

## APPLYING TECHNOLOGY ACCEPTANCE MODEL TO STUDY ONLINE SHOPPING ADOPTION AMONG THE YOUTH IN THE VAPI-CITY

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### ABSTRACT

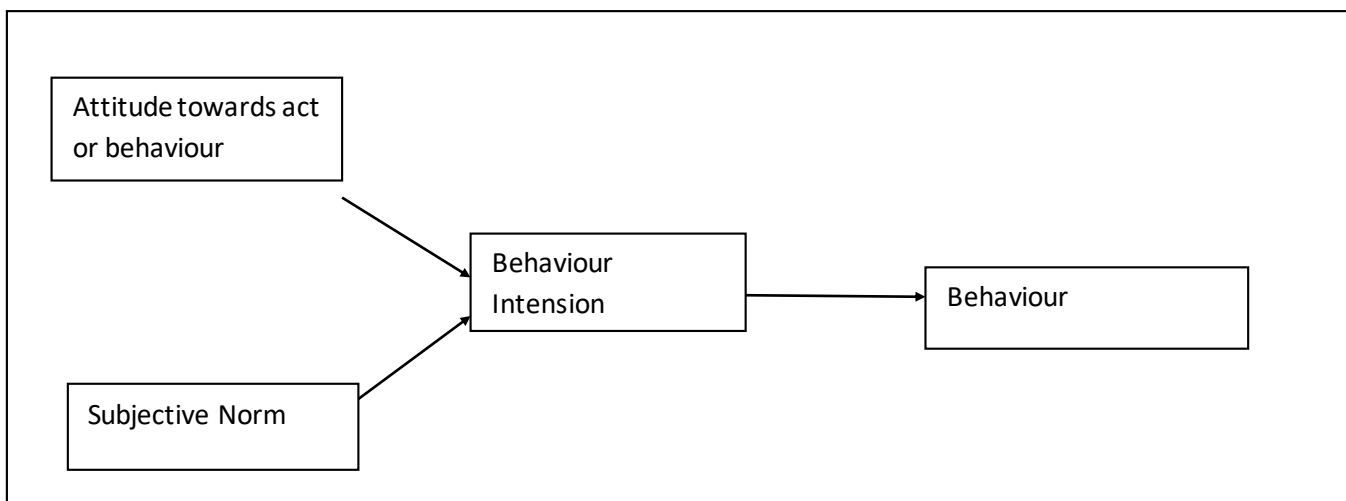
Information & Communication technology is developing at an expeditious pace. Moreover, increased usage of internet has given boost to digitalisation technologies. The focus of present study is to identify important factors influencing usage by applying Technology Acceptance Model. Analysis of Variance & Regression analysis is used to identify the prime factors. Graduates & post graduates differ in their perception regarding subjective norms. In addition, their opinion also differs in terms of intention to Shop online. Perception regarding ease of use, usefulness & security norms have significant impact on students' attitude towards online shopping. Moreover, perception regarding ease of use, usefulness, security norms & privacy & security have significant impact on Students' intention towards online shopping.

**Key word:** Technology Acceptance Model, Ease of use, Usefulness, Subjective Norms, Privacy & Security

### INTRODUCTION

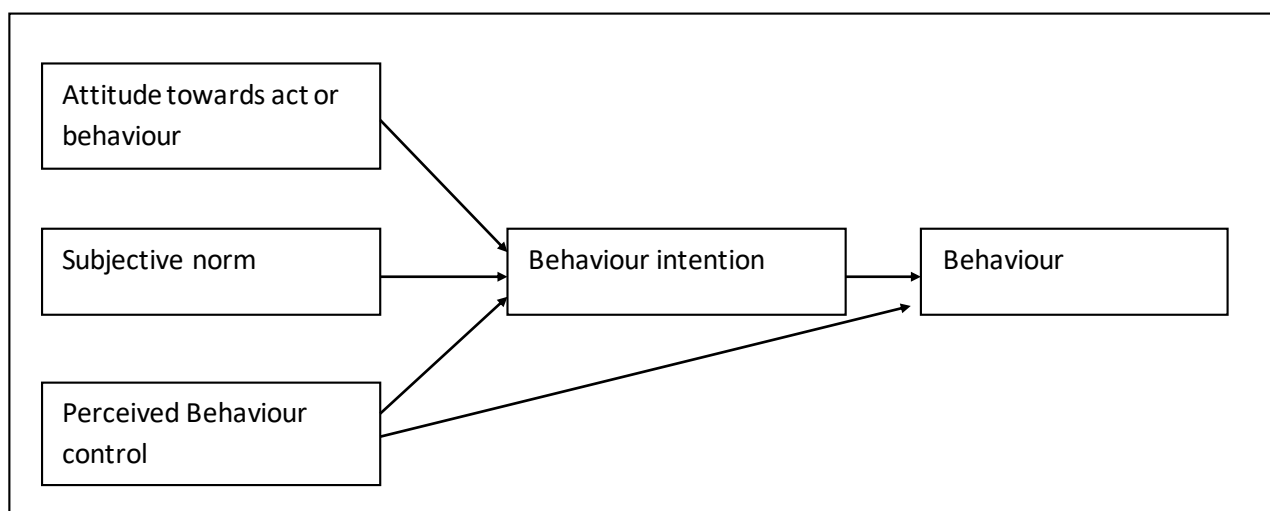
The invention of video text in 1979 by Michael Aldrich who gave the "concept of teleshopping" revolutionized the way businesses are conducted. E-commerce (also known as online shopping, electronic commerce) is a type of industry where buying and selling of product or service is conducted over electronic systems such as the Internet and other computer networks. Despite extensive efforts, technology adoption rate is still low. Therefore, it is important to identify & understand the factors affecting internet adoption, by measuring technology readiness (TR). The purpose of this study is to investigate TR and the extent to which E-commerce is adopted amongst youth. Numerous models have been established to explore and comprehend the factors affecting the acceptance of computer technology. Technology Acceptance Model (TAM) (Davis, 1989), Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975, Ajzen & Fishbein, 1980) and Theory of Planned Behaviour (TPB) (Ajzen, 1985, 1991) are amongst the prominent models.

The purpose to decide about accepting or rejecting a particular technology depends on a series of trade-offs between the perceived benefits of the system to the user and the complexity of learning or using the system. Theory of Reasoned Action (TRA) has its roots in social psychology setting. The theory proposes three general constructs, namely "behavioural intention (BI), attitude (A), and subjective norm (SN)". According to TRA behavioural intention of a person depends on his attitude and subjective norms.



**Figure 1: Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975 & 1980)**

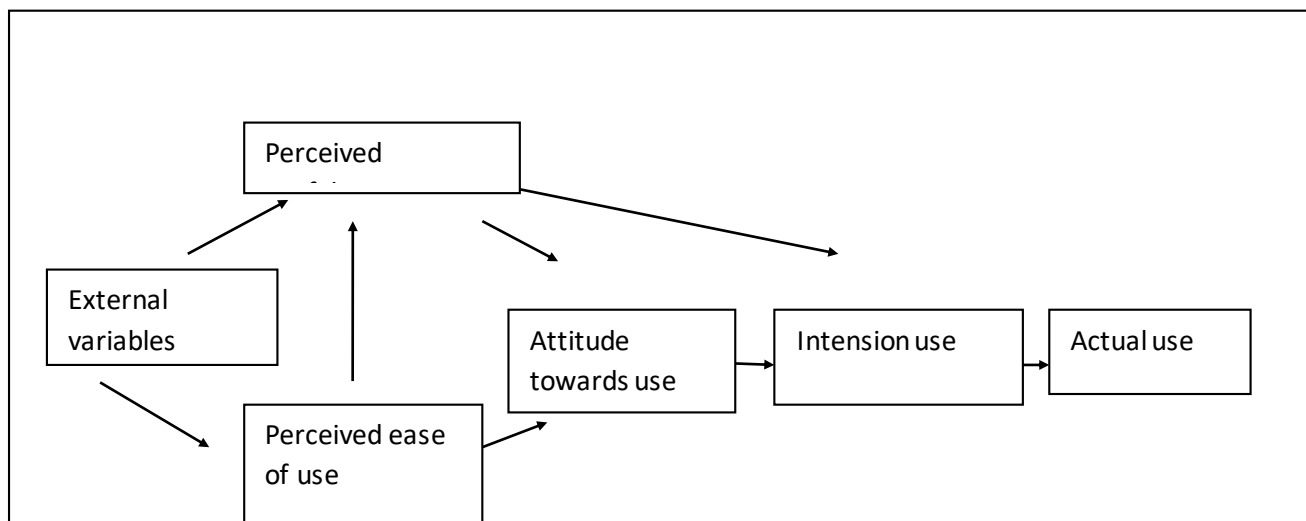
The Theory of Planned Behaviour (TPB) was proposed by Icek Ajzen in 1991 and was developed from the Theory of Reasoned Action (TRA) which was proposed by Martin Fishbein and Ajzen in 1975. TPB adds the concept of Perceived Behavioural Control (PBC) to the constructs attitudes and subjective norms which make the TRA. Perceived behavioural control refers to "people's perception of the ease or difficulty of performing the behaviour of interest". Locus of control is considered to be a more generalized expectancy of the individual that remains fairly stable across situations.



**Figure 2: Theory of Planned Behaviour (Ajzen, 1991)**

TAM theorizes that perceived usefulness and perceived ease of use is determined by an individual's behavioural intention to adopt a technological system or innovation. Davis (1989) has also found that users' beliefs about a technology's usefulness and the attitude and

the intention to use the technology are related. However, perceived usefulness exhibited a stronger and more consistent relationship with usage compared to other variables reported in the literature. In addition, though an individual may not enjoy using the technology, he will adopt it if he or she perceives it as convenient, useful and socially important even (Saga & Zmud, 1994). Thus, there might be a possibility of a direct relationship between beliefs and



**Figure 3: Technology Acceptance Model (Davis, 1989)**

## LITERATURE REVIEW

**David gefen (2003)** did a research on experienced repeat online shoppers which reflected consumer trust as an important element. Together these variable sets explain a considerable proportion of variance in intended behaviour. Also evident from the study that through a belief of not being cheated by the vendor as has nothing to gain, online trust is built. there are safety mechanisms are built into the Web site through a typical interface. Moreover, it is easy to use.

**Madam mahmood (2006)** attempted to inspect the effect mentalities concerning convenience, helpfulness and trust had on electronic trade utilization. Convenience and trust were found to have a positive, direct effect on utilization.

**Sejin ha, leslie stoel (2008)** applied technology acceptance model (TAM) to understand consumer acceptance of e-shopping integrating e-shopping quality, enjoyment, and trust. It consists of four dimensions: web site design, customer service, privacy/security, and atmospheric/experiential. E-shopping quality affects perceptions of usefulness, trust, and enjoyment, which in turn determines consumers' attitudes toward e-shopping. Consumer

perceptions of usefulness and attitude toward e-shopping effect intention to shop online, whereas perceived ease of use has no impact on attitude toward e-shopping. Shopping enjoyment and trust play an important role in consumers' adoption of e-shopping. This study provides important implications that customers are not only web users with trust/safety and information needs, but also shoppers with service and experiential needs.

**Ding hooi chime (2012)** investigated endeavours to fill in this hole by giving bits of knowledge on how customers structure their mentalities and web based shopping goals to the current writing and administrative ramifications for web based shopping retailers and advertisers on how best to serve and draw in buyers to shop online through the administration of web based shopping innovations.

**Nikola maragunic & andrina granic (2014)** conducted a study on online shopping Adoption among the youth using Technology acceptance model & found its acceptance or rejection still an open question.

**Sutapa & Suraj debbarma (2017)** introduced a new factor of belief, i.e., “perceived convenience”, with two other existing beliefs, “perceived usefulness” and “perceived ease of use” to well established technology acceptance model. The study tried to explore the effect of various external factors on “perceived usefulness”, “perceived ease of use” and “perceived convenience” which further influence “intention to use” the online shopping. Perceived convenience & perceived ease of use significantly influence the intention to use online shopping, whereas perceived usefulness has no significant effect on it.

## **Objectives**

Primary Objective:

- To study technology acceptance among students between 18 to 26 years of age in vapi.
- Sub objectives:
- To study the difference of opinion among demographics viz Gender, age, education regarding Ease of use, perceived usefulness, Subjective Norms, Privacy and security, Attitude toward online shopping, Intention to shop online.
- To study the impact of perceived ease of use, perceived usefulness, subjective norms and privacy and security on attitude towards online shopping.
- To study the impact of perceived ease of use, perceived usefulness, subjective norms and privacy and security on intention towards online shopping.

## RESEARCH METHODOLOGY

**Data Collection tool:** Primary data research was done with the help of questionnaire used as a tool to collect the data from the respondents. Excel and SPSS was used to interpret and analyse the data generated.

## HYPOTHESIS

Analysis of variance (ANOVA) (one way):

H<sub>1</sub>: There is no significant difference of opinion among demographic variables regarding perceived ease of use

H<sub>2</sub>: There is no significant difference of opinion among demographic variables regarding perceived usefulness

H<sub>3</sub>: There is no significant difference of opinion among demographic variables regarding subjective norms

H<sub>4</sub>: There is no significant difference of opinion among demographic variables regarding privacy and security

H<sub>5</sub>: There is no significant difference of opinion among demographic variables regarding attitude to shop online

H<sub>6</sub>: There is no significant difference of opinion among demographic variables regarding intention to shop online

H<sub>7</sub>: There is no impact of perceived ease of use on attitude towards online shopping.

H<sub>8</sub>: There is no impact of perceived usefulness on attitude towards online shopping.

H<sub>9</sub>: There is no impact of subjective norms on attitude of online shopping.

H<sub>10</sub>: There is no impact of privacy and security on attitude of online shopping.

H<sub>11</sub>: There is no impact of perceived ease of use on intention towards online shopping.

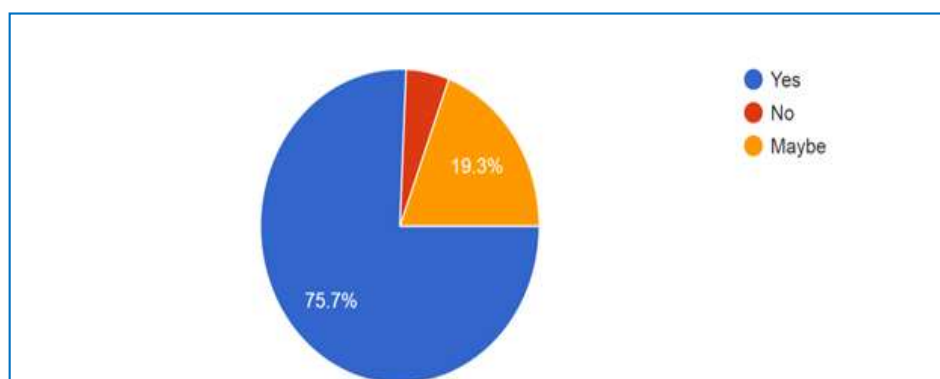
H<sub>12</sub>: There is no impact of perceived usefulness on intention towards online shopping.

H<sub>13</sub>: There is no impact of subjective norms on intention of online shopping.

H<sub>14</sub>: There is no impact of privacy and security on intention of online shopping.

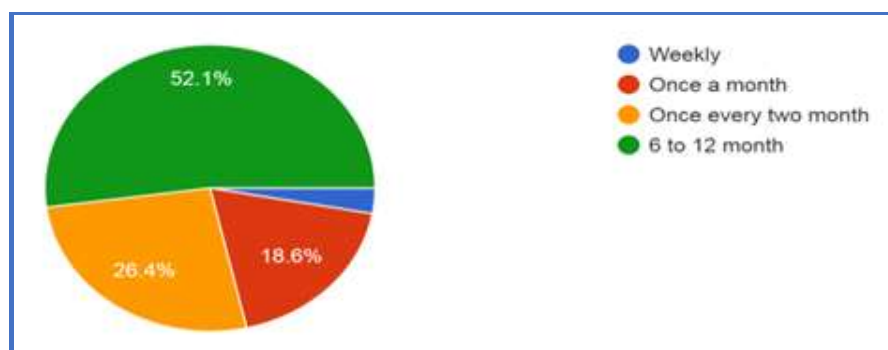
## DATA ANALYSIS

**Chart 1:**



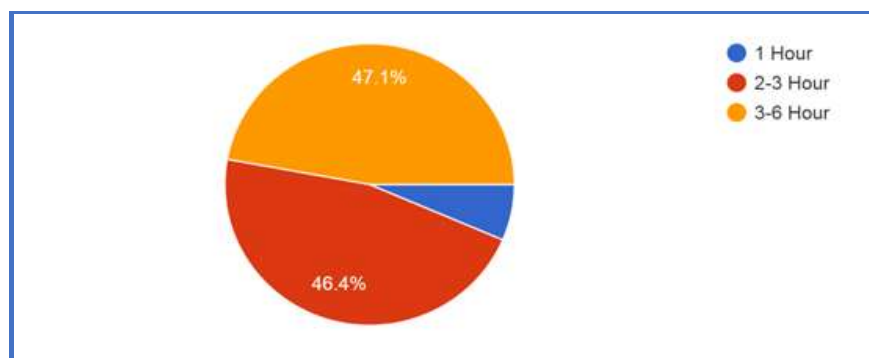
The chart 1 depicts that out of 140 respondents, 75.7% are doing online shopping.

### Chart 2: Frequency of online shopping



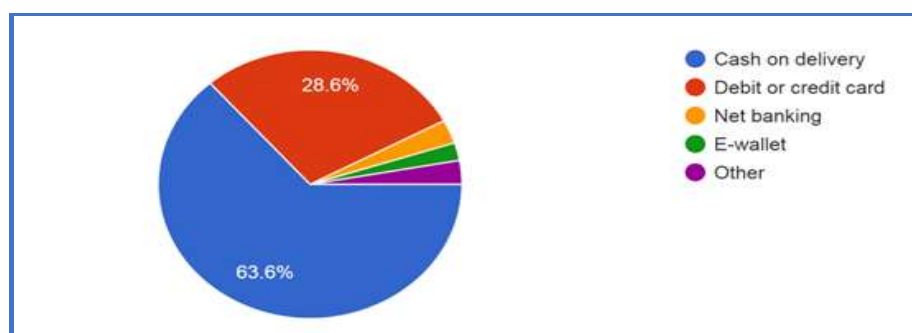
The chart 2 depicts that 52.1% of online shoppers are doing online shopping in every 6-12 month, 26.4% every two months, 18.6% once a month & 2.9% weekly. Most of the people do online shopping in 6-12 month.

### Chart 3: Internet Usage:



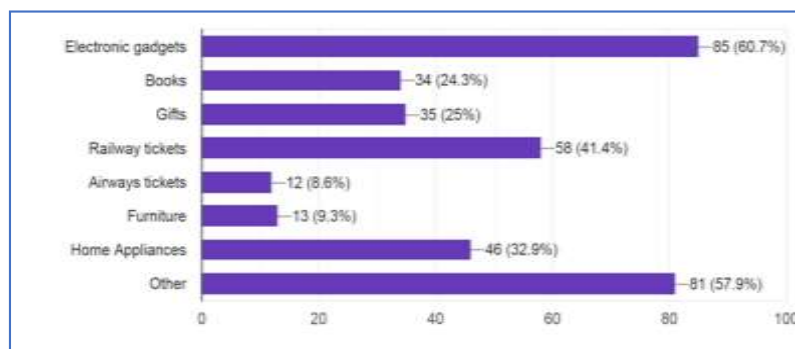
The chart 3 depicts that 47.1% of the respondents are using internet more than 3-6 hour, 46.4% 2-3 hours & 6.5% 1 hour in a day.

### Chart 4: Mode of Payment



The chart 4 depicts that 63.6% of online shoppers use cash on delivery & 28.6% debit and credit card to make payment.

**Chart 5: Products which are purchased online**



The chart 5 depicts that 60.7% of customers are buying electronic gadgets, 24.3% books, 25% gifts, 41.4% railway tickets, 8.6% airline tickets, 9.3% furniture

items, 32.9% home appliances items & 57% are shopping other kind of goods.

**Table 1-One Way Anova**

Dependent Variable	Grouping Variable	F	Sig
Perceived Ease of use	Age	1.395	0.171
	Education	1.071	0.390
	Gender	1.405	0.166
Perceived usefulness	Age	1.064	0.390
	Education	0.707	0.666
	Gender	0.963	0.461
Subjective norms	Age	0.477	0.850
	Education	1.838	0.085
	Gender	1.376	0.221
Privacy and security	Age	0.824	0.663
	Education	0.551	0.921
	Gender	1.156	0.311
Attention towards online shopping	Age	0.937	0.513
	Education	0.832	0.618
	Gender	0.851	0.598
Intention towards online shopping	Age	1.213	0.300
	Education	1.882	0.077
	Gender	1.023	0.418

From table 1, it is clear that graduates & post graduates differ in their perception regarding subjective norms. In addition, their opinion also differs in terms of intention to Shop online.

**Table 2-Regression Analysis**

Dependent Variable	Independent Variable	Adjusted R Square	Sig
Attitude towards online shopping	Perceived ease of use.	.198	.000
	Perceived usefulness	.341	.000
	Subjective norms	.023	.039
	Privacy and security	.008	.148
Intention towards	Perceived ease of use.	.132	.000

online shopping	Perceived usefulness	.363	.000
	Subjective norms	.218	.000
	Privacy and security	.023	.042

From table 2, Perception regarding ease of use, usefulness & security norms have significant impact on students' attitude towards online shopping. Moreover, perception regarding ease of use, usefulness, security norms & privacy & security have significant impact on Students' intention towards online shopping.

## CONCLUSION

The study was to check the intension to shop online with a special market segment of the students of Vapi between the age group of 18-26 years. With the rapid growth of technology, the use and impact of the same becomes an important aspect to be studied, especially amongst the youth.

It was found that the technology acceptance is high amongst the students. The respondents feel at ease while using online shopping portals, where they also find it easy to compare the product ranges. But somewhere they are bit not secured regarding sharing their personal information.

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