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Research paper

Food Truck Application in Social Computing

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Abstract

Food truck phenomenon is an emerging enterprise business that has changed people perception on particular kind of street food services. This paper discussed the influences of social computing in food truck business. Social computing is a computational system that allows contributions from both humans and computers, which can improve daily activities. Social computing enables the user to collect social information from ubiquitous environments to provide social services in web technology and mobile technology environments. The use of social computing has a significant impact on food truck business to facilitate engagement between the organisation and customers. The study aims to investigate the effect of the implementation of social computing in food truck industry. This study has developed a prototype of food truck application to demonstrate the key elements in implementing social computing. The outcomes of this study have shown that the combination of web-based and mobile technology can increase the food truck visibility and improve customer relationship. The study has shed some light on the impact of use of social computing in the food truck business to improve service delivery. The findings can assist food truck associations to better understand and provide for this emerging channel of social computing for food truck owners and customers.

Keywords: *Food Truck Business, Social Computing, Mobile Technology, Web Technology*

1. Introduction

Social computing is computational approach study which model social interactions and communication [1]. Social computing has enhanced business activity as it allows the user to communicate and engage with their customers much easier and faster. Authors [2] have highlighted that the use of social computing in business can improve service delivery and increase productivity. Yet, not many organisations have successfully adopted both technologies in running their business activity.

Web technology and mobile technology are social computing tools that have been adopted by many industries in order to improve their business activity. Web technology is an interactive social web that allows the users to communicate and collaborate with others online. On the other hand, mobile technology enables the users to access and engage with the conversation at anywhere that is not restricted to physical limitation or time differences. Each technology has different functionality in which by implementing both technologies in business can be beneficial for food truck industry.

Social computing is beneficial for food truck industry as it helps the food truck merchant to promote the business activity. It is also vital for them to understand the core values of the food truck business in order to be able to provide better service delivery. Successfully implement social computing in food truck industry can increase customer relationships and stay competitively in the food industry.

The food and culture have established an indivisible equilibrium [3]. This scenario has gradually evolved in response to the changes of the customer behavioural intention toward food truck setting [4]. Food truck is one of the current business trend because the costs of running food truck business is low and its mobility. Authors [5] argue that many newbies in food truck venture because of low cost of investment, accessibility and mobility in doing business has helped them to improve their cost of living.

However, the food truck business requires a medium to continually promote their food business so the customers could follow their updated location, promotion and any related information. For example, Kogi Korean BBQ truck is known as trend-savvy, which they has successfully reached their clients using social computing and social media [6]. It is evident that the use of social computing has helped food truck industry to be visible and provide better service to the customers. This study aims to develop web and mobile technology for food truck in Malaysia. To date, there is no web and mobile application that show information related to food truck. Thus, this study aims to answer the following research question: How the use of social computing can help food truck industry in Malaysia?

The outcomes of this study will be beneficial for food truck associations in Malaysia and customers. Moreover, the development of food truck application in social computing enables the food truck associations to monitor and promote their activity to the food truckers. In addition, it helps the customers to find the location of the food truckers or food truck event much easier and faster.

2. Related Work

This section discusses on three area: food truck business, the influence of use of social computing in business, mobile technology, and web technology.

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2.1. Food Truck Business

Food truck is an emerging enterprise business that serves various type of foods from street foods to fine dining [7]. Food truck phenomenon has influenced people perception of the functionality of food trucks and has developed a positive impact on the food industry. Previously, food trucks have widely been used to supply food for the factory and construction worker with a lower price [8]. Nowadays, food trucks have changed the landscape of food industry, which transforms the norms of food trucks as no longer limited to food service delivery but provides customers oriented services.

Food truckers usually locate themselves closer to the office area during lunch hours and community area in night time [9] and at the same time have creatively designed their food truck according to the theme of their products and equipped their vehicle with food preparing facilities [10]. However, due to the lack of research and promoting their business services to broader customers, their business sustainability was at risk and received a significant impact [8], [10].

2.2. The influence of use of social computing in business

Social computing is a computational system that enables contributions from both humans and computers. The interaction between user and system or application could improve daily activities. Social computing allows the user to collect social information from ubiquitous environments to provide social services in mobile situations [11]. It also enables the user to build an online community, which they can communicate and engage with others much easier and faster. The communication and engagement occur in this environment have a significant influenced on information sharing and networking. According to [12] the interactions lead to the development of social capital in online environments that will enable individual users to be contributors and consumers of both content and metaknowledge – knowledge about knowledge.

It is evident that the use of social computing has a positive impact on food truck industry. Social computing enables the food truckers to monitor the performance of their business and can reach a wider audience. Hence, the adoption of social computing is not limited to promoting the food truck business activity but it also allows the food truckers to share their experience and socially engage with others much easier and faster. Authors [13] highlighted that social computing has transformed traditional business activity from one way communication to customer oriented. The transition from the traditional business activity to the adoption of social computing can positively influence on business and technology strategic planning in food truck industry. Authors [14] emphasised that the adoption of social computing in business activity can enhance the business model of particular industry. Thus, it demonstrates that social computing can enhance the efficiency of the food trucks business activity.

2.3 Mobile Technology

Nowadays, many people are using mobile devices to retrieve information and communicate. Mobile technology is one of the tools in social computing that has increasingly become part of everyday life. This phenomenon has transformed the way people distribute and extract information online. Mobile technology enables the users to communicate and access to information faster and much easier. Mobile technology is also beneficial for the company because it can increase business productivity and profitability [15]. Thus, the use of mobile technology in social computing domain can significant impact on food truck business activity as it helps visibility of the food trucks. However, it is important for the food truckers to understand their needs and the objective of their business before they adopt mobile application.

According to [16] there are various type of mobile technology tools in social computing, which may or may not be relevant to the business. They have identified three key elements in choosing the best technology to meet the business needs as follows [16]:

1. Ability to support social interactions, social relations, and communities.
2. Hedonic versus utilitarian.
3. Ability to help convergence versus conveyance of generated content.

These three key elements can help organisation to sustain and deliver better services to the customer.

In addition, web technology is one of the social computing applications that have widely been used in business. Web technology helps the business to be visible online, whereas mobile technology improve customer relationship. Adoption of both technology enables food truck industry to provide better service to their customers.

2.4 Web Technology

Web application is an application that was coded to run inside a web browser. Web application allow users to create static or dynamic web pages in order to disseminate information to wider audiences. Web alternatively referred as internet have progressively changed people life with the use of smartphones. Nowadays, people are no longer tied to desktop or laptop to access the internet. The internet technologies have improved from web 1.0 to web 2.0 technology which allows users to communicate in two way interaction.

The rise of Web 2.0 technology has a significant impact on business environments. The Web 2.0 has influenced many businesses to establish partnerships, increase brand visibility and improve customer relationship [17]. The business size differences could also be eliminated which allows small businesses to competitively compete with big organisations. Web 2.0 technology is an upgraded version of the Web 1.0 that increase the interactivity in web applications, cloud-based computing, social computing and the ability to access the Web via multiple device platforms (i.e. laptops and mobile devices) [18].

The adoption of Web 2.0 technology has helped businesses to improve their business process and enhance service delivery. The organisation should understand the needs of their business before they implement Web 2.0 technology. Hence, the implementation of Web technology in the food truck industry can help the food truck merchants to promote their product online.

3. Methodology

3.1. Implementation of Food Truck Application

The social computing technologies have been seen viable to help the food truck merchants to expand their business efficiently and effectively. This study proposed a food truck prototype application that can be beneficial for both the food truck owners and customers to enable them to engage and communicate much easier.

3.2. Food Truck Application Architecture

The system architecture of the food truck application is divided into two categories, which web technology and mobile technology, as shown in Fig. 1. The application consist of four main users – customer, food truck merchant, and event organiser. The details of their role as below.

a. Customer - able to keep track on updated information and location of the food truck.
b. Food Truck Merchant - able to advertise their business and location.
c. Event Organizer - able to promote their event and allow the food truck owner to participate in the event.

d. Administrator - manage the customer, food truck merchant and event organize

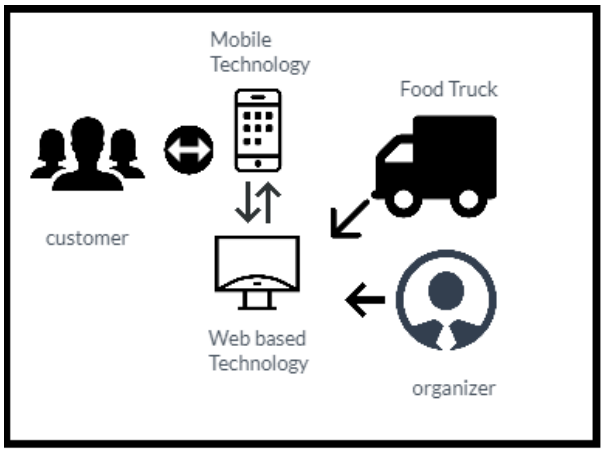


Fig. 1: Food Truck Application

3.3.1. The User Activities

The following are the details of user activities of the food truck (FT) application:

a. The food truck merchant can manage their profile and update their information on their product or services in real time.
b. The administrator will manage and monitor all the users' activities on the FT application.
c. The customer can update their personal information and upload their profile picture. The customer also can search the information of the food truck by location, name, and food category. The customers can post and comment on reviews that are available on the platform.
d. Event organiser can use FT application to find food truck merchant to participate in their events and to promote their events.

Table 1 has shown user and activities involved in the food truck application.

Table 1: Users and Activities

Users	Activities
Food Truck Merchant	Login/ Registration Manage Profile /products/services Particpate in Event
Customer	Advertise their products View customer's reviews Login / Registration. Search food truck information. Post a review
Event Organizer	Could browse food truck. product information and location. Login/ Registration Display information on organized event Invite food truck merchant to participate Advertise event to food truck customer
Administrator	Manage the Food truck merchant, Customer and Event Organizer

These activities can be managed through both web technology and mobile technology. However, only Administrator involves in web based technology.

3.4. Social Computing in Food Truck Application

Social Computing in Food Truck (SCFT) allows the users to find information and communicate much easier. This application also enables the user to add security measures and protect the individual personal information. This research has developed a conceptual framework of food truck application that demonstrates the important elements in developing food truck application, as shown in Fig. 2.

a. Users – Users are allowed to create a session on the platform that enables them communicate with food truck owner or food truck event organiser.
b. Activities – The platform enables the user to performs various activities according to their role such as register/login, manage profile, participate in online discussion, and etc.
c. Action - customer can read and post review on the food/services; food truck merchant can update their products and event organiser can send notification to food truck merchant and customers.
d. Resources – All information on policy, user manual, newsletter and new events are available and accessible on the platform.

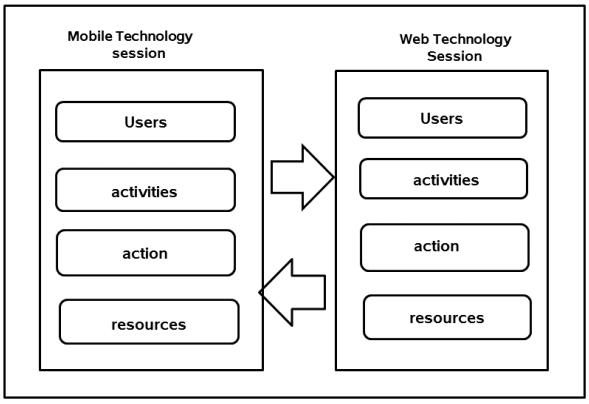


Fig. 2: Conceptual Framework of Food Truck Application

Social Computing Food Truck (SCFT) application helps the customer to find the location of the food truck in real time. It is also helps the food truck merchant and organiser to promote their event and location faster.

4. Discussion and Conclusion

The objective of this study was to develop FT application for Malaysian food truck associations. This study has developed FT application that was a combination of the web-based and mobile technology. FT application helps the food truck associations and food truckers to promote their product and increase their visibility. This study has found that the use of social computing are undeniable beneficial for food truck associations in Malaysia to promote food truck events and increase the visibility of food truck venture. However, many factors need to be taken into consideration before it can be fully implemented. This study also highlighted that social computing technology is important in business environments as it enables the user to develop digital platform for business. However, this study did not investigate the impact factor of using social computing in food truck industry. Therefore, future research is required to validate the conceptual framework of FT application in social computing.

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