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Impact of Search Engine Optimization on Purchase Decision: Insights from Product Listings of Amazon and Flipkart

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In digital marketing, SEO (Search Engine Optimization) refers to the process of improving a website's or online content's visibility and ranking in search engine results pages (SERPs). Attracting organic (non-paid) traffic from search engines like Google, Bing, and Yahoo is the main objective of SEO. Because it enables companies to expand their online presence, attract relevant traffic, and improve the effectiveness of their digital marketing campaigns. SEO is a vital part of digital marketing. This study examines the application of SEO tactics and their impact on the internal search pages of Amazon and Flipkart, two of the largest online retailers. The study will examine the optimization of product listings, keywords, and search engines to determine the impact of these strategies on user behaviour and sales conversion rates. This author attempts to provide a comprehensive analysis and useful recommendations for improving search functionality by looking closely at internal SEO processes. The study reveals that the optimization of product listing pages significantly enhances the purchase decision in Amazon and Flipkart platforms. This outcome ought to offer a roadmap to other e-commerce companies who want to enhance their internal search capabilities to improve customer experience and influence their purchase decisions. The study targets the consumers in Chennai. Sample size:150.

Keywords: keyword optimization, Search Engine Results Page (SERP), purchase decision, trusted content, product listing, SEO Algorithm.

1. Introduction

Search Engine Optimization is the process of optimizing the website, web pages and content to rank higher in search engines such as Google. The goal of Search Engine Optimization (SEO) is to enhance the look, feel, and utility of various content kinds in the natural search results. Indeed, SEO is an essential marketing tactic. Beyond its challenge, marketers focus on it, keenly monitoring the content of websites and their impact on customers. All we can think of when we think of SEO is Google. Naturally, we also want to score well in search results. Similarly, the business wants customers to be able to locate its product page on Amazon or Flipkart if it has one on Amazon or Flipkart. Amazon SEO or Flipkart SEO is the process of optimizing product listings to increase their chances of ranking high in product search results. Product listing optimization helps to

- Improve product and brand visibility
- Drive more traffic to product listings
- Generate more product conversion & sales

Hence, the author thinks that it is critical to study the internal SEO implementation within Amazon/Flipkart Apps the market giants so as to suggest the businesses the best SEO practices.

2. Review of Literature

Velayudham, A., & Rose, S. (2019). His study highlights the role of Search Engine Optimization of digital marketing landscape. He emphasized the significance of visibility of brands in generating traffic and conversions with consumer decision-making processes by improving search engine rankings. His study revealed a strong correlation between consumer buying behaviour and higher rankings in search engine results. Product placement at the top of search results increases the likelihood that customers will evaluate and buy the product. According to the study, people with better internet search abilities are more able to locate pertinent information and make wise purchasing selections.

Terrance, A. R., Shrivastava, S., & Kumari, A. (2018). The study highlights the significance of keyword analysis as a foundational element for effective digital marketing strategies. Identifying terms that consumers regularly look for through effective keyword analysis is essential for boosting website traffic and conversion rates. They emphasised that friendly SEO techniques positively affect digital marketing.

Choudhary, N., Singh, B., Bagaria, G., & Arora, J. (2014). They found SEO is constantly evolving based on search algorithms and user behaviour. Listings on Search Results Page of Google is more trustworthy than other kind of advertisements.

Iskandar, M. S., & Komara, D. (2018). SEO is the best tool for product marketing. The cycle achievement of SEO to get benefit one has to traverse through the sequences ranking (basic purpose SEO), traffic (primary purpose SEO) and conversion (benefit SEO) and benefit.

Srivastava, S. N., Kshatriya, S., & Rathore, R. S. (2017). The research stressed the point that the search engines should give the result based on the number of reviews and number of

"place order" clicks instead based on number of clicks/visits.

Research gap

The majority of the literature focused on SEO tactics meant to raise rankings on external search engines like Google, often ignoring the advantages and difficulties of using comparable tactics to improve internal search capabilities. The aforementioned research gap emphasizes the necessity of investigating the ways in which internal SEO strategies can be utilized to enhance product exposure, elevate user experience, and augment conversion rates within the search environment of the e-commerce platform such as Amazon and Flipkart. By filling this knowledge vacuum, e-commerce platforms and digital marketers can improve their internal search algorithms and boost overall business success.

Statement of the Problem

Internal search and SEO on sites like Amazon and Flipkart are becoming more and more important in influencing consumer choices as e-commerce keeps expanding. Optimizing content, keywords, and other ranking elements within an e-commerce platform's own search environment is the main goal of internal SEO, which has a direct impact on how products show up in response to user queries. It necessitates the research to find the ways in which internal SEO tactics might enhance product exposure, user engagement, and conversion rates through product listing optimization. For e-commerce platforms and marketers, a deeper comprehension of internal SEO's function in forming the customer journey is essential because it enables improved targeting, enhanced user experience and more relevant search results. Hence it is crucial to study the Impact of Search Engine Optimization on Purchase Decision.

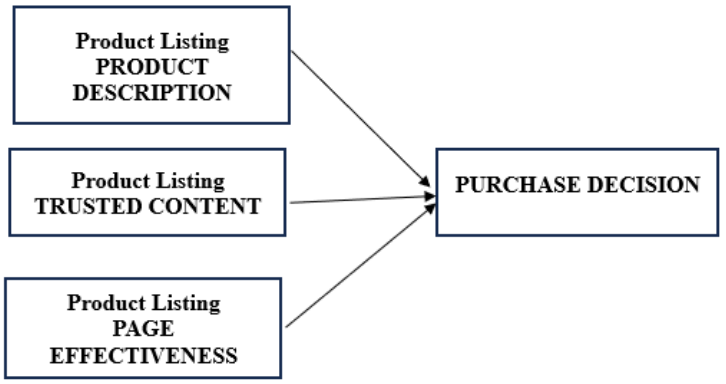
Objectives

1. To identify the influence of demographic variables on search behaviour of customers within Amazon/Flipkart Apps
2. To analyse the impact of internal SEO product listing on purchase decision
3. To offer suggestions to sellers to improve their product ranking on product listing

3. Research Methodology

This study is based on primary & secondary data. Primary data is collected through well-structured questionnaire. Convenient sampling technique is used to choose the samples. The sample size is 150. The secondary data has been collected from journals, books and websites. The study is confined to online customers of Chennai city only.

Research Framework



Significance of Internal Search Engine Optimization

Leading e-commerce companies Flipkart and Amazon use SEO algorithms to list their products on their apps and websites. Amidst array of products in Amazon and Flipkart, it could be difficult for the seller to get visibility without efficient SEO techniques. The customers won't ever view products that are not shown on the top of the result page. Furthermore, some buyers never go past the top three listings. This essentially implies that the top three product listings on the first page receive the majority of sales. The product more likely to appear at the top in Amazon/Flipkart product listing if it has a strong sales history. It attracts more visitors the higher it ranks. It generates more sales the more visitors it attracts. It's a self-sustaining cycle that enhance organic sales.

The Amazon/Flipkart SEO algorithms are made in a way that presents product listings that are relevant to the search terms submitted by customers. Customers use the Amazon and Flipkart apps not only to research products but also to make needs-based purchases. Their goal is to act right away and buy the goods that best fit their search terms. Amozon's A9 algorithm selects the products to show up at the top of the listing. Products with solid track

records of sales and conversion are given priority over products with overloaded keywords.

Amazon's A9 Algorithm:

The engine that drives the Amazon search engine and chooses which goods to display in the search results is called the Amazon A9 Algorithm. It's crucial to apply pertinent keywords correctly in the product title, description, and backend search terms. Ensuring that the product is categorized correctly aids A9 in matching it with pertinent consumer enquiries. The Amazon A9 algorithm ranks products based on performance factors like sales velocity, conversion rate, click-through rate, and customer reviews, alongside keyword relevance, customer behaviour, and listing optimization. A seller may increase the relevancy, sales velocity, and conversion rate of product listing by adding a few component such as product title, quality image, A+ content (description), bulleted points, customer reviews and seller badge.

Flipkart's SEO Algorithm:

Like Amazon, Flipkart uses its own algorithm to establish a product's ranking. Therefore, it's essential to the sellers to utilise SEO-friendly keywords and phrases. The browsing and purchase histories of customers are factored into Flipkart's algorithm. A user's past searches, viewings, and purchases are frequently used to tailor search results.

Optimizing The Product Listing Page

The product listing page typically contains the three components.

1. Product description includes quality image video, specification and price.

2. Trusted Contents, such as, star ratings, reviews, comments, recommended products and items bought together.

3. Page effectiveness includes layout of the page, loading speed, mobile friendliness and navigation.

Incorporating the above into the listing page improve the customer experience and conversion rates greatly.

Data Analysis & Interpretation

Reliability Statistics	
Cronbach's Alpha	N of Items
0.936	34

Cronbach alpha values of 0.7 or higher indicate acceptable internal consistency of data set.

ANOVA

Hypothesis 1a:

Hypothesis 1a: Relationship between Gender and keyword search behaviour of consumers in Amazon/Flipkart App

H_0: There is no significant relationship between Gender and product search behaviour of consumers

H_1: There is significant relationship between Gender and product search behaviour of

consumers

Table 1

Search Keyword Type	F-value	Significant Value
productnameSearch	.394	.531
productcategorySearch	.151	.698
brandnameSearch	1.355	.246
splfeatureSearch	2.969	.087
generaldescriptionSearch	2.317	.130
voicesearchSearch	.062	.804
phrasesSearch	2.182	.142

Source: SPSS Output

Interpretation: We read the significant values productnameSearch=0.531, productcategorySearch=0.698, brandnameSearch=0.246, splfeatureSearch=.087, generaldescriptionSearch=0.130, voicesearchSearch=0.804, phrasesSearch=0.142 in the above ANOVA table, clearly an evident that there is no relationship between gender and search behaviour in Amazon and Flipkart APPs since the p-value for all the cases is above 0.05 significance level.

Hypothesis 1b:

Hypothesis 1b: Relationship between Age and keyword search behaviour of consumers in Amazon/Flipkart App

H_0: There is no significant relationship between Age group and product search behaviour of consumers

H_1: There is a significant relationship between Age group and product search behaviour of consumers

Table 2

Search Keyword Type	F-value	Significant Value
productnameSearch	5.585	<.001
productcategorySearch	1.733	.146
brandnameSearch	1.873	.118
splfeatureSearch	2.681	.034
generaldescriptionSearch	5.344	4.420
voicesearchSearch	.950	.437
phrasesSearch	1.974	.102

Source: SPSS Output

Interpretation: We read the significant values productnameSearch=<0.001,

productcategorySearch=0.146,brandnameSearch=0.118,splfeatureSearch=.034,generaldescriptionSearch=0.002, voicesearchSearch=0.437, phrasesSearch=0.102 in the above ANOVA table, clearly an evident that there is no relationship between Age and search behaviour in Amazon and Flipkart APPs for all the cases except productnameSearch and generalDescriptionSearch since the p-value is less than significant value 0.05 in these two cases. In other cases, significance level is greater than the p-value. Hence, we accept null hypothesis and no significant relationship between age group and keyword usage in APPs for productcategorySearch, brandnameSearch, splfeature, voicesearchSearch, phrasesSearch

Chi-Square

Hypothesis 2a:

Hypothesis 2a: Relationship between Gender and Usage of Shopping App Amazon and Flipkart

H_0: There is no significant relationship between Gender and Usage of Shopping App Amazon and Flipkart

H_1: There is a significant relationship between Gender and Usage of Shopping App Amazon and Flipkart

Table 3

Chi-Square Tests			
	Value	Df	Asymptotic Significance
Pearson Chi-Square	2.389[a]	2	.303
Likelihood Ratio	2.402	2	.301
Linear-by-Linear Association	1.740	1	.187
N of Valid Cases	150		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.41.			

Source: SPSS Output

Interpretation: The above table shows the chi-square value 2.389 and significant value i.e p-value 0.301. Since the p-value is greater than 0.05 significant level we accept null hypothesis. Hence, there is no association between gender and usage of Amazon/Flipkart App. There is no difference among males and females in using Amazon or Flipkart App.

Hypothesis 2b:

Hypothesis 2b: Association between Monthly Income and Usage of Shopping App Amazon and Flipkart

H_0 : There is no association between Monthly Income and Usage of Shopping App Amazon and Flipkart

H_1: There is an association between Age and Usage of Shopping App Amazon and Flipkart

Table 4

Chi-Square Tests			
	Value	Df	Asymptotic Significance
Pearson Chi-Square	12.589[a]	8	.127
Likelihood Ratio	12.624	8	.125
Linear-by-Linear Association	.523	1	.470
N of Valid Cases	150		
a. 4 cells (26.7%) have expected count less than 5. The minimum expected count is 1.61.			

Source: SPSS Output

Interpretation: The above table shows the chi-square value 12.859 with the p-value 0.125 which is greater than the significant value 0.05. Hence, we accept the null hypothesis. There is no association between monthly income of respondents and usage of shopping APPs Hence, there is no difference in various income groups and their usage of Amazon/Flipkart APPs.

Regression Analysis

Hypothesis 3: Result Page product description, trust and effectiveness of result page would positively influence purchase decisions

Hypothesis 3a: Result Page product description would positively influence purchase decisions

Hypothesis 3b: Trusted Content would positively influence purchase decisions

Hypothesis 3c: Effectiveness of result page would positively influence purchase decisions

Hierarchical Regression Analysis was conducted to explore the influence of Result Page product description, Trust Content and Page Effectiveness on the Purchase Decision. The study employed the three-step hierarchical approach introducing the predictors in the order DESCRIPTION, TRUSTEDCONTENT and PAGEEFFECTIVENESS. These variables are computed using the mean statistical function of respective category variables.

Table 5

Model Summary									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.585[a]	.343	.338	.83107	.343	77.105	1	148	.000
2	.853[b]	.727	.723	.53740	.384	206.949	1	147	.000
3	.869[c]	.755	.750	.51044	.028	16.937	1	146	.000
a. Predictors: (Constant), DESCRIPTION									
b. Predictors: (Constant), DESCRIPTION, TRUSTEDCONTENT									

c. Predictors: (Constant), DESCRIPTION, TRUSTEDCONTENT, PAGEEFFECTIVENESS

Source: SPSS Output

Table 6

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.254	1	53.254	77.105	.000[b]
	Residual	102.219	148	.691		
	Total	155.473	149			
2	Regression	113.020	2	56.510	195.675	.000[c]
	Residual	42.453	147	.289		
	Total	155.473	149			
3	Regression	117.433	3	39.144	150.239	.000[d]
	Residual	38.040	146	.261		
	Total	155.473	149			
a. Dependent Variable: PURCHASEDECISION						
b. Predictors: (Constant), DESCRIPTION						
c. Predictors: (Constant), DESCRIPTION, TRUSTEDCONTENT						
d. Predictors: (Constant), DESCRIPTION, TRUSTEDCONTENT, PAGEEFFECTIVENESS						

Source: SPSS Output

Table 7

Coefficients[a]										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower	Upper	Tolerance	VIF
1	(Constant)	1.547	.249		6.204	.000	1.054	2.039		
	DESCRIPTION	.649	.074	.585	8.781	.000	.503	.795	1.000	1.000
2	(Constant)	.596	.174		3.419	.001	.251	.940		
	DESCRIPTION	.056	.063	.051	.892	.374	-.068	.181	.574	1.743
	TRUSTEDCONTENT	.824	.057	.819	14.386	.000	.711	.938	.574	1.743
3	(Constant)	.120	.202		.594	.553	-.279	.519		
	DESCRIPTION	-.053	.065	-.047	-.802	.424	-.182	.077	.480	2.083
	TRUSTEDCONTENT	.724	.060	.719	12.132	.000	.606	.842	.477	2.094
	PAGEEFFECTIVENESS	.311	.076	.247	4.115	.000	.162	.461	.467	2.142

a. Dependent Variable: PURCHASEDECISION

Source:SPSS Output

Interpretation:

The above model summary (Table 5) shows the impact of DESCRIPTION, TRUSTEDCONTENT and PAGEEFFECTIVENESS variables of the product listing page on Purchase Intention and Decision. The R value represents the simple correlation. The R Square column indicates the proportion of variance in the dependent variable PURCHASEDECISION explained by the independent variables DESCRIPTION, TRUSTEDCONTENT and PAGEEFFECTIVENESS.

ANOVA table (Table 6) represents how well the regression model fits the data i.e. predicts the dependent variable significantly. Corresponding to the Regression row the significant value for the all 3 models shows p-value 0.000 which is less than significant value 0.05 explains the regression model statistically significantly predicts the outcome variable PURCHASEDECISION.

The Coefficients table (Table 7) explains the strength and direction of the relationship. It explores how one unit change in the independent variable corresponds to the change the dependent variable. It can be identified by looking into the β value under the Standardized Coefficient column.

The result of hierarchical regression shows that the inclusion of product description in result page related accounted for variance 34.3% in customers purchase decisions, R^2=0.343, ΔR^2=0.343, F(1,148) = 77.105, P<0.001 and the analysis showed the evidence of a significant effect of result page product description on purchase decision(β=0.585, CI=0.503 , 0.795, P<0.001). We accept the research hypothesis that related product description on the result page influences the purchase decisions.

The inclusion of TRUSTEDCONTENT variable into the model 2 additional 38.4% variance in predicting purchase decisions R^2=0.727, ΔR^2=0.384, F(1,147) = 206.949, P<0.001 and the analysis showed evidence of a significant effect of result page Trusted Content on purchase decision(β=0.819, CI=0.711 , 0.938, P<0.001). We accept the research hypothesis that trusted content on the result page influences the purchase decisions.

The addition of PAGEEFFECTIVENESS variable into the model showed additional 2.8% variance in predicting purchase decisions R^2=0.755, ΔR^2=0.028, F(1,146) = 16.937, P<0.001 and the analysis showed evidence of a significant effect of result page effectiveness on purchase decision(β=0.247, CI=0.162 , 0.461, P<0.001). We accept the research hypothesis that effectiveness on the result page influences purchase decisions.

The addition of Trusted content into the model, enhances the purchase decision and product description continues the same significance. The addition of Page effectiveness enhances the purchase decision. Trusted Content is a dominant predictor in the overall model and explains its significant role in influencing the purchase decision.

4. Findings

1. The respondents of the study consist of 47% of Male and 53% of Female respondents. Majority 41% of respondents belong to 41-50 age group, 22% of respondents belong to 31-40 age group, 18% of them belong to 21-40 age group, 13% of the respondents belong to 18-20 age group and only one percent belong to Above 50 age group. Majority 54% of the respondents are post graduates, 30.7% of them are professional and remaining 15.3% of them are under graduates. Majority 30% of the respondents are Rs.20001-40000 monthly income category, 25% belong to Rs.40001-60000 monthly income category, 22% belong to Rs.60001-80000 monthly income category, 16% belongs to below Rs.20,000 monthly income category and 7% belong to above Rs.80,000 category.

2. The respondents, both male and female, are equally using all types of keywords to search for products in Amazon/Flipkart Apps. The search behaviour among different age group is the same for all types of keywords except the search using product name and general description of the products.

3. Both male and female respondents equally using the Amazon and Flipkart. Almost all income groups using the Amazon and Flipkart Apps equally.

4. There is a positive impact of product description in the Product Listing Page on purchase decisions of customers. The description on the product listing page includes quality image of the product, video content, product specification and price

5. The trusted content on the product listing pages such as reviews and ratings, seller badge, recommended products, and items bought together added a positive influence on purchase decisions.

6. Effectiveness of result page i.e. layout, speed, navigation and mobile-friendly features added a positive effect on purchase decisions.

5. Suggestions

1. Sellers should optimise search phrases to appeal to both genders, and use artificial intelligence (AI) to recommend popular product terms.

2. Customise product names and descriptions based on age to target certain groups with keyword strategy.

3. Make sure that platform interfaces, advertisements, and suggestions are gender-neutral, eliminating gender-specific material unless absolutely required.

4. Provide promotions and content that appeal to all income levels while emphasizing quality and value.

5. To increase interaction, improve product listings by including crisp photos, engaging videos, detailed descriptions, and reasonable prices.

6. Utilise material that fosters trust, such as seller badges, ratings, and reviews, to your advantage while making selections about what to buy. To build credibility and trust, support sincere user-generated content to emphasize reputation.

6. Conclusion

SEO isn't limited to traditional search engines. It also includes internal search engine optimisation for applications such as Amazon and Flipkart. To raise their position in internal search results, sellers can enhance the content and keywords of their products. Sellers may improve their exposure and raise their chances of showing up higher in internal product listings by optimising product listings with pertinent keywords, concise descriptions, and high-quality content. A higher number of sales can also be a key factor in ranking higher in internal SEO algorithms on platforms like Amazon and Flipkart. Increased sales signal product popularity and relevance, which can boost a product's visibility and ranking in search results. Optimizing for both content and driving sales can create a positive feedback loop, further enhancing the product's position in internal listings.

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