

# Manifold Factors Influencing College Pupils' Laptop Purchases in Tiruchirappalli, Thanjavur and Ariylur Districts –tamilnadu, India

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## Research Article

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# Abstract

A laptop, also known as notebook, is a portable personal computer which aids one to utilize in different milieu. Needless to mention that laptop with internet connection would bring the macrocosm simply into one's earning capacity. In today's fast-moving world, it has become the definite need of the hour rather than luxury. The part played by laptop among students is more vital in academic usage as well as in day today life. Scrutinizing the buying behaviors of the students is very significant for computer manufacturing companies to focus on roaring sales on one hand and for prospective students to purchase a satisfied laptop on the other hand. To determine the buying behavior of the pupils, the various factors such as deciding person to purchase the laptop, references, the role of media, price, daily usage timings, duration taken to purchase the laptop, preferred brand, value added features and post purchase services are scrutinized in this study. In substance, buying behaviors refer to the buying behaviors of purchasers starting from desire to final purchase, who may be bifurcated as customers and consumers. The former is anyone who makes regular purchases from a company or a store, whereas the latter is one who makes purchase impulsively. Here, the pupils studied are simply considered as consumers for most of them have made single as well as durable purchase of laptops.

## 1. Introduction

In today's world, computers are constructive tools for accomplishing manifold tasks in abodes, schools, colleges and work places. Apart from the rapidly falling prices of laptops and new technologies being packed into ultra-slick laptops, the entry of non-traditional players to develop wireless infrastructure has given the market a further boost. For instance, a few years ago wireless connectivity on the laptop was considered to be luxury. But today it has become a necessity with major hospitality chains in India establishing wireless hotspots. Also, many firms, airports, schools and colleges have implemented Wi-Fi. To trap the prospective consumers, laptop manufactures as well as sellers are constantly searching for new ways and means for which first of all they have to completely understand that what drives a consumer purchase of one brand over another.

Study upon study has shown that consumers are more likely to purchase one particular brand over another based-on gender, age, educational attainment and technical competence. The selection of a laptop can also be associated with a specific product or brand attribute. However, information provided by these studies is glaringly insufficient to determine the buying behaviors of laptop as they by and large vary according to the place and society of the populace where they live. Usually, consumer decision making is affected by the two factors such as internal and external. If they deem that internal source of information is scarce, external sources such as advertisement and media messages will ease the buying process.

Nowadays advertisements may puzzle the consumers by providing too complex messages. Similarly, interactions with sales personnel or store executives may lead the consumers' bafflement because of the ambiguous information aiming at roaring sales as well as achieving the sales target. Moreover, technological complexities of products are also likely to increase consumer bewilderment owing to the high rate of technological change which needs customers to be constantly updated with new developments and

technical jargons. The dithering to take concrete decisions deters the consumers to distinguish the various products and services and to identify the right choice what they exactly need. Hence, some specific as well as territorial studies are needed to delineate the factors affecting laptop purchase decisions among students.

## 2. Objectives Of The Study

- To identify the socio-economic and demographic profiles of the pupils.
- To understand the buying behaviours of the pupils.
- To pinpoint the prime factors influencing in purchasing laptops.
- To identify the popular laptop brands among the students.

## 3. Background

Raju (2008) found that the female enrollment in higher education was 20.60 percent in the years of 2005–2006. Sachar (2006) report underlined that at the level of higher education less than 4 per cent Muslims were graduates as against the national average of 7 per cent for the age group of 20 and above. At the post graduate level only one out of twenty students were a Muslim. The rural-urban divide was also palpable in higher education. Pursuant to Nitu and Subhadeep (2013) the rural-urban divide continued till now as urban was about three times higher (23.79) than the rural (7.51). Post Secondary Education Opportunity's report (2008) found that students in the upper income quartile had a 72 per cent chance of earning a bachelor's degree compared with only a 10 per cent chance for students in the lowest quartile.

Finn and Inman (2004) found that a majority of college students owned computers and wireless devices and believed that internet use had enhanced their learning experience. Similarly, alumni who participated in an under graduate laptop program agreed that portable computers were beneficial in their college carriers. Pursuant to Barak, et. al. (2006) students believed in that laptops made learning easier. Caudill (2007) suggests that by carrying a personalized device, students could quickly and easily access the resources they need. Anand (2012) found that laptop was mandatory from first year in the colleges.

Mcvay, Synder and Gratez (2005) added that students used their laptops an average of five hours per day. Adithya (2013) found that friends influenced about 89 per cent of respondents in deciding brand and configuration. Adithya (2013) found that Dell is the market leader in Bangalore. In a study conducted by Sudhakar (2008) Sony was the most popular brand and utilized by about 25 per cent of students in VIT University, Vellore. Arend's (2004) showed that out of class work such as writing papers, searching the internet and completing group projects constituted the bulk of laptop use. Sharon and Robin (2010) found that majority of the students utilized their laptops for academic use.

Hong and Lerch (2002) describes that according to making model, students process the environmental cues, the physical factors of the products, psychosocial cues, such as advertising and students put these cues into a set of perceptions that shape their preferences. In another research conducted by Kim et.al (2002) found that small-office/home-office professional procurement choices were influenced by a number

of salient dimensions (i.e., income, performance, price, inter-purchase time, network externalities). According to Taylor and Todd (1995) Technology Adoption Model (TAM) proposed five attributes which will determine the purchase decision. They include (a) perceived usefulness (b) perceived ease of use (c) relative advantage (d) technology attitude and (e) brand. Lau (1995) accentuated that in order for a decision to be made; an individual must first identify a need that must to be met. Within the normative model of decision making, first the consumer collects the information and then evaluates them and makes a decision.

According to Rowley (1997) a buyer's decision was influenced by personal characteristics such as the buyer's age, occupation, economic situation, life style and personality and self-concept. Aaker (1992) found that brand awareness had significant impact on the consumer buying behaviours. Firstly, a high level of awareness of a brand that consumers have, the high level the brand will be considered when they choose to buy. Skinner (1994) mentioned that the market for any product category was made up of consumers who differ in their responsiveness to deals. Some consumers were loyal to a single brand in a category and buy only that brand. Kotler (2000) refers that consumer had varying degrees of loyalty to specific brands, stores and other entities. Rangsan and Titida (2011) found that the sales promotion factors, discount, warranty period, bundled with scanner, installment and advertisement were the important factors that impact on consumers' purchasing decision. Ashnan et.al (2006) found that the factor influencing consumers' laptop purchase decision were (1) Technical features (2) Post purchase service (3) Price (4) Peripheral specifications (5) Physical appearance and (6) Connectivity.

## 4. Research Methodology

Based on the Anna University data there are 71 Engineering, Architecture and Information Technology colleges in Tiruchirappalli, Thanjavur and Ariyalur districts, in which 59 engineering colleges are imparting only engineering education including Anna University constituent college Tiruchirappalli, and Ariyalur and one of the posh educational institutions of India National Institute of Technology of Trichy. In these 59 colleges about 30162 pupils are pursuing the Bachelor of Engineering, Master of Engineering and Research Scholars in the various streams of civil, mechanical, electrical, electronic and communication and computer science. The study aimed at covering one per cent of the universe for which stratified random sampling technique was employed.

Among the 59 colleges, pupils were classified by their streams. In the BE strata, questionnaires were served to 300 pupils. Similarly, in the ME strata 120 students were served with questionnaires. About 64 questionnaires were confided to scholars those who were available at the time of survey. In jest, 484 pupils were solicited to fill out the questionnaires. Only 480 furnished questionnaires were confided to the analysis. About 12 pupils of the 480 had possessed the desk tops. About 11 pupils had possessed the second-hand laptops. About 155 pupils had the free laptops provided by the state government. Hence, 178 pupils were dispelled from the study. Now, the sample size had come down to 302 in which 2 students, those who had provided the flimsy data were discarded to round off the sample. In concise, the sample size of this study was 300 which covered the one percentage of the universe.

To garner the primary data, well structured questionnaire was designed and structure of questionnaire was trifurcated as personal data, buying behavior and factors influencing purchase decisions. The personal data analyzed the socio-economic and demographic characters of the pupils. The second part endeavored to understand the buying behaviors of the pupils. In the third part pupils were given a list of features of laptops and five prime brands such as Dell, Lenovo, Acer, HP and Sony identified by pilot study and the information provided the leading sales firms of Tiruchirappalli, Thanjavur and Ariyalur Districts, comprising of 22 items in order to measure the factors influencing students' laptop purchase decisions and were asked to show how important these features for them while purchasing a laptop. Four-point scales were used to rank the factors. Pupils, who found a feature very significant, had to give 5 to that item, while others who found it insignificant had to assign 1. The collected data were comprehensively analyzed by SPSS.

## **5. Socio-economic And Demographic Profiles Of The Pupils**

**Table – 1: Socio-economic and demographic profiles of the pupils**

S.No.	Characteristics of the pupils	No. of Pupils	%	S.No.	Characteristics of the pupils	No. of Pupils	%
<b>1</b>	<b>Gender</b>			<b>6</b>	<b>Alma Mater</b>		
	Male	267	89		Government school	106	35.33
	Female	33	11		Private but Gov. aided	124	41.33
<b>2</b>	<b>Age</b>				Private school unaided	70	23.34
	18-23	195	65	<b>7</b>	<b>Ongoing education</b>		
	24-29	89	29.67		BE	189	63
	30-35	16	5.33		ME	92	30.66
<b>3</b>	<b>Religion</b>				Scholars	19	6.34
	Hindu	174	58	<b>8</b>	<b>Fathers' occupation</b>		
	Muslim	72	24		Farmers	62	20.66
	Christian	48	16		Service	79	26.33
	Jain	2	0.66		Private	109	36.33
	Sikhs	1	0.34		Business	45	15
	Others	3	1		Others	5	1.67
<b>4</b>	<b>Community</b>			<b>9</b>	<b>Family Income</b>		
	FC	34	11.33		Upto 5000	36	12
	BC	154	54.33		5001-10000	34	11.33
	MBC	46	15.34		10001-15000	135	45
	SC/ST	66	22		15001-20000	62	20.67
<b>5</b>	<b>Residential Status</b>				20001 and above	22	11
	Urban	184	61.34				
	Rural	116	38.67		<b>N=300</b>		

Source: Primary Data Collection

There was a sea of difference between the socio-economic and demographic profiles of the sample pupils in the study area. The distribution of pupils by gender reflects that male accounted for about 90 per cent

compared to distaffs whose contribution was buttressed with sobering statistics of about 10 percent. As for the age of the pupils, about two-thirds of pupils (65%) were in the age cohort of 18-23 at the time of survey. The mean age was 22.92 (SD±3.536).

With regard to the religion, Hinduism was the dominant religious affiliation (58%) in the population studied. The other two omnipotent religions Islam and Christianity formed about 24 and 16 per cent respectively of the sample selected. Other religions such as Sikhs, Jains and Parsis were too minuscular to count. The data regarding community of the pupils depicted that two-thirds of the pupils pertained to the dominant strains of BC and FC. The oppressed castes namely SC/ST (22%) and MBC (15.34%) together constituted about 38 per cent of the students selected.

The domiciliary data of the pupils delineated that about two-thirds of pupils (61.34%) inhabited urban areas whereas above one-third of the pupils resided at rural areas at the time of survey. The cursory look of the pupils schooling enunciated that about two-thirds of pupils were the alumni of the private schools. But the close perusal of the data revealed that the numbers of students those who had studied in private schools aided by government (41.33%) were two-fold higher than the numbers of students studied in unaided private schools (23.34%). As far as the current education of the students is concerned, little below two-thirds of the pupils were pursuing under graduation in engineering whereas below one-third master of graduation. Just one in every twenty was research scholars.

The distribution of employment status of pupil's fathers showed that one-third (36.33%) of fathers were engaged in private sector whereas about one-fourth (26.33%) of fathers were engaged in service sector. About 21 per cent of fathers were farmers. About 15 per cent of fathers were doing trade at the time of present study. In terms of family income, about three-fourths of students (76.67%) belonged to the upper middle-income quartile with the earning of ₹ 10001/- and above, while one-fourth of students pertained to the lower middle income quartile with the earning of upto ₹ 10000/- The mean monthly income was ₹ 12042.148/- (SD±5247.448). Considering the present cost of living in India, it seems reasonable to label the consumers under this study belonging to the middle income groups.

## 6. Buying Behaviours

### Table – 2: Buying Behaviors

S.No.	Buying behavior	No. of Pupils	%	S.No.	Buying behavior	No. of Pupils	%
<b>1</b>	<b>Need</b>			<b>8</b>	<b>Deciding person</b>		
	Inevitable	147	49		Parents	42	14
	Necessity	86	28.67		Teachers	22	7.33
	Useful	45	15		Friends	201	67
	Status symbol	22	7.33		Self	30	10
<b>2</b>	<b>Daily usage</b>				Others	5	1.67
	1-3 hours	72	24	<b>9</b>	<b>Brand choice</b>		
	4-7 hours	165	55		Dell	96	32
	8-11 hours	63	21		HP	6	2
<b>3</b>	<b>Purpose</b>				HCL	8	2.67
	For academic	262	87.33		LG	6	2
	For communication	30	10		SONY	35	11.67
	Others	8	2.67		SAMSUNG	20	6.67
<b>4</b>	<b>Lore of device</b>				LENOVO	76	25.33
	Well known	136	45.33		ACER	38	12.67
	Acquaintance	145	48.33		TOSHIBA	10	3.33
	Unaware	19	6.34		OTHERS	5	1.66
<b>5</b>	<b>To get the detail</b>			<b>10</b>	<b>Budget allocation</b>		
	7 days	93	31		15001-25000	28	9.33
	15 days	165	55		25001-35000	96	32
	30 days	42	14		35001-45000	135	45
<b>6</b>	<b>Source of search</b>				45001-55000	41	13.67
	Family members	26	8.67	<b>11</b>	<b>Duration taken to buy</b>		
	Friends	68	22.66		1- 30 days	88	29.33
	Teachers	36	12		31-60 days	142	47.33
	News Paper	43	14.33		61-90 days	70	23.34
	Magazine	18	6	<b>12</b>	<b>Place of</b>		

			purchase		
Television	14	4.67	Trichy	223	74.33
Internet	74	24.67	Chennai	14	4.67
Shop enquiry	13	4.33	Madurai	36	12
Others	8	2.67	Coimbatore	12	4
<b>7</b>	<b>Search page in net*</b>		Others	15	5
On line sources	13	17.57			
Brand or Manufacture sites	32	43.24			
Price comparison sites	19	25.67			
Distributors site	6	8.11			
Others	4	5.41			
Not applicable	226				
<b>*N=74</b>			<b>N=300</b>		

Source: Primary Data

The perusal of the Table – 2 obviously enables us to say that about half of the pupils uttered that laptop were inevitable for their academic usage especially at the time of doing the project works. One-fourth of the pupils deemed that laptops had become more a sort of a necessity. Further, of the total number about 15 per cent said, laptops were very useful. For about 7 percentages of student's laptops had remained as a status of symbol. Above half of the pupils had 4-7 hours usage of laptops per day. The mean daily usage timing reported was 5.38 hours (SD±2.681). About 90 per cent of pupils were intended to utilize the laptops for academic performance whereas about 10 per cent of pupils aimed at using the laptops for communication. This does not mean that they had not utilized the laptops for education. But it would appropriate to construe that the usage of communication may outweigh the academic usage.

While skimming the data it may appear that about 93 per cent of pupils already had the lore of the device what they would buy. However, the deep look on the data revealed that about half of the pupils had ornately known the details of the device, while about another half of the students had acquaintance with the device they would buy. Only about 7 per cent of students had disavowed of the device they would buy. In absolute terms, the numbers are too small. Moiety of the pupils had spent about 15 days to garner the information about the laptops that can accomplish their needs. About one-third of pupils familiarized themselves with the information of laptops they would buy within one week.

About one-fourth of the pupils had obtained information of the laptops intended to buy through internet. Friends had provided comprehensive information to about another one-fourth of the pupils. The role of medias in providing information such as print and visual media was unimpressive. About half of the pupils

browsed brand or manufacture site to get a complete details of the laptops they would buy. One-fourth of the pupils visited the price comparison sites to savvy the existing price distinctions among various brands. Friends played a vital role in making purchase decisions of laptops as about two-thirds of the pupils were egged on by friends to buy the particular brand with specific configuration.

Dell outweighed the other brands among the pupils studied and occupied the top position as about one-third of the pupils had preferred it. The second place was occupied by the brand Lenovo with about 25 per cent which was followed by the brands Acer and Sony with each about 12 per cent. Although these brands had occupied the places of third and fourth, the difference between these brands were insignificant as well as negligible. About half of the pupils were intended to spend ₹ 35001-45000/- for a laptop. One-third of the pupils apportioned ₹ 25001-35000/- for a laptop. The mean tentative budget allocation was ₹ 36300.5 (SD±8325.262). About half of the pupils had taken upto to two months for buying a laptop. Huge delay was found in purchasing laptop for about 25 per centages of pupils those who had little or no lore of the device they would buy. About three-fourths of the pupils had bought the laptops at Tirchirappalli district which had been the nearest place of their domicile.

## 7. Factors Influencing Purchase Decisions

Principal components method was used while conducting the factor analysis. The 28 variables were grouped under seven factors. The result of the factor analysis shows that 72 per cent of the total variance is explained by calcifying these 28 variables into 9 components. Varimax rotation has been used to see which variables load together.

### 7.1. Factor Analysis

#### Table – 3 Rotated Component Matrix

Source: Primary Data

The four variables (Factor-1) such as color, weight, design and size had the values of 0.754, 0.652, 0.646 and 0.565 respectively which suggest that factor 1 was a combination of four variables. Hence, this factor might be construed as “Design” which had an Eigen value of 2.01 and this factor had the power to explain 9.54 per cent variance. The variables (Factor-2) price and offer had the value of 0.862 and 0.754 respectively. This suggests that factor 2 was an amalgamation of two variables. Therefore, this factor could be interpreted as “Price”. It had an Eigen value of 2.54 and this factor had the power to explain 10.98 per cent variance.

The variables (Factor-3) payment and credit facility had the values of 0.788 and 0.699 respectively. This suggests that factor-3 was a mixture of two variables. Hence, these variables could be interrupted as “Payment” which had an Eigen value of 1.62 with 6.41 per cent variance. Another four variables (Factor-4) such as technical support, insurance, maintenance and repair, and guarantee and warranty had the values of 0.851, 0.684, 0.614 and 0.565 respectively. This suggests that factor 4 was a combination of four

S.NO	FACTORS	1	2	3	4	5	6	7	8	9
1	MEMORY [RAM] AND HARD DISK [STORAGE]	0.172	0.021	0.031	0.211	0.765	0.060	0.131	-0.110	0.133
2	INSURANCE	0.212	-0.616	0.221	0.684	-0.110	-0.111	0.117	-0.110	0.144
3	TECHNICAL SUPPORT	-0.154	0.021	0.121	0.851	0.056	0.111	0.222	0.056	0.121
4	TV/AUDIO CONNECTION	0.221	0.124	0.040	0.124	0.122	0.832	-0.254	0.070	0.031
5	BRAND IMAGE	-0.110	-0.215	0.331	-0.215	-0.110	0.112	0.666	0.212	0.215
6	MICROSOFT	0.154	0.02	0.126	0.221	0.031	0.070	-0.144	0.152	0.951
7	WEIGHT	0.652	0.121	0.121	0.065	0.121	-0.124	-0.212	-0.215	0.231
8	SIZE	0.565	0.133	-0.212	0.022	0.211	0.220	-0.212	0.121	0.140
9	PROCESSOR SPEED AND TYPE	0.065	0.212	0.121	-0.110	0.774	0.005	0.331	-0.144	0.231
10	BLUETOOTH	-0.150	0.231	0.222	0.231	0.121	0.687	0.070	0.021	0.121
11	EASE OF USAGE	0.215	0.140	0.117	0.140	-0.212	0.124	0.788	-0.616	-0.110
12	SECURITY SOLUTIONS	0.016	0.111	0.210	0.215	-0.220	0.353	0.624	-0.110	0.212
13	DVD-CD PLAYER	-0.078	-0.111	0.121	0.060	0.121	0.021	0.137	0.612	0.231
14	BATTERY LIFE	0.022	0.051	0.212	0.006	0.658	0.111	0.221	0.216	0.060
15	GUARANTEE AND WARRANTY CONDITIONS	0.111	-0.254	0.060	0.565	-0.215	0.121	0.200	-0.215	-0.111
16	PAYMENT	-0.114	0.004	0.788	0.211	0.231	0.121	0.002	0.231	-0.215
17	PRICE	0.220	0.862	0.331	0.121	0.111	-0.154	0.024	0.144	0.212
18	OFFER	2.121	0.754	0.212	0.012	0.222	0.321	0.121	0.141	0.102
19	SPEAKERS/AMPLIFIERS	0.126	0.121	0.101	0.164	0.221	0.221	0.134	0.874	0.411
20	WIRELESS DEVICE	0.121	0.056	0.200	0.056	0.144	0.763	-0.616	-0.254	0.114
21	COLOUR	0.754	0.112	0.144	0.154	0.321	0.321	0.144	0.121	0.056
22	MAINTENANCE AND REPAIR	0.365	0.070	0.005	0.614	0.140	0.121	0.040	0.140	0.121
23	BACK UP	0.064	0.411	0.330	0.017	0.712	0.101	0.021	0.221	0.221

24	MODEM	0.321	0.121	0.111	-0.154	0.060	0.004	0.111	0.771	0.174
25	DESIGN	0.646	0.221	0.122	0.72	-0.312	-0.121	0.122	0.111	0.124
26	DISPLAY RESOLUTION	0.154	0.331	0.114	0.121	0.214	0.221	0.004	0.211	0.415
27	MS OFFICE	0.121	0.114	0.006	0.110	0.211	0.213	0.005	0.014	0.853
28	CREDIT	0.002	0.051	0.699	0.114	-0.011	0.068	0.216	0.062	0.158

variables. So, this factor could be interpreted as “Service”. It had an Eigen value of 2.87 with 11.02 per cent variance.

Next four variables (Factor-5) Processor speed and type, Ram and Hard disk, battery backup and battery life had the values of 0.774, 0.765, 0.712 and 0.658 respectively. This suggests that factor 5 was a combination of four variables. Hence, this factor could be interpreted as “Hardware”. The Eigen value of this factor was 2.27 with 10.21 per cent variance. The variables (Factor-6) TV/Audio connection, wireless device and Bluetooth had the values of 0.832, 0.763 and 0.687 respectively. This suggests that factor 6 was a combination of three variables. Therefore, this factor may be construed as “Connectivity” which had an Eigen value of 1.76 with 6.52 per cent variance. The three variables (Factor-7) ease of usage, brand image and security solutions had the values of 0.788, 0.666 and 0.624 respectively. This suggests that factor 7 was a combination of three variables. Therefore, this factor could be interpreted as “Brand”. It had an Eigen value of 1.02 with 5.52 per cent variance.

The variables (Factor-8) speakers/Amplifiers, modem and DVD/CD player had the values of 0.874, 0.771 and 0.612 respectively. This suggests that factor 8 was a combination of three variables. Therefore, this factor could be interpreted as “Peripheral Specifications”. It had an Eigen value of 1.52 with 5.01 per cent variance. The two variables (Factor-9) micro soft and M.S. office had the values of 0.951 and 0.853 respectively. This suggests that factor 9 was a combination of two variables. Hence, this factor could be interpreted as “Operating System” which had an Eigen value of 1.91 with 6.98 per cent variance.

## 7.2. Binary Logistic Regression

It exists to handle the case of dependents with two classes. It is useful for situations in which the researcher wants to be able to classify subjects based on values of a set of predictors (independents) variables. In this way, logistic regression estimates the odds of a certain event occurring. Note that logistic regression calculates changes in the long odds of the dependent, not changes in the dependent itself as OLS regression does. Logistic regression makes an assumption about the distribution of the independent variables. The relationship between the independents and dependent variables is not a linear function in logistic regression. Therefore, the logistic response function is by  $0 \leq E(Y) \leq 1$ .

$$P(Y=1) = E(Y) = \frac{e^{\beta_0 + \beta_1 X_1 + \dots + \beta_p X_p}}{1 + e^{\beta_0 + \beta_1 X_1 + \dots + \beta_p X_p}}$$

$\beta_i$  are logistic coefficients to be estimate;

$i=1,2,\dots,p$

The logistic regression, the parameter estimate is the B coefficient used to predict the log odds (logit) of the dependent variable. The B coefficients with 0 indicate that the given explanatory variable does not affect the logit (that is makes no difference in the probability of the dependent value equaling the value of decreases the logit of the dependent). Exp (B) is the odds ratio for the explanatory variable. The odds ratio for a given independent variable represents the factor by which the odds (event) change for a one-unit changes in the independent variable. An Exp (B) > 1 means the independent variable increases the logit and therefore increases odds (event). If An Exp (B) < 1.0 then the independent variable decreases the logit and decreases odds (event). Thus, to find the influential factors on the dependent variable, it will consider the only factors which have the significance and the value of Exp (B) > 1 (Garson, 2009)

### 7.3. Factors influencing purchase decision of two Brands (Dell and Lenovo)

In order to avoid the censure, only those brand laptops that had a minimum of 75 respondents were used for the binary regression. According to this study, two brands were fulfilled this criterion which were Dell and Lenovo. The variables explicate the relationship between factors influencing purchase decision was as follows. Purchase decision of Dell and Lenovo was considered as dependent variable. The variables such as 1. Weight and size 2. Ram and Hard Disk 3. Monitor 4. Battery life and back up 5. Operating system 6. Connectivity 7. Peripheral specifications 8. Price 9. Installment 10. Discount 11. Warranty and grantee and 12. Insurance were regarded as independent variables.

**Table 4: Homer and Lemeshow Test**

Step	Chi-square value	Df	Significant
1	135.56	12	0.680

**Table 5: Model summary**

Step	-2 Log likelihood	Cox & Snell R <sup>2</sup>	Nagelkerke R <sup>2</sup>
2	353.637 <sup>a</sup>	0.186	0.412

**Table 6: Classification Table**

Observed	Predicted		
	Dell	Lenovo	Percentage Corrected
Step 1			
Dell	96	36	72.02
Lenovo	76	45	62.5
Over all percentage			67.69

the cut value is .500

Since the significant value (0.680) of the Hosmer and Lemeshow Test is greater than  $\alpha=0.10$ , it can be concluded that the final model is the model adequately fit this date. From the model summary  $R^2$  value is 0.412 which means that the full model can explain the outcome of 41.2 per cent. From classification table, it was found that the final model can classifies 67.69 per cent correct which may seem moderately good.

#### 7.4. Significance Variables in The Equation

Table – 7 Significance Variables in The Equation

S.NO	FACTORS	DELL			LENOVO		
		B	SIG	EXP [B]	B	SIG	EXP [B]
1	WEIGHT AND SIZE	0.625	0.078*	1.541	0.324	0.045*	0.538
2	RAM AND HARD DISK	0.714	0.085*	1.654	0.231	0.051*	0.645
3	MONITOR	0.622	0.088*	1.251	0.212	0.064*	0.741
4	BATERY LIFE AND BACK UP	0.544	0.072*	1.876	0.111	0.058*	0.888
5	OPERATING SYSTEM	0.612	0.054*	1.223	0.214	0.052*	0.658
6	CONNECTIVITY	0.223	0.045*	0.564	0.648	0.087*	1.668
7	PREIFPHERAL SPECIFICATIONS	0.321	0.057*	0.658	0.748	0.078*	1.223
8	PRICE	0.384	0.095*	1.652	-0.207	0.072*	0.951
9	INSTALLMENT	-0.211	0.064*	0.432	0.541	0.088*	1.541
10	DISCOUNT	0.276	0.090*	1.882	0.245	0.067*	0.841
11	WARRANTY AND GURANTY PERIOD	0.324	0.058*	0.521	0.645	0.082*	1.655
12	INSURANCE	0.124	0.045*	0.325	0.574	0.078*	1.444

Source: Primary Data

Comparing the value of Exp (B) of Dell and Lenovo found that for the factor Weight and Size (1.541), Ram and Hard Disk (1.654), monitor (1.251), Battery life and back up (1.876) and Operating system (1.223), Dell had the greater of Exp (B) than Lenovo. This means that if both Dell and Lenovo had the same details of Weight and Size, Ram and Hard Disk, Monitor, Battery life and back up and Operating system, pupils will be likelihood to purchase laptop from Dell whereas Lenovo had the greater value of Exp (B) than Dell for the factor Connectivity (1.668) and peripheral specifications (1.223). This could be said that if both Lenovo and Dell had the same details connectivity and peripheral specifications, pupils will be likelihood to purchase laptop from Lenovo.

Comparing the value of Exp (B) of Dell and Lenovo found that for the factor price (1.652) and discount (1.882), Dell had the greater of Exp (B) than Lenovo. This means that if both Dell and Lenovo had the same details of price and discount, consumers will be likelihood to purchase laptops from Dell, whereas Lenovo has the greater value of Exp (B) than Dell for the factor installment (1.541), warranty and guarantee (1.655) and insurance (1.444). This could be said that if both Lenovo and Dell have the same details installment, warranty and guarantee, pupils will be likelihood to purchase laptop from Lenovo.

## 8. Suggestions

While charging the laptop, auto cut off facility required to prevent battery getting damaged due to continuous charging. Like mobile phone, tough screen facility is required for ease of operation. Securing code is required to protect the laptop thefts. Consumers should be enlightened by the proper and complete information of warranty and insurance. For students, campus offers should be given. Students should be updated with latest arrivals of the market. The corollary fact is that this research has been limited to laptop sector and the factors influencing pupils' purchase decision of engineering college students in Tiruchirappalli, Thanjavur and Ariyalur districts only. Since regional differences play a vital role, it is also recommended to replicate this study in distinct sectors as well as territorial areas.

Of late, the number of populaces who are utilizing and owning personal computers substantially dilates in all over the world. Contrary to the introduction years of computers, today they have been used by almost all the people irrespective of gender, age and occupation. However, the wish for owning a laptop than desktop is increased to the vast extent. In addition to this, extended battery life and back up, price cuts and wireless networking especially Wi-Fi cause to the increased demand of laptops. On the supply flank of the market, the companies try to make huger profit and even survive in a highly competitive environment. In such a situation, it becomes extremely important to learn the factors that are influencing consumers' purchase decisions. So, the companies have to mind all these factors and try to increase their sales level and also their profit.

## 9.conclusion

In this study, it has been found that for about three-fourths of the pupils, laptop was mandatory at the time of survey. Daily usage timing was to the tune of 4–7 hours for half of students. Academic usage such as designing, drawing, writings, searching in internet and project works constituted the bulk of laptop use. On

average pupils spent at least 15 days researching the type of device they need. Most of the pupils had prior lore of technical features, price, offer and post purchase service of the device they would buy. The percentage of uncharted pupils was abysmally low. Friends galvanized most of the pupils to choose the particular brand with particular configuration. Though examples and counter examples show that different brands may occupy top position in different places, this study found that Dell and Lenovo were favorable brands among the pupils studied. Three-fourths of pupils spent 25001–45000/- for which one can buy a laptop with higher configuration. The decomposition of the data regarding influencing factors retails that there were nine factors which primly influenced pupils' laptop purchase decision. These factors can be stated as follows. Physical appearance, Price, Payment conditions, Post purchase service, technical features, Connectivity, Value added features, Peripheral specifications and Operating system. According to the results, Dell enticed most of the pupils due to the features such as Weight and Size, Ram and Hard Disk, Monitor, Battery life and back up and Operating system. On the contrary, the price and discount offered by Lenovo allured a sizeable number of pupils. Further, Dell had strongly concentrated on the flank of Connectivity and Peripheral specifications. By contrast, Lenovo had deeply focused on the side of warranty and guarantee and insurance.

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