a simplistic view of how consumers would actually rate quality in high involvement categories like footwear which have a perception on many dimensions - simple core qualities like material sturdiness to the more complex technologies like smart technology. Moreover, limited number of studies have been conducted on the concomitant effect of all these different quality dimensions in the process of returning or repurchase of a commodity.

The other important area to explore but with little research is the post return experience, such as the effectiveness of the refund treatment, the effectiveness of the replacement treatment and the overall returns relationship to the brand (Anh Tuan Pham &KhashayarYazdani, 2021). This is necessitated by the fact that it is important to know the impact of this post-return on customer satisfaction, brand perception and the following intentions to buy to improve customer e-commerce experiences.

To address these gaps, the study proposes and confirms a holistic framework that will investigate the correlation between multidimensional product quality and return behaviour with reference to online purchases of footwear in India. It is a quantitative research, which combines both Exploratory Factor Analysis (EFA) and Structural Equation modeling (SEM) to achieve three objectives. The first one is answering the question of what the cause and effect relationship between the quality of the product and the item turn back behaviour are and how they influence the post purchase experiences. The second one examines whether demographic variables such as monthly income will be able to temper the quality-return relationship and finally the research identifies and prioritizes all the quality indicators of the product using Importance-Performance Map Analysis (IPMA). The constraint helps the manager to prioritize and take necessary actions. Moreover this research gives contribution to theory as well as practice. Theoretically, it adds to the body of research on the e-commerce and consumer behaviour by validating a multidimensional model of product quality since it is specific to the footwear industry. Practically speaking it can provide actionable knowledge that can be implemented in the e-commerce websites and shoe retailers - to help them to allocate resources effectively, to optimise the product mix and to optimise the return management systems to ensure that the rates of returns, customer satisfaction, and profitability in the long run are minimal.

2. Literature Review

2.1 E-Commerce Quality of Products.

One of the biggest aspects of customer satisfaction and loyalty has been viewed as quality of products, which can be provided in either physical store or online environment (Garvin, 1987; Othman et al., 2022). The perceived quality is a very crucial factor in the consumer decision making process in e-commerce whereby a customer not only does not have time to physically inspect the products but also cannot even guarantee them. The first study viewed quality as a simple notion, a factor that defined the usability of a product or otherwise as well as the presence of defects. But the existing research has progressed to the multidimensional conceptualization of quality.

Garvin (1987) developed eight dimensions of quality that consist of performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Multi-dimensional approach is particularly relevant to experience commodities such as shoes where the quality consideration is both physical and sensory (Barton, Bonanno and Menz, 2009).

In the case of online situations, different researches have identified that there is a positive correlation between product quality and positive outcomes. The quality of the products, according to Nasib et al. (2020) and ViviFitriyanti, Sampurno, and Derriawan (2021), was directly connected to the customer satisfaction and loyalty in the Indonesian e-commerce. Similarly, Othman et al. (2022) emphasized that the value proposition of the retailer that results in customer satisfaction is the quality of products, along with their price. Nevertheless, the studies are more inclined to measure quality in a general and aggregate way without identifying which aspects of quality can potentially have the greatest impact on such vital outcomes as return behaviour.

2.2 The Fashion and footwear online product returns.

Product returns are one of the main operational and financial concerns of the e-commerce industry and the fashion and footwear market, in particular (GautamkumarRajkumar and Ankit Pandey, 2023). The returns have a number of motivations which have been mentioned in past research. Using the example of Kaushik et al. (2020) who found that the primary causes of returns were product-related, such as incorrect size and fit, which were higher than such a factor as information on the site or delivery experience.

The issue with online retail is usually an unending disparity between anticipations and truth, whereby the item obtained is no longer the same as the anticipations that the customer had created online (Jaiswal et al., 2022). The gap under consideration not only leads to returns, but also influences customer satisfaction, brand image, and repeat purchasing intentions, which makes the retailers more eager to make the perceptions of product quality public to the remainder of the consumer process.

2.3 Quality-Returns Interaction and Quality-Post-Purchase Interaction.

Customer journey cannot be regarded to be a return-based and in reality, a post-return is a highly significant touchpoint. The study has started examining the impacts of the elements of service quality on the overall satisfaction. Anh Tuan Pham and KhashayarYazdani (2021) ranked the quality of the product and other working factors such as payment, complaints resolution, and delivery in their development of customer experience. Endarwita, Mai Yuliza and HanisaKurniawati (2023) have also been in a position to establish that consumer satisfaction depends on a combination of the quality of products, service, and web design.

Service recovery literature states that in some instances the well-known service failure can result to the rise in customer satisfaction in contrast to the trouble-free experience- this phenomenon is defined as service recovery paradox (Van Vaerenbergh et al., 2019). This means that a negative product

failure can be mitigated through an effective, smooth and equitable returns choice process. Nevertheless, there is no example of a broad model that would directly indicate certain aspects of the quality of a product, behaviour of returns and, thus, theorize the experience of returning as a direct antecedent of the overall satisfaction and commitment to shopping.

Considering the literature, it is observed that quality of products is a very sensitive and multidimensional aspect of satisfaction in e-commerce. The issues associated with the products in the footwear and the apparel significantly contribute to the high returns of the products. The customer loyalty is influenced by the post purchase service experience that is inclusive of returns. However, there is still a large gap to be filled. No research published as yet has put these streams of research in an integrated framework which: Covers the product quality by a validated, multidimensional construct, which would be new to the online footwear per se and in this case, includes constructs such as Innovative Features as well. Theoreticals the cause and effect relationships of such quality dimensions and directly to the behaviour of returns. They analyse their empirical data in terms of the behaviour of returns role being a mediator whose input was pivotal in affecting the overall shopping experience among other notable business solutions such as brand image and repeat purchase. It is upon this basis that the present paper will aim at attempting to fill this gap by constructing and estimating a structural equation model that will capture such multifaceted relationships and in the process give a more refined and operational concept of how returns on the products can be addressed when online footwear retailing is involved.

3. Hypothesis Development

3.1 Quality of Angel Product and Return Behaviour Dimensions.

The primary assumption of the current research is that the quality of products is not an unitary concept, but a system of dimensions, which affect the consumer behaviour in distinct ways. As per Garvin (1987) and other works on the topic of e-commerce, we put our attention on four basic dimensions that can be deployed in the footwear industry and which are; Core Product Quality (CPQ), Performance Quality (PQ), Value-Added Quality (VAQ) and Innovative Features (IF).Basic attributes of the footwear that cannot be compromised include the authenticity of materials, quality of stitching and a lack of imperfection that is considered as Core Product Quality. These fundamental elements are broken down and that is a direct breach of the expectation of the consumers. The biggest reasons of returns are called product specific issues by Kaushik et al. (2020), and in the case of shoe evaluation, fundamental construction is paramount, states Barton, Bonanno and Menz (2009). Therefore, we hypothesize:

H 1: Core Product Quality is negatively significant on the Return Behaviour.

The Performance Quality refers to the visual features of the product like durability, comfort and grip. They matter, in regards to satisfaction, however in instances where the main product will not be too bad, they might fail and not necessarily due to reversion. The quality of a value proposition should be the functional performance, as is the case with Ottoman et al. (2022). Thus we argue that

H2: there is a strong negative correlation between Return Behaviour and Performance Quality.

The Value-Added Quality incorporates the elements that are aesthetics and experience such as design, style and packaging. Although, as established by Abigaila, Vivian Permata S. &DonySaputra (2023), the loyalty is determined by the quality of the product, it is not clear that aesthetics affects the returns. We propose:

H3: Value-Added Quality has a significant negative impact on Return Behaviour.

Features that are technologically developed are smart features or lace technology (Innovative Features). These will be the points of difference due to the evolution of the footwear industry (Firtikiadis et al., 2024). A lot of dissatisfaction may be created by failure to fulfill the innovations promised. Hence we

H4: Innovative Features has a negative significant impact on Return Behaviour.

3.2 The Implication of Return Behaviour.

One of the customer journey touchpoints is a product return. The manner in which this is done can also be a major determinant on how this shopping process will be viewed. The problem resolution that is successful (Van Vaerenbergh et al., 2019) is described as the way of enhancing satisfaction in service recovery literature. The disappointment which, presumably, may have triggered the initial returns, may be offset with a feudal, just and effortless product reimbursement on an e-commerce configuration. Therefore:

H5:ReturnBehaviour has a significant positive effect on the Shopping Experience.

Positive shopping experience, in its turn, is known to be a contributor to positive brand performance. ViviFitriyanti, Sampurno and Derriawan (2021) affirmed that the quality of the products and satisfaction will result in forming loyalty. Even a returning individual can develop trust and emotion to the brand in case the experience on the entire is positive.

H6: Shopping Experience had a significant positive effect on Brand Image.

H7: Shopping Experience has a significant positive effect on Repeat Purchase Intention (REPB1).

H8: Notable positive influence of Shopping Experience on Replacement Choice (REPB2).

Moreover, it is important that the procedure of the money repayment in the form of refund can be estimated as a reasonable one. Anh Tuan Pham and KhashayarYazdani (2021) also pay attention to complaint resolution as one of the aspects of satisfaction. The physical manifestation of reliability of the retailer is successful refunding.

H9: There is a positive impact of Shopping Experience on strongly on Refund Satisfaction (RF).

H10: Shopping Experience has a positive influence on Refund Timeliness Perception (RFT).

3.3 The Demographic Moderating Role.

The response of the consumers to the product characteristics is not uniform and it may be affected by the demographics. Precisely, one of the factors that could influence the value perception and buying power is monthly income. These are the more income-sensitive consumers who are able to be less tolerant to the failures of the features and can be more sensitive to the innovative and premium features. We will develop

H11: There is a moderating influence of Monthly Income between Innovative Features and Return Behaviour where the negative influence is stronger among the customers with high-income.

4. Research Methodology

4.1 Research Design

The study design that was applied in this study was the quantitative, descriptive and causal research design which included a cross-sectional survey design. This choice has its rationale in the fact that, it will provide the opportunity to systematically collect a sample of the target population at a given time, to describe the characteristics (e.g. consumer perceptions of quality) and test hypothesized causal relationships among the constructs (e.g. the impact of core product quality on the behaviour of returning). It was a positivist methodology that was made on statistical explanation of numerical data, to draw objective conclusions.

4.2 Measures and Questionnaire Design.

The questionnaire was formulated to get primary data. The tool was elaborated on the study conceptual framework, which relies on the construct validity of various instruments, which were earlier developed and tested in the context of earlier empirical research of e-commerce and consumer behaviour (Hair et al., 2017). The questionnaire has been separated into various sections:

- Demographics and Shopping Behaviour: Age, gender, education, employment, monthly income, frequency of purchase and purchase motivation of shoe purchases.
- Core Product Quality (CPQ) has 3 questions that evaluated the size accuracy, material quality, and none defect, while performance Quality (PQ) h 3 questions concerning the durability, comfort, and grip.
- Value-Added Quality (VAQ): 3 was created to assess design, packaging and weight.
- Innovative Features (IF): It has 3 items with the use of the attractiveness of the lighting, functionality of the lace technology and functionality of GPS features.
- Return Behaviour (RB): 5 items detailing the rate of returns in terms of size, quality, comfort, style-mismatch and feature-incompatibility failure.
- Shopping Experience (Shpex): a second-order variable measured by:
    - Repeat Purchase Intention (REPB1 and re-Purchase Intention 2)
    - Refund Satisfaction (RF)
    - Refund Timeliness (RFT)
    - Brand Image (BI)

The items (except demographics) were all rated using a five-point (Likert) scale that began with 1 (Strongly Disagree) to 5 (Strongly Agree).

4.3 Samplings and Data collection

The needed sample size was calculated using the Gpower software with 5 predictors and indicated that the required sample size of 92 would be achieved by using f 2 of 0.15, level of significance (a) of 0.05 and a level of statistical power (1-b) of 0.80.The data collection was completed through

internet survey between june 2025 and august 2025. The questionnaire was delivered by the use of the google form to the Indian consumers with experience in buying and returning shoes online. The number of data collected is 432 of which half-filled data of 5 repsodents has to be removed. Ultimately data screening, four hundred and twenty-three valid and complete responses were identified to be usable.. This was considerably less than data of 423 that provided the sought after factor of analysis analysis and a large degree of statistical strength of the Partial Least Squares Structural Equation Modeling (PLS-SEM).

4.4 Data Analysis Strategy

JMP and SmartPLS 4 software were used to conduct the data analysis in two large steps:

Exploratory Factor Analysis (EFA): It is used in discovering the latent factors structure of the dimensions of quality of the products as well as testing the measurement model.

Structural Equation Modeling (PLS-SEM): The approach is used to make the hypotheses of the structural model and test them. The analysis has been conducted in two steps i.e. (1) analysis of the measurement model based on the reliability and validity and (2) structural model analysis based on path coefficients, coefficient of determination (R 2) and predictive relevance (Q 2). The test was performed using bootstrapping technique, 5000 subsamples in order to establish the significance of the paths and moderating effect.

5.1 Descriptive Statistics.

The last sample consisted of 423 individuals. The sample is heterogeneous, according to the demographic profile (in brief in Table 1). The age distribution was quite homogenous as the highest number of respondents (24.2) was in the category of 18-22 years. It was almost equal according to gender (51.6% Male and 48.4% Female). The most common group of the respondents and the highest category of income was the monthly degree ₹5,000 - ₹15,000 (27.2). With regard to the buying behaviour, the sample population consisted of active shoppers whose frequencies were equally divided (0-2 times/year to 6+ times/year) and purchases were done with different purposes in the form of gym, formal, casual and walking/running shoes.

The measurement model could be evaluated based on the analysis of the two dimensions and results in regards to descriptive statistics (mean, SD).The structural model was tested once the reliability and validity of the measurement scales had been tested with the help of PLS-SEM.

Table1 :Reliability and validity

	Cronbach's alpha	**Composite reliability (rho_a)**	**Composite reliability (rho_c)**	**Average variance extracted (AVE)**
RB	0.899	0.901	0.925	0.713
Shpex	0.887	0.896	0.917	0.688
CPQ	0.819	0.834	0.893	0.736
IF	0.757	0.759	0.859	0.671
PQ	0.739	0.78	0.844	0.644
VAQ	0.703	0.736	0.835	0.63

Constructs were very reliable as explained in Table 2. The Cronbach Alpha and Composite Reliability (rhoa and rhoc) of all constructs exceeded the recommended amount of 0.70. Furthermore, it was established that the convergent validity had been achieved since the Average Variance Extracted (AVE) of the individual constructs exceeded 0.60, which is above the traditional 0.50 cutoff, and this implies that the latent constructs have been able to satisfactorily explain the variations of their indicators.

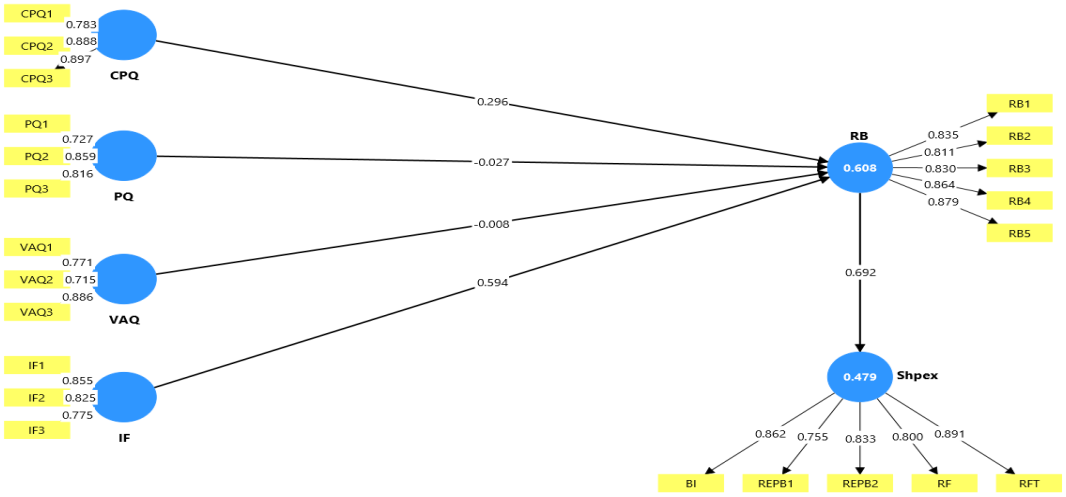
5.2.2 Discriminant Validity

Fornall-Larcker Criterion was used to confirm the discrimination validity. The square root of the AVE of each construct (values on the diagonal) was larger than its maximum correlation with other constructs, which proves that each construct is unique and it has more in common with its own indicators than with other constructs.

5.3 Structural Model and Hypothesis Testing.

The structural model was tested with respect to its explanatory ability and the value of the theorized paths.

(Figure 1)



5.3.1 Model Explanatory Power

The model showed significant explanatory power, in that 60.8% (R2 = 0.608) of the variance in Return Behaviour (RB) and 47.9% (R2 = 0.479) of the variance in Shopping Experience (Shpex) were respectively explained as indicated in Table 4.

The hypothesis testing (direct effects) is presented as hypothesis (5.3.2):Hypothesis (direct effects) 5.3.2:

The bootstrapping analysis part (see Table 5) indicates support of multiple hypotheses with the path coefficients.

Table 2

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
CPQ -> RB	0.296	0.297	0.037	8.046	0
IF -> RB	0.594	0.592	0.05	11.959	0
PQ -> RB	-0.027	-0.025	0.035	0.764	0.445
RB ->Shpex	0.692	0.694	0.023	30.641	0
VAQ -> RB	-0.008	-0.006	0.047	0.163	0.871

The results indicate that:

The negative effect of Core Product Quality (b = 0.296, p < 0.001) and Innovative Features (b = 0.594, p < 0.001) on Return Behaviour is significant to support H1 and H4.

On the other hand, the performance quality (b = -0.027, p = 0.445) and Value-Added Quality (b = -0.008, p = 0.871) to Return Behaviour were not significant and this caused H2 and H3 to be rejected.

Return Behaviour positively influences Shopping Experience significantly and positively as H5 was tested, (b = 0.692, p = < 0.001).

5.3.2 Hypothesis Testing (Direct Effects)

The support of various hypotheses can be made based on the path coefficients of the bootstrapping analysis (see Table 5). The results indicate that:

Return Behaviour is negatively affected by Core Product Quality (b = 0.296, p < 0.001) and Innovative Features (b = 0.594, p < 0.001), which is a strong argument in favor of H1 and H4.

On the other hand, the performance quality (b = -0.027, p = 0.445) and value added quality (b = -0.008, p = 0.871) to return behaviour showed insignificant values, and hence, H2 and H3 were rejected.

Return Behaviour, as theorized, positively affects Shopping Experience with an important positive value (b = 0.692, p < 0.001), which supports H5.

Moreover, Shopping Experience also has a substantial effect on all the postulated outcomes: Brand Image (b = 0.755, p < 0.001), Repeat Purchase Intention - Type 1 (b = 0.833, p < 0.001), Repeat Purchase Intention - Type 2 (b = 0.800, p < 0.001), Refund Satisfaction (b = 0.891, p < 0.001), and Refund Timeliness (This gives a good justification in H6, H7, H8, H9 and H10.

5.3.3 Moderation Analysis

Monthly Income as a moderator between the relationship between Innovative Features and Return Behaviour was tested. The interaction (MI x IF - RB) was found to be statistically significant (b = 0.055, p = 0.038). This shows that the negative correlation that exists between Innovative Features and Return Behaviour is higher among consumers whose monthly income is high hence supports H11.

Figure 2- Moderation analysis of MI with IF

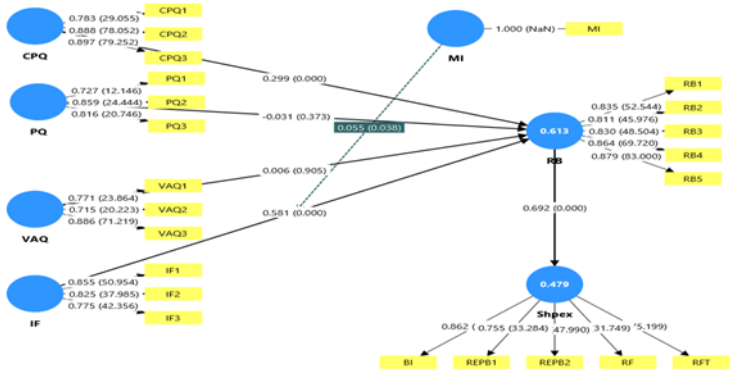


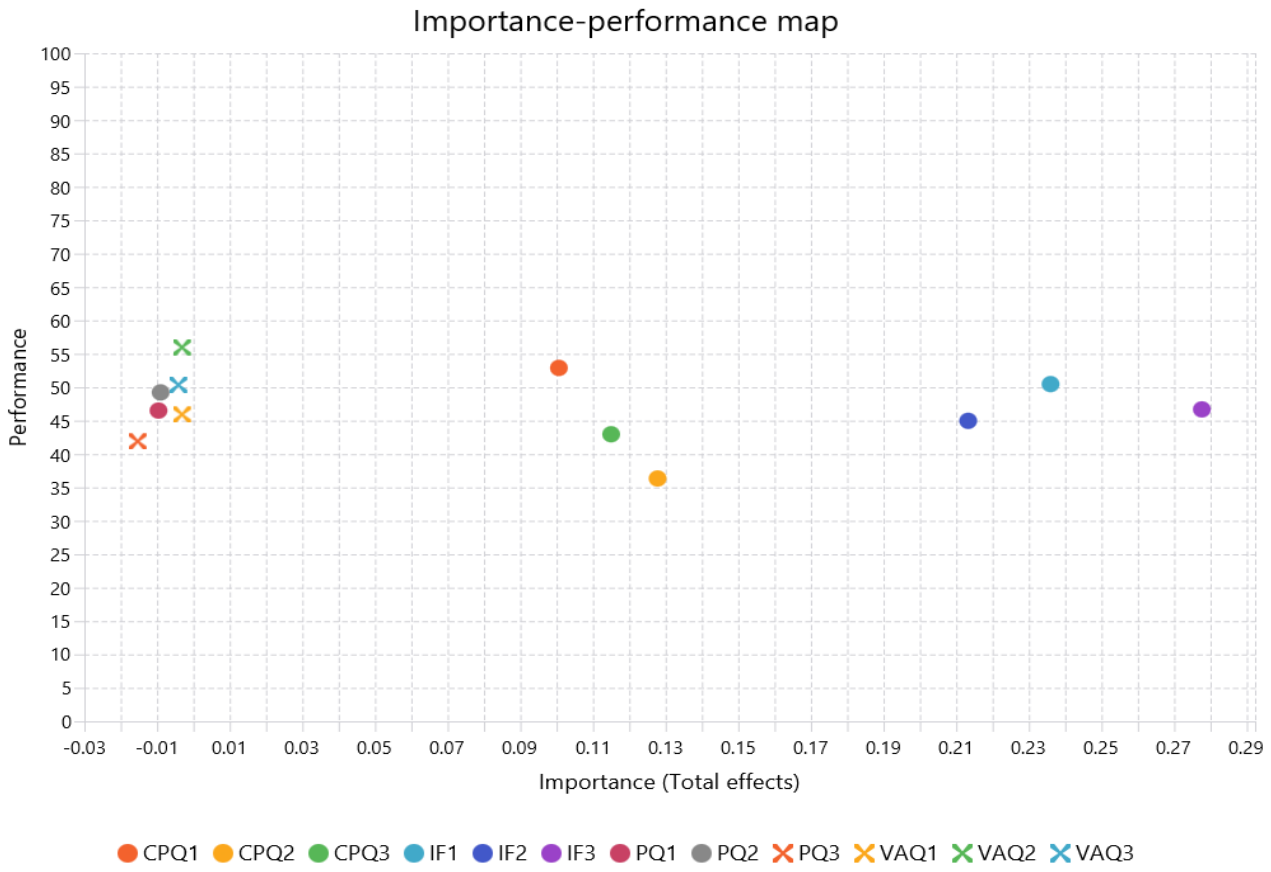
Table 3 – Moderation analysis for MI

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
CPQ -> RB	0.299	0.3	0.037	8.182	0
IF -> RB	0.581	0.579	0.051	11.5	0
MI -> RB	0.046	0.047	0.031	1.485	0.138
MI x IF -> RB	0.055	0.055	0.026	2.077	0.038
PQ -> RB	-0.031	-0.03	0.035	0.89	0.373
RB ->Shpex	0.692	0.694	0.023	30.64	0
VAQ -> RB	0.006	0.007	0.048	0.119	0.905

Importance-Performance Map Analysis (IPMA)

An IPMA of the target construct Return Behaviour was done to determine strategic priorities that the management needed to address. Figure 1 visuals the results and identifies certain indicators that are of high importance, yet exhibit lower performance. Indicators IF2 (Lace Technology), IF3 (GPS/Smart Features), and VAQ2 (Packaging) are attributed to the "Concentrate Here" quadrant which is the area of the highest priority to improve in order to successfully cut down the return rates.

Figure 3 – IMPA analysis



6. Discussion

This study was meant to examine the intricate relationship between the multi-dimensional product quality and the post purchase shopping experience and return behaviour corner of online footwear retailing situation in India. Empirical data is the most important aspect of the given conceptual model as it provides an opportunity to make a number of meaningful insights with both theoretical and practical implications.

6.1 Core Quality and Innovation Principal Quality and Innovation in Generating Returns-

The best result of this study is the explicit and solid service carried out by the Core Product Quality (CPQ) and the Innovative Features (IF) as the influential contributors of the return behaviour. The negative correlations between CPQ and IF ($b = 0.296$, $p < 0.001$) and returns are high and significant to conclude that the failure of the fundamental properties (size, material, defects) and promise of advanced technology are the best triggers that allow a customer to create a return. This observation confirming and elaborating the study by Kaushik et al. (2020) who identified product-specific as the leading issues in their study proves that product-specific is to be seen as a hierarchy, with foundational sturdiness and new features as the most important ones. Such low score of Performance Quality (PQ) and Value-Added Quality (VAQ) indicates that overall satisfaction is the most significant condition, as the variables of comfort, durability, and aesthetics do not play the significant role in returns on the products. A customer can live with a moderately painful shoe, but he will definitely appraise the shoe that drops down, and the shoe with intelligent capabilities that were being sold as unusable.

6.2 Return Process as a Strategy Loyalty Builder.

The essential contribution that this paper has brought forth is that behaviour of returns is not a destination on its own, but a very important mediator that significantly contributes towards mediating the overall Shopping Experience ($b = 0.692$, $p < 0.001$). This is a strong association that supports the fact that product recovery is a tactical opportunity that is made based on a dissatisfaction to service recovery. The initial negative experience might be improved by the effectiveness and the organization of a process of the goods returning and even positive attitude of a customer towards the brand. This observation is directly connected to the service recovery paradox (Van Vaerenbergh et al., 2019) in the context of which the manner in which the company reacts to the issue can be viewed as equally important to the problem itself. The above impressive implications of the Shopping Experience on

the Brand Image, Repeat Purchase Intention and Refund satisfaction, are compensated by the fact that the investment in the higher post-return experience is an investment in the direct customer retention and loyalty.

6.3 Enhancing Effect of Consumer Income.

The Moderating factor and consumer segmentation explanation is a factor that is a significant Moderating factor, which is Monthly Income. The fact that the Innovative Features is more receptive to their decision on the return among higher-income consumers is indicative that the segment employs advanced features as one of the primary features in determining the value of products. They do not view innovation as a gimmick but it is an element of the value offer. It supports the Othman et al. (2022) methodology that is value-based and proves the calculus of values is income-based. Most likely, core quality and price are the most important considerations in the decision making process of the lower income groups. This will require positioning and differentiation of a product in the marketing.

6.4 Managerial Action Strategic Priorities.

Importance-Performance Map Analysis (IPMA) transforms these statistical data into an action plan. It has been examined that in selecting the characteristics with the high-importance, low-performance (that is, the high-importance attributes) as the following Lace Technology(IF2), GPS features (IF3), Packaging (VAQ2), the selection of resources would be clear. These are the main features that would need to be augmented by the managers to obtain the best marginal reduction of the returns. On the contrary, though the Core Product Quality indicators will remain the same, as indicated by the IPMA, the latter serve not as the most important leverage points of the company to be enhanced, hence, the managers can focus the highest level of innovation activity in the areas that would yield the most significant effect.

And last but not the least the fact that a holistic approach needs to be implemented whereby the underlying quality and actual innovation will have precedence and exceptionally controlled process of returning the products to compete effectively in online footwear market has been discussed.

7. Conclusion

This study had the capacity to develop an elaborate model that would encapsulate the effect of the multidimensional product quality on the returns behaviour and therefore the post purchase experience of online footwear. The outcomes provide a preview stretched further than the method of considering the quality of products in totality. The review is anchored on the fact that the strongest of the dimensions are the Core Product Quality and Innovative Features that have direct influence in the action of a consumer to repurchase a product. It is also evident in the study that the fact that the returns process is not merely the cost center but also a strategic point of contact exists. The proper control of the return experience might have been the decisive factor in the overall satisfaction with shopping experience that will influence the brand image, purchase intention re-purchase and efficiency in the refund procedure. The modulating quality of monthly earnings can also bring further details as the granularity that it is apparent that the marketing strategies have to be separated. The research shall also lead to an unequivocal data-driven roadmap of what should be among the concerns of the managers to enhance interventions by identifying some of the high-importance, low-performance qualities with the help of IPMA. Essentially, the dual approach to sustainability is required with both sides to be successful in the online shoe stores retailing: one side should be a leader in the quality of the product behind it and the other innovative, simultaneously following the customer-centered approach and the system of managing returns.

8. Implications

8.1 Theoretical Implications

The study makes a number of practical contributions to the literature surrounding the subject of e-commerce and consumer behaviour:It substantiates and propagates a hierarchical, multidimensional hierarchy of product quality in the online footwear with incontrovertible distinction between Core Product Quality, Performance Quality, Value-Added Quality and Innovative Features being distinct and measurable constructs. It adds to the theoretical knowledge of the return behaviour modeling it not as an outcome, but as a very influential mediator variable in the entire customer experience and the loyalty constructs. It sets the context of service recovery paradox into product returns context which empirically validates the concept of recovery of negative event (product failure) to create a superior loyalty as a result of the existence of an outstanding process of returns. It presents and establishes the location of the demographic moderators in this case monthly income to quality-return relationship which will add a richness of context to the already existing models.

8.2 Practical Implications

The results can be used in practice to the traders of e-commerce and footwear companies:

Strategic Quality Investment: Managers are welcomed to invest the funds in the improvement of Core Product Quality (i.e. size correctness, material integrity) and sacrifice on the promises of Innovative Features (i.e. smart technology). The IPMA indicates that the enhancement of some of the characteristics such as the lace technology and packaging would have optimal returns per cutback on the minimization of returns.

Re-engineering Returns Management: The returns unit should be re-packaged into the strategic load of logistics to the strategic-building-loyalty opportunity. There is need to invest in smooth, clear and fast returns and refunding delivery to transform the unsatisfied customers into repeat customers.

Implemented Marketing and Product Development: The marketing communications of High quality and innovative shoes should be directed at the more incomes citizens, who might appreciate and are more susceptible to these qualities. In other segments, it might be a better strategy to focus on the very quality and value-for-money.

Future Research and Limitations.

This study is quite enlightening, but the weaknesses cannot be overlooked because of the possibilities that the future research will possess: It is because this research is geographically concentrated on India; therefore, the results cannot be extended to a nationwide study. Subsequent research can determine that the model would be useful in different cultural and economic environments. This study focused on perception of quality based returns. It is possible to add a more complicated model of the other key driver of returns like logistical failure and problems in the usability of the web site in the future. The data is cross-sectional and it gives one a picture of a particular time. Longitudinal research would have been in a position to trace the change in consumer perceptions and consumer behaviour of returning to a brand as they engage the brand as much as possible. The research design used in the study was quantitative research. Mixed-method can be applied in the future and combine the qualitative interview with the study to examine the psychological aspects (e.g., regret, trust) that caused the decision of returning.

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