

STRUCTURAL EQUATION MODELLING FOR THE DIMENSIONS OF PURCHASE BEHAVIOUR ON TEXTILES

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ABSTRACT

India is the one of the world's largest producers of textiles and garments. Abundant availability of raw materials such as cotton, wool, silk and jute as well as skilled workforce have made the country a sourcing hub. It is the world's second largest producer of textiles and garments. The Indian textile industry has the capacity to produce a wide variety of products suitable to different market segments, both within India and across the world. Like many other items, apparel products are composed of many physical characteristics, which are perceived differently by various consumers. When considering a product purchase, consumers tend to compare and contrast alternative products made up of different attribute combinations. Their preferences for items of apparel may depend on the joint influence of price and product attributes such as quality, style and brand. This study is designed to find the various dimensions underlying the purchasing behavior of people from Tirunelveli district. The dimensions focused here are Information Gathering, Brand Selection, Buying behavior, Impulsive buying, Purchase decision and Product Quality. The researcher used reliability analysis, factor analysis and Structural Equation Modeling (SEM) for analysing and interpreting the data with the help of SPSS and AMOS. The result reveals that the model is fit expressing the quality and brand determine the purchasing behavior and leads to take a decision on purchase.

Key Words: Brand, Consumers, Components, Purchase Decision, Textile, Quality

INTRODUCTION

India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. The Indian textiles industry is extremely varied, with the hand-spun and hand-woven textiles sectors at one end of the spectrum, while the capital intensive sophisticated mills sector at the other end of the spectrum. The close linkage of the textile industry to agriculture for raw materials such as cotton and the ancient culture and traditions of the country in terms of textiles make the Indian textiles sector unique in comparison to the industries of other countries. The Indian textile industry has the capacity to produce a wide variety of products suitable to different market segments, both within India and across the world. The textile industry in India traditionally, after agriculture, is the only industry that has generated huge employment for both skilled and unskilled labour in textiles. The textile industry continues to be the second-largest employment generating sector in India. It offers direct employment to over 35 million in the country. India is the one of the world's largest producers of textiles and garments. Abundant availability of raw materials such as cotton, wool, silk and jute as well as skilled workforce have made the country a sourcing hub. It is the world's second largest producer of textiles and garments. The textile industry in India traditionally, after agriculture, is the only industry that has generated huge employment for both skilled and unskilled labour in textiles. The textile industry continues to be the second-largest employment generating sector in India. It offers direct employment to over 35 million in the country. The Textile & garments industry in India is highly diversified with a wide range of segments ranging from products of traditional handloom, handicrafts, wool and silk products to the organized textile industry. The organized textile industry is characterized by the use of capital-intensive technology for mass production of textile products and includes spinning, weaving, processing, apparel, and garment.

REVIEW OF LITERATURE

Rajput, N and Kesharwani, S (2012) this article defines that the Modern era provides high quality materials and lot of variety in Indian garment market to satisfy the desire of customers. The customers are utilizing the opportunity too. The results confirm that Indian people have become highly brand conscious presently. Hence, brand image is a not a significant factor in choosing the product or brand to buy. There are other aspects like, quality, comfort, expectations and demographic characteristics are also influence to the purchasing decision that dominate the purchase decision of males and females.

Mittal, P. and Aggarwal, S. (2012), this study is based on consumer perception towards branded garments and develops a relationship between demographic and psychographic profiles. According to this study, success of marketing can be understood by the behaviour of the consumer which includes mental, physical and emotional processes at every purchase of good and service.

Sandeep Kumar, Prasanna Kumar, Srinivasa Narayana (2016), conducted a research to know about the consumer perception and behaviour, lifestyle towards the apparel brands and to evaluate the significance of various factors in brand retention. From the research, it is proposed that the clothing companies should concentrate more on customer retention.

Reham Abdelbaset Sanad (2016), this paper aims to make a thorough review of factors influencing buyer choice towards branded apparel and textile items. The research considers the factors having an impact on advertising of textile items including apparel and fashion item were surveyed. These factors include different social, social, individual, mental and ecological angles. In this study, it is proposed to broaden consumer behavior studies in apparel with special concern to comfort and performance.

Highlights of Indian Textile Industry

- India is the world's second largest producer of textiles and garments. Rising per capita income, favourable demographics and a shift in preference to branded products to boost demand.
- The domestic textile industry in India is projected to reach US\$ 223 billion by 2021F from US\$ 150 billion in November 2017. The textile industry is project to grow at a rate of 8.7 per cent between 2007 and 2023 and reach US\$ 226 billion by 2023.
- India's textile and apparel exports stood at US\$ 39.20 billion in FY18 and is expected to increase to US\$ 82.00 billion by 2021 from US\$ 31.65 billion in FY19. In FY19, India's textile and apparel exports increased 1.66 per cent to US\$ 35.969 billion as compared to US\$ 35.381 in FY18.
- Cloth production in FY18 stood at 67.5 billion square metres and stood at 58.1 billion square metres in January 2019. The fundamental strength of the textile industry in India is its strong production base of wide range of fibre/yarns from natural fibres like cotton, jute, silk and wool to synthetic / man-made fibres like polyester, viscose, nylon and acrylic.
- India's textiles industry contributed seven per cent of the industry output (in value terms) of India in 2017-18. It contributed two per cent to the GDP of India and employs more than 45 million people in 2017-18. The sector contributed 15 per cent to the export earnings of India in 2017-18.
- The size of India's textile market as of November 2017 was around US\$ 150 billion, which is expected to touch US\$ 223 billion market by 2021, growing at a CAGR of 10.14 per cent between 2009-21.

- The new textile policy aims to achieve US\$ 300 billion worth of textile exports by 2024-25 and create an additional 35 million jobs. The Indian textile sector will require additional 17 million workforce by 2022.
- India is world’s largest producer of cotton. Production of cotton in India grew from 28.0 million bales in FY07 to 36.1 million bales in FY19, at a CAGR of 2.1 per cent. Cotton production in India is estimated to have reached 27.5 million bales in FY19. Cotton and fibres are major segments in this category. Production of man-made fibre has also been on an upward trend.
- During FY18, production of fibre in India stood at 1.319 million tonnes and reached 1.204 million during April 2018 –January 2019. India’s home textile industry is expected to expand at a CAGR of 8.3 per cent during 2014–21 to US\$ 8.2 billion in 2021 from US\$ 4.7 billion in 2014. India accounts for 7 per cent of global home textiles trade.

DIMENSIONS OF PURCHASE BEHAVIOUR ON TEXTILES

Textile market is one of the most important markets in the world. Understanding factors influencing consumer behaviour is one of the techniques used in contemporary marketing of textile products. Consumers' culture including their beliefs, customs, arts establishing their way of thinking and behaving would affect their purchase decision and behaviour towards textile and apparel products. Consumer lifestyle was found affecting the symbolic meaning associated with textile and apparel products. There are thirty five statements taken for studying the dimensions of Purchase Behaviour on Textiles among 100 sample respondents from Tirunelveli district. The results thus obtained are discussed and analysed as below.

Table 1 Test of Reliability for the dimensions of Purchase Behaviour on Textiles

Purchase Dimensions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Reliability Cronbach's Alpha
I always collect information about recently selling brands and designs	112.87	676.92	.607	.954	.955
I collect information about price at different places	113.34	682.79	.513	.955	
I look for the variety of dress	112.93	674.13	.581	.954	
I discuss with my friends and colleagues about quality of dress for costly purchase	113.11	674.18	.537	.955	
I compare the quality proportionate to the price	113.15	679.68	.493	.955	
I am often feeling confused because there are many brands to choose	112.86	674.67	.615	.954	
The more information about dress I learn, it is harder to choose the best	113.01	675.63	.623	.954	
It always confuses me when I have much information on different brands.	113.18	680.55	.520	.955	
I look carefully to find clothes with the best value for money	112.95	667.79	.688	.953	
I carefully calculate how much I spent for shopping dresses	112.83	666.55	.665	.954	
I want to materialize the purchase through single payment / credit purchase	113.18	668.17	.676	.954	

I always evaluate the product the product and proportionate price	113.18	674.63	.612	.954
I usually shop different brands	113.07	671.10	.629	.954
It is fun to buy new clothes	113.34	678.31	.496	.955
Buying clothes is a pleasant activity for me	113.00	675.35	.607	.954
I enjoy shopping for dress material	112.94	666.83	.654	.954
Shopping is fun	113.11	672.00	.580	.954
I usually purchase dress from reputed international clothing brands	113.18	673.42	.564	.954
I always stick on to the same brand	113.28	680.85	.542	.954
I usually purchase more expensive brands	113.22	673.10	.633	.954
The brand purchased possess reasonable price	113.24	679.82	.564	.954
The specialty stores offer me the best choice of brands	113.14	668.22	.657	.954
My purchase brand regularly possesses trendy style	113.40	670.12	.727	.953
Brand possess special qualities	113.23	669.05	.693	.953
Casual wear with the best quality is usually my choice	112.81	662.10	.731	.953
When I want to buy clothes, I try to get the best or perfect choice	112.92	665.25	.758	.953
I consider the purchase of dress with much thought and care	113.03	671.93	.609	.954
I use much time and effort to by the best quality dress	113.21	676.69	.595	.954
My standards and expectation on the quality of dress I bought are very high	113.17	667.82	.680	.953
I should plan my purchase more carefully than I do	112.83	670.20	.639	.954
I am not meticulous when purchasing	113.20	679.03	.619	.954
Often, I make careless purchase and later I wish I had not	113.48	677.30	.583	.954
I take time to shop carefully for best buys	113.06	675.41	.544	.954
I carefully watch how much I spend	112.97	672.35	.553	.954
I never go to the shop, I purchase only through online	113.88	686.31	.353	.956

Source: Primary Survey

As the Reliability Cronbach's Alpha value is 0.955 depicting high reliability, all the thirty five statements can be considered for further analysis. As per the ANOVA test, the value of F (99, 34): 5.079 with the significant value of 0.000 which is below 0.05. The grand mean is 3.33, the Sum of Squares between People is 2016.593 and Between Items is 157.211 and the Mean Square is between People is 20.37 and Between Items is 4.624.

Table 2 ANOVA test for the dimensions of Purchase Behaviour on Textiles

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
Between People		2016.593	99	20.370	5.079	.000
Within People	Between Items	157.211	34	4.624		
	Residual	3064.617	3366	.910		
	Total	3221.829	3400	.948		
Total		5238.421	3499	1.497		
Grand Mean = 3.33						

Source: Derived

Table 3 Kaiser-Meyer-Olkin Measure of Sampling Adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846
Bartlett's Test of Sphericity	Approx. Chi-Square	2516.372
	df	595
	Sig.	.000

Source: Derived

The value of Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.846 with the Chi-Square value of 2516.372 for degrees of freedom of 595 and test of significance of 0.000 which is below the standard of 0.05. Hence the Bartlett's Test of Sphericity permits for further analysis of data.

Table 4 Confirmative Factor Analysis for the dimensions of Purchase Behaviour on Textiles

	Statements		Item Reliabilities	Cronbach's Alpha	Components		
					AVE	Delta	CR
Informative							
IN1	I always collect information about recently selling brands and designs	.668	0.446	0.833	0.346	0.554	0.139
IN2	Casual wear with the best quality is usually my choice	.668	0.446			0.554	
IN3	I discuss with my friends and colleagues about quality of dress for costly purchase	.643	0.413			0.587	
IN4	I look for the variety of dress	.637	0.406			0.594	
IN5	When I want to buy clothes, I try to get the best or perfect choice	.633	0.401			0.599	
IN6	I compare the quality proportionate to the price	.594	0.353			0.647	
IN7	Brand possess special qualities	.572	0.327			0.673	
IN8	I consider the purchase of dress with much thought and care	.562	0.316			0.684	
IN9	I carefully calculate how much I spent for shopping dresses	.524	0.275			0.725	
IN10	The brand purchased possess reasonable price	.500	0.250			0.750	
IN11	I want to materialize the purchase through single payment/ credit purchase	.419	0.176			0.824	
Selective							
SE1	I should plan my purchase more carefully than I do	.742	0.551	0.752	0.353	0.449	0.172
SE2	The specialty stores offer me the best choice of brands	.707	0.500			0.500	
SE3	The more information about dress I learn, it is harder to choose the best	.680	0.462			0.538	
SE4	My purchase brand regularly possesses trendy style	.614	0.377			0.623	
SE5	I am not meticulous when purchasing	.598	0.358			0.642	
SE6	I take time to shop carefully for best buys	.530	0.281			0.719	
SE7	I collect information about price at different places	.490	0.240			0.760	
SE8	Often, I make careless purchase and later I wish I had not	.457	0.209			0.791	

SE9	I am often feeling confused because there are many brands to choose	.451	0.203			0.797	
Economical							
EC1	I carefully watch how much I spend	.779	0.607	0.739	0.332	0.393	0.187
EC2	My standards and expectation on the quality of dress I bought are very high	.678	0.460			0.540	
EC3	I look carefully to find clothes with the best value for money	.594	0.353			0.647	
EC4	I always evaluate the product and proportionate price	.586	0.343			0.657	
EC5	I enjoy shopping for dress material	.540	0.292			0.708	
EC6	I use much time and effort to by the best quality dress	.496	0.246			0.754	
EC7	It always confuses me when I have much information on different brands.	.491	0.241			0.759	
EC8	I never go to the shop, I purchase only through online	.333	0.111			0.889	
Brand Conscious							
BC1	I usually purchase dress from reputed international clothing brands	.732	0.536	0.733	0.379	0.464	0.230
BC2	Shopping is fun	.712	0.507			0.493	
BC3	Buying clothes is a pleasant activity for me	.636	0.404			0.596	
BC4	I usually shop different brands	.602	0.362			0.638	
BC5	It is fun to buy new clothes	.587	0.345			0.655	
BC6	I usually purchase more expensive brands	.536	0.287			0.713	
BC7	I always stick on to the same brand	.459	0.211			0.789	

Source: Derived

Informative: This factor consisting of eleven statements such as I always collect information about recently selling brands and designs (.668), Casual wear with the best quality is usually my choice (.668), I discuss with my friends and colleagues about quality of dress for costly purchase (.643), I look for the variety of dress (.637), When I want to buy clothes, I try to get the best or perfect choice (.633), I compare the quality proportionate to the price (.594), Brand possess special qualities (.572), I consider the purchase of dress with much thought and care (.562), I carefully calculate how much I spent for shopping dresses (.524), The brand purchased possess reasonable price (.500) and I want to materialize the purchase through single payment/ credit purchase (.419). The value of Cronbach's Alpha is 0.833, AVE is 0.346 and the Critical Ratio is 0.139.

Selective: This factor consisting of nine statements such as I should plan my purchase more carefully than I do (.742), The specialty stores offer me the best choice of brands (.707), The more information about dress I learn, it is harder to choose the best (.680), My purchase brand regularly possesses trendy style (.614), I am not meticulous when purchasing (.598), I take time to shop carefully for best buys (.530), I collect information about price at different places (.490), Often, I make careless purchase and later I wish I had not (.457) and I am often feeling confused because there are many brands to choose (.451). The value of Cronbach's Alpha is 0.752, AVE is 0.353 and the Critical Ratio is 0.172.

Economical: This factor consisting of eight statements such as I carefully watch how much I spend (.779), My standards and expectation on the quality of dress I bought are very high (.678), I look carefully to find clothes with the best value for money (.594), I always evaluate the product and proportionate price (.586), I enjoy shopping for dress material (.540), I use much time and effort to by the best quality dress (.496), It always confuses me when I have much information on different brands (.491) and I never go to the shop, I purchase only through online (.333). The value of Cronbach's Alpha is 0.739, AVE is 0.332 and the Critical Ratio is 0.187.

Brand Conscious: This factor consisting of eight statements such as I usually purchase dress from reputed international clothing brands (.732), Shopping is fun (.712), Buying clothes is a pleasant activity for me (.636), I usually shop different brands (.602), It is fun to buy new clothes (.587), I usually purchase more expensive brands (.536) and I always stick on to the same brand (.459). The value of Cronbach's Alpha is 0.733, AVE is 0.379 and the Critical Ratio is 0.230.

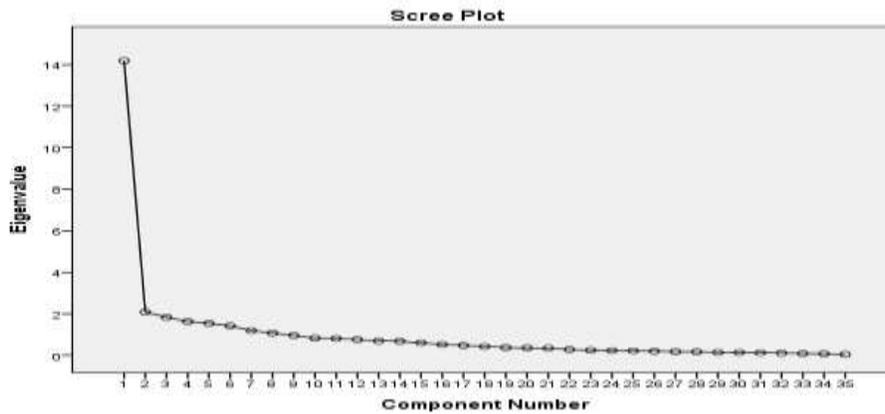


Table 5 Component Transformation Matrix for the dimensions of Purchase Behaviour

Component Transformation Matrix				
Components	Informative	Selective	Economical	Brand Conscious
Informative	.548	.534	.467	.443
Selective	-.620	.315	-.266	.667
Economical	-.479	-.252	.841	.009
Brand Conscious	.293	-.743	-.062	.599
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				

Source: Derived

It is ascertained as per the Component Transformation Matrix that the component Informative has positive relationship with the component Selective (.534), Economical (.467) and Brand Conscious (.443), the component Selective has positive relationship with the component Selective (.315) and Brand Conscious (.667), the component Economical has positive relationship with the component Brand Conscious (.009) and negative relationship with the component Selective (-.252) and Informative (-.479) and the component Brand Conscious has positive relationship with the component Informative (.293) and negative relationship with the component Selective (-.743) and Economical (-.062). It is concluded that the sample respondents were Brand Conscious and Selective as far as the textile purchase is concerned.

Model for the Dimensions of Textile Purchase

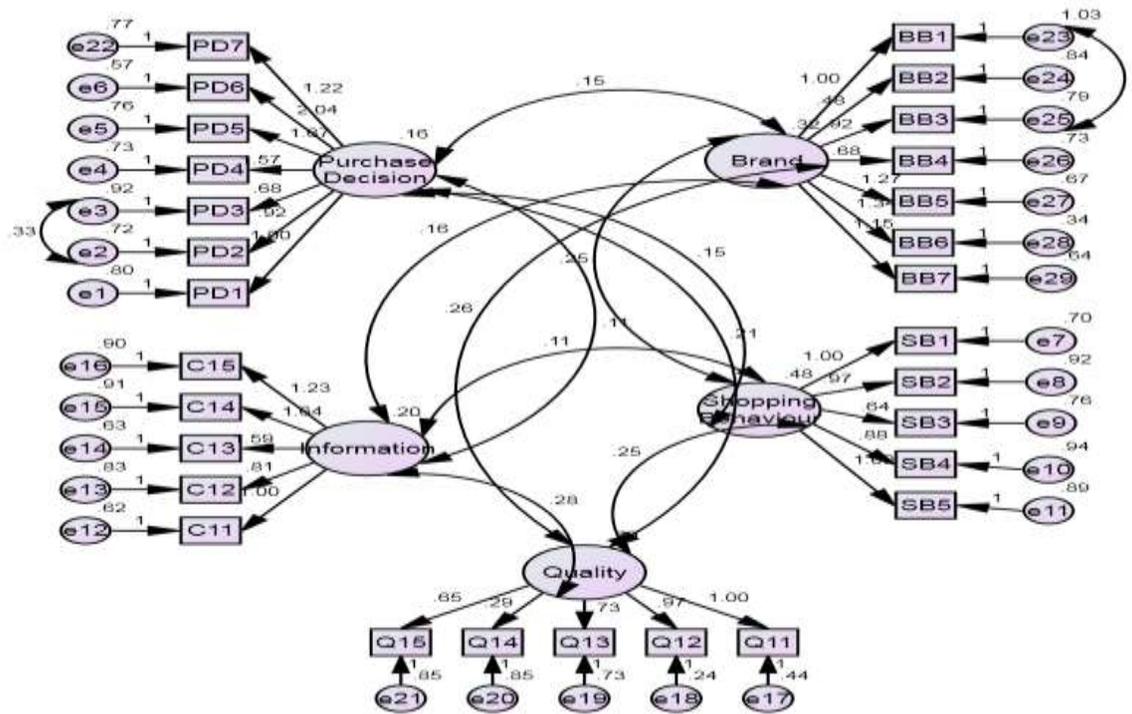


Table 6 Model Fit Indices

Goodness of fit measures	Estimates	Cutoff values
Chi Square	730.452	
Degrees of freedom	363	
Probability level (p value)	.000	< 0.05
F ratio	2.012	< 3
Comparative Fit Index (CFI)	0.693	> 0.90
GFI	0.693	> 0.90
AGFI	0.632	> 0.90
Root Mean Square of Approximation (RMSEA)	.101	< 0.08

Source: Derived

The model statistics shows that the value of Chi Square is 730.452 for degrees of freedom 363 and is statistically significant as the p value is 0.000 which is less than the standard value of 0.05. the value of F ratio is 2.012 which is within the control limit of less than 3, Comparative Fit Index (CFI) is 0.693 which is less than the limit of greater than 0.90, GFI is 0.693 which is less than the limit of greater than 0.90, AGFI is 0.632 which is less than the limit of greater than 0.90 and the value of Root Mean Square of Approximation (RMSEA) is .101 which is more than the limit of less than 0.08.

Table 7 Regression Weights of the Model

Dimensions		Standardized Regression Weights	Critical Ratio	P Sig. level
Purchase Decision	F1	1.000		
	F1	.917	2.714	.007
	F1	.680	2.103	.035
	F1	1.565	3.316	***
	F1	1.669	3.352	***
	F1	2.036	3.556	***
Shopping Behaviour	F2	1.000		
	F2	.968	4.254	***
	F2	.639	3.548	***
	F2	.875	4.017	***
	F2	1.000	4.349	***
Information	F3	1.000		
	F3	.808	2.834	.005
	F3	1.593	4.079	***
	F3	1.636	3.909	***
	F3	1.229	3.501	***
Quality	F4	1.000		
	F4	.968	8.151	***
	F4	.731	5.603	***
	F4	.294	2.408	.016
	F4	.649	4.833	***
Branding	F5	1.000		
	F5	.476	2.346	.019

Dimensions		Standardized Regression Weights	Critical Ratio	P Sig. level
	F5	.921	4.835	***
	F5	.683	3.143	.002
	F5	1.270	4.170	***
	F5	1.341	4.483	***
	F5	1.154	4.083	***

Source: Derived

As per Standardized Regression Weights, it is noted that all the statements taken into consideration in the deciding of the dimensions of purchase behavior on textiles are statistically significant as the p values are less than 0.05 indicating the fitness of the model.

CONCLUSION

Indian textile industry is one of the leading textile industries in the world. The needs of the people are increasing day-by-day. People are more interested to dress neatly and make them purchase more and more from the retail outlets. Consumer literacy is an essential for consumers trying to navigate world today. Consumers require literacy to make decision related to safety, choice, managing financial transactions and resources. Consumer literacy is an ingredient for economics success and consumer with enough knowledge and skills to make them capable of effective consumer decision making. The study reveals that the thirty five statements taken for study are statistically reliable as the reliability test and the dimensions filtered from factor analysis shows that the factors Informative, Selective, Economical and Brand Conscious were identified as the influencing factors. The sample respondents were Brand Conscious and Selective as far as the textile purchase is concerned. As per the model consisting of the dimensions Purchase Decision, Shopping Behaviour, Information, Quality and Branding model statistics shows that the value of Chi Square is 730.452 for degrees of freedom 363 and is statistically significant as the p value is 0.000 which is less than the standard value of 0.05. the value of F ratio is 2.012 which is within the control limit of less than 3, Comparative Fit Index (CFI) is 0.693 which is less than the limit of greater than 0.90, GFI is 0.693 which is less than the limit of greater than 0.90, AGFI is 0.632 which is less than the limit of greater than 0.90 and the value of Root Mean Square of Approximation (RMSEA) is .101 which is more than the limit of less than 0.08. Further as per Standardized Regression Weights, it is noted that all the statements taken into consideration in the deciding of the dimensions of purchase behavior on textiles are statistically significant as the p values are less than 0.05 indicating the fitness of the model. It is concluded that the sample respondents were Brand Conscious and Selective as far as the textile purchase is concerned.

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