



SECP 1513
TECHNOLOGY AND INFORMATION SYSTEM

DESIGN THINKING:

UTM EVENTS

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UTM EVENTS

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ABSTRACT

The purpose of this paper is to create a platform specifically a mobile app that is accessible to everyone especially students, management levels and public citizens for receiving proper information or announcements of events and minimize the spread of false information. A questionnaire was developed among the community to gather some data so we can have a clear understanding of actual issues faced by different individuals. Based on our observation, the majority of students are unable to receive the exact information about any events or important dates directly from the university officials. By using the data to find the problems, we manage to provide a solution which is developing a user-friendly app for all management levels and students which are named UTM EVENTS. The evaluation of UTM EVENTS was based on its ability to store information on the events. Analysis of user study is given in this paper to justify the problems surrounding the needs of UTM SMARTS and results show that the features in UTM EVENTS could solve most of the common problems faced by the users in their daily lives. So, this could ease both parties, users and organizers.

1.0 INTRODUCTION

Events are something that happens at a given place and time. Events that were held by the organizer could be on any theme. It could be an educational event or even a sports event.

Many types of events have been conducted and nowadays, a lot of events are usually being held for our society no matter what age group you are in. Mostly younger people are students and while they study at university, at any given time during the academic year, the university's schedule of events is always full of opportunities for them. If you're a sports

lover, there are bound to be some events that will draw your undivided attention. It is important to make the most of your college time. Not only for students, but others also can join the university activities as a public citizen.

Furthermore, many students and public citizens do not realize how much fun and important it is for someone to join the activities being held in the university. Yet, many students find it much more amusing to sit at home rather than attending activities. They also can make some new friends at the event because there will be a lot of new people so students can make some friends and find a mutual friend there. Students should go and register for events as much as they can so that they can gain more knowledge from the activities.

Since many events could be conducted at the same time, students must stay alert to gain a lot of information so that they did not miss out on any important parts of the event. For example, a lot of activities and sessions were held with UTM Management during the orientation week for the freshies. Unfortunately, there was some technical issue and some of the entry links were not provided in time. This is frustrating to some of the students because they did not get any information from UTM that the event was suddenly cancelled without them knowing anything. So, many students did not get accurate information on the time.

2.0 PROBLEM STATEMENT

During the busy and hectic life at university, most students and lecturers were not always able to keep checking on their social media to follow the updates from activities that were ongoing at the campus. Many of the event's details will be posted on social media such as WhatsApp, Instagram and Telegram but it will get mixed up with personal chats, documents and video so the data of events is not properly organized and hard to access by the student. The problem could also be worse if someone decided to join the university event, but they did not know how to contact the organizer and get the specifics of the activities. Even though they are interested in joining the program, some of them might be uncertain about how the program works. They just choose not to join the activity because there was no one to ask. As a result, the events have fewer participants and might not be able to achieve the goals of their program.

There also might be someone could try to sabotage the events by giving false information so that the program will be messed up. If there is no specific platform to post the program's details from the organizer, the participant could easily get confused and unable to make sure what the adjustment has been made. Some of the events that were held might include public citizens, not just students and lecturers, so the details that provided by the organizer must be accurate so that they can easily match their schedule to attend the university events.

3.0 METHODOLOGY

Empathize Mode

Observation

Engage

Immerse

Define Mode

Ideate Mode

Prototype Mode

After discussion, we have done some sketches on the layout of the app. There were different layout ideas but we have to choose one design that suits our group of users. Later, we tried our best to portray our idea into a digital prototype using Microsoft PowerPoint instead of papers and cardboards. This method has allowed us to make quick amendments without wasting paper.

Test Mode

After completion and approval of the digital prototype, we have made a PowerPoint presentation for this mode. Due to the pandemic, we were unable to have direct contact with our users. Thus, we have compiled the prototype with google form and shared it to our targeted user to receive their feedback. Their feedback helped us to realise unseen flaws on the prototype.

4.0 THE PROPOSED SOLUTION

For a deeper understanding of the users' problems and requirements, interviews are conducted through scheduled and randomly. The target of interviews is two groups of individuals: UTMDigital's staff and students of UTM. Interviews are conducted to have a further investigation of users' needs. Apart from users' needs, we also interviewed staff of UTMDigital with technology and information system's background to get their professional opinions on information systems. Besides, we have interviewed students of UTM about the problem they faced, previous ways to receive information about events, as well as their suggestions on the solutions.

Findings and Discussion Obtained from Interview

Age Group of Interviewees

Interviewees are divided into two major groups: Staff of UTMDigital and students of UTM. A total sample of 40 interviewees, age ranging from 18 to 60 is involved in this user study. As shown in Figure 1, the interviewees are from different age groups.

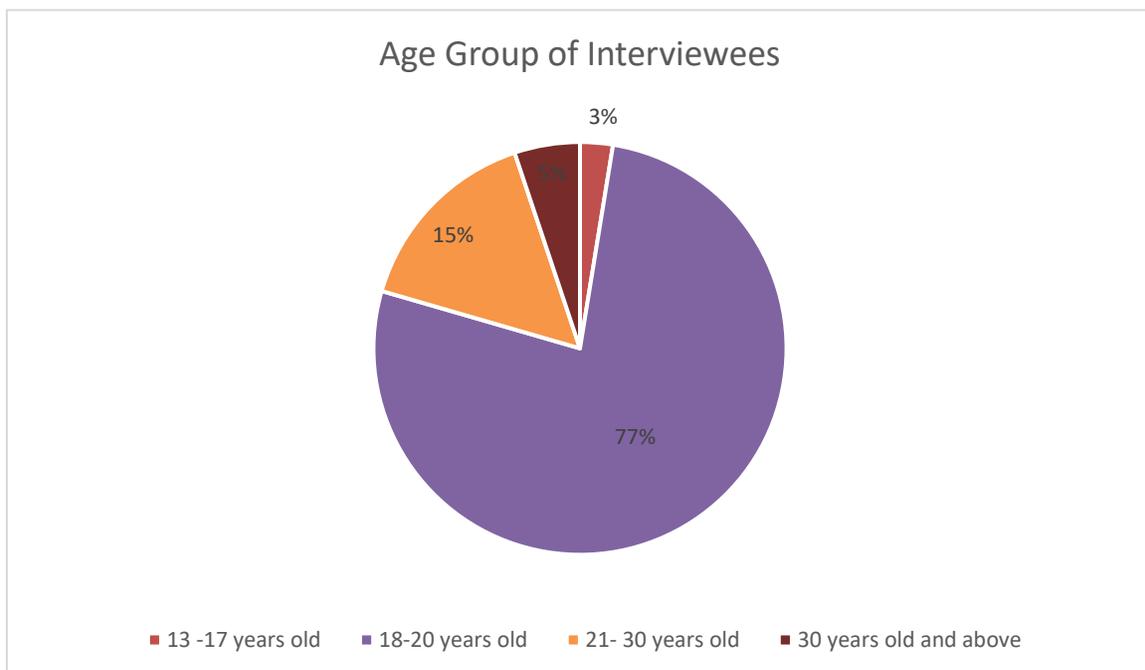
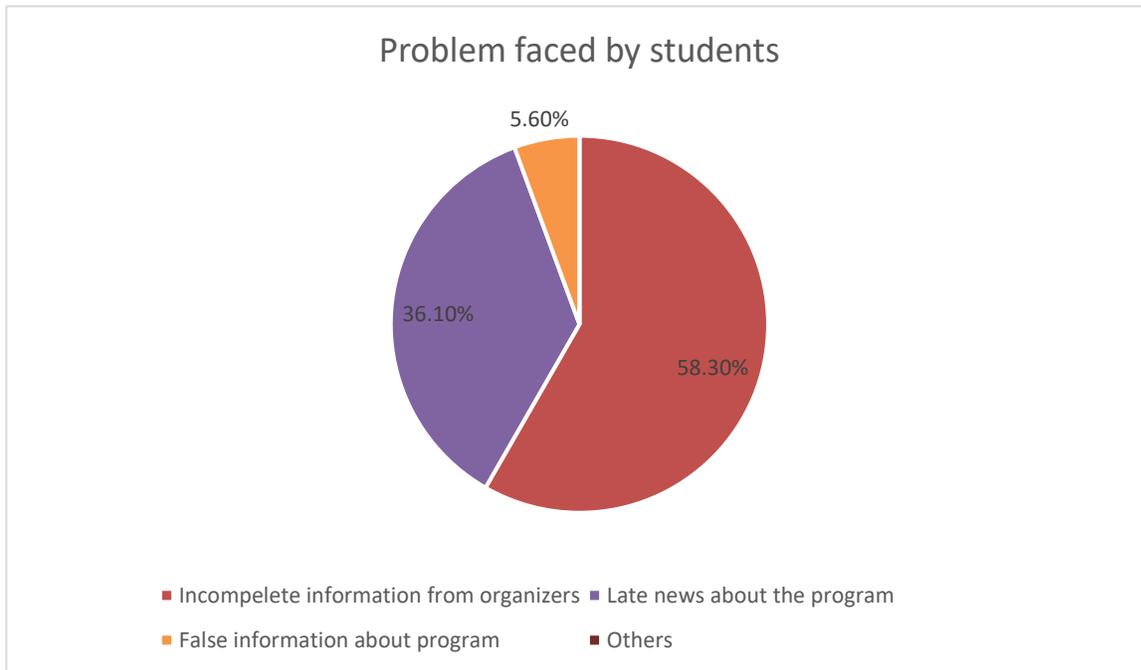


Figure 1: Age group of interviewees

Problems Faced by Students and Other Members of UTM When Participating in an Event

From our investigation as shown in Figure 2, we found the most common problem faced by



interviewees is getting incomplete information from organizers. This problem is happening because of the negligence of the organizers. Worse, when the participants are even not given any ways to contact the organized team upon their questions. This problem brings to the spread of false information between participants. Furthermore, participants also complain that they are always getting late news about the program. For example, when the program was delayed, cancelled, or had any changes, the messages did not present to the participants on time and make them confused.

Figure 2: Problems faced by students when participating in an event

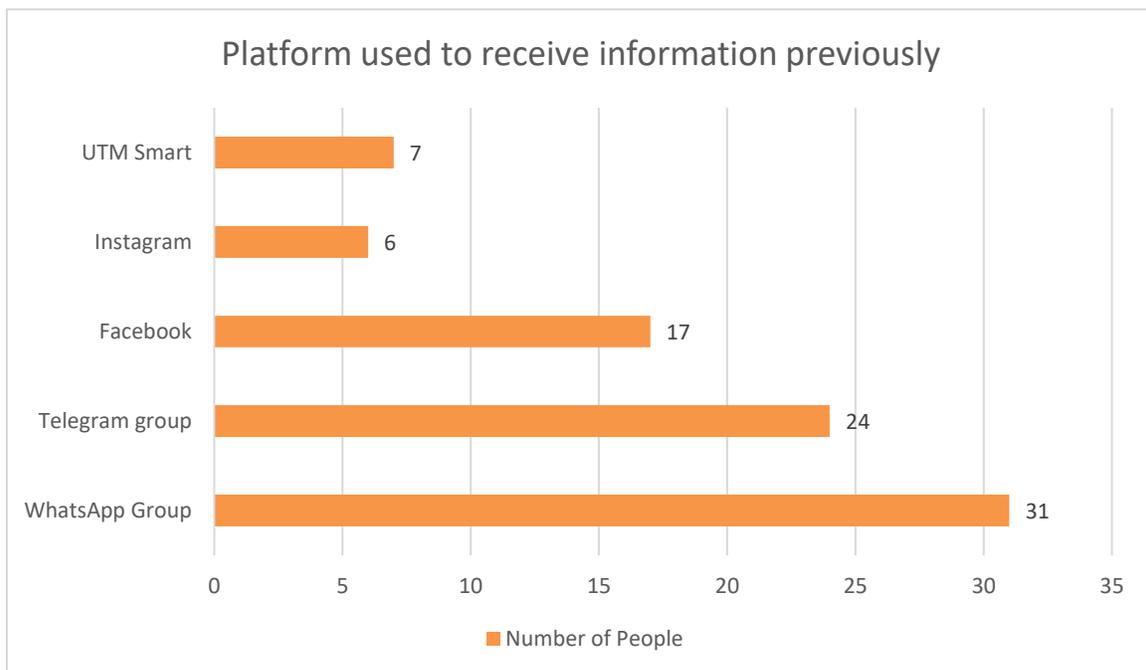
Previous Platforms for Students to Receive Information About Events

From Figure 3 below, we can see that most platforms used by students to receive information about events are WhatsApp group, and followed by the Telegram group. These two mobile apps are the most common for UTM students to communicate and receive information. But, according to these students, there are disadvantages to using this kind of mobile apps because there are chances to overlook the messages and the messages presented are sometimes too long and feel bored to finish reading it. Besides WhatsApp and Telegram, students also used Facebook, Instagram and UTM Smart to get the information. However, according to our investigation, we

found that some students do not use these kinds of social media. So, there are still flaws in using these applications. Moreover, we can conclude that the platform using by organizers of the event was varied and did not have a specific platform to present.

Figure 3: Platform used by participants to receive information about events

After reviewing and discussing the feedback from the user regarding problems, we have



taken the initiative to create a mobile app called UTM Events, functioning as an easy to access, a one-stop centre for students to get updates on the events held in UTM.

Acknowledgement of Similar Product

From the user study, majority interviewees from both groups were not aware of any similar product to UTM EVENTS. Some of them have awareness of mobile applications such as calendar or alarms to remind themselves of the events. Besides, some of them use UTM Smart apps as their references for the events. However, they feel that is not very efficient because the events section in the UTM Smart app does not have all events and are mixed up in terms of the three different campuses.

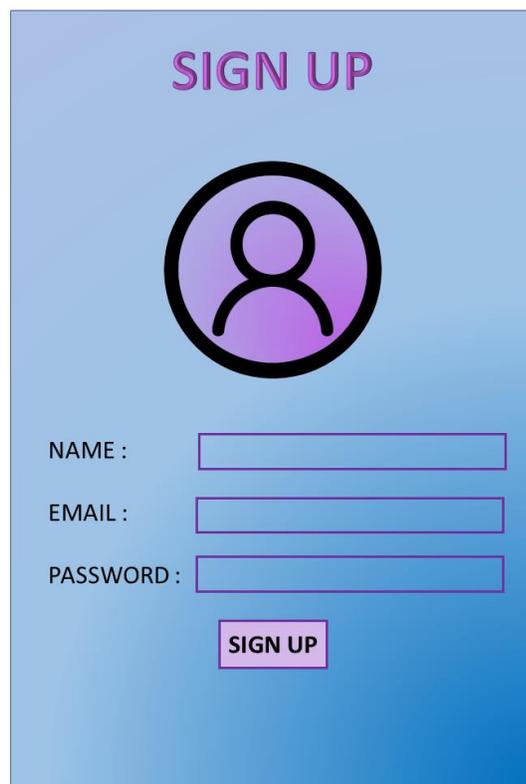
Features of Proposed Solution

On the home page, there will be posters of events as this month's, upcoming events and highlights of past events. Next, all events are categorized under UTM (general), public, clubs and colleges. Students will also receive a notification whenever there is a new event updated into the app. Moreover, full details, agenda and even contacts directly to the organizers are featured, to reduce the hassle to receive information from multiple platforms. Registration and payments for events can be completed using the app itself. UTM students and staff can log in using their UTM id to get access fully and update their clubs or other events if they are the organizer. Whereas for public users, they can sign up using their email. Just like the UTM Smart app, there is a QR code icon for UTM staff and students to record their attendance. These are important features to overcome the problem.



The login page features a light blue gradient background. At the top center, the word "LOGIN" is written in a bold, purple, sans-serif font. Below the title is a circular icon with a purple-to-blue gradient and a black outline, containing a white silhouette of a person. Underneath the icon are two input fields: the first is labeled "UTM ID :" and the second is labeled "PASSWORD :". Below these fields is a purple rectangular button with the text "LOGIN" in white. At the bottom, there is a link that reads "*Public User? Signup Here!*".

Figure 4: Design of Login page



The sign up page features a light blue gradient background. At the top center, the words "SIGN UP" are written in a bold, purple, sans-serif font. Below the title is a circular icon with a purple-to-blue gradient and a black outline, containing a white silhouette of a person. Underneath the icon are three input fields: the first is labeled "NAME :", the second is labeled "EMAIL :", and the third is labeled "PASSWORD :". Below these fields is a purple rectangular button with the text "SIGN UP" in white.

Figure 5: Design of Sign In page

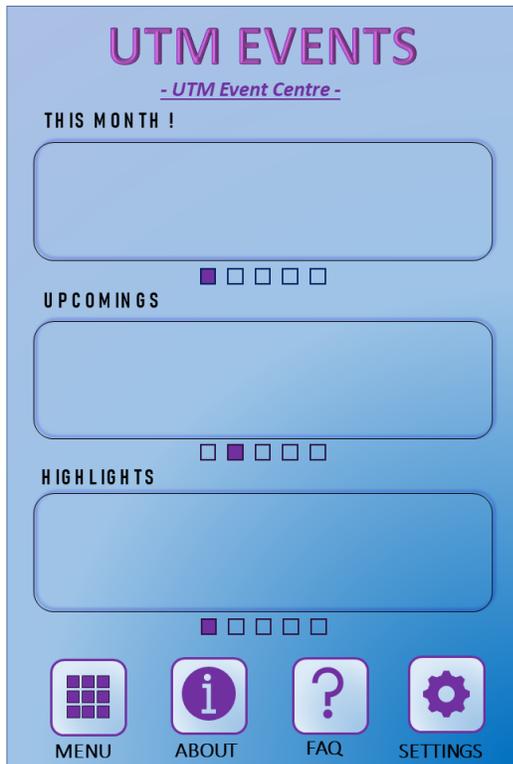


Figure 6: Homepage



Figure 7: Menu page



Figure 8: Events for specific colleges



Figure 9: Example of Event Launched

User Feedback

According to our survey, most of the interviewees show their interests and concern on our given solution which is to create a new and specific platform for the university events which are called UTM EVENTS. They feel comfortable with the idea and think that it should be executed in the future. Figure 10 below shows that 94.40% of them support the creation of mobile apps as the solution instead of a website. They also commented that a mobile app can perform actions much faster than a website.

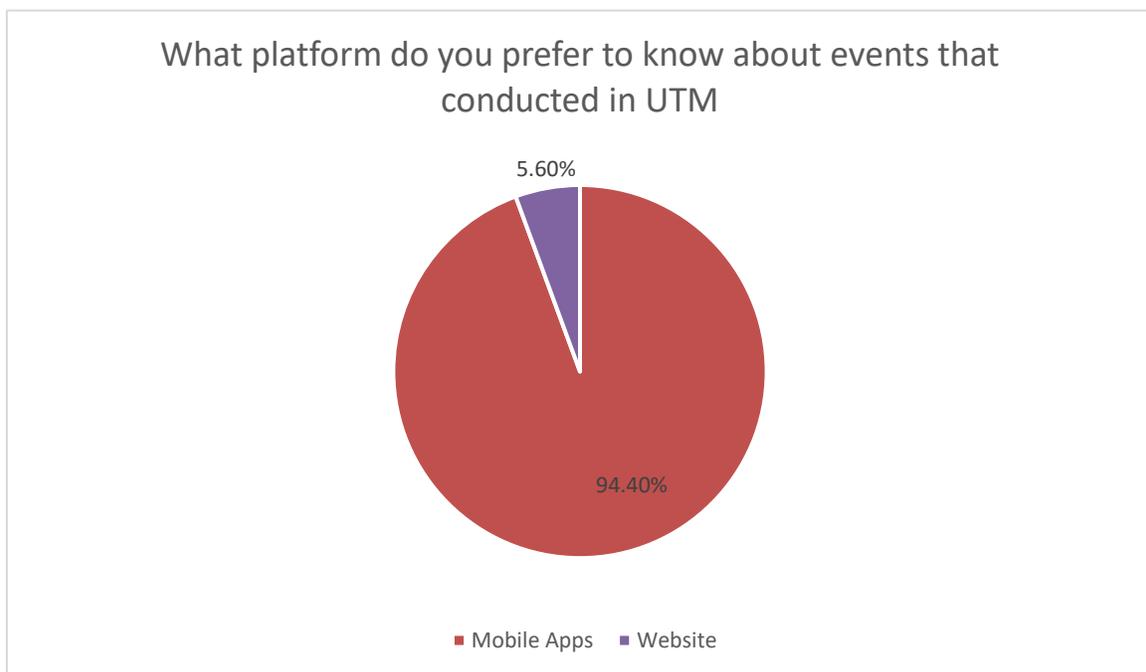


Figure 10: The platform chosen by the interviewees as the solution

Business Analysis using SWOT

Evaluation of UTM EVENTS app continues with business analysis using SWOT (strengths, weaknesses, opportunities, threats) approach.

Strengths	Weaknesses
<ul style="list-style-type: none">● Can look at specific college's event.● Can get a notification before the	<ul style="list-style-type: none">● High cost, manpower and time consumption for training to use the

event starts.	app.
Opportunities	Threats
<ul style="list-style-type: none"> • Can be further improved to be an official app of UTM. 	<ul style="list-style-type: none"> • Users will meet trouble if they forgot their password.

Future Works/Improvement

According to our users' feedback, we have concluded a few features that can be added to our application for improvement. First, we are recommended to add a "Forgot Password?" button at the login page to let users have other ways to login in case they forgot their password. Besides, users have suggested us to create a map or GPS function in UTM EVENTS. This feature is to show the direction to users who are not familiar with the route in UTM. With this feature, users can attend the events punctually and avoid themselves from getting lost on the campus. Apart from that, we can also improve this app by adding in a "Merit Calculator" function which can record every student's attendance and calculate their merit points automatically. This feature enables users to be aware of their merit points at any time.

5.0 REFLECTIONS AND CONCLUSION

While conducting this project, we were able to improve our interpersonal skills such as speaking and listening to others. We were able to exchange ideas with the group as group members can give their ideas as well as the advantages and disadvantages of each approach. This style of teamwork benefits the project and allows team members the ability to rebound around ideas to find the best fit. While conducting interviews, we also learned how to accept feedback, respect and empathize with the viewpoints of others.

Other than that, we manage to think creatively and come up with an innovative solution to

organizational problems. Members have creative insight that allows us to look at things from a different perspective. As a result, we can accomplish our personal goal and eventually solve the causes of our problem.

The discussion on UTM EVENTS and the application reveals the contribution of this innovative product to solve user's problems. First of all, it offers users a lot of information that they need to know about an event and a list of activities that they would be able to join. UTM EVENTS also will ease the issue of users which is clueless to realise that there some activity has been going on. This platform also can compile all the event information so that people will be consistently notified with the latest updates. So, this invention can help them to become more active and involved with the community.

6.0 APPENDICES

Website:

1. **event.** (n.d.). *Definitions.net*. Retrieved November 7, 2020, from <https://www.definitions.net/definition/event>
2. Deshdeep, N. (2020, August 28). *App or Website? 10 Reasons Why Apps are Better*. Blog. <https://vwo.com/blog/10-reasons-mobile-apps-are-better/#:%7E:text=A%20well%2Ddesigned%20mobile%20app,happens%20swiftly%20in%20mobile%20apps>.

Google Form:

1. https://docs.google.com/forms/d/e/1FAIpQLSfJPjXrLDbV9iL7Go6Eoa64UAU1_eonv8z1dXi1anEsk4wMrw/closedform
2. https://docs.google.com/forms/d/1LIZKulk-9ngJe_TxM-sQV0zvjVzrysgbRrM2PZ7p9Cg/edit?ts=5fa609ea&gxids=7628#responses

