# "NOVEL SMART MAP" DESIGN FOR THE TOURISM INDUS-TRY

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### **ABSTRACT**

The main function of the NOVEL SMART MAP(NSM) is to assist tourists who come to the Ximending area for sightseeing in Taipei, Taiwan, ROC. With this digitalized map, they can smoothly plan their schedules. The idea of Novel SMART MAP comes from that tourists won't need to spend too much time in searching places to visit in general. The goal of NSM P is to make tourists' use of time visiting local businesses more efficient. There are two characteristics in this modern map: First this map will reduce the probability of tourists wasting time going to a store which is "closed" on the day that they search. If the store is not open, the system will advise tourists to switch to another store with a similar style which is close to the "closed" store. The map provides an available "match" for both restaurant and recreational type businesses. The second advantage of NSM is that the system will tell tourists: when "YOU ARE READY TO GO!" so they do not need to wait in line, for example, to have a table at once in restaurant that they have chosen.

There are two additional functions of this modern map. One is that coupons can be made available for the stores which may not appear by default on the search results of this map, as long as this business is willing to pay for the advertisement service charge. The other additional function is the relevant positions between each spot for the stores are shown in NSM.

Based on the user-friendly and modern-style design of this map, we hope that NSM will attract tourists with that the characteristics and functions of it will bring convenience to those visiting the Ximending area in Taiwan.

### INTRODUCTION

As there are many foreigners visiting Taiwan every year, how to make them happy is important. Authors try to put myself in their shoes. If authors were tourists, the more things I can do in one day, the more delight I have. Time saving is a key. NSM can help tourists have a great schedule. In this case, Ximending area is used as example where is noted for heaps of new and odd stuff.

The goal of NSM is to shorten the time of waiting in front of the store (restaurants, nail-decorated shop, cinema etc.) and confusing which way to go. The system can tell you:

- You complete a feasible match
- 'It's time to go!
- Distance between two places
- How long you probably have to take

The store is "closed" today or not There is another good choice or not Detail of the restaurants and spots

Besides this information, the NSM also appends a full view of Ximending area and numerous coupons by other store owners who want to boost their business.

## THEORY AND METHOD

Tourists don't like to wait and bear too much uncertainty. Just like customers waiting for a restaurant. Waiting time is one of the key satisfaction factors. Customer satisfaction is important because it is usually related to whether customers will repurchase a product (Katz, Larson & Larson, 1991). In the restaurant business, waiting time is an important determinant. Dube, Renaghan, and Miller (1994) claim waiting time will affect customers' repeat-purchase intention to restaurants. In this case, if customers wait too long for getting seats, they incline not to go to this area for another trip.

In psychological theory, during the waiting period, consumers face uncertainty about how long they have to wait, and experience stress (Bielen & Demoulin, 2007). Some researchers suggest that any information provided during the waiting period can reduce the uncertainty of the wait and lower the level of stress experienced by consumers (Bielen & Demoulin, 2007; Maister, 1985). Moreover, the uncertainty waiting time will influence customers' emotional responses, and then the customers' emotional responses will affect their service evaluation to this restaurant (Bielen & Demoulin, 2007).

To eliminate user's uncertainty, NSM provides enough information (store's name, address, telephone number, open time, distance, and length of time has to take) and real-time reply as soon as possible. Also the system will update the newest information of existing stores and add some popular tourist attractions, as travelers incline to search for adventure, and novel places which experiences are different from home.( Christine A. Vogt, © 2011 SAGE Publications) NSM system makes use of customer relationship management database to lend users information that is more attractive to them. Just like customization, after you key in personal profile (age, gender, household member, and income), the NSM system will try to offer the map which is suitable for you. In virtue of the fact that people are affected by the environment they are. (Sarah Gardiner, Ceridwyn King, and Debra Grace, © 2012 SAGE Publications)

Customer will be satisfied to have a high quality meal and unforgettable travel. Therefore, tourists are willing to come to Taiwan for another trip and recommend to friends, NSM can also promote tourism industry for countries.

NSM installs GIS system. GIS can help consumers figure out accurate address and location of destination. It helps to compute distance and time that has to take between two spots. Even users don't know where to go, NSM would advise consumers go to the nearest place by GIS system.

## **SIMULATION**

Miss.A and Mr.B just arrive at Ximending. They don't know how to start their trip, so they ask NSM for advice.

The system will ask user to key in personal profile in order to cater his/her preference.



Figure 1

Figure 1 show the main page of NSM system. Users can select one restaurant to have their lunch or dinner on the upper side of the main page, and choose somewhere to play or stroll on the lower side. Then the system will tell you if your mapping is feasible. Miss A wants to eat dumplings, therefore she click the first restaurant.



Figure 2

In Figure 2, is the page of "Beiping Dragon Dumpling" restaurant with many choices of interesting scenic spots. Then they can select one beautiful place to have fun. Miss A wants to go shopping. Undoubtedly, she selects the Elite 116 bazaar.



Figure 3

As the match is very well, system will tell you that "Good Mapping!" (Figure3)And NSM will remind you to depart at accurately when the time is suitable. Figure5 shows the outcome. What's more, the system will also show the whole map after you make two targets destinations. The map includes the distance between 2 sites and the distance they have to walk. (Figure4)



Figure 4



Figure 5

The system is not a yes man. If you do a bad match or one of your destination is closed, NSM will pop out this word "switch the order" and "do another choice". Figure 6 show the outcome.



Figure 6

If they don't like the restaurant after seeing the introduction, it's okay to back to home page to get another option. Click the bottom under the pictures (Figure 7), and then back to homepage to choose another place to go(Figure 8) or change their taste to others cuisine (Figure 9).



Figure 7



Figure 8



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Figure 9

NSM has a full view of Ximending area's map (Figure 10). Miss. A and Mr. B don't need to worry about whether they get lost since the map is very clear and simple. Icons on the map are restaurants and resorts which the system advice tourists to visit. (A-G: restaurants; a-g: recreation place)



NSM also provides an additional service that they let others store put their coupons in the system as long as they willing to pay for it. The coupons just like pop ad (kind of advertisement), it will pop out every times after the NSM system changing the page.

With the NSM, Miss. A and Mr. B really have pleasant memory in Ximending area. They decide to go to others area of Taiwan thanks to NSM assistance. Last but not least, NSM system will ask users to fill a feedback form. There are questions such like: "Is the NSM meet your requirement?", "Are you satisfied? ", "Will you come to visit our country by using NSM?", "Does this system provide convenient service during this trip?", "Are you astonished at NSM system?", etc. All of their personal profile and their choice of destination will be record to CRM, so as to analysis people behavior and improve NSM system.

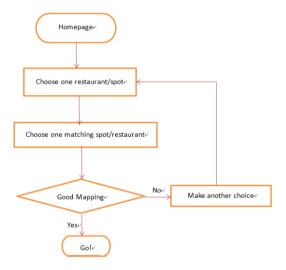
### **EXTENSION**

NSM system can apply to any other tourist attractions like Brighton, Okinawa .Etc. This system now focus on the region which is not large. Distance between spots is reachable on foot and by public transportation.

Over time, NSM system will become more mature and stronger. NSM can accommodate larger database, so it can use on bigger cities. In the future, you can key in what you want to eat/see/buy, and then NSM start to find out your need and plan your schedule. Or put into your budget cost, and NSM helps you plan the schedule.

### **SUMMARY**

The goal of inventing NSM is to assist tourists and backpacker. With NSM system, scheduling journey is not a problem anymore. NSM can solve all the complicated parts in few seconds to make the trip more feasible. The following flow chart shows how it works:



NSM can reduce the possibility that consumers arrive at a store which is not open. Raising the efficiency can bring more satisfaction to customer, and more satisfaction can boost the tourism industry as they will come to visit our country again. NSM plays an important role in a travel industry. It can bring enormous benefit to tourists and local business.

### REFERENCE

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