



FACTOR AFFECTING PACKAGING WITH RESPECTIVE TO QUALITY, COST AND TRANSPORTATION: A STUDY WITH SUNDAR SONS INDIA EXPORTS

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ABSTRACT :

This study confidently investigates the factors that affect packaging decisions at Sundar Sons India Exports. It provides valuable insights into the complex interplay between quality, cost, and transportation in the export context. Despite the extensive literature on packaging considerations in supply chain management, there is a notable research gap concerning the nuanced interplay between quality, cost, and transportation within the export context. Utilizing a descriptive research design, this study confidently focuses on a population of 110 employees, particularly emphasizing the packaging section. Data collection is executed through a census approach, with the primary method of data collection being through a structured questionnaire method, complemented by interviews and observational analyses. The confident findings suggest that a strategic alignment of packaging decisions with quality benchmarks, cost considerations, and transportation efficiencies can significantly enhance competitiveness and sustainability in the global marketplace. This study confidently paves the way for informed decision-making and optimized resource allocation in export-oriented enterprises.

Key word: Packaging decisions, packaging Quality, Cost, Supply chain management, Export Global market place

Introduction:

In today's globalized marketplace, effective packaging serves as a linchpin for businesses engaged in export activities. Packaging not only safeguards products during transit but also influences consumer perceptions, operational costs, and environmental sustainability. As such, understanding the factors that shape packaging decisions is crucial for organizations seeking to maintain a competitive edge in international trade. This research aims to delve into the multifaceted aspects of packaging management within the context of Sundar Sons India Exports, a renowned entity operating in the global export market.

The significance of packaging in supply chain management cannot be overstated. It plays a pivotal role in ensuring product quality, minimizing transportation costs, and complying with regulatory requirements. Moreover, packaging decisions are increasingly influenced by sustainability considerations, as companies strive to reduce their environmental footprint and meet consumer expectations for eco-friendly practices. However, navigating these complexities poses challenges for export-oriented enterprises, particularly in balancing competing objectives such as cost efficiency, product protection, and environmental stewardship.

Against this backdrop, this study seeks to unravel the factors affecting packaging strategies at Sundar Sons India Exports, shedding light on the intricate interplay between quality, cost, and transportation. By examining the experiences, challenges, and strategies of Sundar Sons India Exports in managing packaging operations, this research aims to generate insights that can inform best practices and enhance competitiveness in the global marketplace.

Through a combination of qualitative and quantitative methods, including surveys, interviews, and observational analyses, this study endeavors to capture a comprehensive understanding of packaging dynamics within the export context. By focusing on Sundar Sons India Exports as a case study, this research aims to offer practical insights that can be generalized to other export-oriented enterprises facing similar challenges.

In summary, this research aims to contribute to the existing body of knowledge on packaging management in the context of international trade. By examining the factors influencing packaging decisions at Sundar Sons India Exports, this study seeks to provide actionable recommendations that can help organizations optimize their packaging strategies to achieve a balance between quality, cost, and transportation efficiency in the global marketplace.

OBJECTIVES OF THE STUDY

- To examine the consideration of packaging during the export process.
- To identify the factors affecting packaging quality
- To analysis and find out the means of packaging cost optimization

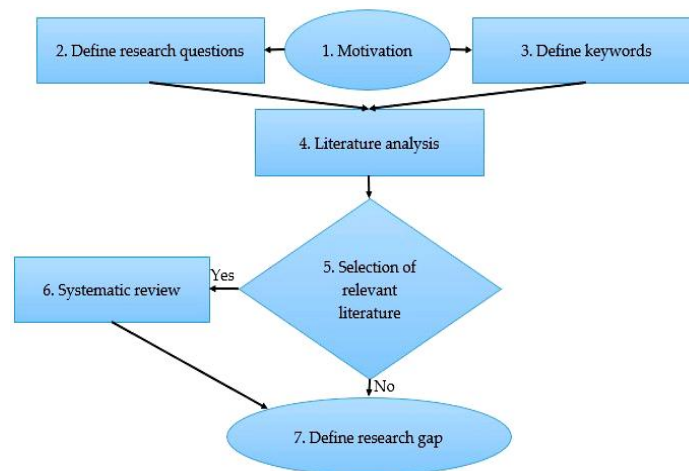
- To assess the factors considered by exporters pertaining to goods transported through various modes of transportation viz., land, sea, and air.

STATEMENT OF THE PROBLEM

The problem under investigation is the affecting packaging with respect to quality cost transportation a study with Sundar Sons India export. Identify Variations packaging materials and impact the Quality of exported product for Sundar Sons India exports. To identify the cost implications of different packaging. Understanding how to transportation Influence the packaging materials and methods for exports. Packaging plays critical role in ensuring product Quality cost effectiveness and efficient transport for Export oriented process, their Overall cost Optimizing of packaging and packaging Quality assurance, efficient transport are packaging performance the organization.

REVIEW OF LITERATURE

1. Ananda, A. P., Manukumar, H. M., Umesha, S., Soumya, G., Priyanka, D., Mohan Kumar, (2017). A relook at food packaging for cost effective by incorporation of Novel Technologies: Food packaging is one of the essential subject areas in food technology that play an important role in preserving all types of foods. Due to many disadvantages like a non-biodegradable and environmental problem in food packaging industry, a newer concept of use of biodegradable materials in food packaging
2. Sharma, H., Singh, D., Agariya, A., &Johri, A. (2022, December). The role of packaging in Brand Communication: Packaging is considered as an integral part of the 'Product' of marketing mix. Along with basic objectives (protection and preservation, containment, convenience and communication)
3. Hellström, D., &Saghir, M. (2022). **Packaging and logistics interactions in retail supply chains:** The impact of the packaging system on logistics processes along the supply chain is often implicitly and fragmentally recognized. In order to increase understanding of the impact of packaging on logistics, this paper provides a comprehensive overview of the interactions between the packaging system and logistics processes in the retail supply chain.
4. De Jaeger, S., & Rogge, N. (2023). **Cost-efficiency in packaging waste management: The case of Belgium:** In order to exploit economies of scale Belgian municipalities regularly cooperate in the provision of waste related services. In particular for the collection and separation of household packaging waste, municipalities appear to seek technical and cost efficiency gains by cooperating via municipal waste joint ventures.



RESEARCH METHODOLOGY

RESEARCH DESIGN

The Research Design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Here the Research Design is **DESCRIPTIVE** in nature.

POPULATION OF THE STUDY

A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or traits. This research is conducted to employee of Sundar Sons India Export, Salem and there are 110 employees of Sundar Sons India Export, Salem in particularly packaging section.

SAMPLING TECHNIQUES

Proportion **CENSUS** method is adopted for this study. The questionnaire was distributed to 110 employees particularly selected packaging section of Sundar Sons India Exports. 110 respondents were fully filled all the questions completely.

DATA COLLECTION TOOL

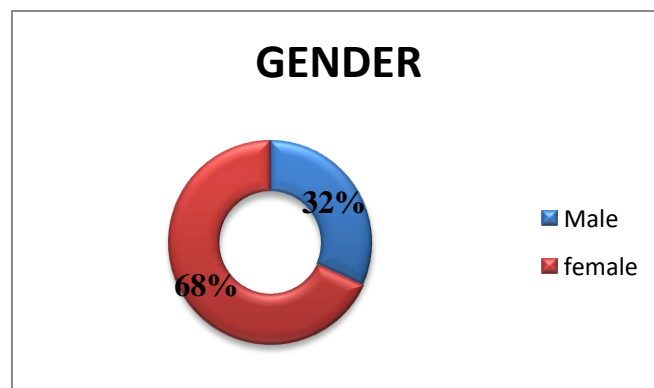
Data collection tool used here is QUESTIONNAIRE.

TOOLS FOR ANALYSIS AND INTERPRETATION

- SIMPLE PERCENTAGE ANALYSIS
- ONE WAY ANOVA
- GARRETT RANKING METHOD
- WEIGHTED AVERAGE METHOD

DATA ANALYSIS AND INTERPRETATION

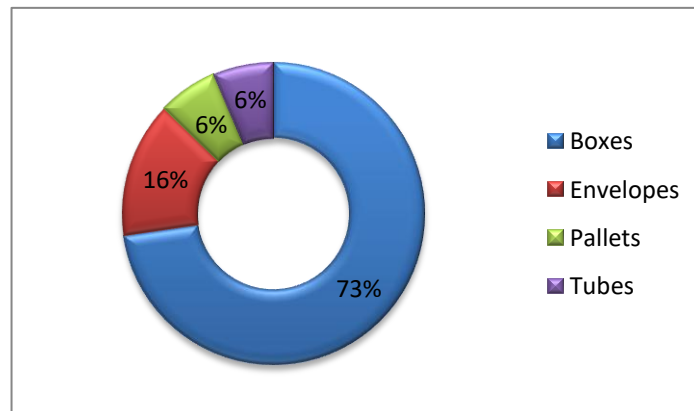
SIMPLE PERCENTAGE ANALYSIS



INTERPRETATION:

From the above table, it is found that, 31.8 % (35) of respondents are Male and 68.2 % (75) of respondents are Female. Finally, it is concluded that the majority 68.2 % of respondents are Female.

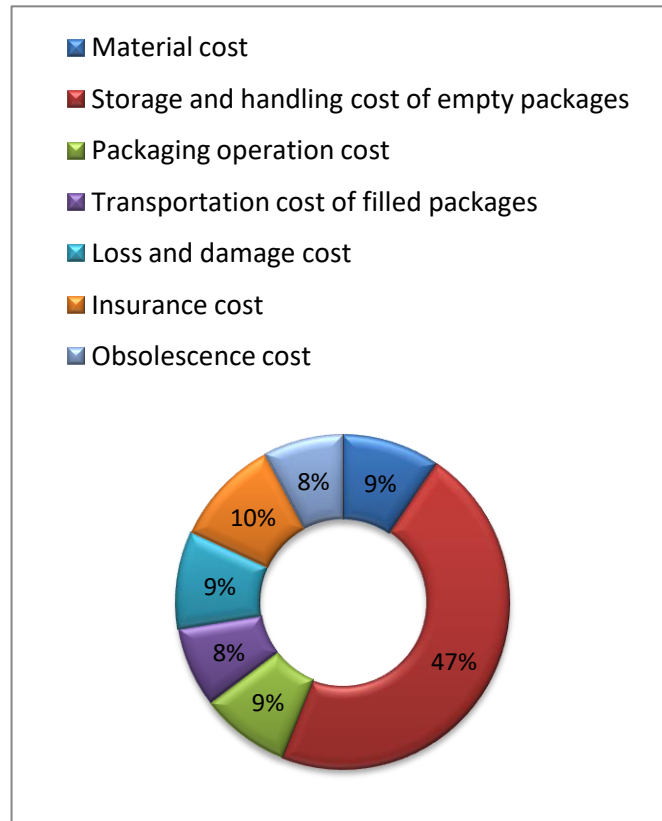
TYPE OF PACKAGING IS COMMONLY USED FOR SHIPPING



INTERPRETATION:

- From the above table, it is found that 72.7 % of respondents are used boxes, 14.5% of respondents are used envelopes, 6.4 % of respondents are used pallets and 6.4% of respondents are used tubes.
- Finally, it is concluded that the Majority 72.2 % of respondents are used boxes.

THE FOLLOWING COSTS IN THE TOTAL PACKAGING COST IN PERCENTAGES



2. ONE WAY ANOVA

2.1 ASSOCIATION BETWEEN WORKING EXPERIENCE AND TYPE OF PACKAGING IS COMMONLY USED FOR SHIPPING BULK ORDERS

H0: There is no Significant Association between Working Experience and packaging materials is commonly used to protect goods from during transportation

H1: There is Significant Association between Working Experience and packaging materials is commonly used to protect goods from during transportation

Variable: Working Experience and packaging materials is commonly used to protect goods from during transportation

Particulars	Sum of square	Df	Mean square	F	Significant
Between group	2.274	5	.449	.576	0.718
Within group	81.107	4	.780		
Total	83.355	109			

INTERPRETATION

The value of the ONE WAY ANOVA is 0.718 is greater than the level of significance 0.05. So the null hypothesis is accepted. Therefore there no is significant association between Working Experience and their perception about Type of Packaging Is Commonly Used for Shipping Bulk Orders.

Hence, The null hypothesis is accepted

2.2 ASSOCIATION BETWEEN EDUCATION LEVEL AND PACKAGING COST OPTIMIZATION

ANALYSE- I

To Test the Significant Association between education level and their perception about packaging cost optimization

H0: There is no Significant Association between education level and their perception about packaging cost optimization

H1: There is Significant Association between education level and their perception about packaging cost optimization

Variable: education level and their perception about packaging cost optimization

Particulars	Sum of square	Df	Mean square	F	Significant
Between group	33.071	4	8.268	1.800	0.134
Within group	482.274	105	4.593		
Total	515.345	109			

GARRET RANKING TESTS

ENSURING PACKAGING QUALITY STANDARDS

S:No	I	II	III	IV	V	Total	Total score	Mean score	Rank
	(76)	(61)	(50)	(40)	(25)				
1	35	32	13	16	14	110			
	2660	1952	650	640	350		6252	56.83	1
2	23	32	23	21	11	110			
	1748	1952	1150	840	275		5965	54.2	2
3	17	15	40	20	18	110			
	1292	915	2000	800	450		5457	49.6	3
4	19	17	18	30	26	110			
	1444	1037	900	1200	650		5231	47.55	4
5	17	14	16	23	40	110			
	1292	854	800	920	1000		4866	44.23	5

INTERPRETATION

The value of the ONE WAY ANOVA is 0.134 is greater than the level of significance 0.05. So the null hypothesis is accepted. Therefore there no is significant association between education level and their perception about packaging cost optimization

Hence, The null hypothesis is accepted

1 - Drop test

2 - Vibration test

3- Compression test

4 - Rolling test

5 - Drum test

INTERPRETATION

It is known from the above table that according to Garrett's ranking the factors which induces the respondents to show the factors responsible for packaging quality stranded test in this order namely **Drop Test (RANK 1) Compression Test (RANK 2) Vibration Test (RANK 3) Rolling Test (RANK 4) Drum Test (RANK 5)**

WEIGHTED AVERAGE

FACTORS AFFECTING PACKAGING QUALITY

S:No	PARTICULARS	5	4	3	2	1	total	Weighted Average	Rank
1	Material durability for packaging	27*5	24*4	18*3	27*2	14*1	110	3.20	1
		135	96	54	54	14	353		
2	safeguarding against harm when being handled and stored	13*5	29*4	29*3	23*2	15*1	110	2.99	3
		65	116	87	46	15	329		
3	Capacity to maintain the integrity as well as quality of products	14*5	25*4	23*3	24*2	24*1	110	2.82	6
		70	100	69	48	24	311		
4	Convenient opening and resealing	13*5	21*4	24*3	37*2	15*1	110	2.81	7
		65	84	72	74	15	310		
5	System compatibility for waste management and disposal	9*5	29*4	29*3	23*2	20*1	110	2.85	5
		45	46	87	46	20	314		
6	Ensuring packaging quality.	19*5	22*4	22*3	29*2	18*1	110	2.95	4
		95	88	66	58	18	325		
7	Customizability of packaging for different product	13*5	13*4	31*3	33*2	20*1	110	2.69	8
		65	52	93	66	20	296		
8	Government regulations impact the quality of your packaging materials	12*5	27*4	19*3	30*2	22*1	110	2.2	2
		60	108	57	69	22	352		

FINDINGS FROM SIMPLE PERCENTAGE METHOD

- A predominant 68.2% of participants identify as female.
- Majority 60.9% of respondents are less than 5 years working experience.
- Most of respondents are use barcode labels 41.8%
- A substantial majority, totaling 54% of respondents, obtain expenses related to storage and handling of empty packaging.

FINDINGS FROM ONE WAY ANOVA

- There is no significant association between employee working experience and their perception about type of packaging used for shipping bulk orders: Hence null hypothesis rejected
- There is no significant association between Employee education level and their perception about packaging cost optimization: Hence null hypothesis rejected

FINDINGS FROM GARRET RANKING TEST

It is known from the above table that according to Garrett's ranking the factors which induces the respondents to show the factors responsible for packaging quality stranded test in this order namely **Drop Test (RANK 1) Compression Test (RANK 2) Vibration Test (RANK 3) Rolling Test (RANK 4) Drum Test (RANK 5)**

FINDINGS FROM WEIGHTED AVERAGE METHOD

Highest weightage is given to the factor by the respondents is Material durability for packaging (3.20) and the second weightage is Government regulations impact the quality of your packaging materials (2.2) and the third highest weightage is Safeguarding against harm when being handled and stored (2.99) and the fourth highest weightage is Protecting products during transportation in ensuring packaging quality (2.95) and the fifth highest weightage is System compatibility for waste management and disposal (2.85) and the sixth highest weightage is Capacity to maintain the integrity as well as quality of products (2.82) and the seventh highest weightage is Convenient opening and resealing (2.81) and the eighth highest weightage is Customizability of packaging for different product types (2.69)

RESEARCH BASE SUGGESTION

- Conducting social events and mentorship programs especially for female employee
- Provide targeted training or educational resources on efficient packaging practices, especially for employees with less than 5 years of experience
- Investigate reasons behind barcode label usage. Leverage insights to enhance inventory management, tracking, and logistics efficiency.
- Explore strategies to minimize expenses related to storage and handling of empty packaging. Consider implementing recycling programs or reusable packaging options to reduce costs.

GENERAL SUGGESTION

- Implementing an Enterprise Resource Planning (ERP) system in a garments company can greatly enhance efficiency and streamline operations across various departments such as production, inventory management, sales, and finance customer relationship management (CRM). Helping them improve operational efficiency helping them improve operational efficiency (**For example** SAP ERP Microsoft Dynamics 365 Oracle ERP Cloud)
- Clothes swapping is a clever and thrifty way to refresh your wardrobe, save money and help fight textile waste. Seek out a swap - or organize one with a group of friends or colleagues. Your pre-loved clothes will find a new home and you'll leave with 'new' second-hand items for your own closet.

CONCLUSION

In conclusion towards sustainable packaging practices, with respondents favoring biodegradable materials and recycling initiatives. This trend presents opportunities for businesses to align their offerings with environmentally friendly solutions. Moreover, the rejection of null hypotheses suggests that demographic variables may not solely dictate packaging practices, urging further exploration into influential factors. Prioritizing durability and resilience in packaging design, respondents emphasize protection against transit hazards. This multifaceted approach, integrating material preferences, design features, and cost-efficiency considerations, guides businesses towards meeting customer expectations and market demands while enhancing sustainability and brand reputation.

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