Students’ perceptions of an e-commerce app

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Abstract. Varsity Vibe is South Africa’s first student discount application. It is available to students from the age of 18 to 25. To use Varsity Vibe, a student needs to be a registered subscriber by paying the subscription fee unless you have a student achiever account with Standard Bank then subscription is free. Varsity Vibe consists of coupons from various stores across South Africa, these coupons can be redeemed by students when making an online purchase from the stores that are located on the Varsity Vibe authorised master file. The study aims to determine the University of KwaZulu-Natal (UKZN) Westville Campus students perceived use of using this e-commerce based application, Varsity Vibe. The research analysed the factors related to why students use Varsity Vibe, what they use Varsity Vibe to purchase, and the impact it has on their spending. A sample of 120 respondents from the UKZN Westville campus was used to obtain data. Data was obtained by distributing questionnaires on campus. The results obtained from the questionnaires were analysed and the following was concluded. Respondents were aware of the Varsity Vibe app, through on campus marketing. Only 45% of the users who had downloaded the app, were actually registered users. Of the 45% of registered users, only 60% were active monthly users of the app. Redemption of vouchers was low, as the deals within the province in which they were based was limited. Usage of the app, compared to the website, was more frequent. The app was perceived to be ‘easy to use’ and ‘useful’ by even the Non-IT users. Majority of the participants felt that the app would become more popular in time especially if the voucher base could be expanded to include more local based offers and the store base could be more comprehensive. Respondents expressed concern over security issues, in particular, storage of personal information and bank details, especially in the case of where your phone is stolen or misplaced.

1. Introduction

Online shopping is the action of purchasing services and goods on the internet. It forms a huge part of everyone’s lives in the technological savvy world that we are living in. Anything you require is just the click of a button away. Online shopping can be conducted over the internet or on an application (app) which can give consumers a more personalised experience. The people that are supposedly technologically inclined and knowledgeable about online shopping, are young adults or more specifically students. As most students are unemployed, funding is scarce, but they still remain enthusiastic to shop, be it for food, clothing or other accessories.

Varsity Vibe is South Africa’s first student discount app that offers instant access to student deals. Anyone can download the app and view the latest deals, but access to discounts is only limited to valid subscribers. To become a member, you must be a South African student between the ages of 18-25 and pay a membership fee of R200 that is valid for 12 months. They have been operating for approximately 9 years and in 2019, they have expanded all over South Africa. They are a team of dedicated, fun, young and driven individuals who are aiming to assist SA students derive greater value from their limited disposable income.

This provides some benefit for students, particularly not having to pay retail price for items when purchasing online or in-store. Another benefit is that if you have a Standard Bank Student Achievers account, Varsity Vibe is completely free to use, and students are not required to pay the membership fee. Should an individual refer another to Varsity Vibe and they successfully sign up, the individual will receive a R40 voucher for each person.
Although Varsity Vibe may be advantageous to most students, it also provides some disadvantages. The first being security concerns, because you have to capture personal details on the app and another being certain deals are only valid for a specific time, example, Monday to Friday.

This paper examines students’ usage and perceptions of the Varsity Vibe app for online shopping.

2. Literature Review
Mobile devices have infiltrated swiftly since their arrival, and currently, more than half of smartphone holders use mobile devices in numerous nations (comScore 2015; eMarketer 2014a, b, c). Through the predominance of mobile devices, the portable network has progressed towards becoming the third commercial centre, following the offline and online networks; but, not a lot is recognized about this mobile network (Bang, Kunsoo, Aminesh, & Hwang, 2013). There’s a rising essential to recognize smartphone purchasing and what drives it. Mobile shopping needs smart devices and this purchasing behaviour can’t be straightforwardly construed from computer-based online purchasing behaviour. An example, smart devices gives omnipresent shopping openings, though, badly arranged interfaces grow the search prices and constrain mobile shopping (Bang, Kunsoo, Aminesh, & Hwang, 2013).

According to (Trivedi, 2017), they propose three findings. The first finding is “online experience”, this is the experience gained through shopping online and “mobile experience”, this refers to the experience gained over mobile use. They both certainly relate to the ownership of shopping applications. The next finding is “browsing behaviour for non-shopping apps”, this assists in understanding the ownership of shopping applications. And the third finding is “mobile purchases through shopping applications.” This is explicated predictably by the browsing behaviours for these purchasing applications. In actual fact, mobile buying is derived exclusively by online practice, and the browsing patterns of the purchasing applications with other features, are of barely any projecting value.

Some earlier studies conducted payed attention to online activities and online experience. Emmanouilides and Hammond (2000), ran a questionnaire determining “online experience by how long an individual has been using the Internet, and found that online experience is a predictor of online activities such as frequent browsing of online sites.”

The arrival of mobile devices permits students to increase the possibility of mobile study outside basic purposes, such as texting and calling, and to contrast and compare mobile and online behaviours. Mobile device applications in numerous situations are the mobile forms of online websites and organisations frequently launch and design applications familiar to their online websites when growing their companies to the mobile stage (Bang, Kunsoo, Aminesh, & Hwang, 2013).

The occurrence of mobile devices gives a third station of purchasing, succeeding online and offline channels. (Kleijnen, De Ruyter, and Wetzel, 2007) established a conceptual model that includes advantages such as user control and time convenience, as well as costs which includes cognitive efforts and risks of mobile shopping. In their model they state that “time-related gains in efficiency increase the perceived value of mobile shopping, resulting in higher purchase intention.”

Here we look at previous research done on mobile application security. Commonly, security is defined as “the capability of software to prevent deliberate or inadvertent unauthorized access to code or data” (Bhattacharya et al. 2014). In practice, According to (Bhattacharya et al. 2014) “security aspects are categorised by: Authenticity, Confidentiality, Integrity, Accountability and Availability.” (Clarke & Furnell, 2007) suggests that “the increase in using mobile applications for different aspects needs an essential level of security due to the existence of availability services and sensitive information inside mobile applications.”
Confidentiality protects that the data will not go to the incorrect destination, but it should also guarantee that correct people get the accurate information. Availability refers “prevention and recovery from hardware and software errors and from malicious data access denials making the database system unavailable” (Petkovic & Jonker, 2007). Integrity refers “preventing systems in data modification from unauthorized and improper behaviour” (Petkovic & Jonker, 2007).

With respect to ease of use of applications and usefulness, it can be described as the usability of the app. Nielsen (1993) identified five attributes of usability: “Efficiency, Satisfaction, Learnability, Memorability, and Errors.” “Efficiency” refers to the resources used in relation to the completeness and accuracy in which the users attain their goals, “Satisfaction” is the users’ liberty from uneasiness, and positive attitudes towards the use of the application. “Learnability” means that the app must be easy to learn so that the user can get what they need to be done quickly. “Memorability” means the app must be anything but difficult so the user can come back with ease and use the app without any additional assistance. With relation to “errors” the application must have a low error rate, so that if users make less errors while using the application, they can effortlessly recuperate from them. Additionally, catastrophic errors must not arise.

The idea of attitude is one of the most important problems that is being examined in the area of customer behaviour. Birgelen et al. (2003) defined attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour.” whereas Malhotra (2005)”stated that attitude is “a summary of appraisal of an object”, and said that “beliefs is very important in person attitude because of its stability in mind, people have different beliefs in different objects and usually their beliefs lead them to the objects and change their attitude which can form positive or negative reaction.” Solomon et al. (2006)” identified attitude in three diverse elements: behaviour, cognition and affect. He explains that behaviour contains the consumer purpose to do something to an attitude object “(Solomon et al., 2006)”, whereas cognition can be stated to the opinions that a consumer has about an attitude object (Solomon et al., 2006). Lastly, affect is defined by Solomon as “the way of consumer feelings towards a specific attitude object and the procedure is instinctive and less likely to be affected by accessibility of processing resources.”

According to Hassan et al. (2011), both attitude and belief can impact a person’s usefulness behaviour. Based on Keng et al. (2009), experiential value has positive outcome on usage attitude.

For the purpose of this study, the Technology Acceptance Model (TAM) was used as the Theoretical Framework. According to (Nicolas, Castillo & Bouwman 2008) “TAM has been used to foresee the behaviour and attitudes of users of mobile services, based on perceived ease of use (PEU) and perceived usefulness (PU) of mobile systems.” Shi (2009) examined the issues persuading users’ purposes to accept apps and discovered that some factors such as facilitating conditions and enjoyment are suggestively influencing users’ intention and attitudes to use applications on their mobile devices. In addition, Wu, Kang & Yang (2015) found “perceived usefulness, self-efficacy, and peer influence to be the key determinants of users’ attitude toward and intention to purchase paid apps.”

3. Research Methodology
The study was conducted at the UKZN Westville campus in Durban. This specific geographical area was chosen as the researcher lives in Durban and attends university at the UKZN Westville campus.

The target population comprises of UKZN Westville students who know what Varsity Vibe is and utilise the Varsity Vibe app. Students ranged from first year all the way through to post-grad across various faculties. Primary data was collected with the aid of questionnaires to answer the research questions in the study. Questionnaires were handed out to the students in lectures and practical
sessions. Questions on the questionnaire were formulated to answer the proposed research questions of this study. The sample size aimed for this study was between 50 – 150 students. A total of 120 questionnaires was collected. The responses achieved from the questionnaires was analysed using Microsoft Excel and SPSS. Frequencies, percentages, figures and graphs was used to describe and project the results. In order to meet Ethical requirements, an informal consent was signed by each participant and formal Ethical Clearance (EC) was received from the UKZN EC Committee, and the concerned lecturers, prior to distribution.

4. Data Analysis and Findings

The demographic profile obtained from the responses indicated that 58.33% of the respondents were female, 40.83% were male while the rest said they “prefer not to say”. As this study was directed at students, the majority of the population were in the age group of 20 to 22 years. Education levels of the respondents were 28.33% (34) in first year, 24.17% (29) in second year, 36.67% (44) in third year and 10.83% (13) were post-graduate students. From the 120 questionnaires collected, 17 respondents was from the B.Com General field, 1 was from B.Com Finance, 35 from B.Com IT, 21 from B.Com Accounting and 46 “others” which mainly consisted of students from the Bachelor of Science fields. Based on the data collected from the questionnaires, only 55% (66) of students indicated they were aware of the existence of the Varsity Vibe app.

![Figure 1. Students’ year of study vs Students’ knowledge about the Varsity Vibe app](image.png)

The results of a Chi-Square test revealed a p-value of 0.449, which indicate that the students’ year of study and their knowledge about Varsity Vibe are related. Therefore, it can be inferred that the students’ knowledge about Varsity Vibe is influenced by their year of study.

Furthermore, it was anticipated that the respondents who were not knowledgeable about the Varsity Vibe app would be first year students, who are not accustomed to the university and its associated benefits. However, in contrast, the data gathered from the questionnaires, see

![Figure 1](image.png)

Figure 1, reflected that third year students formed part of the majority of the sample size who were indifferent with regards to their knowledge of Varsity Vibe. One possible reason for this phenomenon is due to inadequate marketing of the Varsity Vibe app, both on and off campus.

Of the 66 respondents who knew what Varsity Vibe was, majority, 68.2% discovered it on campus, 9.1% and 12.1% discovered it on Facebook and Instagram respectively and 10.6% noted other.

Only 45.45% of the 66 had registered profiles with Varsity Vibe. The remaining 54.55% of the respondents, who indicated they did not have registered user profiles with Varsity Vibe cited the following reasons for non-registration:
“Upon registration, a fee of R200 was requested
There were a lot of bad reviews about the Varsity Vibe app on PlayStore.
Some did not find a need for the app
Most deals are either in Johannesburg or Cape Town
They did not have a Standard Bank account, so did not want to pay the registration fee
Not interested in the stores vouchers offered on the app
Not enough space on the users phone to download the app
They did not have enough information on Varsity Vibe”

The majority of valid subscribers indicated that browsing of the Varsity Vibe app occurred monthly (60%), whereas others browsed weekly (20%) or never (20%). The Chi-Square test on gender analysis of browsing habits indicated a p-value (Asymptotic significance) of 0.354, which indicates that Gender does influence the browsing of the Varsity Vibe app.

Despite being registered users a large group reflected a lack of interest in redeeming vouchers (63.33%). Just 30% of respondents redeemed vouchers weekly, while 6.47% redeemed monthly. The major rationale given for the non-redeemption of vouchers was that majority of them can only be redeemable outside of Durban, which is inconvenient for the individuals reflected in the sample. The Chi-Square test of Gender influence on voucher redemption revealed a p-value of 0.261, which indicates that Gender does influence the redemption of vouchers on the Varsity Vibe app. Of those that redeemed vouchers, most of the students utilized their vouchers to purchase food whereas the remaining students redeemed their voucher to purchase clothing.

From the above, it can be concluded that there is a statically significant relationship between males and females and the usage of Varsity Vibe, meaning that Gender does influence the usage of the Varsity Vibe app. The majority of the respondents displayed an above average awareness of the Varsity Vibe app (as shown in Figure 2).

Figure 2. Students’ awareness of the Varsity Vibe app

The findings indicated that students who are pursuing careers in Information Systems and Technology (IST) faculty tend to display a higher aptitude with regards to their use of technology, which has contributed to their vast knowledge of Varsity Vibe, compared to students from other disciplines.
This was further supported in the finding that 90% of the respondents required no additional assistance with an understanding of the Varsity Vibe app whereas 10% of the students, mainly from non-IT related disciplines, BioChemistry and B.Com General, required assistance in understanding the app.

As illustrated in Figure 4, respondents were naturally accustomed to the Varsity Vibe app, as they indicated they were able to navigate around the app effortlessly. Those individuals that found the app challenging to use identified weaknesses in the app, especially for non-IT savvy individuals, e.g. “content within the app displayed periods of lag”. Those respondents that were indifferent, displayed a lack of interest in the app because it had little or no impact on their daily lives.

There was a tendency for individuals to display a neutral attitude towards the usefulness of Varsity Vibe in their personal life, as illustrated in Fig. This emphasizes the lack of impact that Varsity Vibe has on most of the sample. However, overall it would appear that irrespective of the neutral opinions obtained from the sample, majority of individuals still conclude that they found Varsity Vibe to be useful.
Majority (53.34%) of the respondents in the prefer using the Varsity Vibe app as opposed to using the Varsity Vibe website as most of them have access or own smartphones. Only 30% displayed a neutral preference of the two options available because of the lack of Wi-Fi hotspots and limited data bundles.

Overall 36.66% indicated that Varsity Vibe did save them money, whereas the greater part (63.34%) of the sample was impartial. This is of concern since the purpose of Varsity Vibe is to assist students in saving money by redeeming vouchers for their benefit.

Some (46.67%) of the respondents were neutral toward the Varsity Vibe app adding value to their purchasing habits. One third of the respondents, 33.33%, explained that the Varsity Vibe app was valuable in their personal life especially for repetitive purchases of the goods or services with coupons/vouchers.

Fifty six percent (56.66%) indicated that the use of the Varsity Vibe app is a current and developing trend in online shopping among students.

Repeat customers (56.67%) who purchase goods or services offered by the app, displayed positive intentions in using Varsity Vibe for future purchasing too.

While 36.67% of respondents suggested that the Varsity Vibe app does enhance their shopping experience, majority (46.67%) were neutral in this regard.

Based on the findings, it is difficult to quantify the level of appreciation that individuals exhibit in utilising Varsity Vibe for online purchasing, especially since the respondents have unique purchasing preferences.

From the above findings there is an average behavioural intention of respondents in adopting the Varsity Vibe app.

There is a general tendency for individuals to express a high degree of concern regarding the security and confidentiality of personal information when making online purchase. According to the results obtained in this study, this is evident in the 71.21% of respondents who indicate areas of concern with regard to security and confidentiality of personal information. Major reasons of concern experienced by users include inadequate logical access controls, and leaking of confidential information displayed by the Varsity Vibe app.

Furthermore making purchases online has inherent risks if the site is not authorised. Purchase transactions using online systems require banking details which is of a sensitive nature as there is a risk of possible hacking of the user’s details or credit/debit card fraud. Majority (74.24%) of the respondents exhibited signs of concern explaining that they adopt a conservative approach when making a purchase on the Varsity Vibe app. Additionally, if the device on which the Varsity Vibe app is accessed maybe misplaced, if the device remembers a respondent’s confidential information, there is a risk that third parties may be able to make illegal purchases from the respondents misplaced device.

Interestingly though, 84.85% favored using the Varsity Vibe app to make purchases as they deem it to be a safer option as opposed to making use of the website, for convenience. Together with being unsafe, a website may prove to also be inefficient should refreshing take place causing the respondent to re-enter their confidential information.
The p-value of the correlation between general security and purchasing security is 0.005 which indicates that there are significant correlations. The p-value of the correlation between confidential information and purchasing security is 0.020 which is less than 0.005, indicates that they are significant correlations. Both of these findings are positive correlations.

General Security and confidential information are not significant as the resulting p value is 0.607 which is greater than 0.005.

The greater part of the sample (53.03%) indicated that the Varsity Vibe membership fee is too high. Since students’ disposable income is almost non-existent they would prefer to utilize the membership fee to meet another academic need. Respondents that considered the fee to be low or reasonable, indicated a derived benefit from the app when compared to the initial fee paid (costs vs benefit). Furthermore, some students come from high income families so the amount may not seem material to them or there may be students that are under bursaries whereby they are entitled to monthly allowances which can be used to pay the required membership fee.

However, when asked what the ideal fee should be 50% of the respondents indicated R100. So, the app is currently charging more than what students are actually prepared to pay.

This ‘overpricing’ is further indicated in Figure 5 below, where the Varsity Vibe app offers value for money to just 40.91% of the respondents.

![Figure 5. Value for money with the Varsity Vibe app](image)

5. Conclusion
The main findings indicate that 55% of respondents, who were mainly male and between the ages of 20 to 22, studying in their Third year of Study, were aware of the VarsityVibe app, through on campus marketing. Only 45% of the users who had downloaded the app, were actually registered users. The other 55% who chose not to register, cited high registration fees, deals not relevant to the province in which they were based, and a lack of interest as the main factors. Of the 45% of registered users, only 60% were active monthly users of the app. Redemption of vouchers was low, as the deals within the province in which they were based was limited. Usage of the app, compared to the website, was more frequent. While most of the students who were studying towards a degree in IT found little difficulty in using the app without any formal training, the app was perceived to be ‘easy to use’ and ‘useful’ by even the Non-IT users. Majority of the participants felt that the app would become more popular in time especially if the voucher base could be expanded to include more local based offers and the store base could be more comprehensive, instead of limiting the purchases to targeted shops and areas. Despite being comfortable with using the app, students did express concern over security issues, in particular, storage of personal information and bank details, especially in the case of where your phone is stolen or misplaced.
6. Limitations

Given that the research was conducted on a sample basis where the sample included only 120 students as opposed to the high number of registered students at the Westville campus, it may be incorrect to arrive at an absolute conclusion as the sample represents an insignificant percentage of the total number of students that attend UKZN Westville. Consideration would also have to be given to certain limitations during this research project such as:

- Time constraints required to distribute surveys, analyse and quantify data
- Honesty of respondents when completing surveys
- Respondents’ inherent knowledge of Varsity Vibe
- Respondents frustrated and disengaged from the survey

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