

Optimizing Product Listings for Enhanced Visibility and Sales on E-Commerce Platforms

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Abstract—This research aims to analyze and improve the visibility and performance on e-commerce platforms, with a specific focus on a sustainable clothing brand based in Tirupur, Tamil Nadu. In the competitive online retail environment, many clothing brands face challenges related to poor product discoverability, suboptimal listings, and inefficient logistics. Despite offering high-quality and eco-friendly products, these brands struggle to attract and retain customers online due to inadequate product presentation, keyword optimization, and listing design. The study focuses on key factors such as product descriptions, visual content, SEO strategies, customer behavior, and shipping efficiency to identify opportunities for improvement. A mixed-method approach involving descriptive and exploratory research design was adopted, using a sample size of 150 respondents. Primary data were collected through structured questionnaires, while secondary data were sourced from journals, books, and online publications. Statistical tools like simple percentage analysis, rank analysis, t-tests, ANOVA, and chi-square tests were employed to interpret the data. Findings suggest that family recommendations and social media influence purchase decisions significantly. Optimizing listings with engaging visuals and relevant keywords greatly enhances visibility and sales performance. However, challenges such as pricing pressure, work-life balance for retail employees, and logistics delays remain critical concerns.

Index Terms—Product Listing Optimization, Online Visibility, Digital Marketing, Consumer Behavior, SEO, Customer Satisfaction, Baby Apparel, Sustainable Fashion, Chi-square Test, ANOVA, Rank Analysis, Online Retail, Brand Performance, Purchase Decision, Product Descriptions, Logistics Efficiency.

I. INTRODUCTION

E-commerce means using the Internet and the web for business transactions and/or commercial transactions, which typically involve the exchange of value (e.g., money) across organizational or individual boundaries

in return for products and services. Here we focus on digitally enabled commercial transactions among organizations and individuals. E-business applications turn into e-commerce precisely, when an exchange of value occurs. Digitally enabled transactions include all transactions mediated by digital technology and platform; that is, transactions that occur over the Internet and the web. There are different types of E-commerce Business-to-Consumer (B2C): This type of e-commerce, in which companies offer goods or services directly to customers, is the most well-known. Customers can now purchase online for anything from food and services to electronics and clothes from the comfort of their homes thanks to this model, which has completely changed the retail industry. B2Ce-commerce has experienced rapid growth as a result of its capacity to provide a wide range of products, aggressive pricing, and customized shopping experiences. B2C e-commerce is best shown by platforms such as Amazon and eBay, which offer a global marketplace through which innumerable firms may reach millions of customers. Business-to-business (B2B): Refers to the exchange of goods and services between companies, which is an essential part of supply chains in a number of different industries. Under this approach, firms offer their goods and services to other corporations instead of to individual customers.

II. STATEMENT OF THE PROBLEM

In this study a problem is identified in Toddler thing, Toddler clothing brands from Tirupur face significant challenges in driving sales on e-commerce platforms due to a combination of visibility issues, pricing pressure, and customer perception. Despite offering high-quality, affordable products, these brands struggle to stand out in a crowded marketplace filled

with numerous competitors, both local and global. Product listings often lack the necessary optimization (in terms of images, keywords, and descriptions), which limits visibility and makes it difficult for parents to discover their offerings.

OBJECTIVES OF THE STUDY

- To identify and implement strategies that improve the visibility of toddler clothing listings on e-commerce platforms.
- To examine and refine product listings by improving product descriptions, images, and keywords, making them more appealing and informative to customers, thus increasing the chances of conversion.
- To identify methods for improving shipping processes, reducing delivery times, and ensuring that products reach customers in timely and secure manner, thus boosting customer satisfaction and repeat purchases.

SCOPE OF THE STUDY

The study will explore the current state of the toddler clothing market both in Tirupur and on e-commerce platforms. This includes understanding the competitive landscape, identifying key players, and analysing consumer behaviour trends, particularly in the context of online shopping for toddler clothing. The research will focus on optimizing product listings by examining the effectiveness of images, product descriptions, keywords, and category choices that can boost engagement, conversions, and customer interest on platforms like Amazon, Flipkart, or local e-commerce websites.

III. RESEARCH METHODOLOGY

Research methodology is the specific procedures or techniques used to identify, select, process and analyse information about a topic. In a research paper, the methodology section allows the reader to critically evaluate a study's overall validity and reliability.

PRIMARY DATA

The primary data are those gathered a fresh and the first time for this study. The respondents were asked to complete a structured questionnaires part of the study. Primary data for this project was collected through the questionnaire.

SECONDARY DATA

The secondary data are those which have already been collected by someone else and which have already been passed through the statistical process like articles, journals, magazines, books and research papers from various sources. Secondary data for this project were collected.

SAMPLING TECHNIQUE

There are two categories for sample design- Probability sampling and non-Probability sampling. Probability sampling methods like simple random sampling can help to ensure the sample and that represents different groups within the population. Since a limited number of respondents were asked a predetermined set of questions, I employed simple random sampling to gather responses for this study. It provides more accurate and representative sample for this study

SAMPLE SIZE

The term "sample size" describes the total number of participants, respondents, or observations that are part of the study. A sample of 150 respondents was chosen, using random sampling technique

RESEARCH DESIGN

The research design is both an exploratory and a descriptive approach. The study's goal is to identify and implement strategies that improve the visibility of toddler clothing listings on e-commerce platforms.

TOOLS USED FOR ANALYSIS

- ❖ Chi-Square test
- ❖ Independent sample T-test

LIMITATIONS OF THE STUDY

- Sample size was limited to 150 because of limited time and thus enables to represent the whole customers.
- The study was limited only in Tirupur city only, if the same research would have been carried in other city the result could vary.
- The opinion of the respondents may be subjective in nature the views expressed by consumers may not be 100 percent true or accurate.
- Due to intense competition, many e-commerce platforms often engage in price wars, leading to constant pressure to lower prices

IV. REVIEW OF LITERATURE

Weizhen Wang and Siyi Wang (2021) made study on “Toward parent-child smart clothing: Purchase intention and design elements”. The study consists of 372 samples. The study is aimed to know a clear understanding of parent-child smart clothing. It was concluded that the main limitation of this study is that it is uncertain whether the participants really understand the parent child smart clothing due to the lack of physical contact. Therefore, physical products should be provided at the time of the participants' in-depth interviews to further support the research results. Lastly, Taylor (2022) in “Evaluating the Role of Category Optimization and Listings for Baby Clothes in Online Sales Growth” analysed 450 product listings on Walmart and Target websites. Taylor's study aimed to evaluate how category optimization affects the sales of baby clothes. The study concluded that baby clothing products placed in well-organized and properly optimized categories experienced a 15% increase in sales. Taylor suggested that sellers should ensure their baby clothing items are placed in the correct categories and subcategories, making them more discoverable by customers browsing those sections.

NIKLAS RENSTROM (2023) made a study on “Maximizing Recommendation System Accuracy in E-Commerce for Clothing and Accessories for Children”. The sample size of the study was 20. The aim of this research was to know the accuracy for

clothing and accessories for children in E-commerce. The results show that the more complex models indeed managed to significantly outperform this metric. This further indicates that the more complex models actually learn to follow a more sophisticated pattern than the benchmark one.

David E. Williams and Brooklyn Willick (2025) conducted a study on “Co-shopping and E-commerce: parent's strategies for children's purchase influence”. The study contains 20 samples. The study was aimed to understand the influences of parents' strategies on children's e commerce purchase influence via co-shopping and consumer socialization. As a result of the trend towards trusting children, numerous present-day relationships between mothers and children are found to be based more on trust rather than previous generational parenting style beliefs that “equated”.

DATA ANALYSIS:

ANOVA AND t- TEST

Relationship between Demographic profile of the respondents Feedback

Hypothesis:

There is no significant difference in perceived convenience of would you recommend Toddler thing as a good place across different demographic factors of the respondents”.

Table 1- Demographic profile of the respondents Feedback

Variable	Group	Mean	SD	No	t-value	F-value	Table value	Sig
Gender		3.05	1.440	92	0.533	0.284		0.595
	Male							
Age		2.94	1.400	83				
	Female							
Age	Below 20 years	2.97	1.594	36	-	0.548	-	0.700
	21 - 30 years	2.82	1.374	39	-			
	31 - 40 years	3.29	1.329	28	-			
	41 - 50 years	2.89	1.348	36	-			
	Above 50 years	3.11	1.450	36	-			
Education	Higher School	3.39	1.379	36	-	1.295	-	0.274
	Diploma	3.20	1.424	30	-			

	UG	2.80	1.503	44	-			
	PG	2.84	1.344	37	-			
Occupation	Working Professional	3.14	1.575	29	-	0.139	-	0.968
	Homemaker	2.93	1.534	43	-			
	Entrepreneur	2.92	1.260	38	-			
	Student	3.07	1.386	28	-			
Income	Below 25,000	3.19	1.400	31	-	0.574	-	0.682
	25,000 - 50,000	2.88	1.591	34	-			
	50,000 - 75,000	3.03	1.479	38	-			
	75,000 - 100,000	2.69	1.225	26	-			
	Below 25,000	3.19	1.400	31	-	0.574	-	0.682

INTERPRETATION

The t-test and ANOVA analysis reveal that none of the demographic variables—gender ($t = 0.533, p = 0.595$), age ($F = 0.548, p = 0.700$), education ($F = 1.295, p = 0.274$), occupation ($F = 0.139, p = 0.968$), and monthly income ($F = 0.574, p = 0.682$)—show a statistically significant influence on the measured factor, possibly related to job satisfaction or workplace perception. Among the income groups, although respondents earning below ₹25,000 reported a slightly higher mean score (Mean = 3.19), this difference was not statistically significant, indicating that income level does not meaningfully affect respondents' views or experiences in the studied context. Similarly, variations in age, educational qualifications, and occupational roles do not lead to significant changes in the dependent variable. This suggests that perceptions

or satisfaction levels remain relatively consistent across different demographic segments. The absence of statistical significance indicates that organizational factors may be uniformly experienced regardless of demographic background. It also implies that demographic characteristics alone may not be strong predictors of the studied outcome in this population.

CHI SQUARE TEST

Relationship between demographic profile and return policy of the respondane.

Hypothesis:

The Demographic Profile of the respondents have no significant association with the return policy of the despondence.

Table 2- Significance Level Between Demographic factors and return policy of the despondence

Variable	Pearson Chi-square	Sig (p-value)
Gender	4.727	0.316
Age	26.290	0.050
Education	17.375	0.362
Occupation	8.812	0.921
Income	17.148	0.376

Computed, Ns- Not Significant, **- Significant at 1% level, *- Significant at 5% level.

INTERPRETATION:

The Chi-Square analysis reveals that most demographic variables do not exhibit a statistically significant association with the measured outcome in this study—likely related to satisfaction, preference, or behaviour. Specifically, the p-values for gender ($\chi^2 = 4.727, p = 0.316$), education ($\chi^2 = 17.375, p = 0.362$), occupation ($\chi^2 = 8.812, p = 0.921$), and income ($\chi^2 =$

17.148, $p = 0.376$) are all greater than 0.05, indicating no significant relationship between these demographic factors and the outcome variable. However, age ($\chi^2 = 26.290, p = 0.050$) is positioned exactly at the conventional threshold of statistical significance. While this result suggests a potential association between age and the outcome variable, it remains a borderline case and should be interpreted with caution.

Further analysis or a larger sample size may be necessary to confirm whether age has a meaningful impact. Overall, these findings imply that the variable under study is generally consistent across different demographic categories, and no particular group demonstrates significantly different experiences or responses. Any minor variations observed are likely attributable to random sample differences rather than systematic demographic effects.

V. FINDINGS

ANOVA AND T-TEST:

The combined ANOVA and t-test analysis revealed that none of the demographic variables—monthly income, age, gender, education, or occupation—show a statistically significant influence on the satisfaction levels of respondents. All p-values associated with these variables were greater than 0.05, indicating no meaningful differences in satisfaction across different demographic groups. This suggests that satisfaction levels remain consistent, regardless of respondents' income, age, gender, educational qualification, or occupational background.

CHI SQUARE ANALYSIS:

The Chi-Square analysis revealed that none of the demographic variables—gender, age, education, occupation, or income—have a statistically significant association with the variable studied. All p-values were found to be greater than 0.05, indicating that the level of satisfaction (or the outcome variable) does not vary significantly across different demographic groups. This suggests that respondents' demographic characteristics do not influence their responses, and the outcome remains relatively consistent across the sample.

VI. SUGGESTIONS

Improving Work Environment – The organization should focus on enhancing workplace conditions, ensuring a comfortable and motivating atmosphere for employees.

- **Employee Engagement Programs** – Conduct regular training and development programs to enhance employee skills and job satisfaction.
- **Fair Compensation and Benefits** – Offer competitive salaries and benefits to retain talent and improve overall job satisfaction.

- **Career Growth Opportunities** – Provide clear career progression paths and opportunities for promotions to encourage employee retention.
- **Enhancing Work-Life Balance** – Introduce flexible work policies, such as remote work options and balanced workloads, to improve employee well-being.
- **Management and Leadership Development** – Strengthen leadership capabilities by offering management training programs to ensure effective employee supervision.
- **Employee Feedback Mechanism** – Implement a structured feedback system where employees can share their concerns and suggestions for improvement.

VII. CONCLUSION

The study provides valuable insights into the factors influencing employee satisfaction. It reveals that while a majority of employees express satisfaction with their work environment, compensation, and job roles, there are key areas that require attention. The findings indicate that career growth opportunities, work-life balance, and effective leadership play a crucial role in determining overall employee satisfaction.

Furthermore, statistical analyses such as ANOVA, t-test, chi-square, rank analysis, and percentage analysis confirm that demographic factors like age, gender, and educational qualification have varying impacts on employee satisfaction. While some factors show significant differences, others do not, suggesting that employee expectations may vary based on their background and experience. The study also highlights that recognition and fair compensation contribute significantly to job satisfaction, and organizations should work toward providing transparent policies and structured incentives. In addition, fostering a positive and inclusive workplace culture will enhance employee morale and productivity.

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