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A STUDY ON DISTRIBUTION NETWORK DESIGN OF NEWAY PAINTS & BUILDING MATERIALS (INDIA) PRIVATE LIMITED, CHENNAI

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ABSTRACT

The purpose of this study is to create distribution network is the system a company uses to get products from the manufacturer to the retailer. A fast and reliable distribution network is essential to a successful business because customers must be able to get products and services when they want them. Distribution refers to the steps taken to move and store a product from the supplier stage to the customer stage in the supply chain. Distribution is a key driver of the overall profitability of a firm because it directly impacts both the supply chain cost and the customer experience. Performance of a distribution network is evaluated along two dimensions: customer needs that are met and cost of meeting customer needs.

KEYWORDS: supply chain management practices, supply chain integration, supply chain response time, supply chain product availability, supply chain quality, supply chain flexibility, supply chain customer experience, supply chain order visibility, supply chain information sharing.

INTRODUCTION

Distribution refers to the steps taken to move and store a product from the supplier stage to the customer stage in the supply chain. Distribution is a key driver of the overall profitability of a firm because it directly impacts both the supply chain cost and the customer experience. Performance of a distribution network is evaluated along two dimensions: customer needs that are met and cost of meeting customer needs. A distribution network is the system a company uses to get products from the manufacturer to the retailer. A fast and reliable distribution network is essential to a successful business because customers must be able to get products and services when they want them. Here we are going to analyse the nine factors, supply chain management practices, supply chain integration, supply chain response time, supply chain product availability, supply chain quality, supply chain flexibility, supply chain customer experience, supply chain

order visibility, supply chain information sharing. The respondents are from cements &steel wholesale and retail outlets at mixed proportion.

STATEMENT OF THE PROBLEM

There are quite number of players in construction chemical production and marketing. The buyers are from cements &steel wholesale and retail have got wide variety of options to choose their brand. The factors influencing them are supply chain management practices, supply chain integration, supply chain response time, supply chain product availability, supply chain quality, supply chain flexibility, supply chain customer experience, supply chain order visibility, supply chain information sharing. To understand the company distribution network design, these seven factors need to be analysed by collecting responses from the market. The survey was conducted in Tirunelveli, Kanyakumari, Nagerkovil, Tenkasi, Kovilpatti, Virudunagar, Thoothukudi.

OBJECTIVES OF THE RESEARCH

- To understand and analyse the distribution network design of the Neway Paints & Building Materials (India) Private Limited
- To study the factors influencing the distribution network design
- To know the customer mindset about the supply chain of the company
- To evaluate the opinion of the respondents and to find the status of the company to that of the competitors
- To suggest some guidelines to the concerned officials of Neway Paints & Building Materials (India) Private Limited to maintain and improve their distribution network

LIMITATION OF THE STUDY

- The respondents from wholesale and retail outlets at mixed proportion were included for this study
- Survey was conducted at Tirunelveli, Kanyakumari, Nagerkovil, Tenkasi, Kovilpatti, Virudunagar, Thoothukudi from march-april 2016
- The study will be useful Neway to understand their distribution network from the words of their own customers

RESEARCH METHODOLOGY

This research follows the survey research methodology based on previous research in related to data was collected from the respondents using a well-developed/structured questionnaire. Both open ended and close ended questions were used for this study. Buyers of construction chemicals from Tirunelveli, Kanyakumari, Nagerkovil, Tenkasi, Kovilpatti, Virudunagar, Thoothukudi were included for this study.

REVIEW LITERATURE

Lina Anatan (2014) This paper investigates the influence of supply chain management practices (strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement) on competitive advantage (cost, quality, delivery dependability, product innovation, and time to market) and on supply chain performance.

James S. Keebler (2009) The purpose of this paper is to describe the state of logistics performance measurement incorporations based in the USA.

Hongyi Sun (2008) There are many studies on the impact of supply chain integration (SCI) on performance.

Ana Beatriz Lopes de Sousa Jabbour (2012) This paper aims to perform an empirical investigation about the constructs and indicators of the supply chain management practices framework.

AbiramiRadhakrishnan (2005) This research empirically tests a theoretical model that seeks to explain how Inter-Organizational Information System (IOS) Usage affects Supply Chain Capabilities.Specifically, the focus is to find out whether IOS Usage affects Supply Chain Capabilities directly or indirectly through Supply Chain Integration.

Kwok Hung Lau (2012) This case study aims to examine the role of demand management in balancing distribution efficiency and responsiveness to customer needs in the downstream of a retail supply chain.

RiikkaKaipia (2006) This paper aims to focus on supply chain visibility in practice and to suggest ways to improve the supply chain performance through information sharing The International Journal of Logistics

Hanuv Mann (2010) Considering the paucity of substantial literature available purely on sustainable supply chains we have also accessed literature on green SCM, closed-loop supply chains, reverse supply chains and reverse logistics to bring out the drivers that motivate supply chain partners and focal firms to consider environmental and sustainability issues when developing and implementing their business strategy.

DATA ANALYSIS& INTERPRETATION

4.5.1 Cross tabulation- Type of outlet Vs Level of satisfaction about 'Neway'

Test Statistics		
	Type of outlet	**Satisfaction neway**
Chi-Square	60.840[a]	83.000[b]
Df	1	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.1, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between types of outlet and level of satisfaction about 'Neway'.

4.5.2 Cross tabulation- Type of outlet Vs Recommendation of 'Neway' to other

Test Statistics		
	Type of outlet	**Recommend neway**
Chi-Square	60.840[a]	85.200[b]
Df	1	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.2, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between types of outlet and recommendation of 'Neway' to others.

4.5.3 Cross tabulation- Type of market Vs Level of satisfaction

Test Statistics		
	Type of market	**Satisfaction neway**
Chi-Square	12.020[a]	83.000[b]
Df	2	4
Asymp. Sig.	.002	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.3, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between type of market and level of satisfaction to others.

4.5.4 Cross tabulation- Type of market Vs Recommendation of 'Neway' to others

Test Statistics		
	Type of market	**Recommend neway**
Chi-Square	12.020[a]	85.200[b]
Df	2	4
Asymp. Sig.	.002	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.4, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between type of market and recommendation of 'Neway' to others.

4.5.5 Cross tabulation- Age Vs Level of satisfaction about 'Neway'

Test Statistics		
	Age	**Satisfaction neway**
Chi-Square	66.500[a]	83.000[b]
Df	2	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.5, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between age and level of satisfaction about 'Neway'.

4.5.6 Cross tabulation- Age Vs Recommendation of 'Neway' to others

Test Statistics		
	Age	**Recommend neway**
Chi-Square	66.500[a]	85.200[b]
Df	2	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.6, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between age and recommendation of 'Neway' to others.

4.5.9 Cross tabulation- Number of employees Vs Level of satisfaction about 'Neway'

Test Statistics		
	Number of employees	**Satisfaction neway**
Chi-Square	12.620[a]	83.000[b]
Df	2	4
Asymp. Sig.	.002	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.9, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between number of employees and level of satisfaction about 'Neway'.

4.5.10 Cross tabulation- Number of employees Vs Recommendation of 'Neway' to others

Test Statistics		
	Number of employees	**Recommend neway**
Chi-Square	12.620[a]	85.200[b]
Df	2	4
Asymp. Sig.	.002	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.10, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between number of employees and recommendation of 'Neway' to others.

4.5.11 Cross tabulation- Gender Vs Level of satisfaction about 'Neway'

Test Statistics	
	Satisfaction neway
Chi-Square	83.000[a]
Df	4
Asymp. Sig.	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.	

Source: Primary data

As per the table 4.5.11, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between gender and level of satisfaction about 'Neway'.

4.5.12 Cross tabulation- Gender Vs Recommendation of 'Neway' to others

Test Statistics	
	Recommend neway
Chi-Square	85.200[a]
Df	4
Asymp. Sig.	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.	

Source: Primary data

As per the table 4.5.12, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between gender and recommendation of 'Neway' to others.

4.5.13 Cross tabulation- Educational Qualification Vs Level of satisfaction about 'Neway'

Test Statistics		
	Education qualification	**Satisfaction neway**
Chi-Square	35.780[a]	83.000[b]
df	2	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.13, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between educational qualification and level of satisfaction about 'Neway'.

4.5.14 Cross tabulation- Educational Qualification Vs Recommendation of 'Neway' to others

Test Statistics		
	Education qualification	**Recommend neway**
Chi-Square	35.780[a]	85.200[b]
df	2	4
Asymp. Sig.	.000	.000
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.		
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.		

Source: Primary data

As per the table 4.5.14, the total Asymp value is 0.000 which is lesser than the commonly accepted value 0.05. Therefore, we have to reject the null hypothesis. That means there is a significant relationship between educational qualification and recommendation of 'Neway' to others.

FINDINGS, RECOMMENDATIONS & CONCLUSION

FINDINGS:

- It is found that 89.0% of the respondents are from retail stores and 11.0% of the respondents are from Wholesale.
- It is found that 17.0% of the respondents are from Rural and 42.0% of the respondents are from Urban.
- It is found that 70% of the respondents are above 40 years of age, and 5% of the respondents are above 20-30 years of age.
- It is found that 100% of the respondents are male.
- It is found that 53% of the respondents have completed schooling and 41 6% of the respondents have completed PG.

- It is found that 55% of the respondents are having more than 3 years of experience and 2% of the respondents are having more than 3 years of experience.
- It is found that 48% of the respondents are having 5 - 10 employees and 20% of the respondents are having more than 10 employees.
- It is found that 45% of the respondents are satisfied and 1% of the respondents are highly dissatisfied with regards to Level of satisfaction about 'Neway'.
- It is found that 49% of the respondents opined definitely yes, 15% of the respondents opined definitely no and 5% of the respondents opined no with regard to the recommendation of 'Neway' to others.
- It is clear that factors loadings for all items are above 0.6. The maximum factor loading value is .866 (track visiblity) and minimum factor loading value is .610(age).
- It is found that there is a significant relationship between types of outlet and level of satisfaction about 'Neway'.
- It is found that there is a significant relationship between types of outlet and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between type of market and level of satisfaction about 'Neway' to others.
- It is found that there is a significant relationship between type of market and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between age and level of satisfaction about 'Neway'.
- It is found that there is a significant relationship between age and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between position in company and level of satisfaction about 'Neway'.
- It is found that there is a significant relationship between position in company and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between number of employees and level of satisfaction about 'Neway'.

- It is found that there is a significant relationship between number of employees and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between gender and level of satisfaction about 'Neway'.
- It is found that there is a significant relationship between gender and recommendation of 'Neway' to others.
- It is found that there is a significant relationship between educational qualification and level of satisfaction about 'Neway'.
- It is found that there is a significant relationship between educational qualification and recommendation of 'Neway' to others.

SUGGESTIONS:

- It is suggested to focus more on rural markets.
- Neway has to be more accurate in filling order.
- It is suggested to maintain and enhance the brand image.
- It is suggested to focus more on response time especially in rural markets.
- It is recommended to find the proper distributors and super stockists for powerful distribution network design.
- It is suggested to maintain the availability of the Neway products.
- It is suggested to focus more on television advertisement to spread more awareness of the product.
- It is suggested to maintain and enhance the quality of the product on par with the competitors.
- It is recommended to give first preference to the complaints and queries of the distributors.

CONCLUSION:

The current findings and suggestions demonstrate that there is a huge scope and huge market potential for Neway products. Neway has the responsibility to find good distributors especially in rural markets to ensure the availability. Also the quality of the Neway products has been excellent; no wonder they are No.2 in sales next to that of Dr.Fixit.

It is a 4 years old company and now it is an important and inevitable player in South India. If they maintain good distribution network design, Neway surely will dominate the Indian market in the next decade. Neway has to create brand awareness and enhance brand equity.

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