

## Free WiFi as Strategic Competitive Advantage for Fast-Food Outlet in the Knowledge Era

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**Abstract: Problem statement:** The growth of food outlets in Malaysia brings about the stiff competition among the players in food industry. To remain competitive, each outlet needs to adopt its own strategy in order to secure their return on investment and profitability. In knowledge era, technology has become an added value in achieving competitive advantage. The aim of this research is to assess whether providing free WiFi can be a strategy to remain competitive. Porter's 5forces competitive model is adopted as the basis for the assessment. **Approach:** Two phases of data collection using qualitative methodology were planned and rolled out. The first phase involved surveying and observing three regions within a selected state, while the second phase involved interviewing the identified food outlet's manager. A set of interview questions was formulated based on the 5 areas of porter's model which includes bargaining power of suppliers, bargaining power of customers, threat of substitutions, threat of new entrants and existing rivalries. In addition to the existing five forces, information regarding government policy and initiatives was also collected. **Results:** Result has shown that by that offering free WiFi to meet the customers' needs, it can help to generate revenue increase of as high as 50% thus ensuring the food outlet to stay competitive. **Conclusion:** This is more visible when dealing with case of food outlets at same area are targeting the same group of customers as what had been observed in this research. This research provides a good reference to other food outlets that yet to adopt any strategy in order to stay competitive.

**Key words:** Wireless technology, porter's 5forces model, k-society, strategic competitive advantage, knowledge era, Internet Service Providers (ISP)

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### INTRODUCTION

In knowledge-based society the most valuable asset is investment in intangible, human and social capital and that the key factors are knowledge and creativity. To build a knowledge-based society and economy, the society must be equipped with the ability to generate and capture new knowledge and to access, absorb, share and efficiently use information, knowledge, data and communication. In line with this, people should realize that technology is an added value in achieving competitive advantage in the knowledge era. Those in businesses, including food industries, are of no exception. By equipping themselves with the state of the art of ICT knowledge will help them transform ideas into serious business ventures (Iskandari, 2008).

In Malaysia, players in the food industries are competing on capturing market share, thus increase their return on investment and profitability. Various types of food outlet can be seen everywhere with consumers having so many choices to choose from. In order to be competitive among rivals, each and everyone has its own strategy in order to win against its rivals. One phenomenon that has been observed is providing free WiFi to their customers. The Malaysian government through its regulatory body, the Malaysia Communication and Multimedia Commission (SKMM), had allocated a frequency of 2.4 GHz as the spectrum to be used as WiFi. Fewer than 2.4 GHz spectrums, SKMM had defined it as a free channel frequency. It means that whoever provided the service under this frequency, it will not require any license as long as it is free to others.

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The second quarter of 2010 has recorded an increased of mobile wireless broadband subscription to 1,402,100 from 631,200 in the second quarter of 2009, that is an increase of more than 122% within a year in Malaysia (MCMC, 2010). These numbers indicate a huge demand on mobile wireless in Malaysia. Thus, we had seen a lot of commercial premises, including food outlets, starting to offer free WiFi service to their customer. To witness the huge demand on wireless technology, food outlets, ranging from international fast food chain outlets, such as McDonalds and Starbucks, to local chain food outlets such as Nasi Kandar Pelita and Kayu and now, even food courts are providing free WiFi.

In general, food outlets may fall into any of these categories: (i) fast food restaurants, (ii) casual dining restaurant, or (iii) cafe. Fast food restaurant is normally referred to as a type of quick service restaurant where customer will only select from the menu and food is served in within a short time. In this study, casual dining restaurant refers to a restaurant where there will be server to take the order and food is being served to the customer. Cafe on the other hand, refers to restaurant that offers things like coffee, espresso, mocha, other types of coffee-based beverages, pastries and sandwiches. Normally customer order from counter and serve themselves. Some of this cafés offer full meal and normally they are called bistro.

The questions are: (1) What drives the management of such food outlets particularly the fast food outlets to invest on installing such technology and provide it free of charge to their customers; (2) Is providing free WIFI actually bringing higher Return On Investment (ROI) to their businesses? Hence, using the Porter's Five Forces Competitive model, a research was conducted to assess whether adopting WiFi technology can help food outlet for being/remain competitive.

**Literature review:** Michael E Porter, in his book entitled "Competitive Strategy: Techniques for Analyzing Industries and Competitors" (Porter, 1998) has proposed one of the vastly used model in current industry analysis, which is Porter's Model of Five Competitive Forces. This model consists of five main elements which are supplier, customer, new entrant, substitute and rivalry. Each of these elements will affect either directly or indirectly to the business competitiveness. The well known five forces is depicted in Fig. 1.

Supplier refers to an entity that provides common off the shelf parts or services or even input to organizational task and labors. Thus customer-supplier relationship plays an important role in determining the bargaining power especially on prices. When supplier is

dominating the market, under such condition, bargaining power will be very high on supplier side. Bargaining power of customers will determine how much margin or profit an organization can make. Thus, when customer power is high, especially when the condition is dealing with sole customer of several competing suppliers (monospony), producing entity will be facing enormous pressure of lowering prices and eventually eating out the profit margin. Customer force will be high when the purchase is contributing to significant proportion of producing industry. Threat of new entrants is possibility of new firm joining the competition in grabbing market share. New entrant may force prices down and affect the overall profit margin. Once the new entrant has bridge the barrier of entry, it will significantly pose a threat to current producing firm. The treat of new entrants is high when process of making the similar product is not difficult to learn. Similarly, if start up cost, access to input and economical scale is minimal, new entrant will be much easier to challenge current position of current producing firm. When the product is undifferentiated, threat of substitutes will be greater. One product of a company can be replaced by another product from another company as long as it is serving the purpose of fulfilling customer requirement. Competitive rivalry is basically refers to head to head competition. Competition among players in same industry is a norm in current environment, especially in open market. High competitive between rivals in the same industry will put a lot of pressure onto the profit margin in particular. In most cases, competitive rivalry become tense when one player initiate program to grab market share and eventually wish to become market leader.

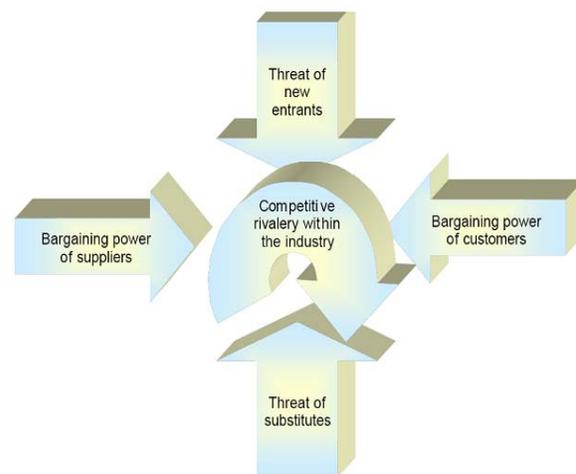


Fig. 1: Porter's five competitive forces model (Recklies, 2009)

Table 1: Applications of porter's model

Researchers	Application of porter's model	Findings/conclusion
Gabriel (2010)	To determine whether any of the five forces is labeled as favorable (positive sign) or unfavorable (negative sign) in Tanzania's banking industry	The banking industry of Tanzania is not attractive enough due to three negative forces (rivalry among the existing banks, threat of new entrants and bargaining power of customers) compare to two positive forces (threat of substitutes and bargaining power of suppliers). More differentiation strategy shall be required in order to be competitive.
Arons and Waalewijn (1999)	Applied the model in designing and developing an expert system.	Knowledge contained in an expert system can be represented in several ways using the Porter's model. Uncertain or incomplete knowledge can be best dealt with using inexact reasoning.
Draoui and Liu (2007)	To determine rubber subcontractors should be considered in order to maintain competitive in automotive industry in Sweden.	All the five forces basically impacting the studied companies and they also added additional forces that also playing one of the major forces in determining the competitiveness. The six forces is role of the Swedish government.
Eduardo (2007)	Analyze non-alcoholic beverage industry at global level	Government policy and industry evolvement is the main factors that determine the future competitiveness of non-alcoholic companies at global level.
Smith (2008)	Applied the model in determining the forces that compel game technology industries to adopt game technologies for their core products and services.	Proposed a game impact theory that describes the forces that are driving the adoption of these technologies in a number of industries.

Despite the popular usage of porter's model in business context, Table 1 also shows the applications of Porter's model in non-business contexts such as in expert system design and development (Arons and Waalewijn, 1999). Within the business context, various applications have been identified and its application lead to various findings and conclusions. These include in policy and development (Eduardo, 2007), differentiation strategy (Gabriel, 2010) and the impact of game technology in game industry (Smith, 2008). Smith (2008) study provides an indication that the impact of technology on business competitiveness can be determined using Porter's model.

By providing free WiFi, fast food operators can be regarded as being innovative in introducing new service to their customers. Most importantly, they are applying the use of ICT as a strategy to remain competitive in the industry (Iskandarani, 2008; Nasiri and Deng, 2009). This is related to the competitive strategy concepts. To strategically remain as a market leader in Japan, 7andi Holdings in Japan, owners of the Seven Eleven chain of convenience stores, has used IT (Babar *et al.*, 2008). In tourism organizations, Buhalisa and Law (2008) stated that the impacts of ICTs are becoming clearer for the competitiveness of the organizations. ICT supports the interactions between the enterprises and the consumers particularly in developing, managing and marketing tourism products and destinations. Most interestingly, in the United States, McDonald's restaurants nationwide will remove the fee for Wi-Fi Internet access in response to their customers' requests (Robinson-Jacobs and Godinez,

2009). This makes the company to instantly become one of the largest providers of free WiFi Internet access in the country. This is made possible via the collaboration with one of the largest telecommunication companies, the AT and T. Furthermore, this is also emphasized by Iskandarani (2008) that indicate the current economic environment has forced organizations around the world to transform significantly to remain competitive. In realizing this, organizations should tap new opportunities in the industries (Nasiri and Deng, 2009).

## MATERIALS AND METHODS

In the research, to conduct industry analysis, qualitative methodology that runs in two phases was chosen. During the first phase, a survey was being conducted in order to identify the right food outlets for the research. Food outlets in three industrial areas have been identified for this research. The purpose is to establish the understanding of current selected food outlet still providing WiFi as well as to confirm whether during the research period, the food outlet is providing the WiFi for free. On site confirmation by using own laptop will be done in order to establish the real understanding. Observation will be done during lunch time and dinner time for duration of a week. Each session of observation will be conducted within one hour time frame. The time frames selected are from 12.00 noon-1 pm and from 8-9 pm.

During phase two, interview and observation were conducted on owners. For the interviews, a set of

interview questions were formulated based on the five areas of Porter's Model with the addition of government policy. For the bargaining power of suppliers, information regarding the Internet Service Providers (ISP), cost of maintaining the service and the duration of service being provided were collected. With regard to bargaining power of customers, information on the outlet's target groups and its customers' service requirements are collected. On the threat of substitution, questions posted include information on similar service offered by other ISP. For the threat of new entrants, information on the preparation on the possibility of new competitors was gathered. In terms of the existing rivalries, information regarding the activities of the outlet's current competitors' was gathered. In addition to the existing 5 forces, information regarding government policy and initiatives was also collected.

## RESULTS

**Findings on phase 1:** In identifying the right food outlet for the research, three regions were observed in terms of the quantity of customers using their WiFi facilities from afternoon and evening sessions in the designated food outlets. The first region, a business centre, represents one of the most happening places in the state. Various shops are available there with target group of middle to higher income customers. Within its vicinity, there are a total of 15 food outlets available. Of all the outlets, only five are displaying WiFi logo outside their outlets. These are an international well known cafe, an international fast food, a local Chinese cuisine chain store, a local cafe and a local fine dining restaurant. It is observed that the region has vast variation of customers. It is found that most of the customers who visited the outlets in the region mainly for having meal.

The second region is in the vicinity of an institution of higher learning. There are a lot of undergraduates as well as postgraduates living nearby. There are various food outlets available ranging from hawker center to fast food as well as fine dining restaurant. However, only four food outlets provide WiFi which comprised of two well known fast food outlets, a local delicacy centre and a well known local Malay delicacy chain food outlet. Of these, only the latter two outlets provide free WiFi. Although there are quite a number of condominiums situated within the vicinity of this area, the food outlets within this area are targeting the same group of customers-the undergraduate students.

The third region is a business area that is conveniently accessed by the factory personnel and

businessmen. Most of the time, they go to the outlets for meal as well as for business discussions. There are also a lot of residencies within the region. The food outlets are mainly situated within a shopping mall. However, only four outlets provide WiFi which include a well known fast food, a local Chinese cuisine chain store, a local Chinese fine dining restaurant and a local cafe. Only the first 3 outlets provide free WiFi. It is observed that most of the customers that visited these outlets mainly for meal.

Observations on the food outlets in the three regions show that customers went to the outlets mainly for meals. However, most customers in the second region are found to go there primarily to use the free WiFi facilities apart from having meal. Therefore, one of the outlets in the second region is chosen for further investigation in Phase 2.

**Findings phase 2:** The study was conducted on one of the well-known fast food outlets. It is one of the ten branches within the state. According to the manager, out of all the branches, only four of them provide free WiFi facility to their customers and the selected outlet is one of them. The outlet is located within a vicinity of an institution of higher learning in a developed state of Peninsular Malaysia. Being so, there are a lot of undergraduates as well as postgraduate students living within and nearby this area. In addition, there are also a number of residential areas. This outlet receives a lot of customers during lunch time (12.00 noon-1.00 pm) and dinner (8.00-9.00 pm).

Interview sessions were conducted with managers or owners of the selected outlet. Interviews with the manager or owners seek to identify the strength of Porters' model with references to the current business strategy adopted. On the other hand, interviews with customers were performed to cross check the responses of the managers or owners.

According to the manager, the food outlet headquarter will conduct survey prior to implementing free WiFi in any branch. Being located within a vicinity of an institution of higher learning, the branch's customers are primarily dominated by students. They set free WiFi as one of the main criteria when selecting food outlet. The manager mentioned that the customers normally spend a few hours in the outlet to complete their assignments, online information search as well as connecting to others through application like Face book, MSN or Skype. Since the implementation of free WiFi in this branch starting middle of 2008, the revenue of this branch had increased by 50.0%. They are also able to capture certain market from business. For example, sales representative that uses the free WiFi

facility to link to their customers. These show that nowadays it is a trend among the users especially students, professional and businessmen to hook themselves on the Internet. This is in line with the concept of anywhere, anytime workplace. It seems that they do not want to waste their valuable time by doing their study while having meal.

As for the supplier side, according to the manager, the outlet has two options of ISPs. Normally the ISP is changed quarterly. This depends on which of the ISPs is able to provide the service at a lowest cost. To reduce on the cost incurred, the management always chooses the lowest package. When asked regarding its possibility to change to other ISP, he mentioned that their head quarter will make the final call but very high chances that if package is right, they will go for it. Although down time for current internet service is very minimal, they are facing problems of customers complained of slow connectivity especially at night time when most of the students gathered to study on their assignments and for discussions. These indicate that the suppliers will always willing to provide the services as long as there are demands from customers. Moreover, they can use the outlet as a platform to promote their products and services.

Pertaining to the threat of new entrants, the manager is also concern about the possibility of the outlet's revenue being impacted if there were new food outlet that provides free WiFi operates within the vicinity. He quoted that when their main rival started to implement free WiFi in early 2009, their business revenue dropped around 10.0%. Their business further dropped to 15.0% when another outlet began to implement free WiFi around June 2009. It is clearly that the food outlet is also targeting same group of customers. By introducing the same business strategy, the outlet is able to grasp certain portion of the market that it originally captured. This indicate that the food outlet management needs to be not only aware of the possibility of IT being adopted as a competitive strategy by their rivalries, but also to constantly update their knowledge on the potential of emerging technologies that could benefit their business. In addition, they also need to update the existing services particularly the WiFi. They should also use these as strategic weapons to deal with the threat of new entrants in the industry.

Talking about corporate role in supporting government policy, the manager said that he were aware of two projects on broadband initiated by the government. Upon checking on the initiative of free WiFi of the state, none of food outlets' branch existed in the list. He cited that it is their company policy to review any application or proposal from any party

before decided to embark on supporting any activities. Thus far, the outlets had not been requested to participate in the program, but he reiterated that they will support any initiative for the betterment of community if given the chance. However, this depends on the suitability of the proposal presented to them. This provides evidence that the government initiative and policy on IT play an important role in supporting the business successful.

## **DISCUSSION**

Based on the findings, it is concluded that free WiFi can be used as a competitive advantage tool for food outlet to be adopted. The reason is that all the five forces of the Porter's model are showing positive signs. Primarily, the main factors that influence the food outlet to provide free WiFi are customer needs, revenue and cost. One of the primary needs for their target customers is WiFi. With the low maintenance cost for providing free WiFi, the food outlets able to absorb the cost, but giving higher revenue to their business. Monthly charges of RM100+for WiFi subscription is substantially minor to the business compared to the potential revenue that can be generated. Hence, it is recommended that the management of food outlets should consider using IT-based facilities as an innovative way to attract their customers and thus gain more profit. The government of Malaysia should also take advantage of this strategy to evaluate her broadband initiatives particularly during the introductory stage. Private sectors' involvement in similar initiatives can reduce the government burden in providing such services as mentioned by Kuppusamy *et al.* (2008). The strategy is also important to attract the target market especially among youngsters, professional and businessmen who have laptops but with no internet connection at home.

## **CONCLUSION**

WiFi in food outlets is a new combination of business model that provide extra convenient for those who want to go online while having meal. They are not only online for business matters but a new social network such as Facebook, Twitter and MySpace really hook them to the Internet. Indirectly, this new trend will create a new base customer to the food outlet both existing and potential customers. Therefore, this imposes a big challenge for the management to not only provide quality food but also good internet connection. Most importantly, to stay competitive especially in confronting existing rivals and new entrants in the

industries, the management should consider the potential of emerging technologies as strategic weapons.

#### REFERENCES

- Arons, S.H. and P. Waalewijn, 1999. A Knowledge Base Representing Porter's Five Forces Model. In: Computational Intelligence for Modeling, Control and Automation '99: Evolutionary Computation and Fuzzy Logic for Intelligent Control, Knowledge Acquisition, Mohammadian, M. (Ed.). IOS Press Incorporated, pp: 533. ISBN: 13: 9789051994742
- Babar, A.R., D. Zowghi, K. Cox, V. Tasic and S. Bleistein *et al.*, 2008. Problem frames and business strategy modeling. Proceedings of the 3rd International Workshop on Applications and Advances of Problem Frames, May 10-18, ACM, Leipzig, Germany, pp: 48-51. DOI: 10.1145/1370811.1370821
- Buhalisa, D. and R. Law, 2008. Progress in information technology and tourism management: 20 years on and 10 years after the Internet-The state of eTourism research. *Tourism Manage.*, 29: 609-623. DOI: 10.1016/j.tourman.2008.01.005.
- Draoui, S. and Y. Liu, 2007. In search of maintaining competitiveness through industry analysis-the case of the rubber subcontractors in automotive industry. D-Level Dissertation in International Marketing, School of Business and Engineering, Halmstad University. <http://hdl.handle.net/2082/1119>
- Eduardo, M., 2007. The analysis of five competitive forces of non-alcoholic beverage industry and e-commerce industry cases at global level. Munich Personal RePEc Archive. [http://mpa.ub.uni-muenchen.de/3155/1/MPRA\\_paper\\_3155.pdf](http://mpa.ub.uni-muenchen.de/3155/1/MPRA_paper_3155.pdf)
- Gabriel, O.E., 2010. Application of Porter's five forces framework in the banking industry of Tanzania: Determine, Develop and Deliver Competitively. Faculty of Commerce, Mzumbe University, Tanzania. <http://olegabriel.com/publication-web-Gab/PORTER'S%20FFF%20-%20BANKING%20TZ-revised.pdf>
- Iskandarani, M.Z., 2008. Effect of Information and Communication Technologies (ICT) on non-industrial countries-digital divide model. *J. Comput. Sci.*, 4: 315-319. DOI: 10.3844/jcssp.2008.315.319
- Kuppusamy, M., M. Pahlavani and A.S. Saleh, 2008. Fostering ICT development for growth: Measuring the payoffs for australia and the Asean-5 countries. *Am. J. Applied Sci.*, 5: 1676-1685. DOI: 10.3844/ajassp.2008.1676.1685
- MCMC, 2010. Communications and Multimedia: Selected Facts and Figures. [http://www.skmm.gov.my/link\\_file/facts\\_figures/stats/pdf/CM\\_Quarter2\\_2010.pdf](http://www.skmm.gov.my/link_file/facts_figures/stats/pdf/CM_Quarter2_2010.pdf)
- Nasiri, A. and G. Deng, 2009. Environmental factors influence on mobile learning business. *Am. J. Applied Sci.*, 6: 1225-1234. DOI: 10.3844/ajassp.2009.1225.1234
- Porter, M.E., 1998. *Competitive Strategy: Techniques for Analyzing Industry and Competitors*. 1st Edn., The Free Press, New York, ISBN: 0-684-84148-7, pp: 396.
- Recklies, D., 2009. Porters 5 forces. Recklies Management Project Gmbh. <http://www.themanager.org>
- Robinson-Jacobs, K. and V. Godinez, 2009. McDonald's deal with ATandT makes Wi-Fi free at most U.S. restaurants. <http://satellite.tmcnet.com/news/2009/12/16/4534432.htm>
- Smith, D.R., 2008. Five forces driving game technology adoption. Interservice/Industry Training, Simulation and Education Conference (IITSEC). [http://www.peostri.army.mil/CTO/FILES/RSmith\\_IITSEC08\\_paper.pdf](http://www.peostri.army.mil/CTO/FILES/RSmith_IITSEC08_paper.pdf)