Vol. 1, No. 3; Jul – Sep (2021)

Quing: International Journal of Commerce and Management

Available at https://quingpublications.com/journals/ijcm

A Study on Manifold Factors Influencing Engineering College Pupils' Laptop Purchases at Tiruchirappalli District, Tamil Nadu, India

Dr. J. Mohan Raj[*]

Associate Professor, Department of Business Administration, Don Bosco College (Arts & Science), Thamanangudy, Karaikal, PY, IND.

Dr. P. Elantheraiyan

Associate Professor, School of Management, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, TN, IND.

ARTICLE INFO

Received: 05-07-2021
Received in revised form: 09-08-2021
Accepted: 13-08-2021
Available online: 30-09-2021

Keywords:

Branding;
Buying Behaviour;
Consumer Behaviour;
Consumer Satisfaction;
Purchase Decision Making.

ABSTRACT

A laptop, also known as a notebook, is a portable personnel computer that aids one to utilize in a different milieu. Needless to mention that laptop with an internet connection would bring the macrocosm simply into one's thenar. In today's fast-moving world, it has become the definite need of the hour rather than a luxury. The part played by laptops among students is more vital in academic usage as well as in day-to-day life. Examining the student purchasing behaviour is critical for computer manufacturers to concentrate on booming sales on the one hand, and for prospective students to purchase a compatible laptop on the other. This study examines various factors such as the deciding person to purchase the laptop, references, the role of media, price, value-added features, duration is taken to purchase the laptop, daily usage timings, preferred brand, and post-purchase services to determine the purchasing behaviour of the students. In substance, buying behaviours refer to the buying behaviours of purchasers starting from desire to final purchase, who may be bifurcated as customers and consumers. Someone who purchases regularly with a company or store is referred to as afore customer, whereas one who does so impulsively is called a later customer. Here, the pupils studied are simply considered as consumers for most of them have made single as well as the durable purchase of laptops.

DOI: https://doi.org/10.54368/qijcm.1.3.0004

1.0 INTRODUCTION

Computers are constructive instruments in today's world to carry out a variety of duties in houses, schools, universities and workplaces. In July 2010, the International Data Corporation (IDC) indicated that consumer purchases of portable PCs were the single driver of the market, expanding

[*] *Corresponding author's e-mail:* economistmohan@gmail.com (Dr. J. Mohan Raj)

at a rate of 38.50 percent. In terms of market share, HP was the number one vendor in the world with 91.5 million units. The three companies Acer, Dell, and Lenovo followed successively with a total of 11.6 million, 11 million, and 9.2 million units in 2010. The report continued that the Indian laptop industry has been witnessing a boom in recent times. Within the total PC market, desktop sales reached 4.68 million units, representing a 19% rise over the previous year. Laptop sales were at 2.72 million units recording a 60 percent growth over the previous year which evinces that the computer market will be dominated by laptop sales and not by desktop sales in the ensuing days.

Aside from the constantly declining costs of laptops and the incorporation of new technology into ultra-sleek laptops, the entrance of non-traditional companies to build wireless infrastructure has given the industry a further boost. For example, just a few years ago, a Wi-Fi connection on a laptop was considered expensive. Wireless hotspots are becoming more popular in India, as shown by the establishment of large hospitality chains that have implemented them. Also, many firms, airports, schools and colleges have implemented Wi-Fi. To attract potential customers, laptop manufacturers and sellers are always looking for new methods and means to do so, which requires them to first properly understand what leads a consumer's purchase of one product over another.

According to research, customers are more inclined to choose one brand over another depending on gender, age, educational attainment, and technical ability. The choice of a laptop may also be linked to a particular product or feature in the brand. However, the information provided by these studies is glaringly insufficient to determine the buying behaviours of laptops 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 advertisements 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 jargon. 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. To further understand the variables that influence students' laptop purchase decisions, more detailed as well as territorial research is required.

1.1 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.

1.2 Background

Raju (2008) found that the female enrolment in higher education was 20.60 percent in the years of 2005-2006. Sachar (2006) found that just 4% of Muslims had completed higher education, compared to the national average of 7% for those who aged 20 and above. Only one out of every

twenty postgraduate students were Muslim. The rural-urban divide was also palpable in higher education. According to Konwar and Chakraborty (2013), the rural-urban gap has persisted since the urban GER was nearly three times greater (23.79) than the rural (7.51). Post-Secondary Education Opportunity's Report (2008) discovered that students in the highest-earning quartile had a 72% probability of obtaining a bachelor's degree, whereas just 10% of students in the lowest-income quartile were able to do so.

Finn and Inman (2004) found the majority of college pupils possess laptops and Wi-Fi connectivity and feel that using the internet has improved their studying experience. Meanwhile, alumni who took part in an UG laptop programme felt that laptops helped them succeed in college. Pursuant to Barak, *et al.,* (2006) students believed that laptops made learning easier. According to Caudill (2007), students might benefit from carrying a customised gadget that would allow them to access information quickly and conveniently. Kumar (2012) found that laptop was mandatory from the first year in the colleges.

It was observed that the students used their laptops on average for five hours in a day. (Mcvay *et al.,* 2005). 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. A study by Arend (2004) found that the majority of laptop work was done on non-class activities including writing papers, doing internet research, and finishing group projects. Lauricella and Kay (2010) found that the majority of the students utilized their laptops for academic use.

According to Hong and Lerch (2002), students analyse environmental factors, physical product features, and psychosocial indicators such as advertising, and these signals are then placed into a set of perceptions that help influence their purchasing decisions. Another study by Kim *et al.,* (2002) showed that the procurement decisions made by small-office/home-office professionals were affected by many important aspects (*i.e.,* income, product price and performance, network externalities, and inter-purchase time). According to Taylor and Todd (1995), "Technology Adoption Model (TAM) proposed five attributes that will determine the purchase decision. They include (a) perceived usefulness, (b) perceived ease of use, (c) relative advantage, (d) technology attitude, and (e) brand". It was emphasised by Lau (1995) that in order to make a choice, a person must first recognise a need that must be satisfied. To make a decision based on the normative model, the consumer must first gather and analyse all available information before making a choice.

According to Rowley (1997), personal factors such as age, profession, economic position, livelihood, self-concept, and personality affect a buyer's choice. In his study, Aaker (1992), he discovered that brand awareness had a significant effect on customer purchasing decisions. Consumers' knowledge of a brand is a good indicator of how seriously they will take the brand into consideration when making a purchase. Skinner (1994) stated 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". According to Kotler (2000), customers have different degrees of loyalty to particular brands, shops, and other entities. Nochai and Nochai (2011) found that the sales promotion factors, discount, warranty period, bundled with a scanner, instalment and advertisement were the important factors that impact consumers' purchasing decisions. Nasir *et al.,* (2006) found that the "factor influencing consumers' laptop purchase decisions were (i) Technical features, (2) Post-purchase service, (3) Price, (4) Peripheral specifications, (5) Physical appearance, and (6) Connectivity".

2.0 RESEARCH METHODOLOGY

According to the Anna University web portal, there are 39 Engineering, Architecture and Information Technology Colleges at Tiruchirappalli District, in which 29 engineering colleges are imparting only engineering education including Anna University constituent college and one of the posh educational institutions of India National Institute of Technology of Trichy. In these 29 colleges, about 31820 pupils are pursuing the Bachelor of Engineering in the various streams of civil, mechanical, electrical, electronic and communication and computer science. About 212 pupils were pursuing a Master of Engineering. About 106 scholars were researching various engineering subjects at the time of the survey. The study aimed at covering one per cent of the universe for which stratified random sampling technique was employed.

In the embryo, engineering colleges running with sizable students were selected for the study. The eight colleges running with skeleton strength and meagre departments were discarded from the study. In the residual 21 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 the survey. In jest, 484 pupils were solicited to fill out the questionnaires. Only 480 furnished questionnaires were confided to the analysis. About 82 pupils of the 480 had possessed the desktops. About 58 pupils had possessed second-hand laptops. About 26 pupils had the free laptops provided by the state government. About 12 pupils did not have any type of computer. 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 one percentage of the universe.

To garner the primary data, a well-structured questionnaire was designed and pre-tested with 50 samples by a pilot study based on which some amendments were made in the questionnaires. The structure of the questionnaire was trifurcated as personal data, buying behaviour and factors influencing purchase decisions. The personal data analysed the socio-economic and demographic characters of the pupils. The second part endeavoured to understand the buying behaviours of the pupils. In the third part, pupils were presented with a checklist including the characteristics of laptop and five prime brands such as Dell, Lenovo, Acer, HP and Sony identified by the pilot study and the information provided the leading sales firms of Tiruchirappalli District, consisting of 22 items to assess the variables affecting students' laptop buying behaviour, and were asked to demonstrate how essential these characteristics are to them when 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 analysed by the SPSS 14.0.

Table 1 – Socio-economic and Demographic Profiles of the Pupils

Sl. No.	Characteristics of the Pupils		No. of Pupils	%
1	Gender	Male	267	89.00
		Female	33	11.00
2	Age	18-23	195	65.00
		24-29	89	29.67
		30-35	16	5.33

3	Religion	Hindu	174	58.00
		Muslim	72	24.00
		Christian	48	16.00
		Jain	2	0.66
		Sikhs	1	0.34
		Others	3	1.00
4	Community	FC	34	11.33
		BC	154	54.33
		MBC	46	15.34
		SC/ST	66	22.00
5	Residential Status	Urban	184	61.34
		Rural	116	38.67
6	Alma Mater	Government School	106	35.33
		Private but Govt. Aided	124	41.33
		Private School Unaided	70	23.34
7	Ongoing Education	BE	189	63.00
		ME	92	30.66
		Scholars	19	6.34
8	Fathers' Occupation	Farmers	62	20.66
		Service	79	26.33
		Private	109	36.33
		Business	45	15.00
		Others	5	1.67
9	Family Income	Upto ₹5,000	36	12.00
		₹5,001 - ₹10,000	34	11.33
		₹10,001 - ₹15,000	135	45.00
		₹15,001 - ₹20,000	62	20.67
		₹20,001 and above	22	11.00

There was a sea of differences 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 percent 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 the survey. The mean age was 22.92 (SD ± 3.536).

Concerning 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 the 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 percent 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 in rural areas at the time of the 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 who had studied in private schools aided by the government (41.33%) were two-fold higher than the numbers of students studying 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 the private sector whereas about one-fourth (26.33%) of fathers were engaged in the service sector. About 21 per cent of fathers were farmers. About 15 per cent of fathers were doing trade at the time of the 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 ₹10,001/- and above, while one-fourth of students pertained to the lower-middle-income quartile with the earning of upto ₹10,000/-. The mean monthly income was ₹12,042.148/- (SD±5247.448). Considering the present cost of living in India, it seems reasonable to label the consumers under this study as belonging to the middle-income groups.

2.1 Buying Behaviours

The perusal of Table 2 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 students, laptops had remained as a status of the symbol. Above half of the pupils had 4-7 hours of 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 be appropriate to construe that the usage of communication may outweigh the academic usage.

Table 2 – Buying Behaviours

Sl. No.	Characteristics of the Pupils		No. of Pupils	%
1	Need	Inevitable	147	49.00
		Necessity	86	28.67
		Useful	45	15.00
		Status Symbol	22	7.33
2	Daily usage	1-3 hours	72	24.00
		4-7 hours	165	55.00
		8-11 hours	63	21.00
3	Purpose	For Academic	262	87.33
		For Communication	30	10.00
		Others	8	2.67

4	Lore of Device	Well known	136	45.33
		Acquaintance	145	48.33
		Unaware	19	6.34
5	To get the details	7 days	93	31.00
		15 days	165	55.00
		30 days	42	14.00
6	Source of Search	Family members	26	8.67
		Friends	68	22.66
		Teachers	36	12.00
		News Paper	43	14.33
		Magazine	18	6.00
		Television	14	4.67
		Internet	74	24.67
		Shop enquiry	13	4.33
		Others	8	2.67
7	Search Page in Net*	On line sources	13	17.57
		Brand or Manufacturer sites	32	43.24
		Price comparison sites	19	25.67
		Distributor's site	6	8.11
		Others	4	5.41
		Not applicable	226	75.33
8	Deciding Person	Parents	42	14.00
		Teachers	22	7.33
		Friends	201	67.00
		Self	30	10.00
		Others	5	1.67
9	Brand Choice	Dell	96	32.00
		HP	6	2.00
		HCL	8	2.67
		LG	6	2.00
		Sony	35	11.67
		Samsung	20	6.67
		Lenovo	76	25.33
		Acer	38	12.67
		Toshiba	10	3.33
		Others	5	1.66

10	Budget Allocation	₹15,001 - ₹25,000	28	9.33
		₹25,001 - ₹35,000	96	32.00
		₹35,001 - ₹45,000	135	45.00
		₹45,001 - ₹55,000	41	13.67
11	The duration is taken to buy	1- 30 days	88	29.33
		31-60 days	142	47.33
		61-90 days	70	23.34
12	Place of Purchase	Trichy	223	74.33
		Chennai	14	4.67
		Madurai	36	12.00
		Coimbatore	12	4.00
		Others	15	5.00

While skimming the data it may appear that about 93 per cent of pupils already had the lore of the device that they would buy. However, a deep look at 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 the device they would buy. In absolute terms, the numbers are too small. A moiety of the pupils had spent about 15 days 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 about the laptops intended to buy through the internet. Friends had provided comprehensive information to about another one-fourth of the pupils. The role of media in providing information such as print and visual media was unimpressive. About half of the pupils browsed brand or manufacture site to get 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 a 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 percent which was followed by the brands Acer and Sony with each about 12 percent. Although these brands had occupied the places of third and fourth, the differences between these brands were insignificant as well as negligible. About half of the pupils were intended to spend ₹35,001 - ₹45,000/- for a laptop. One-third of the pupils apportioned ₹25,001 - ₹35,000/- for a laptop. The mean tentative budget allocation was ₹36,300.5 (SD ± 8325.262). About half of the pupils had taken upto to two months for buying a laptop. The huge delay was found in purchasing a laptop for about 25 percent of pupils who had little or no lore of the device they would buy. About three-fourths of the pupils had bought the laptops at Tiruchirappalli district which had been the nearest place of their domicile.

2.2 Factors Influencing Purchase Decisions

The factor analysis was carried out using the principal components method. The 28 variables were classified into seven categories. The factor analysis results indicate that dividing these 28 variables into 9 components explains 72% of the overall variation. To determine which variables load jointly, the varimax rotation was applied.

2.3 Factor Analysis

The four variables (Factor-1) such as colour, 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. As a result, this factor might be interpreted as "Design," which had an Eigenvalue of 2.01 and the ability to explain 9.54 percent of the variation. The variables (Factor-2) price and the 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 Eigenvalue 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 Eigenvalue 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 implies that factor 4 was made up of four different variables. As a result, this component may be interpreted as "Service." It had an Eigenvalue of 2.87 with 11.02 per cent variance.

Table 3 – Rotated Component Matrix

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	BATERY 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

The next four variables (Factor-5) have values of 0.774, 0.765, 0.712, and 0.658 for the different type of processor speed, RAM and hard disc, battery backup, and battery life, respectively. This implies that factor 5 was the result of a combination of four variables. As a result, this component may be considered as "Hardware." The Eigenvalue 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 implies that factor 6 was the result of a combination of three variables. As a result, this component may be considered as "Connectivity", which had an Eigenvalue 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 implies that factor 7 was the result of a combination of three variables. As a result, this factor may be considered as "Brand." It had an Eigenvalue of 1.02 with a 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 implies that factor 8 was the result of a combination of three factors. As a result, this component may be considered as "Peripheral Specifications." It had an Eigenvalue of 1.52 with a 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 Eigenvalue of 1.91 with 6.98 per cent variance.

2.4 Factors Influencing the Purchase Decision of Two Brands (Dell and Lenovo)

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 that have fulfilled this criterion which was Dell and Lenovo. The variables explicate the relationship between factors influencing purchase decision was as follows. The purchase decision of Dell and Lenovo was considered as the dependent variable. The variables such as 1. Weight and size, 2. Ram and Hard Disk, 3. Monitor, 4. Battery life and backup, 5. Operating system, 6. Connectivity, 7. Peripheral specifications, 8. Price, 9. Instalment, 10. Discount, 11. Warranty and guarantee, and 12. Insurance was regarded as an independent variable.

Homer and Lemeshow Test

Step	Chi-square value	df	Significant
1	135.56	12	0.680

Model Summary

Step	-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
2	353.637[a]	0.186	0.412

Classification Table

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

a. The cut value is .500

Since the Hosmer and Lemeshow Test has a significant value (0.680) larger than α =0.10, the final model is the model that properly fits this data. From the model summary, the value of the R2 is 0.412, indicating that the whole model can explain 41.2 percent of the result. According to the classification table, the final model can correctly categorise 67.69% of the cases, which seems to be a satisfactory result.

Table 4 – Significance Variables in the Equation

Sl. 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	Battery Life and Backup	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	Peripheral 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	Instalment	-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 Guarantee 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

When the values of Exp (B) of Dell and Lenovo were compared, it was discovered that Dell had a higher Exp (B) than Lenovo for the factors 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). Students are more likely to buy the Dell laptop if the weight and size, RAM and hard disc size, monitor and battery life are all the same in both Dell and Lenovo. However, students are more likely to buy the Lenovo laptop 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 likely to purchase the laptop from Lenovo.

Comparing Dell and Lenovo's Exp (B) values revealed that Dell had a higher Exp (B) than Lenovo for the same factor price (1.652) and discount (1.882). Lenovo has the higher value of Exp (B) than Dell for the factor's instalment (1.541), warranty and guarantee (1.655), and insurance (1.444). If Dell and Lenovo had the same information of price and discount, customers would be more inclined to buy Dell laptops. This could be said that if both Lenovo and Dell have the same details instalment, warranty and guarantee, pupils will be likely to purchase the laptop from Lenovo.

3.0 CONCLUSION

The number of people using and owning personal computers has increased dramatically over the past few years all around the world. As compared to the early days of computer usage, nowadays almost everyone uses them, regardless of gender, age, or occupation. However, the wish for owning a laptop than a desktop increases to a vast extent. In addition to this, extended battery life and backup, price cuts and wireless networking especially Wi-Fi cause the increased demand for laptops. On the supply flank of the market, the companies try to make a huger profit and even survive in a highly competitive environment. In this scenario, it becomes critical to understand the variables that influence customers' purchasing decisions.

In this study, it has been found that for about three-fourths of the pupils, a laptop was mandatory at the time of the survey. Daily usage timing was to the tune of 4-7 hours for half of the students. Academic usage such as designing, drawing, writings, searching on the 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 a particular brand with a particular configuration. Though examples and counterexamples show that different brands may occupy top positions in different places, this study found that Dell and Lenovo were favourable brands among the pupils studied. Three-fourths of pupils spent ₹25,001 - ₹45,000/- for which one can buy a laptop with higher configuration. The decomposition of the data regarding influencing factors retails that there were nine factors that primly influenced pupils' laptop purchase decisions. 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 sizeable numbers 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.

4.0 SUGGESTIONS

To avoid damaging the laptop's battery from overcharging, use an auto cut-off feature while it's charging. A tough screen, similar to that seen in a mobile phone, is needed for ease of use. Laptop theft may be prevented with the use of securing code. 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 the latest arrivals of the market. Furthermore, this study has been restricted to the laptop industry and the variables affecting the purchase decisions of engineering college students in the Tiruchirappalli district alone. Because regional variations are important, it is also suggested that this research be replicated in other industries as well as territorial regions.

REFERENCES

Aaker, D. A., (1992). "Managing The Most Important Asset: Brand Equity", *Planning Review,* 20, pp. 56-58.

Adithya, H. S., (2013). "Consumer Buying Behaviour – An Empirical Study on Laptop Purchase in Bangalore City", *Indian Journal of Applied Research,* 3(2), p. 221.

Arend, B. D., (2004). "New patterns of student engagement", *About Campus,* 9(3), pp. 30-32.

Barak, M., Lipson, A. & Lerman, S., (2006). "Wireless laptops as means for promoting active learning in large lecture halls", *Journal of Research on Technology in Education,* 38 (3), pp. 245-263.

Caudill, J., (2007). "The growth of e-learning and the growth of mobile computing, Parallel developments", *International Review of Research in Open and Distance education Learning,* 8 (2), pp. 1-13.

Finn, S., & Inman, J. G., (2004). "Digital unity and digital divide: Surveying alumni to study effects of a campus laptop imitative", *Journal of Research on Technology in Education, 36* (3), pp. 297-317.

Garson, D. G., (2009) "Logistic Regression", Available at http://faculty.chass.ncsu.edu/garson/PA765/Pa765syl.htm.

Google Researches, (2010). "Google researches of consumer behaviours when purchasing laptops, tablets, etc", November 26, 2010.

Hong, S.-J. & Lerch, F. J., (2002) "A Laboratory study of students, preferences and purchasing Behaviour with Regards to software components", *ACM SIGMIS,* 33(3), pp. 23-37. https://doi.org/10.1145/569905.569909.

IDC (2010). *"IDC Group Research Report",* Available at http://www.idc.com, 2009-2010.

Kim, N., Han, J. K., & Srivastava, R. K., (2002). "A Dynamic IT Adoption Model for the SOHO Market: PC Generation Decisions with Technological Expectations", *Management Science,* 48(2), pp. 222-242.

Konwar, N., & Chakraborty, S., (2013). "Status of Higher Education in Rural areas of India", *RIJS,* 2(1), pp. 5-6.

Kotler, P., (2000). *"Marketing Management",* (10th ed) New Jersy, Prentice-Hall, pp. 12-14.

Kumar, A., (2012). *"Analysis about consumer behaviour by users of laptop in buying a laptop in B-school",* Skyline Business School, February 06, 2012, www.blogskylinecollege.com

Lau, R. R., (1995). *"Information search during an election campaign: Introducing a process-tracing methodology to political science",* In M.Lodge & K. McGraw (Eds.), Political Judgement: Structure and Process. Ann Arbo: University of Michigan Press.

Lauricella, S., & Kay, R., (2010). "Assessing laptop use in higher education classrooms: The Laptop Effectiveness Scale (LES)", *Australasian Journal of Educational Technology,* 28(2), pp. 151-163.

Mcvay, G. J., Synder, K. D., & Graetz, K. A., (2005). "Evolution of laptop University: A case study", *British Journal of Educational Technology,* 36(3), pp. 513-524.

Nasir, A., Yoruker, S., Gunes, F., & Ozdemir, Y., (2006). *"Factors influencing consumers' Laptop purchases",* 6th Global Conference on Business & Economic, October 15-17, pp. 1-9.

Nochai, R., & Nochai, T., (2011). "The Influence of Sale Promotion Factors on Purchase Decisions: A case study of Portable PCs in Thailand", *International Conference on Financial Management and Economics, IPEDR,* 11, pp. 130-134.

Post-Secondary Education Opportunity, (2008). Available at www.postsecondary.org.

Raj, M. J., (2021) "A Case Study Analysis of Retail Store Conversion to Online Store in Karaikal Region", *Quing: International Journal of Commerce and Management, 1*(2), pp. 39-41. https://doi.org/10.54368/qijcm.1.2.0001.

Raju, S., (2008). *"Gender Differentials in Access to Higher education: In higher Education in India-Issues related to expansion, Inclusiveness, Quality and Finance",* University Grants Commission in New Delhi.

Rowley, J., (1997) "Focusing on customer's purchasing decision", Library *Review,* 46(2), pp. 81-89.

Sachar., (2006) *"The Sachar Report on Social-Economic and Educational Status of the Muslim Community of India",* Statutory Recommendation, the complete report available at www.slideshare.net/ipping/sachar-report pp. 1-35.

Skinner, S. J., (1994), *"Marketing",* (2nd ed), New Jersey: Houghton, Miffln, pp. 23-25.

Sudhakar, R., (2008) "A study on various factors influencing students' Laptop purchases among various students in VIT University, Vellore", *International Journal of Research in IT, Management and Engineering, IJRIME,* 1(3), pp. 142-150.

Taylor, S., & Todd, P., (1995) "Understanding information technology usage: A test of competing models", *Information Systems Research,* 6 (2), pp. 144-176.

Thiyakesh, P., & Julius, S., (2021) "Impact on Complications and Predictions of Self-financing School Teachers in Sivagangai District", *Quing: International Journal of Commerce and Management, 1*(2), pp. 24-28. https://doi.org/10.54368/qijcm.1.1.0010.