

Understanding the Drivers of Frequent Purchases on Amazon: Factors Influencing Online Shopping Behaviour

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Abstract

In the evolving digital marketplace, understanding the mechanisms that drive frequent purchases is pivotal for both researchers and practitioners. This study investigates the determinants of repeat purchasing on Amazon, aiming to uncover the key factors that motivate consumers to engage in multiple transactions within a short time frame. Utilizing a robust dataset of 602 responses collected through an online survey, we employed quantitative analysis and advanced visualization techniques via Power BI to examine the interaction between consumer characteristics, product attributes, and platform specific features. Our findings indicate that the product category plays a critical role in influencing purchase frequency, with segments such as groceries, gourmet food, and fashion emerging as significant predictors of repeat buying behaviour. Additionally, the analysis reveals that the strategic use of customer reviews, advanced product search filters, and features like “save for later” markedly enhance the likelihood of frequent purchases. Moreover, increased browsing frequency correlates with heightened consumer engagement, suggesting that repeated exposure to tailored digital content fosters a stronger propensity for recurring transactions. The insights derived from this study are particularly important for Amazon marketplace sellers, digital marketing strategists, and e-commerce platform developers. By leveraging these findings, stakeholders can design more effective customer engagement strategies, optimize marketing efforts, and ultimately cultivate greater customer loyalty. This research contributes to the broader discourse on online consumer behaviour by providing a detailed, data-driven exploration of the factors influencing purchase frequency on one of the world's leading e-commerce platforms.

Keywords: E-commerce, Purchase Frequency, Consumer Behaviour, Predictive Analytics, Amazon.

1. INTRODUCTION

Global e-commerce has sustained strong growth since the pandemic and is projected to exceed \$8 trillion by 2027, indicating a structural shift in consumer purchasing toward digital channels (Uzunoglu, 2024; Lin, 2024). Within this environment, Amazon acts as a market shaping platform whose logistics, assortment breadth, and interface features influence shopper expectations across categories (Chapple et al., 2022). Understanding the drivers of frequent purchasing on Amazon is therefore of strategic relevance to platform managers and third party sellers.

Purchase frequency, defined as the number of transactions per customer within a given timeframe, is a more direct measure of engagement and loyalty than one off conversion (Hohenberg & Taylor, 2020). Purchase frequency reflects category cadence (e.g. groceries vs. durables), the impact of consumer reviews and the effectiveness of interface features designed to

reduce friction (e.g. filters, "save for later"), making it an integrative outcome of product, information and platform design factors.

Prior research has established that online reviews shape purchase intentions and decision confidence (Ahn & Lee, 2024; Chen et al., 2022; Zhang et al., 2018), and that search and filtering facilitate discovery (Deng et al., 2021). Further research has documented the demographic and contextual determinants of online adoption (see Jensen et al., 2021; Restrepo et al., 2024; Sajid et al., 2022). Nonetheless, there are three limitations persistent in extant e-commerce literature, including literature focused on Amazon. In the context of single platform analysis, there is a tendency to empathize purchase intentions over actual purchase frequency. Secondly, researchers often examine predictors in isolation, which obscures the joint influence of category cadence and interface use on behaviour. Thirdly, there is a limited operationalization of Amazon's specific affordances, such as the "save for later" feature, review reliability vs. importance, and advanced filters, as potential determinants of repeat purchasing.

This study aims to address these gaps by analyzing an open source Amazon dataset and examining how product category, review perceptions (importance and reliability), search method (including filters), "save for later" usage, and browsing frequency relate to the likelihood of purchasing on Amazon a few times per month.

The analysis indicates that category effects dominate: groceries and clothing/fashion correspond to the highest likelihood of purchasing a few times per month. It is evident that platform behaviors are also material in nature. The utilization of filters, the occasional expression of trust in reviews, and the practice of saving items for later use have been observed to be associated with a higher frequency. It has been determined that individuals who browse the platform a few times per week are more likely to make purchases on a monthly basis than the sample average.

The results of the study indicate that category effects dominate: groceries and clothing/fashion exhibit the highest likelihood of purchasing a few times per month. It is evident that platform behaviors are also of significance: the utilization of filters, sporadic trust in reviews, and the occasional use of the "save for later" functions are each associated with a higher frequency. Browsing the platform a few times per week is also associated with higher likelihood of purchasing a few times per month than the sample average.

2. THEORETICAL BACKGROUND

To provide an overview of factors influencing purchase frequency on Amazon the factors influencing purchase frequency on Amazon and to create a theoretical basis for the analysis this chapter will present relevant empirical findings of the prior research.

The review of extant literature has identified several key factors that may impact purchase frequency, including consumer characteristics, product related attributes, and platform specific features. In the following sections, these factors will be described in detail and subsequently tested in the analysis using a relevant dataset.

2.1 The Role of Purchase Category

The purchase category has been observed to have a considerable impact on purchase frequency on Amazon (Passy, 2024). This is due to the fact that consumer buying behaviour varies across each of categories (ibid.).

The analytics indicate that 'household care' and 'grocery' are the fastest growing products categories of e-commerce with annual growth rates of 19.3% and 16.6%, respectively (Koutsou Wehling, 2024). Furthermore, it is anticipated that these product categories will continue to demonstrate the most significant growth in the coming years (Uzunoglu, 2024). In particular, the 'grocery' category is expected to exhibit the highest compound annual growth rate (CAGR) of 14.3% by 2028 (ibid.).

Beyond 'groceries' and 'household care', 'fashion' remains a major e-commerce category (Koutsou Wehling, 2024; Uzunoglu, 2024). Despite its growth rate being lower than that of groceries, the fashion sector continues to expand steadily, as more consumers opt for online shopping for apparel and accessories, preferring marketplaces such as Shein to traditional apparel stores like asos.com (Koutsou Wehling, 2024).

Similar trends have been observed in the 'furniture & home ware' segment, which has also experienced significant expansion and is projected to remain among the fastest growing categories in the global e-commerce market (Uzunoglu, 2024).

It is important to recognize the considerable impact of demographic variables, including age, on the frequency of online shopping (Restrepo et al., 2024; Jensen et al., 2021).

2.2 The Role of Customer Reviews in Purchase Decision Making

The research evidence indicates that online reviews significantly influence consumer purchasing decisions. To illustrate, Kang et al. (2022) discovered that while reviews typically facilitate purchase intent, this effect can vary depending on the product category and the consumer's behaviour. The study results also indicate that the presence of reviews is associated with an increase in the frequency of purchases.

At the same time, reviews may be of lesser influence with regard to repeat purchases, particularly in the case of commoditized products or items that are subject to regular use (Ahn & Lee, 2024). However, some academics argue that reviews are important even for repeat buyers, particularly for products that are perceived to be of a higher risk or where there is a potential for a greater variability in quality (Chen et al., 2022).

2.3 Product Search and Filtering Methods

The existing research suggests that consumers who apply advanced filtering methods and are, for example, sorting by criteria such as price, brand, or popularity, are more likely to make faster purchase decisions, which can result in an increase in the purchasing frequency (Deng et al., 2021). Moreover, the research underscores the hybrid product search approach, which integrates filters with personalized suggestions, such as algorithm driven recommendations. This search method has been demonstrated to significantly enhance purchase frequency (ibid.).

Concurrently, some scholars posit that negative reviews, in particular, have a powerful impact on purchasing intentions. This suggests that search filters alone are less effective at driving repeat purchases than review dynamics and presentation (Chen et al., 2022).

2.4 Browsing Frequency

High browsing frequency is regarded as one of the key factors affecting purchasing frequency. This is due to the fact that repeated exposure to products and promotions serves to increase consumer engagement and purchase intent. While frequent browsing does not always result in immediate purchases, it serves a crucial role in shaping purchasing behaviour over time. Frequent interaction with an e-commerce platform may engender brand familiarity, raise product awareness, and strengthen trust, which can ultimately influence consumers to make purchases at a later stage (Zhang et al., 2018).

Hence, it suggests that frequent browsing behaviour may establish a foundation for higher purchasing frequency over time (Sajid et al., 2022).

3. DATA AND METHODOLOGY

To approach the answer to the underlying research question, i.e. "What influences purchase frequency on Amazon to be few times a month?", upon the theoretical background, relevant data will be analysed quantitatively in order to identify key determinants and assess their statistical significance.

This study draws upon an open source dataset pertaining to consumer behaviour on Amazon, retrieved from Kaggle. The dataset was contributed by Menon and last updated in 2023. As indicated by the author, the data was collected via a self administered Google Forms questionnaire, disseminated through social media platforms (e.g., Facebook and WhatsApp groups). This implies that a convenience sampling method was employed, with respondents selected at random.

The dataset has a total of 602 entries and 26 variables. The present study will focus exclusively on 12 variables, of which one ('purchase frequency') is the dependent variable, while the remaining 11 are independent.

In order to conduct the requisite analysis and create a visual representation of the results, the Power BI software was employed. As the dependent variable is categorical, a bar chart was deemed the most optimal visual representation option. For this purpose, an AI powered Key Influencers Visualization was used. This tool offers insights into the factors that impact a specific metric by processing data, identifying and ranking the most significant contributors, and presenting them in a clear, structured format.

4. RESULTS AND ANALYSIS

The analysis has identified the following factors as having the most significant impact on the likelihood of engaging in more frequent purchasing.

The category of 'groceries and gourmet food' along with 'clothing and fashion', has emerged as the most significant influencing factor in determining the likelihood of purchase frequency of "few times a month". This category represents 2.51 fold increase in comparison to the overall average. This finding reinforces the conclusions of Uzunoglu (2024) regarding the grocery sector being the fastest growing e-commerce category.

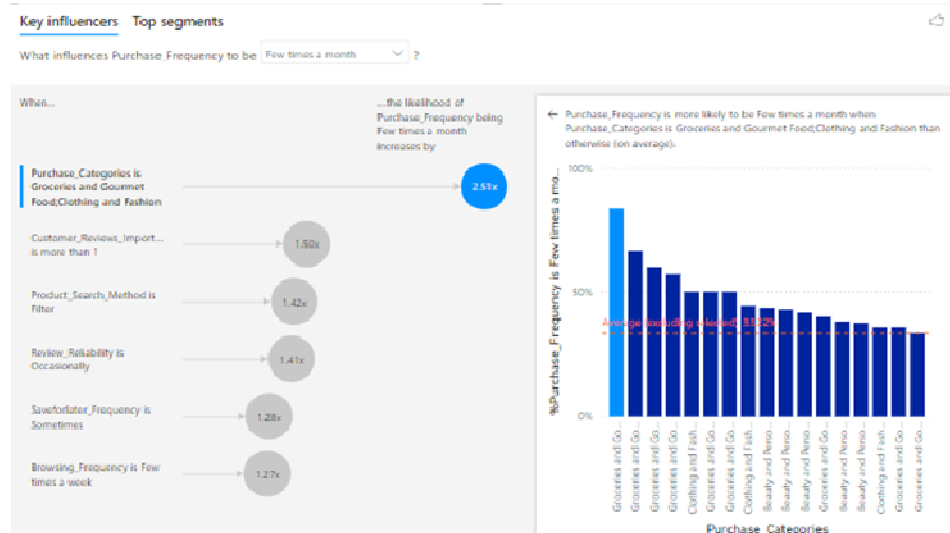


FIGURE 1: The impact of product review importance on frequency of purchase a few times a month.

The probability of purchasing on Amazon several times a month is 1.5 times greater for values of the variable "customer review importance" greater than 1 than for the average.

As Menon (2023) explains, the importance of customer reviews was coded as a range of frequencies from 1 ('very important') to 5 ('not important'), meaning that customers whose purchase decisions are less dependent on product reviews are more likely to buy a few times a month.

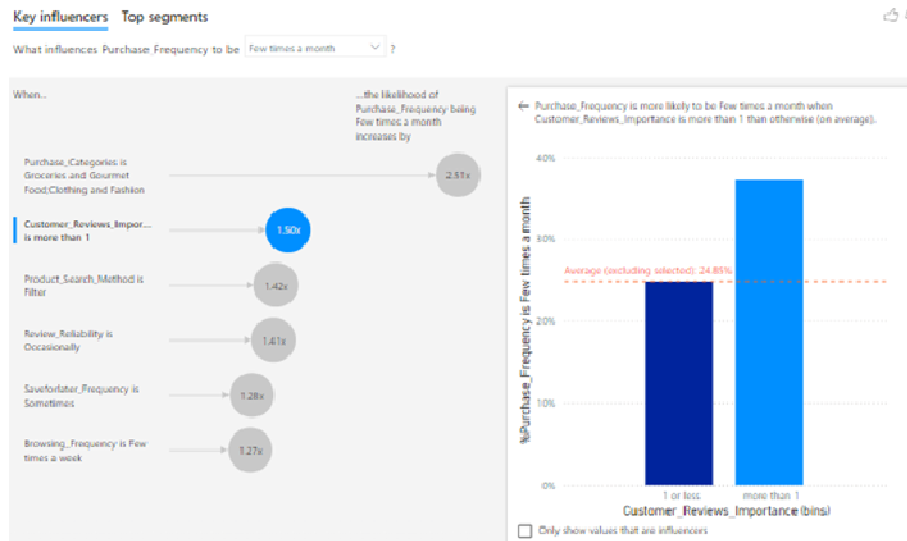


FIGURE 2: The impact of product review importance on frequency of purchase a few times a month.

The implementation of the filter function as the product search method has been found to result in a 1.42 fold increase in the probability of making multiple purchases per month, when compared to the average.



FIGURE 3: The impact of product search method on frequency of purchase a few times a month.

The probability of a customer making multiple purchases within a month is 1.41 times greater when their reliability in product reviews is occasional than when it is otherwise (on average).

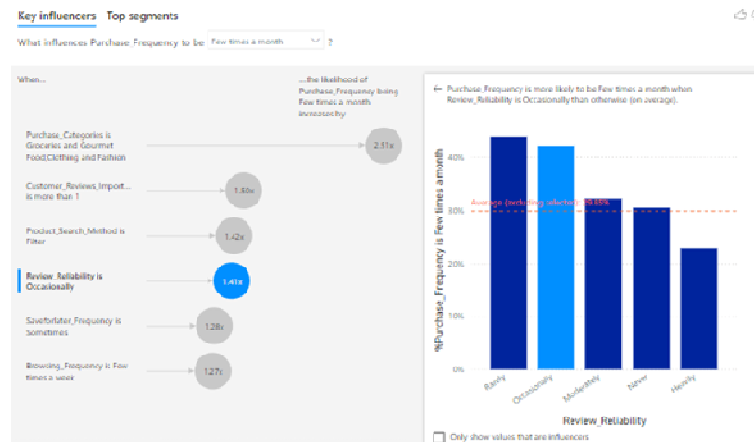


FIGURE 4: The impact of product review reliability on frequency of purchase a few times a month.

The likelihood of purchasing on Amazon a few times a month is 1.28 times higher than the average among customers who claim to sometimes use the "save for later" feature.

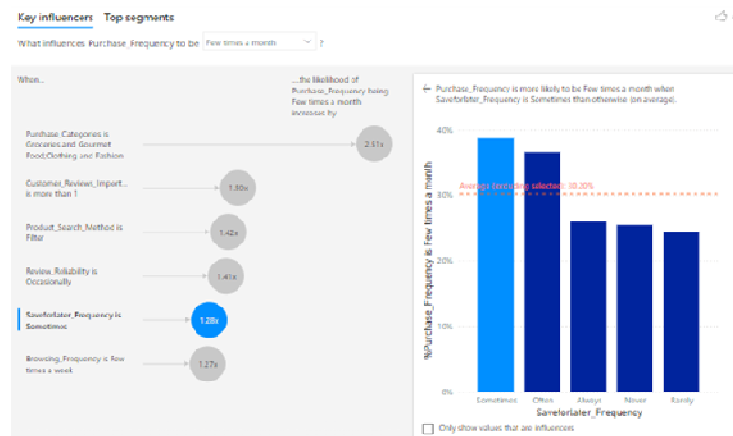


FIGURE 5: The impact of using the “save for later” feature on frequency of purchase a few times a month.

Browsing a few times a week is 1.27 more likely to result in a purchase a few times a month than the average.



FIGURE 6: The impact of the browsing frequency on frequency of purchase a few times a month.

5. CONCLUSION

Within the context of this study, a number of critical drivers of frequent purchasing behaviour on Amazon were identified. Most prominently, the product category exhibited a decisive influence: customers purchasing within specific categories, notably groceries and gourmet food (followed by clothing and fashion) were significantly more likely to make purchases a few times per month. Engagement with groceries and gourmet products is associated with a 2.5 fold higher likelihood of frequent purchasing compared to the average customer, underscoring how everyday necessity and fast turnover categories drive repeat buys.

Furthermore, platform usage patterns and features were found to have a significant impact on purchase frequency. The analysis revealed that shoppers who actively utilize Amazon's site features tend to purchase more frequently. Specifically, the utilization of advanced filter search functions was associated with approximately a 1.4 fold increase in the probability of multiple monthly purchases. In addition, customers who occasionally rely on product reviews (compared to those who always or never do so) exhibited a comparable ~1.4 fold increase in frequent buying.

Interestingly, non importance of customer reviews in the decision making process (i.e. reviews were considered somewhat important rather than very important) was associated with a 1.5 fold increase in the probability of habitual purchasing, suggesting that frequent buyers may rely less on reviews and more on other factors or prior experience.

Moreover, features that encourage saving and revisiting products were found influential. Users who sometimes utilized the "Save for Later" option exhibited a higher propensity (approx. 1.3 fold) to purchase items on a regular basis.

Finally, the overall engagement level of customers was found to be a driving factor. Individuals who frequently visited the platform, i.e., several times a week, exhibited a higher propensity to make multiple purchases per month (approx. 1.27 times more likely than the average).

In summary, the findings indicate that both category of products purchased and the manner in which customers interact with Amazon's features substantially influence their online purchase frequency.

5.1 Academic Implications

The present study contributes to the field of e-commerce research by broadening the focus beyond purchase intentions to encompass the frequency of actual purchases. The study emphasizes the combined impact of category cadence, review perceptions, and platform features, demonstrating that interface design and user engagement mechanisms are influential factors associated with repeat purchasing. Methodologically, it illustrates the value of data driven tools for ranking behavioral drivers in consumer research.

5.2 Practical Implications

The findings of the study suggest the advantage of operating within categories that exhibit a high cadence of purchase, such as groceries and fashion, as these categories are associated with a greater frequency of transactions. Sellers can also benefit from fostering the use of filters and the "save for later" feature, both of which are associated with a higher purchase frequency. In practice, this can be supported by a precise and detailed categorization of the assortment and by ensuring that all available product attributes and features are set on the marketplace. Thus, facilitating easier product searches and potentially leading to more frequent purchases. Finally, maintaining consumer trust through reliable product information and consistent quality can reduce dependence on reviews and support recurring purchases.

5.3 Policy Recommendations

While the present study is principally concerned with the examination of consumer behaviour and business strategy, it also puts forward suggestions with regard to considerations for platform policy and consumer protection.

Given the association between browsing behaviour and purchase frequency, there is a potential for platforms and regulators to assess practices that encourage sustained engagement. Nevertheless, such practices must be implemented responsibly, with a view to enhancing convenience without encouraging manipulative patterns that result in impulsive buying.

Furthermore, as many frequent purchasers do not place significant reliance on reviews, it is imperative to ensure the integrity and authenticity of product information. The continuous monitoring and removal of fake reviews and misleading descriptions is of vital importance.

In light of the aforementioned points, platforms may leverage filters, wish lists, and similar tools to enhance user satisfaction, whilst ensuring that these features are deployed ethically, transparently, and in a manner that prioritizes consumer interests.

5.4 Limitations of the Study

As with any empirical research, this study is subject to a number of limitations.

First, the analysis relies on a publicly available dataset (Menon, 2023), which may not be fully representative of the overall population of Amazon shoppers. As indicated by Menon (2023), the survey data were collected through convenience sampling via online self selection through social media. Moreover, the dataset was analysed without access to the original survey documentation, thus it remains unclear if any data cleaning procedures were implemented. This overreliance on secondary data limits the feasibility of verifying the credibility and accuracy of responses, which may introduce unknown biases.

Second, the demographic composition of the sample is notably imbalanced. For instance, the respondents were predominantly female and there was uneven representation across age groups. Such a distorted demographic profile has the potential to influence the outcomes of the study, particularly in regard to the generalizability of the findings to the entire Amazon customer base. This is due to the possibility that specific shopping behaviors may be more prevalent among certain gender or age groups (Restrepo et al., 2024; Jensen et al., 2021).

Third, the study's design was cross sectional, capturing consumer behaviour at one point in time. Therefore, it is not possible to observe changes in individual purchasing behaviour over a longer period, and causal interpretations remain limited. While the analysis identifies associations (e.g. certain features correlating with higher purchase frequency), it cannot definitively prove cause and effect.

Additionally, the scope was limited to the Amazon platform, and factors unique to Amazon were intrinsic to the data. For this reason, the findings may not be directly applicable to other e-commerce contexts without further investigation.

These limitations indicate that the findings, despite their informative value, require cautious interpretation. The insights should thus be considered as sample specific patterns rather than universally generalizable claims.

5.5 Conclusion and Further Research Perspective

Building on the limitations outlined above, future research should aim to address the identified gaps and open questions to deepen the understanding of frequent online purchasing behaviour.

A significant initial step is to collect new data using more rigorous sampling techniques. A more appropriate approach for researchers would be to utilize stratified or random sampling of Amazon

users (or online shoppers in general) in order to obtain a more representative dataset. Ensuring diversity among respondents (in terms of gender, age, geographic background, and shopping profiles) would enhance the external validity of the results and confirm the replicability of the identified factors across diverse consumer groups.

Another potentially effective approach is to undertake a more detailed investigation of specific product categories and consumer segments. Following the findings of this study, future research could concentrate on a dedicated category at a time, with the objective of identifying category specific drivers. Similarly, the segmentation of the consumers has the potential to unveil subtle variations in the factors that influence their behaviour. Such targeted studies might entail a comparison of Amazon with other e-commerce platforms to determine the applicability of the same drivers, or the uniqueness of purchasing factors on Amazon.

In addition, a longitudinal approach would significantly enrich this field. Future research initiatives should consider the long term tracking of shopping behaviour, for instance by observing the same sample of users over a period of time. This would allow for the capture of changes in purchase frequency due to modifications in platform features or personal conditions. This approach would also provide a framework for examining dynamic trends, such as the impact of seasonal events or external conditions on repeat purchase behaviour on Amazon.

Finally, complementary qualitative work (interviews, focus groups) could offer insights into the mechanisms underpinning the observed phenomena, such as the lower reliance on reviews among frequent buyers, and user perceptions of features like "save for later".

Addressing these areas in future research, built on the findings of this study, could create a more comprehensive and nuanced understanding of the drivers of frequent purchasing in the digital marketplace.

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