Impact of logistics performance on the store image, consumer satisfaction and loyalty: a quantitative case study

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Abstract

Purpose – The aim of this paper is to identify the impact of logistics performance on consumer satisfaction and store image in the retail context.

Design/methodology/approach – The authors conducted a quantitative study with a sample of 201 consumers. The questionnaire is the instrument that was chosen to collect the data. Data processing was carried out using the statistical package for the social science (SPSS). The data analysis was conducted in two phases. The first phase consisted of testing the reliability and validity of the measurement scales. While the second phase of data processing consisted of testing the research hypotheses on the basis of data collected in the field.

Findings – The results of this research are as follows: consumer satisfaction positively affects their loyalty to the store. The results also indicate that store image affects the satisfaction of consumers. Indeed, "service quality" is often evaluated as a source of differentiation affecting consumer satisfaction. Concerning the effect of logistics performance on consumer satisfaction, the factor "product availability" was found to be the major factor affecting consumer satisfaction. A lack of logistics performance, in the context of retailing, negatively affects consumer satisfaction. On the other hand, when the consumer gets the right quantities at the right time, this can positively affect his satisfaction.

Originality/value – All studies carried out on this subject have presented an evaluation of the performance measures used in supply chain models. However, the results of these works were different in terms of performance measurement. It is difficult to specify the impact of logistics performance with only two variants (checkout level, and shelf level) in the retail context. Moreover, research related to this field in Morocco remains unexplored. In this context, it is necessary to explore the links between logistics performance, store image and consumer behavioral intentions in the Moroccan retailing context while taking into account three variants of logistics performance, which are: checkout level, shelf level and product disponibility.

Keywords Logistics performance, Store image, Consumer satisfaction, Consumer loyalty, Quantitative study

Paper type Case study

1. Introduction

In recent years, retailing has developed considerably. It must not only overcome some difficulties, including slowing economic growth, market saturation, costs that continue to rise, markets that are becoming increasingly fragmented and competition that is intensifying (Daly-Chaker & Zghal, 2006). But it also has to deal with consumers whose expectations and demands have become numerous and less predictable. Moreover, they are constantly looking for the best quality/price ratio in their favor, while demanding more services incorporated into the acquired product (Bowersox, Closs, & Stank, 2002; Vasić, Kilibarda, Andrejić, &

Jović, 2021). Thus, various threats are prompting retailers to review their competitive strategies. They have started to look for innovative ways to differentiate themselves from competitors (Van Riel, 2012; Nguyen, Nguyen, & Tran, 2021). In this sense, they commenced seeing logistics as a key means of creating a sustainable competitive advantage (Yazdanparast, Manuj, & Swartz, 2010) and an ingredient for success. This trend affects major retailers with substantial material resources.

One of the criteria of a retailer's logistics performance is to make products available to customers in optimal conditions (Vasic *et al.*, 2021). This performance contributes to the convenience of consumer experience, product availability, delivery and return policy (Ramanathan, 2010). However, logistical failures can have negative effects on the retailer's brand. For example, a break in the shelves can lead to a degradation of the store's image (Rulence, 2003) and consequently to a reduction in sales. In this context, retailers are now focusing on improving their logistics performance while satisfying their customers' expectations and maintaining their value in an extremely fierce distribution environment (Badot & Paché, 2007).

All studies carried out on this subject have presented an evaluation of the performance measures used in supply chain models. They also proposed a framework for the selection of logistics performance measurement systems, particularly for production and distribution systems. However, the results of these works were different in terms of performance measurement. They show that the controversy on the relationship between the supply chain and performance is still far from over. We cannot specify the impact of logistics performance with only two variants (checkout level, and shelf level) in the retail context. Moreover, research related to this field in Morocco remains unexplored and existing knowledge is still insufficient for this category of companies. In this context, it is necessary to explore the links between logistics performance, store image and consumer behavioral intentions in the Moroccan retailing context while taking into account three variants of logistics performance, which are: checkout level, shelf level and product disponibility.

In brief, the objective of this paper is to determine the effect of logistics performance on store image and consumer behavior. Thus, we formulate the following research question: Can logistics performance contribute to consumer satisfaction and loyalty?

Our paper is structured as follows: First, we present a related work section that describes previous research. Then, we present the research methodology used in our study. Next, we discuss the results obtained. A final section will be devoted to the conclusion, in which we summarize our study and suggest future research directions.

2. Literature review
2.1 Consumer satisfaction and loyalty
The definition of consumer satisfaction, which has been the subject of numerous marketing studies, varies from one author to another and depends on the research objectives pursued (Zaid, Palilati, Madjid, & Bua, 2021). Based on the literature, consumer satisfaction can be defined as a general emotional response to consumer experiences. Broadly speaking, it can be seen as the evaluative judgment of an emotional response to a recent or distant consumption experience. This concept has received numerous definitions over the years, which can be classified into two main categories: The first category of approaches describes satisfaction as the result of a process (the consumption experience) (Oliver, 1997). The second category, in its conceptualization, considers satisfaction as a whole or a part of this process and essentially reflects its comparative character, from one state (of the consumer) to another (Evrard, 1993). In this sense, Ndjambou (2018) has announced that consumer satisfaction can be described in terms of four points: (1) cognitive state, (2) emotional response, (3) evaluation and (4) judgment on satisfaction combining cognitive judgment and emotional response. Chiguvi

and Guruwo (2017) have affirmed that consumer satisfaction represents a fundamental prerequisite for creating and strengthening long-term relationships with consumers.

Similarly to consumer satisfaction, loyalty continues to be the subject of much debate. This concept has been defined in various ways. The first synthetic approach to loyalty was developed by Chestnut & Jacoby (1977). For these authors, loyalty refers to the reaction behavior of the consumer making a choice among several alternatives at a given moment. In the same vein, Trinquecoste (1996) considered loyalty as a positive attitude illustrated by the consumer's repurchasing behavior. Based on the study conducted by Olsen, Tudoran, Brunsø, & Verbeke (2013), there are three opposing views of loyalty. The first is purely behavioral. The second is attitudinal. The latter, more plausible, is both attitudinal and behavioral. According to Lehu (2004), Bouzaâbia and Boumaiza (2013) and Ndjambou (2018), consumer loyalty can be defined as a conscious or unconscious attachment of the consumer to a product, a brand, a company or a distribution mode. For Leclercq-Machado *et al.* (2022), consumer loyalty means that the consumer repurchases a product or service consistently and repeatedly in the future, despite marketing efforts that could potentially divert him to another product or service.

Several marketing researchers have also validated the existence of a linear relationship between consumer satisfaction and loyalty. This relationship can be modulated by individual consumer characteristics (age, gender, income) or by critical satisfaction thresholds. Gremler, Brown, Bitner, and Parasuraman (2001) have considered for a long time that there is a direct and systematic relationship between these two concepts. Satisfaction is a necessary condition for the development of customer loyalty, but not sufficient (Bouzaâbia & Boumaiza, 2013). The literature has long shown that the former has a direct influence on the latter (Ndjambou, 2018; Goranda, Nurhayati, & Simanjuntak, 2021; Leclercq-Machado *et al.*, 2022). The hypothesis H1 is developed as follows:

H1. Satisfaction positively affects consumer loyalty.

2.2 Store image

Martineau (1958) was the first author to apply the idea of store image in the field of retailing. He defined this concept as the "personality of the store". According to this researcher, store image refers to the way in which a store is perceived by its customers. DAM and DAM (2021) proposed a synthetic definition of store image. They define it as a set of inferred knowledge and/or feelings, i.e. a set of current perceptions and/or memory inputs attached to a phenomenon (the store). According to Ndjambou (2018), the store image refers to impressions (evaluations, feelings, attitudes) developed by a consumer towards a company. It is based not only on an accumulation of experiences over time but also on direct or indirect information (advertising, direct marketing, word of mouth. . .) received from the company's internal and external environment.

Some authors have tried to find the exact definition of the store image, while others have tried to find the dimensions that constitute it. Over time, different authors have been able to distinguish several attributes that constitute the dimensions of the store image (Bloemer & De Ruyter, 1998). The number of dimensions differs from one author to another. Martineau (1958) identifies four dimensions: architecture, symbols and colors, sales personnel, and advertising. Bouzaâbia and Boumaiza (2013) identify five dimensions: product, price, assortment, style and location, while Semeijn, Van Riel, and Ambrosini (2004) propose three dimensions: merchandise, store layout and service.

Retailers generally have limited knowledge of satisfaction antecedents. In fact, store image is recognized as an important antecedent of satisfaction (Bloemer & De Ruyter, 1998). It is defined as "a mixture of attributes perceived by the consumer in the store". These attributes include service quality, product quality, personnel skills and accessibility (Gupta, Singh, Mathiyazhagan, Suri, & Dwivedi, 2022). The control of these aspects implies a positive

perceived image of the store on the part of consumers, which translates into a high level of satisfaction (Ndjambou, 2018). According to Bloemer and De Ruyter (1998), consumers who have a positive image of a store are more satisfied with the quality of the product. Based on these theoretical results, we can put forward the following hypothesis:

H2. The store image positively affects the consumer satisfaction.

2.3 Logistics performance

The performance is a difficult concept to define because of its multidimensionality. According to Masudin, Fernanda, and Widayat (2018), it can be described as a company's ability to satisfy its customers. From this perspective, logistics plays a vital role for both companies and consumers in the era of globalization, where the supply chain operates more than ever in a planetary environment. It ensures that products and services are made available to consumers in a way that supply meets demand at the lowest cost, within a reasonable time and with the least impact on the environment. The development of information and communication technologies, computing and robotics contributes to improving the logistics function through the diversification of its skills, methods and tools.

It is generally accepted that logistics performance represents an important component of organizational performance since several services (inventory, storage, supply, etc.) of the company depend on it. From the perspective of resource theory, logistics performance constitutes a ratio measure between the service provided and the resources consumed. Efficient logistics ensures customer satisfaction by consuming fewer resources. In other words, logistics performance consists of controlling the operational functions (production, routing, storage, packaging, delivery) in a way that guarantees the availability of good quality products, in the right quantity, at the right time, but also at the right location (Ndjambou, 2018). According to Garrouche, Mzoughi, Ben Slimane, and Bouhlel (2011) and Deshpande and Pendem (2022), the perception of logistics performance is no longer only the direct result of the last in-store visit, but also the indirect consequence of previous visits.

For Masudin, Lau, Safitri, Restuputri, and Handayani (2021), logistics performance contributes to organizational performance by creating value for the company's stakeholders when the supply chain is reliable (meeting commitments), efficient (timely delivery) and environmentally friendly (low environmental impact) in delivering the product to the final consumer. In addition to playing a key role in organizational performance, logistics performance increases the competitiveness of the company by improving the quality and timeliness of the supply chain and reducing coordination costs and transaction risks.

2.3.1 Logistics performance and the store image. The relationship between logistics performance and store image has not been much studied by the scientific community. According to Bouzaâbia and Boumaiza (2013) and Ndjambou (2018), the consumer's perception of logistics performance can have an effect on the store's image if it corresponds to a favorable evaluation. The contribution of this research work is to verify whether there is a positive relationship between logistics performance and store image. The consumer is sensitive to several elements of the logistics function and this may be the cause of the development or deterioration of his relationship with the store (Garrouche *et al.*, 2011). The perception of aspects related to logistics performance (the reinforcement of service quality, the availability of articles, the reduction of costs) by the consumer can, if they are evaluated favorably, have a positive effect on the store's image and vice versa. This is the case of a logistical problem; a rupture at the level of shelves can generate negative effects on the retail store and lead to a depreciation of its image (Rulence, 2003). It should be noted that the waiting time at the checkout and the availability of materials such as packaging bags and trolleys influence the consumer's perception of the store visited (Silberer & Friedemann, 2011). By analogy, other logistical elements such as shelf supply management, product

availability, information and personnel skills have an effect on the store's image. Hence, the following hypothesis:

H3. A positive perception of logistics performance positively affects the store's image.

2.3.2 Logistics performance and consumer satisfaction. The literature on consumer behavior rarely analyses the influence of logistics performance on consumer satisfaction (Ndjambou, 2018). Grace and O'Cass (2004) have focused on the idea of retailer service provision, a concept aimed to facilitate purchase through the way in which the goods are presented. This element of the logistics function can have a significant impact on satisfaction (Garrouche *et al.*, 2011). Certain elements inherent to logistics, such as the accessibility of products, easy access to the shore, consumption deadlines, good signage on the shelves as well as the presence of information on the characteristics of the products, can favorably influence the overall satisfaction of consumers (Lichtlé, Manzano, & Plichon, 2000). On the other hand, consumers react negatively when they encounter problems during their purchase, such as a deadline that is too close to consumption, a long wait at the checkout, etc. These phenomena lead to deterioration in the service level; the consumer becomes quickly unhappy and disgruntled. Similarly, Rinta-Kahila, Penttinen, Kumar, and Janakiraman (2021) have announced that the service provided at the checkout also affects consumer satisfaction. Fernandes and Pedroso (2017) have shown that consumers' experience at the checkout has a significant effect on the evaluation of the service provided and on their satisfaction. Thus, a consumer who does not get the promised service sees this failure as a factor of nonquality which results in dissatisfaction (Ndjambou, 2018). Therefore, despite the limited amount of previous research, we formulate the following hypothesis:

H4. A positive perception of logistics performance positively affects consumer satisfaction.

The research model and relationships proposed in this study are illustrated in Figure 1.

3. Research methodology
3.1 Data collection method
The measurement indicators used to measure the four constructs of the research model ("logistics performance", "store image", "consumer satisfaction" and "consumer loyalty") are based on studies carried out by Zeithaml, Berry, and Parasuraman (1996), Oliver (1997), Semeijn *et al.* (2004), Garrouche *et al.* (2011) and Ndjambou (2018). The questionnaire is the instrument that was chosen to collect the data and it was designed using almost the same
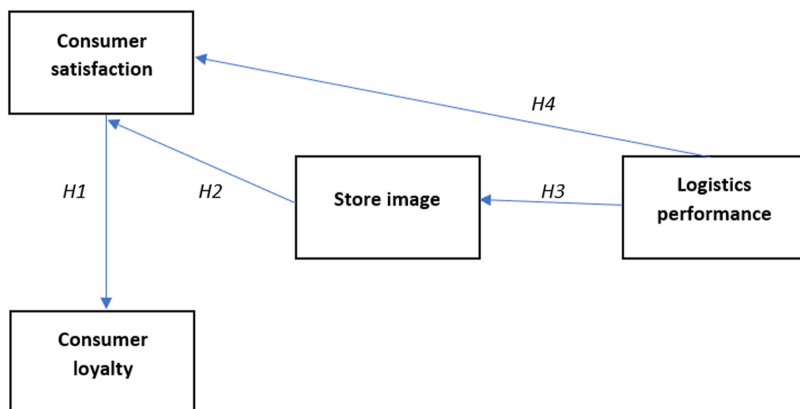

Figure 1.
Research model

indicators used by the abovementioned studies. This document was written in French since this language is the second language of Morocco after Arabic, it is composed of five parts, and each part gives us specific information on the variables included in our research model. This data collection instrument was composed of 38 items, of which 3 items were related to the respondents' profile information (gender, age and marital status) and 35 items referred to the four constructs of the research model.

The five-point Likert scale ranging from 1: "Strongly disagree" to 5: "Strongly agree" was used, as in the marketing literature, to measure these constructs. Consumer loyalty was measured by the instrument designed by Zeithaml *et al.* (1996) and Ndjambou (2018); consumer satisfaction by the instrument used by Olivier (1997) and Ndjambou (2018); store image by the instrument developed by Semeijn *et al.* (2004) and Ndjambou (2018), while the logistics performance was measured by Garrouche *et al.* (2011) and Ndjambou (2018)'s instrument (Table 1).

Constructs	Items	Source
Logistics performance: in terms of shelves, checkouts and product availability	All products and brands were available ; The use-by date of the products is convenient for you; All products are easily accessible; The packaging bags provided by the checkouts were sufficient; The shelves are well supplied; There are enough trolleys; The number of open checkouts is sufficient; You are not happy with the way the shop is stocked during your visit; The information on the characteristics of the different products was sufficient; The prices posted were exactly the same as those at the checkout	Garrouche *et al.* (2011) Ndjambou (2018)
Store image : in terms of store layout and service quality	The organization of the store is very impressive; Promotional articles are really easy to find; The layout of store shelves is extremely clear; The store personnel are very helpful and knowledgeable; If there is a problem(for example, returns), the employees find solutions for the consumers	Semeijn *et al.* (2004) ; Ndjambou (2018)
Consumer satisfaction	I am happy to have chosen this store; I am content with my visit to this store; I had a good idea when I decided to go to this store; I am disappointed to have visited this store	Oliver (1997) ; Ndjambou (2018)
Consumer loyalty	I would strongly encourage my family to visit this store; I will recommend this shop to anyone who asks my advice; I will continue to visit this store for the next few months; I will consider this store as my first choice, when i decide to purchase a product	Zeithaml *et al.* (1996) ; Ndjambou (2018)

Table 1.
Constructs and items

The data collection instrument was administered in the city of Nador, which is located in the northeast of Morocco, from 23 June to 4 July 2022 among customers exiting the "Marjane" supermarket. The choice of this large supermarket was based on the density of its activity, it is the Moroccan leader in large distribution with a turnover of 5.2 billion dollars. The sample was selected using the convenience sampling method in which respondents voluntarily agreed to participate in the survey after leaving the "Marjane Nador" supermarket.

3.2 Data processing method

After a preliminary check of the completed questionnaires, we found some gaps in the data, which led us to eliminate 13 questionnaires that were not filled in properly or were incomplete. The number total of completed answers that we got was 201. The processing of this sample was carried out using the SPSS statistical software. The data analysis was conducted in two phases. The first phase consisted of testing the reliability and validity of the measurement scales. This was done using the principal component analysis (PCA), which is a technique of factor analysis. The stepwise procedure developed by Hair, Anderson, Tatham, & Black (1998) was chosen to carry out this PCA, with the aim of condensing the information contained within a large number of variables (e.g. questionnaire items) into a small set of new composite dimensions while ensuring minimal data loss (Kurita, 2019).

According to the procedure proposed by the abovementioned authors, the first step was to determine the most appropriate approach to carry out this PCA. To ensure the quality of the results, both the exploratory and confirmatory approaches were used. Although the second approach seems to be the most appropriate in the case of the present study since the research model indicates, a priori, the presence of factors already known in the scientific literature, the first approach can also be interesting as it allows the identification of the underlying structure of the data and the reduction of the variables number to a few factors.

The second phase of data processing consisted of testing the research hypotheses on the basis of the data collected in the field. Several differential statistics tools exist to validate relational research hypotheses. In this article, we have chosen multiple linear regression, which is an analytical model that aims to explain the variance of a phenomenon using a combination of explanatory factors.

4. Data analysis

4.1 Description of consumer profile

It is important to describe the profile of the consumers who participated in our study before presenting the results of the statistical analysis. The sample of 201 respondents is composed of 87 males and 114 females, representing 43% and 57%, respectively of the consumers questioned in this research. In terms of age, the majority of consumers are aged between 45 and 60 years (102/201: 51%). Regarding marital status, 152 consumers were married, representing 76% of the survey sample. Single consumers are the second largest group, numbering 41 and representing 20% of the total number of respondents. Divorced consumers are the lowest-ranked group with 8 people, representing 4% of the sample. Table 2 shows how the sample of our study was distributed.

4.2 Reliability and validity of measurement scales

4.2.1 Logistics performance measurement. The PCA revealed an excellent Kaiser–Meyer–Olkin (KMO) test (0.820) and a significant Bartlett's test of sphericity. It showed that the items of the logistics performance construct holds 78.1% of the initial information.

(1) element 1: logistics performance at the shelf level explains 30.5% of the initial information. Cronbach's alpha is equal to 0.837;

(2) element 2: logistics performance at checkout level explains 26.9% of the initial information. Cronbach's alpha is equal to 0.756;

(3) element 3: Product availability explains 20.6% of the initial information. Cronbach's alpha is equal to 0.725.

In terms of internal reliability for each of the three dimensions, the results show satisfactory Cronbach's alpha coefficients (above 0.60 at the exploratory level). Indeed, we have performed a confirmatory analysis on all the items related to logistics performance. The overall quality of fit indices is satisfactory: GFI (the goodness of fit index) = 0.996 and RMR (the root mean square residual) = 0.031. Moreover, the Rhô of convergent validity for the three dimensions exceeded the recommended threshold of 0.50. Also, we can say that their reliability is very positive as the Jöreskog Rho's are above 0.70 (Table 3).

4.2.2 Store image measurement. The store image items which are summarized by two factors have accounted 63.39%. The first factor which is related to the service provided by the personnel, explains 40.48% of the initial information. Cronbach's alpha shows a value of 0.728. The second factor which refers to the store layout, explains 22.93% of the initial information and also has good internal reliability (cronbach alpha = 0.714). The measurement model shows a good fit with (GFI = 0.98 and RMR = 0.074). Indeed, the Rhô of convergent validity for the two dimensions of the store image is very important (exceed 0.50). Moreover, the reliability of both factors is good, as the Jöreskog Rho's exceed the recommended threshold of 0.70 (Table 4).

4.2.3 Measurement of consumer satisfaction. The PCA with varimax rotation shows that the satisfaction scale explains 70% of the initial information and has good internal reliability (0.882). The confirmatory factor analysis (CFA) carried out on this construct shows a good

Variable		Number	Percentage (%)/approx
Gender	Men	87	43
	Women	114	57
Age (years)	18–25	16	8
	26–35	34	17
	36–45	44	22
	46–60	102	51
	⩾ 61	5	2
Marital status	Single	41	20
	Married	152	76
	Divorced	8	4

Table 2.
Distribution of sample

	Rhô of convergent validity	Jöreskog Rho's
Logistics performance in terms of shelves	0.881	0.703
Logistics performance in terms of checkouts	0.833	0.679
Logistics performance in terms of product availability	0.751	0.602

Table 3.
Reliability and validity
of logistics
performance

	Rhô of convergent validity	Jöreskog Rho's
Service quality	0.819	0.772
Store layout	0.762	0.671

Table 4.
Reliability and validity
of store image

quality of fit (GFI = 0.899 and RMR = 0.047). The satisfaction measurement scale also has very good reliability (ρ = 0.896 > 0.70) and satisfactory convergent validity (ρVC = 0.783 > 0.50).

4.2.4 Measurement of consumer loyalty. The results of the PCA show that the loyalty scale is unidimensional. The four items are summarized in a single factor that explains 63.26% of the initial information. The value of Cronbach's alpha is satisfactory (0.842). Indeed, the results of the CFA show a very good fit, the indices exceed the critical thresholds accepted by Roussel, Durrieu, Campoy, & El akremi (2002) (GFI = 0.999 and RMR = 0.039). The fidelity scale also has very good reliability (ρ = 0.863 > 0.70) and satisfactory convergent validity (ρ = 0.704 > 0.50).

4.3 Hypothesis testing

The conditions of linearity and constant variance of the error terms are met by examining the scatter plot. The normality of the variables has also been verified as the skewness coefficients of all items have a value less than 1 in absolute value, and those of kurtosis have a value lower than 1.50 in absolute value. Furthermore, the Durbin-Watson test shows a value of 1.89 (below the threshold of 2). Finally, the value of the inflation factor (VIF) and the tolerance are acceptable for all explanatory variables (Table 5).

4.3.1 Impact of satisfaction on consumer loyalty. The adjusted R^2 coefficient, which represents the strength of the relationship between satisfaction and loyalty, shows a value of 0.580. The contribution of satisfaction to the explanation of loyalty ($\beta1$ = 0.685 and $t1$ = 10.90) proves that H1 is confirmed: satisfaction positively influences loyalty.

4.3.2 Impact of store image on consumer satisfaction. The ANOVA results show that the overall quality of the regression is acceptable (p = 0.000 < 0.05 and F = 250.852). The results also indicate a good fit (R^2 = 0.651) and the importance of two components of store image in explaining consumer satisfaction ($\beta1$ = 0.313; $t1$ = 2.47 and $\beta2$ = 0.563; $t2$ = 2.78). It thus appears that the first factor of the store image, i.e. "service quality" contributes more to satisfaction than "store layout". This allows us to conclude that hypothesis H2 is confirmed, i.e: the store image positively affects consumer satisfaction.

4.3.3 Impact of logistics performance on the store image. Effect of logistics performance on store layout: The ANOVA results show that the overall quality of the regression is acceptable (p = 0.000 < 0.05 and F = 25.72). The importance of the relationship between logistics performance and store layout is given by 52.1% of the adjusted R^2. Only the two dimensions "logistics performance at shelf level" and "product availability" jointly explain "store layout" (significant for t > 1.96 and p < 0.05). The second dimension "logistics performance at checkout level" has no relationship with "store layout".

Effect of logistics performance on service provided by staff: The ANOVA results show that the overall quality of the regression is acceptable (p = 0.000 < 0.05 and F = 30.89). The significance of the relationship between logistics performance and the service provided by the staff is given by 40.02% of the adjusted R^2. Only the dimension "logistics performance at checkout level" explains "service provided in the store" and it is significant for t > 1.96

	VIF	Tolerance
Logistics performance in terms of shelves	0.423	2.40
Logistics performance in terms of checkouts	0.585	1.74
Product availability	0.703	1.45
Service quality	0.462	2.20
Store layout	0.569	1.78
Consumer satisfaction	1	1

and $p < 0.05$. The other two dimensions "logistics performance at the shelf level" and "product availability" have no relationship with service. So, we can say that hypothesis H3 on the relationship between the logistics performance and the store image is partially confirmed.

4.3.4 Impact of logistics performance on consumer satisfaction. The ANOVA results show that the overall quality of the regression is acceptable ($p = 0.000$, $F = 70.87$). The results show a good fit ($R^2 = 0.667$). The Betas of the different factors show the values: ($\beta1 = 0.332$; $t1 = 3.33$), ($\beta2 = 0.220$; $t2 = 4.55$); ($\beta3 = 0.368$; $t3 = 5.32$). The effect of the dimension "availability of products" is more important on satisfaction than the other two dimensions, namely "performance at shelf level" and "performance at checkout level". This proves that hypothesis H4: "A positive perception of logistics performance positively affects consumer satisfaction" is confirmed.

Thus, these different values make it possible to present the research model, in its validation version (Figure 2).

5. Discussion

The purpose of our research was to explore the role of logistics performance on consumers' behavioral intentions and on the store image in a Moroccan commercial context. The test of hypotheses gives a significant result and shows that the linear relations between these variables are positive. First of all, the effect of satisfaction on consumer loyalty is significant and consistent with the results of Bouzaâbia and Boumaiza (2013) and Ndjambou (2018).
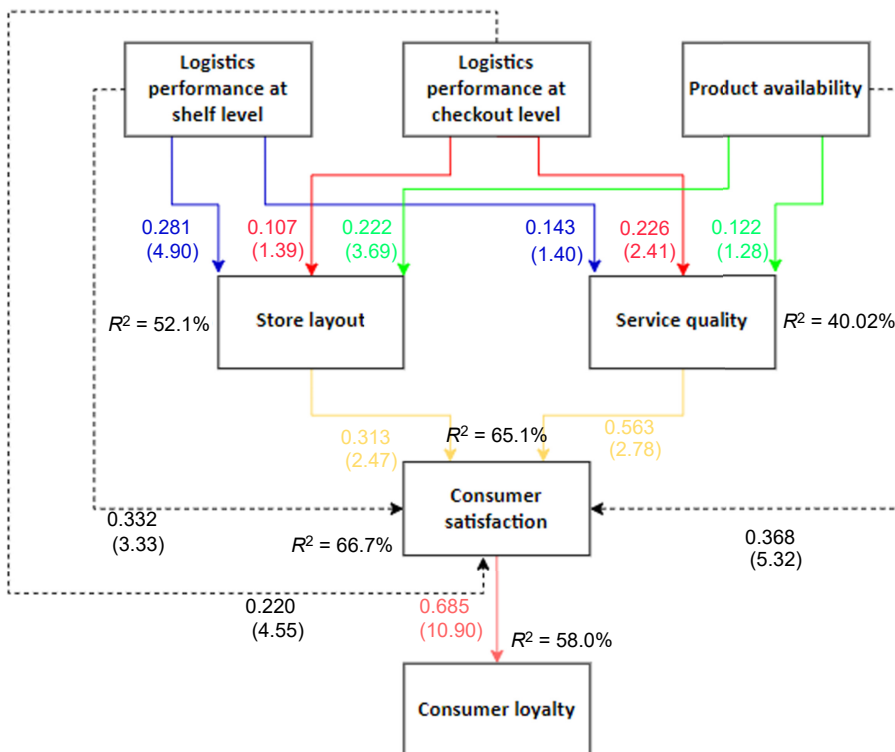

Figure 2.
Validated
empirical model

Indeed, a satisfied customer is generally a loyal customer. Subsequently, the empirical results support the second hypothesis (the store image significantly influences consumer satisfaction). In our research, the store image is composed of two dimensions, namely: "store layout" and "service quality". According to the empirical model, the dimension "service quality" admits a more important effect on consumer satisfaction than "store layout". This can be explained by the fact that consumer satisfaction is influenced by the staff's service in the store, i.e. their competence, courtesy, etc.

Hypothesis 3 which has not been addressed in the literature, examines the effect of the perception of logistics performance by the consumer on the store image. We were able to confirm that, two dimensions of logistics performance, namely "logistics performance at shelf level" and "product availability" influence "store layout". In particular, it was noted that the effect of the first dimension is more important than that of the second. Indeed, well-stocked shelves can only improve consumers' perception of the store layout. Concerning the second dimension of the store image, namely "service quality", only the dimension "logistics performance at checkout level" has a significant effect on the latter. Indeed, a good performance at the checkout level, short queues and fast cashiers improve consumers' perception of the service provided.

The results confirm the fourth hypothesis regarding the impact of logistics performance on consumer satisfaction. All dimensions of logistics performance influence consumer satisfaction. However, the dimension "product availability" has the highest contribution to explaining satisfaction; consumers become more satisfied when they can get the quantities they want. Logistics performance at the checkout level contributes to the explanation of satisfaction, but to a lesser degree than the previous factor. Logistics performance at the shelf level has the least influence on consumer satisfaction. This result is consistent with the findings of studies conducted by Garrouche *et al.* (2011) and Vasic *et al.* (2021).

6. Conclusion
This paper aimed to examine some research gaps. Geographically, no study has addressed the impact of logistics performance on store image and consumer behavior in Morocco. Moreover, the results of previous works were different in terms of performance measurement. We cannot specify the impact of logistics performance with only two variants in the retail context. To this end, we conducted a quantitative study about the effect of logistics performance on store image and consumer behavior including three variants of logistics performance, namely: checkout level, shelf level and product availability.

The results of our research are as follows: consumer satisfaction positively affects their loyalty to the store. The results also indicate that store image affects the satisfaction of consumers. Indeed, "service quality" is often evaluated as a source of differentiation affecting consumer satisfaction. Concerning the effect of logistics performance on consumer satisfaction, the factor "product availability" was found to be the major factor impacting consumer satisfaction. A lack of logistics performance, in the context of retailing, negatively affects consumer satisfaction. On the other hand, when the consumer gets the right quantities at the right time, this can positively affect his satisfaction.

6.1 Managerial insights
The managerial contributions of this research are based on the observation: logistics performance should be considered as a management tool able to affect consumers' behavioral intentions. This research allows managers of the business industry to identify aspects of logistics performance that should be taken into account to increase consumer satisfaction. The results of our research can also be useful for retailers, who need to take into account all

aspects of the logistics function when developing their marketing mix strategy. The ultimate objective will be to better satisfy and retain the consumer. Furthermore, distribution stakeholders in Morocco must not only communicate better on the logistics function but also integrate it into their planning strategies. Given the imperatives imposed by the competition in the sector of large distribution in Morocco, the retail format should be updated to attract the maximum number of consumers. In this context, retailers need to improve their logistical service, considering the consumer's sensitivity to low prices. Also, they can place products in overpacks that eliminate unnecessary (and costly) handling at the time of their placement on the shelves. In addition, they can shorten customer journeys by reducing the width and depth of the assortment. All these techniques will surely provide a benefit to consumers in the retail context.

6.2 Limitations
Our exploratory research presents some limitations.

(1) *At the theoretical level:* there is a considerable lack of literature on the development and measurement of the logistics performance concept.

(2) *At the methodological level:* the external validity of our study and its generalizability are limited due to the choices necessary for its realization. This is the case for the particular cultural context of "Morocco" and "Marjane Nador". Indeed, if the premises or the staff differs from one store to another, then the consumers also differ. Similarly, the use of a convenience sample does not allow the empirical results obtained to be generalized.

6.3 Future directions
Although this study is the first one conducted in this field in Morocco, it deserves to be further explored from at least fourth angles. Firstly, it would be interesting to improve the conceptual model by incorporating other variables such as business environment and distribution laws. Then, it seems appropriate to repeat the same study in another cultural context and compare the results obtained. Furthermore, to increase the external validity of our research, it would be desirable to conduct this research again in different types of stores, so as to envisage a generalization of certain results obtained. This will also allow us to make a comparison between two different stores with high and low logistic functionality. Future research can also integrate qualitative instruments such as focus groups or semistructured interviews into the data collection, as this will make the descriptive analysis more detailed, and therefore the impact of logistics performance on store image and consumer behavior clearer.

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